

## ORS 2018 Annual Meeting – New Orleans, Louisiana – March 10-13

### Disclosure Index

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1 – Royalties: Yes Corin U.S.A., MEDACTA, MicroPort Orthopedics; 2 - Speakers Bureau: Yes MEDACTA, MicroPORT, Smith & Nephew; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Corin U.S.A., DePuy, A Johnson & Johnson Company, MEDACTA, Smith & Nephew, Zimmer; 3c - Unpaid Consultant: No; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: No; 6 - Financial or Material Support from Pharmaceutical or Company: Yes Corin U.S.A., DePuy, A Johnson & Johnson Company, MicroPORT; 7A – Royalties, Orthopaedic Devices: No; 7B - Royalties, Financial/Material Support from Publisher: Yes Journal of Bone and Joint Surgery, American, Wolters Kluwer Health; Lippincott Williams & Wilkins; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Johnny Huard, PhD**

1 – Royalties: Cook Myosite. Inc.; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopedic Devices, No; 7B - Royalties, Financial/Material Support from Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

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1 – Royalties: No ; 2 - Speakers Bureau: Yes Asahi Kasei Pharm. Co, Ltd., Kaken Pharm. Co, Ltd., Eli Lilly Pharm. Co, Ltd., Taisho Toyama Pharm. Co, Ltd.; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes ONO Medical Pharm. Co, Ltd., Asahi Kasei Pharm. Co, Ltd., Teijin Pharm., Chugai Pharm. Co, Ltd., Kaken Pharm. Co, Ltd., Eli Lilly Pharm. Co, Ltd., Taisho Toyama Pharm. Co, Ltd., Zeria Pharm. Co, Ltd.; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: Yes ONO Medical Pharm. Co, Ltd., Asahi Kasei Pharm. Co, Ltd., Teijin Pharm., Chugai Pharm. Co, Ltd., Kaken Pharm. Co, Ltd., Eli Lilly Pharm. Co, Ltd., Taisho Toyama Pharm. Co, Ltd., Zeria Pharm. Co, Ltd.; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopaedic Devices: No 7B - Royalties, Financial/Material Support from Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Osteoarthritis and Cartilage (Associate Editor); 9 - Serve on Board of Directors/Committee: No

#### **Deborah Mason, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: Yes I collaborate with Novartis to use their compound under MTA; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopaedic Devices, No; 7B - Royalties, Financial/Material Support from Publisher No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

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1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopaedic Devices, No; 7B - Royalties, Financial/Material Support from Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Marjolein van der Meulen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Public stock ownership: JNJ, NVS, PG, RDUS; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopaedic Devices, No: 7B - Royalties, Financial/Material Support from Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes BOD of Biomedical Engineering Society (BMES)

**Jeffrey Weiss, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopaedic Devices, No: 7B - Royalties, Financial/Material Support from Publisher: No; 8 - Serve on Editorial or Governing Board: Yes JOR; 9 - Serve on Board of Directors/Committee: No

***Annual Meeting Committee***

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1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopaedic Devices, No: 7B - Royalties, Financial/Material Support from Publisher: No; 8 - Serve on Editorial or Governing Board: Yes JOR; 9 - Serve on Board of Directors/Committee: Yes Publications Committee, Osteoarthritis Research Society International

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1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopaedic Devices, No: 7B - Royalties, Financial/Material Support from Publisher: No; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: Yes Canadian Orthopaedic Association

**Susan Bukata, MD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Eli Lilly; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Eli Lilly, Amgen ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopaedic Devices, No: 7B - Royalties, Financial/Material Support from Publisher: No; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: Yes National Osteoporosis Foundation, International Geriatric Fracture Society

**Roger Cornwall, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: Yes Institutional support from Scioderm for a trial studying an investigational cream for epidermolysis bullosa; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopaedic Devices, No: 7B - Royalties, Financial/Material Support from Publisher: No; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: Yes Research Committees of POSNA and ASSH

**Johnny Huard, PhD**

1 – Royalties: Cook Myosite. Inc.; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from

Orthopedic Devices, No; 7B - Royalties, Financial/Material Support from Publisher No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Natalie Kelly, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopedic Devices, No; 7B - Royalties, Financial/Material Support from Publisher: No; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

**Kenneth M Kozloff, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: Yes Tissue Regeneration Systems, Cayman Chemical, Mereo BioPharma; 6 - Financial or Material Support from Pharmaceutical or Company: Yes ; Amgen, Cayman Chemical, Mereo BioPharma; 7A - Royalties, Financial/Material Support from Orthopedic Devices, No; 7B - Royalties, Financial/Material Support from Publisher: No; 8 - Serve on Editorial or Governing Board: Yes Connective Tissue Research, Journal of Bone and Mineral Research, Techniques in Orthopaedics; 9 - Serve on Board of Directors/Committee: Yes Orthopaedic Research Society

**Michael Lehmicke, MS**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes I am employed by Depuy Synthes, a Johnson and Johnson company ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes I own Johnson & Johnson stock; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopaedic Devices, No; 7B - Royalties, Financial/Material Support from Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Other than the ORS, I am a member of the Tissue Engineering Section (committee) of the Alliance for Regenerative Medicine.

**Marjolein van der Meulen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes JNJ, NVS, PG, RDUS; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopaedic Devices, No; 7B - Royalties, Financial/Material Support from Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes BOD of Biomedical Engineering Society (BMES)

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1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopedic Devices, No; 7B - Royalties, Financial/Material Support from Publisher: No; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: Yes Board member on the Swiss Bone and Mineral Society, Co-Chair of WLF within ORS

Staff

**Amber Blake** (Nothing to disclose)

**Brenda Frederick** (Nothing to disclose)

**Mary Jo Heflin** (Nothing to disclose)

**Natalie Hinman** (Nothing to disclose)

**Jola Lewsza** (Nothing to disclose)

**Bailey McMurray** (Nothing to disclose)

**Alyson Scolaro** (Nothing to disclose)

**Matt Zuleg** (Nothing to disclose)

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### **Yousef Abu-Amer, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

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1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Board for JBMR and JBMR-Plus; 9 - Serve on Board of Directors/Committee: Yes Ethics Committee for the ASBMR

### **Douglas J. Adams, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Samuel B. Adams, MD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes 4WEB, rti surgical, Stryker; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes 4WEB, rti surgical, Stryker, Sonoma, Medshape; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Medshape; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Adetola Adesida, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes I receive in-kind donations of biomaterials from Integra LifeSciences Inc and Geistlich.; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing

Board: Yes I serve of the editorial board of Nature Publishing Group -Scientific Reports; 9 - Serve on Board of Directors/Committee: No

**Animesh Agarwal, MD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Acelity, Smith and Nephew; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Acelity and Smith and Nephew; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes BoneSupport; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes JOT; 9 - Serve on Board of Directors/Committee: Yes Committees: AAOS, OTA

**Jaimo Ahn, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Merck, Clementia; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Skelegen; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes Section Editor for JOT; Associate Editor for Frontiers in Surgery; 9 - Serve on Board of Directors/Committee: Yes Board of Foundation for Orthopaedic Trauma; Board of American Physician Scientists Association

**Mazen Al-Hajjar, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: Yes DePuy Synthes; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Mauro Alini, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes JOR Spine; 9 - Serve on Board of Directors/Committee: Yes ORS international committee

**Kyle Allen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Tamara Alliston, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Orthofix; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes Journal of Bone and Mineral Research ; 9 - Serve on Board of Directors/Committee: No

**Benjamin Alman, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Peter Amadio, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes merck, johnson &johnson; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes  
aaos research development committee

**Catherine Ambrose, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes I am a Communications Committee member for the Preclinical Section of the ORS

**Nelly Andarawis-Puri, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Andrew E. Anderson, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Donald D. Anderson, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Orthopaedic Research; 9 - Serve on Board of Directors/Committee: Yes Publications Committee, Osteoarthritis Research Society International

**Michel Assad, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Janie Astephen Wilson, PhD**

3B – Stryker Orthopaedics, Halifax Biomedical Inc.; 9 - Past president Canadian Orthopaedic Research Society; Steering Committee, Bone and Joint Canada

**Peter Augat, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Research grants and contract research with medical device companies; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Reviewer and Editorial Board Member of several orthopaedic journals; 9 - Serve on Board of Directors/Committee: Yes ORS ISFR Section, German Trauma Association, Deutsche Gesellschaft fuer Biomechanik

**Hani Awad, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Umur Aydogan, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes I'm a member of American Foot and Ankle Society 'a postgrad education committee

**Won Bae, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes AnGes; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Chelsea Bahney, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Sriram Balasubramanian, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Todd Baldini, MSc**



1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: Yes Endocare, Inc. Acumed, LLC; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **George Barnes, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes George is an employee of Smith & Nephew; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Ponda Barnes**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Josh Baxter, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Mary Bayers-Thering, MS, MBA**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes DK Medical Innovations; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Paul Beale, MD**

1 – Royalties: Yes Corin U.S.A., MEDACTA, MicroPort Orthopedics; 2 - Speakers Bureau: Yes MEDACTA, MicroPORT, Smith & Nephew; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Corin U.S.A., DePuy, A Johnson & Johnson Company, MEDACTA, Smith & Nephew, Zimmer; 3c - Unpaid Consultant: No; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: No; 6 - Financial or Material Support from Pharmaceutical or Company: Yes Corin U.S.A., DePuy, A Johnson & Johnson Company, MicroPORT; 7A – Royalties, Orthopaedic Devices: No; 7B - Royalties, Financial/Material Support from Publisher: Yes Journal of Bone and Joint Surgery, American, Wolters Kluwer Health; Lippincott Williams & Wilkins; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Joan Bechtold, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes SI Bone; 3c - Unpaid Consultant: Yes FocusStart; 4 - Stock or Stock Options: Yes Pfizer; 5 - Research or Institutional Support as a PI: Yes Medtronic, Nuvasive, SI Bone; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material

Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Orthopaedic Research, Journal of Bone and Joint Surgery; 9 - Serve on Board of Directors/Committee: Yes American Society of Biomechanics Diversity Committee

**James P. Beck, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes design surgeon DJO Surgical; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Frank Beier, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: ; 8 - Serve on Editorial or Governing Board: Yes Deputy Editor, Osteoarthritis & Cartilage; Member Editorial Board Arthritis Research Therapy; 9 - Serve on Board of Directors/Committee: No

**Danielle Benoit, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Scott Berkenblit, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Consultant for Advanced Orthopaedic Systems; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Gilead Sciences (common stock); 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Nicky Bertollo, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Michael Bey, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Fabrizio Billi, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Stryker ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Biomet, Bruin Biometric, Inc., DePuy, A Johnson & Johnson Company, Medtronic Sofamor Danek, National Institutes of Health (NIAMS & NICHD), Stryker, Wright Medical Technology, Inc. ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Applied Biomaterials and Biomechanics; 9 - Serve on Board of Directors/Committee: No

#### **Stefano Bini, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Zimmer; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Arthroplasty Today, Associate Editor, Journal of Arthroplasty ; 9 - Serve on Board of Directors/Committee: Yes AAOS, American Association of Hip and Knee Surgeons, CaptureProof.com

#### **Jeff Bischoff, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Zimmer Biomet; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Zimmer Biomet; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Joel Boerckel, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Lawrence Bonassar, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes I have been paid to speak by Histogenics, Inc., and Fidia Pharmaceuticals; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes I have been a paid consultant for Histogenics, Fidia Pharmaceuticals, Aerin Medical, and 3DBio Corp.; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes I hold equity in a private company, 3DBio Corp.; 5 - Research or Institutional Support as a PI: Yes I receive research funding from GE Global Research, Fidia Pharmaceuticals, Aerin Medical, and Histogenics.; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes I receive royalties for patents licensed by 3D BioCorp.; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Mathias Bostrom, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Smith & Nephew; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes HSS Journal; 9 - Serve on Board of Directors/Committee: Yes International Society of Orthopaedic Centers, Ltd.

#### **Anton E. Bowden, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Nexus TDR (inventorship stock); 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Robert Bowles, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Bone, Journal of Bone and Mineral Research; 9 - Serve on Board of Directors/Committee: No

**Barbara Boyan, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes TitanSpine, Inc. ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Titan Spine, LLP ; 3c - Unpaid Consultant: Yes Institut Straumann AG, Musculoskeletal Transplant Foundation, National Institutes of Health (NIAMS & NICHD) ; 4 - Stock or Stock Options: Yes Arthrocare, Carticept Medical, Inc., Cartiva, Inc., MedShape Solutions, SpherIngenics; 5 - Research or Institutional Support as a PI: Yes Institut Straumann AG, Musculoskeletal Transplant Foundation, Titan Spine LLC; 6 - Financial or Material Support from Pharmaceutical or Company: Yes LifeNet, Musculoskeletal Transplant Foundation, Titan Spine LLC ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes Journal of Biological Chemistry, Journal of Biomedical Materials Research ; 9 - Serve on Board of Directors/Committee: Yes AAAS, American Association for Dental Research, International Conferences on the Chemistry and Biology of Mineralized Tissue, Virginia Academy of Science, Engineering, and Medicine

**Steven Boyd, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Bone, Journal of Bone and Mineral Research; 9 - Serve on Board of Directors/Committee: No

**Rickard Brånemark, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Integrum, Inc. ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes Integrum; 4 - Stock or Stock Options: Yes Integrum; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes Orthopaedic Surgical Osseointegration Society

**Elizabeth A. Bradley, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Mats Brittberg, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Finceramica, Vericel ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Episurf, Finceramica; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Neurovive ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: Yes Saunders/Mosby-Elsevier ; 8 - Serve on Editorial or Governing Board: Yes Cartilage, Knee Surgery, Sports Traumatology, Arthroscopy, Osteoarthritis and Cartilage ; 9 - Serve on Board of Directors/Committee: Yes ICRS-International Cartilage Repair Society

**Claire Brockett, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Industrial support for three PhD studentships - Corin, MatOrtho, Xiros; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Scott Bruder, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes AgNovos, AnGes, Asahi Kesai, BoneSupport, Embody, Lipogems, IntraBone, Wright Medical, Collagen Matrix, nanoMag, Mochida, MicroMedicine, Spinal Elements; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Lipogems, Spinal Elements; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes Global Spine Outreach

**Ru Liu Bryan, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Stephanie Bryant, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Thomas Buchanan, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Conor Buckley, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Collaborative research grant funded by national funding agency (Science Foundation Ireland) and Integra Life Sciences; 6 -

Financial or Material Support from Pharmaceutical or Company: Yes Abiel Biotechnology (Italy) supplies my laboratory with samples of collagenase enzyme for research use; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes Abiel Biotechnology (Italy) supplies my laboratory with samples of collagenase enzyme for research use; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Mark Buckley, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Nidhi Bhutani**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**William Bugbee, MD**

1 – Royalties: Yes smith and nephew, Depuy; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Orthalign, depuy, smith and nephew, JRFOrtho, Arthrex, insight medical; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes orthalign, insight medical; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Cartilage; 9 - Serve on Board of Directors/Committee: Yes ICRS

**Susan Bukata, MD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Eli Lilly; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Eli Lilly, Amgen; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes National Osteoporosis Foundation, International Geriatric Fracture Society

**Sjoerd Bulstra, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No; 3a - Paid Employee: No ; 3b - Paid Consultant: No; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**David Burr, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes JOR, BONE, JBMR, JMNI, J Biomechanics, Current Osteoporosis Reports; 9 - Serve on Board of Directors/Committee: Yes FASEB, Fibrous Dysplasia Foundation

**Michael Buschmann, PhD**

1 – Royalties: Yes BST-CarGel from Smith and Nephew; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes Ortho RTI Board founder and member; 4 - Stock or Stock Options: Yes Ortho RTI Board shareholder; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Michael Bushelow, MS**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes DePuy Synthes Trauma/CMF/Biomaterials; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Pfizer, Stryker, Johnson and Johnson, Medtronic, Celegene; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Donita Bylski-Austrow, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes SpineForm LLC; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: Yes SpineForm LLC; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Jarrett Cain, DPM, MSc, FACFAS**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Wright Medical Technology, BESPAs; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Wright Medical Technology, BESPAs; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Board-JSM Foot & Ankle Journal and Clinics in Surgery, Clinical Research on Foot & Ankle Journal, Annals of Orthopedics and Rheumatology; 9 - Serve on Board of Directors/Committee: Yes American College of Foot and Ankle Surgeons Division 12-Treasurer

**John Callaghan, MD**

1 – Royalties: Yes DePuy (for intellectual property transfer for hip and knee implant designs); 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes DePuy (for intellectual property transfer for hip and knee implant designs); 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes DePuy (for intellectual property transfer for hip and knee implant designs); 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Arthroplasty; 9 - Serve on Board of Directors/Committee: Yes OREF, IHS, Knee Society

**Cathy Carlson, DVM, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Zoetis; I currently am a paid consultant involved in the design and evaluation of a product designed to treat osteoarthritis pain in dogs.; 3c - Unpaid Consultant: Yes I currently am assisting Pfizer in writing a manuscript describing studies of osteoarthritis pain treatment in animals; unpaid.; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties,

Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Dana Carpenter, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Vertera Spine ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Vertera Spine ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Chad Carroll, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Jeffrey Cartmell, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Musculoskeletal Transplant Foundation; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Johnson & Johnson, Merck; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes American Association of Tissue Banks, Board of Governors

**Nadeen Chahine, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Joe Chakkalakal PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Connie Chamberlain, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Pen-Hsiu (Grace) Chao, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from



Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Antonia Chen, MD, MBA**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Convatec, Haylard, Pfizer, ACI, Stryker, DJO; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Joint Purification System, Sonoran, GraftWorx; 5 - Research or Institutional Support as a PI: Yes Smith & Newpew; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes KSSTA, BJJ 360; 9 - Serve on Board of Directors/Committee: Yes Musculoskeletal Infection Society

**Christopher Chen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Clinical & Experimental Orthopaedics; 9 - Serve on Board of Directors/Committee: No

**Di Chen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Clinical & Experimental Orthopaedics; 9 - Serve on Board of Directors/Committee: No

**Qian Chen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Nanode Therapeutics Inc.; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Aging Cell, Journal of Orthopaedic Research and Therapy; 9 - Serve on Board of Directors/Committee: No

**Yupeng Chen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes NanoDe Therapeutics; 4 - Stock or Stock Options: Yes NanoDe Therapeutics; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes International Journal of Case Report and Image; 9 - Serve on Board of Directors/Committee: No

**Wing Hoi Cheung, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Orthopaedic Translation, World Journal of Orthopaedics; 9 - Serve on Board of Directors/Committee: No

**Kazuhiro Chiba, MD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Shionogi & Co., Ltd., Inc., Pfizer Japan Inc., Hisamitsu Pharmaceutical Co., Inc., Kaken Pharmaceutical Co. Ltd., Eisai Co. Ltd., Teijin Pharma Ltd., MSD K.K.; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Seikagaku Corporation; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Chugai Pharmaceutical Co., Ltd., MSD K.K., Pfizer Japan Inc., Eisai Co., Ltd., Astellas Pharma Inc., Asahikasei Pharma Corp., Kaken Pharmaceutical Co. Ltd., Zimmer Biomet, Medacta Japan, Teijin Pharma Ltd., Smith & Nephew, Daiichi-Sankyo Co. Ltd., Taisho; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Spine, Journal of Orthopedic Science, Spine Surgery and Related Research; 9 - Serve on Board of Directors/Committee: Yes International Society for the Study of the Lumbar Spine, Cervical Spine Research Society Asia-Pacific section, Japanese Orthopedic Association, Japanese Society for Spine Surgery and Related Research, Eastern Japan Association of Orthopaedics and Traumatology

**Blaine A. Christiansen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Mitchell Coleman, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Timothy E. Cooney, MS**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Roger Cornwall, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Site PI for sponsor-initiated trial of investigational cream for epidermolysis bullosa; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes Research Committees for POSNA, ASSH

**Benjamin Corona, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**J.J. Trey Crisco, PhD**

1 – Royalties: Yes Extremity Medical, LLC; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Extremity Medical, LLC; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Illuminos, LLC; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes Extremity Medical, LLC; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes J of Biomechanics; 9 - Serve on Board of Directors/Committee: No

**Michael Cross, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Intellijoint, Smith and Nephew, Zimmer Biomet, Link, Exactech, Theravance Biopharma, Acelity; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Flexion, Intellijoint; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Techniques In Orthopaedics, BJJ 360; 9 - Serve on Board of Directors/Committee: No

**Magali Cucchiaroni, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes eCM (Board), BioMed Res Intl (Board), J Exp Orthop (Board) - my husband is the Editor in Chief of J Exp Orthop; 9 - Serve on Board of Directors/Committee: Yes Chair (Ethics Committee of the OARSI), Member (Intl Committee, Musculo-Skeletal Gene & Cell Therapy Committee, and Stem Cell Committee of the ASGCT), Member (Basic Science Committee of the ESSKA)

**Quanjun Cui, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Exactech; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Exactech; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Orthopedic Research, Journal of Arthroplasty, World Journal of Orthopaedics; 9 - Serve on Board of Directors/Committee: Yes Virginia Orthopaedic Society

**Bryan Cunningham, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Marina D'Angelo, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Marina D'Angelo is Co-founder of ProteaPex Therapeutics, LLC; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Agnes d'Entremont, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Yifei Dai, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Exactech Inc; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Exactech Inc; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Enrico Dall'Ara, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Timothy Damron, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Cerament, Inc. Scientific Advisory Board member; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Stryker, Inc., Wright Medical, Inc., Orthovita, Inc.; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Surgical Oncology; Up To Date; eMedicine; 9 - Serve on Board of Directors/Committee: No

**Olumide Danisa, MD**

1 – Royalties: Yes Globus Medical; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes DePuy, A Johnson & Johnson Company, Globus Medical, Musculoskeletal Transplant Foundation, Nuvasive ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes The Spine Journal. Official Journal for NASS. Associate editorial board member; 9 - Serve on Board of Directors/Committee: AAOS, Orthopaedic Research Society, North American Spine Society: Patient Safety Committee and Patient Education Committee American Board of Orthopaedic Surgery, Inc. Oral Board Examiner

**Eric Darling, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Annals of Biomedical Engineering; 9 - Serve on Board of Directors/Committee: Yes Cellular and Molecular Bioengineering (Special Interest Group of the Biomedical Engineering Society)

**Richard L. Debski, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Shoulder and Elbow Surgery; 9 - Serve on Board of Directors/Committee: Yes American Society of Mechanical Engineers - Bioengineering Division

**Louis DeFrate, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes I am on the editorial board of J Biomech, J Orthop Res, and Am J Sports Med; 9 - Serve on Board of Directors/Committee: No

**Jeroen DeGroot, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Employee of Charles River Laboratories, global contract research company; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Kite Pharma, Galapagos, Merus, ProQR, ArgenX, Asit, Avantium, Kiadis, Pharming, TiGenix, Genmab, Catabasis, Charles River,; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**C. Alex DePaula, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Mehul Dharia, MSME**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Mehul Dharia - Paid Employee of Zimmer Biomet.; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Mehul Dharia - Owns Zimmer Biomet stocks.; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Darryl D D'Lima, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes XpandOrtho, Inc; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes XpandOrtho, Inc; 5 - Research or Institutional Support as a PI: Yes Stryker Orthopaedic, Kolon, XpandOrtho; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Denitsa Docheva, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from

Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Yufeng Dong, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Matt Dressler, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes DePuy Synthes; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Johnson and Johnson; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Hicham Drissi, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: Yes I have an unrestricted grant from Merck; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes I am an associate editor on the journal "techniques in orthopaedics"; 9 - Serve on Board of Directors/Committee: No

### **Georg Duda, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes CeramTec, DePuy Synthes, ImplanTec; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Aesculap, CeramTec, DePuy Synthes, LINK, OHST, Peter Brehm, Smith & Nephew, Zimmer Biomet ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Esther DuPont-Versteegden, PhD** (emailed)

Disclosure not available at time of print.

### **Lutz Dürselen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: Yes Orthox Ltd., Abingdon, UK; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes Orthox Ltd., Abingdon, UK; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes Clinical Biomechanics, J of Biomedical Material Research, Part B ; 9 - Serve on Board of Directors/Committee: Yes Basic Science Committee, ESSKA

### **Jonathan Dyke, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from

Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Nathaniel Dymont, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Edward Ebramzadeh, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes DePuy Synthes, Arthrex, Wright Medical, Spinal Kinetics, Amgen; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Bone and Joint Surgery, Journal of Orthopaedic Trauma, Journal of Orthopaedic Research, Journal of Biomaterials and Functional Materials; 9 - Serve on Board of Directors/Committee: No

**Brent Edwards, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Research Grant from National Basketball Association and General Electric Healthcare Collaboration; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Board-Scientific Reports; 9 - Serve on Board of Directors/Committee: Yes Secretary General - International Society of Biomechanics

**John Elias, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Arin Ellingson, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Dawn Elliott, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Martin Englund, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No Editorial Board Osteoarthritis & Cartilage; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Board Osteoarthritis & Cartilage; 9 - Serve on Board of Directors/Committee: No

### **Hiroiyuki Enomoto, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes I am an employee of Eli Lilly Japan KK; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes I own stocks of Eli Lilly and Company.; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes I am a councilor in the Japanese society of connective tissue, the Japanese society of cartilage metabolism, and the Japanese orthopaedic society of knee, arthroscopy and sports medicine

### **Motomi Enomoto-Iwamoto, DDS, PhD**

1 – Royalties: Yes My husband, Masahiro Iwamoto receives royalty from Thomas Jefferson University; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes My husband, Masahiro Iwamoto receives consultant fee from Clementia Pharmaceuticals; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes My husband, Masahiro Iwamoto receives research support from Clementia Pharmaceuticals; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Isaac E. Erickson, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Employee of DiscGenics; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Stock options in DiscGenics; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Alejandro A. Espinoza Orias, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No NIH NCCIH; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes PLoS One; 9 - Serve on Board of Directors/Committee: No

### **Christopher Evans, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes TissueGene Inc. (Scientific Advisory Board); Cellastra Inc. (Scientific Advisory Board); Orthogen AG (Supervisory Board); 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Stock in: TissueGene Inc.; Cellastra Inc; Orthogen AG; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes



Associate Editor: European Cells and Materials; Bone and Joint Research; Injury; 9 - Serve on Board of Directors/Committee: No

**Denis Evseenko, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Paul J. Fanning, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Sara Farquhar Voorhees, PT, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Brian Feeley, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes Inman Abbott UCSF Alumni Board

**Stephen Ferguson, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes DePuy Synthes: Project support; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes Orthox: Material samples; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Biomechanics, Clinical Biomechanics, European Cells and Materials; 9 - Serve on Board of Directors/Committee: Yes President: European Society of Biomechanics

**Virginia Ferguson, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Corresponding Editor, Journal of Biomechanics; 9 - Serve on Board of Directors/Committee: No

**Russell J. Fernandes, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Aaron Fields, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**David Findlay, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Matthew Fisher, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Clare Fitzpatrick, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Evan, Flatow, MD**

1 – Royalties: Yes Patent royalties from Zimmer Biomet for shoulder prosthesis design; royalties from Innomed for retractor design; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes I am only paid through royalties already mentioned but I continue to consult for Zimmer Biomet though I am not paid on an hourly or daily basis; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes I am Chair of the AAOS Council on Education and thus over JAAOS and other AAOS products.; 9 - Serve on Board of Directors/Committee: Yes I am a non-voting member of the AAOS Board in my role as Chair of the Council on Education

**Braden Fleming, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 -

Serve on Editorial or Governing Board: Yes American Journal of Sports Medicine - Associate Editor; Springer - Book Editor; 9 - Serve on Board of Directors/Committee: No

**Jonathan Forsberg, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Clementia Pharmaceuticals, Inc. ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Biomet, Zimmer ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Lisa Fortier, DVM, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Kharma Foucher, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**BJ Fregly, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Stryker ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Medical Engineering & Physics; 9 - Serve on Board of Directors/Committee: No

**Darin Friess, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Acumed, LLC; Depuy-Synthes; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Simon Frostick, MD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Zimmer-Biomet; Lima Corporate; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Zimmer-Biomet; Lima Corporate; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Zimmer-Biomet; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes Royal College of Surgeon's of Edinburgh

**Stefan Gabriel, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes J&J Mitek; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Johnson & Johnson; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Joel Gagnier, ND, MSc, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes J & J; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes ORS clinical research committee

**Leesa Galatz, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Shoulder and Elbow Surgery-Associate Editor; 9 - Serve on Board of Directors/Committee: No

**Jenna Galloway, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes My husband owns stock in ALnylam.; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Laura Gamer, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Alison Gartland, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editor for: Scientific Reports, Journal of Medicines Development Sciences, Current Opinion in Pharmacology, Frontiers in Bone Research, Purinergic Signalling; 9 - Serve on Board of Directors/Committee: No

**Bo Gao, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Exactech Inc.; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from

Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Mathews J of Orthopaedics; 9 - Serve on Board of Directors/Committee: No

**Xueqin Gao, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Mathews J of Orthopaedics; 9 - Serve on Board of Directors/Committee: No

**Michael Gardner, MD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Miami Medical; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes DePuy-Synthes, KCI, Biocomposites, Pacira,; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Imagen Technologies, Conventus; 5 - Research or Institutional Support as a PI: Yes SMV; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Orthopaedic Trauma; 9 - Serve on Board of Directors/Committee: Yes Orthopaedic Trauma Association

**Albert Gee, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes AOSSM Research Committee, AAOS Central Evaluation Committee

**Damian Genetos, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Amgen, Radius; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Wife is Editor at JOR; 9 - Serve on Board of Directors/Committee: No

**Michelle, Ghert, MD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Wright Medical; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Kuros Biosciences; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Bone and Joint Research, CORR, Sarcoma; 9 - Serve on Board of Directors/Committee: Yes MSTs Executive

**C. Parker Gibbs, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Wright Medical; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Exactech, Inc.; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Exactech, Inc. ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from

Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Bone and Joint Surgery – American, Orthopedics; 9 - Serve on Board of Directors/Committee: No

**Jeremy Gililland, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Smith & Nephew, Orthogrid; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

**Nicholas Giori, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes NuRep unpaid consultant; 4 - Stock or Stock Options: Yes NuRep and Cytonics; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes AAOS Biomedical Engineering Committee, Chair of the Orthopedic Surgical Advisory Board of the Department of Veterans Affairs

**Vaida Glatt, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Mary Goldring, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes Millipore - royalties related to licensing of cell lines (<\$10,000/year); 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Steven Goldring, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No; 3b - Paid Consultant: Yes Bone Therapeutics, Fidia, Janssen, Novartis, Roche ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No; 5 - Research or Institutional Support as a PI: Yes Boehringer Ingelheim ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Arthritis Rheumatism (wife)Osteoarthritis & Cartilage (wife) ; 9 - Serve on Board of Directors/Committee: No

**Said T. Gooma, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes DePuy Synthes; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Johnson & Johnson; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Sibylle Grad, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes JOR Spine editorial advisory board; 9 - Serve on Board of Directors/Committee: Yes ORS Spine section officer

**Alexander Greene, BS**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Employee of Exactech, Inc.; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Timothy Griffin, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Osteoarthritis and Cartilage (Tim Griffin - Editorial Board Member); 9 - Serve on Board of Directors/Committee: Yes Spouse: Courtney Griffin, Board Member of the North American Vascular Biology Organization (NAVBO), Committee and Board Member for the American Heart Association

**Zbigniew Gugala, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**X Edward Guo, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Sean Haddock, MS**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Smith & Nephew ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Smith & Nephew ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Lisbet A. Haglund, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from

Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Moussa Hamadouche, MD, PhD**

1 – Royalties: Yes AmisK, Medacta SA; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Medacta SA, Smith & Nephew, Mathys, Aston Medical ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes International Hip Society

**David Hamilton, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Stryker; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Stryker; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Lin Han, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Stryker; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Kurt D. Hankenson, DVM, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes My wife has received an honorarium from Eli Lilly; 3a - Paid Employee: Yes My wife is a contract employee for Emergent; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Rockwell Medical; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Kurt Hankenson: JOR Editorial Board. Connective Tissue Research, Associate Editor. Journal Exp Ortho, Editorial Board. Wife (Claire Hankenson) JAALAS and Comparative Medicine; 9 - Serve on Board of Directors/Committee: Yes Kurt Hankenson: Chair, North American Veterinary Regenerative Medicine Association. Vice President, Advances in Mineral Metabolism. Claire Hankenson: Past-President ACLAM. Board, PRIM&R

**Brendan Harley, ScD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes TiGenix, Ltd.; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Board (journal): Tissue Engineering; 9 - Serve on Board of Directors/Committee: No

**Hirota Haro, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Asahikasei pharma, Teijin Pharma, Daiichi-Sankyo pharma, Chugai-pharma, Medtronic; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Asahikasei pharma; 3c - Unpaid Consultant: Yes Medtronic; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Asahikasei pharma, Daiichi-Sankyo pharma, Chugai pharma, MSD, Medtronic, Stryker, Teijin pharma; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from



Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes The Japanese Society for Spine Surgery and Related Research

### **Joshua D. Harris, MD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Ossur, Smith and Nephew; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Smith and Nephew, Ossur; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Smith and Nephew, Depuy Synthes; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes SLACK, Inc.; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Arthroscopy; American Journal of Orthopedics; 9 - Serve on Board of Directors/Committee: Yes AAOS, AOSSM, AANA, ACOEM

### **Michael Harris, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **David Hart, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Orthop Res; Brit J Sports Med; 9 - Serve on Board of Directors/Committee: No

### **Michael Hast, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes DePuy Synthes, Integra, Zimmer Biomet; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Robert Hasting**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes full time employee of DePuy Synthes, Johnson & Johnson; 3b - Paid Consultant: Yes Spouse is a regulatory consultant to several companies; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes As a full time employee of Johnson & Johnson I own stock and have stock options; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Dominik R. Haudenschild, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Founder of Tesio Pharmaceuticals Inc, a company with intent to commercialize some of our lab findings. At the moment, on paper only.; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic

Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Board of ICRS journal "Cartilage", and on Publications Committee of OARSI; 9 - Serve on Board of Directors/Committee: Yes On Publications Committee of OARSI

### **Tammy Haut Donahue, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Biomechanics; Journal of Biomechanical Engineering; 9 - Serve on Board of Directors/Committee: No

### **Heath Henninger, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Biomet, Arthrex, Stryker, DJO, Tornier, Synthes, Mitek; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Christopher Hernandez, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Carolyn Hettrich, MD, MPH**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Tornier ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes American Orthopaedic Society for Sports Medicine, Iowa Orthopaedic Society

### **Noreen Hickok, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes My husband is an employee of Bristol-Myers Squibb; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Pfizer; 5 - Research or Institutional Support as a PI: Yes Irrisept research contract; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Bang Hoang, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes AAOS, American Orthopaedic Association, Musculoskeletal Tumor Society

**Amy Hoang-Kim, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Caroline Hoemann, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes OrthoRTi ; 4 - Stock or Stock Options: Yes OrthoRTi; 5 - Research or Institutional Support as a PI: Yes OrthoRTi ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**David A. Hoey, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes My wife works for Bristol Myers Squibb; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes My wife has stock in J&J; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Jason Horton, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Ali Hosseini, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Orthopedics Journal of Sports Medicine, The Scientific World Journal; 9 - Serve on Board of Directors/Committee: No

**Judith Hoyland, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Erin Hsu, PhD**

1 – Royalties: Yes Stryker (spouse); 2 - Speakers Bureau: Yes Stryker, Globus Medical (spouse); 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Stryker, CeramTec, Bioventus, Bacterin, Medtronic; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes Stryker, royalties (spouse); 7b – Royalties, Financial/Material Support from

Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes J Bone Joint Surg (spouse); 9 - Serve on Board of Directors/Committee: Yes Lumbar spine research society (committee, self); Orthopaedic research society (committee, self), Lumbar spine research society (board, committee, spouse), NASS (spouse), Cervical spine research society (spouse)

**Alice Huang, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Novartis, Sept 2016; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Johnny Huard, PhD**

1 – Royalties: Yes Cook Myosite. Inc.; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Paul Huddleston, MD**

1 – Royalties: No.; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes Minnesota Orthopedic Society

**Clark Hung, PhD**

1 – Royalties: No.; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: JOR ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**James C. Iatridis, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Biomechanics, Journal of Biomechanical Engineering; 9 - Serve on Board of Directors/Committee: Yes Philadelphia Spine Research Society

**Anita Ignatius, DVM**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Svenja Illien-Junger, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Gun-II Im, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Carl W. Imhauser, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Serkan Inceoglu, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Andreia Ionescu, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **John Ioannidis**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Hiromu Ito, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Eli Lilly Japan; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Astellas, Bristol-Myers; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Orthopaedic Science, Modern Rheumatology Case Reports; 9 - Serve on Board of Directors/Committee: Yes Japan Orthopaedic Association, Japan College of Rheumatology

#### **Hiroshi Ito, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Norimasa Iwasaki, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes I have been paid an honorarium by any pharmaceutical companies.; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Mochida Pharma Co. Ltd.; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Hitachi High-Technologies Co., Mochida Pharma Co. Ltd.; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**David Jamison, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Dennis Janssen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes DePuy Synthes, Zimmer Biomet, Aesculap AG; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Biomechanics Section Editor - Hip International; 9 - Serve on Board of Directors/Committee: No

**Jennifer Jonason, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Lynne Jones, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Zimmer Biomet - member of steering committee of Movement is Life Caucus; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Hospital for Special Surgery / Zimmer Biomet; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes JOR; Journal of Biomedical Materials Research A&B; Bone Research;; 9 - Serve on Board of Directors/Committee: Yes ARCO-International; National Osteonecrosis Foundation; Rocky Mountain Bioengineering Society; Board for the Journal of Hip Surgery

**Brian Johnstone, PhD**

1 – Royalties: Yes Royalties for a patent licensed to Osiris Therapeutics, Inc.; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Research grants from Medtronic and Orthofix; 6 - Financial or Material

Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial board of European Cells and Materials and Journal of Experimental Orthopaedics; 9 - Serve on Board of Directors/Committee: No

### **Bong-Jae Jun, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Ronald June, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Beartooth Biotech ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Natalia Juncosa-Melvin, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes I work for Surgical Energetics LLC as Managing Director; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes I have shares in Surgical Energetics LLC; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Takashi Kaito, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Medtronic sofamor danek, Nuvasive, Medacta Japan, Aesclap B-Braun, Century Medical, Asahi Kasei Pharma, Taisho Toyama Pharma, Pfizer, Eisai; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Medacta Japan, Aesclap B-Braun, Medtronic Sofamor Danek, Asahi Kasei Pharma; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Asahi Kasei Pharma, Robert-reid, Pip; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes Japanese Spine and Spinal Cord Research Society, Japanese Spinal Instrumentation Society, Japanese Low Back Pain Society, Scoliosis Research Society

### **Rita Kandel, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Member, Editorial Board, Journal of Experimental Orthopedics and Associate Editor, Cartilage; 9 - Serve on Board of Directors/Committee: Yes Board Member, Osteoarthritis Research Society International

### **James Kang, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from

Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Mehran Kasra, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Hiroshi Kawaguchi, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Asahi Kasei Pharm. Co, Ltd., Kaken Pharm. Co, Ltd., Eli Lilly Pharm. Co, Ltd., Taisho Toyama Pharm. Co, Ltd.; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes ONO Medical Pharm. Co, Ltd., Asahi Kasei Pharm. Co, Ltd., Teijin Pharm., Chugai Pharm. Co, Ltd., Kaken Pharm. Co, Ltd., Eli Lilly Pharm. Co, Ltd., Taisho Toyama Pharm. Co, Ltd., Zeria Pharm. Co, Ltd.; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes ONO Medical Pharm. Co, Ltd., Asahi Kasei Pharm. Co, Ltd., Teijin Pharm., Chugai Pharm. Co, Ltd., Kaken Pharm. Co, Ltd., Eli Lilly Pharm. Co, Ltd., Taisho Toyama Pharm. Co, Ltd., Zeria Pharm. Co, Ltd.; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Osteoarthritis and Cartilage (Associate Editor); 9 - Serve on Board of Directors/Committee: No

#### **Hua Zhu (David) Ke, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes UCB Pharma; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes UCB Pharma, Amgen, Pfizer; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Daniel Kelly, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes, Journal of the Mechanical Behaviour of Biomedical Materials (Editorial Board); 9 - Serve on Board of Directors/Committee: Yes, e Cells and Materials (International Editorial Review Panel). Journal of Biomechanics (Member of the Board of Consulting Editors)

#### **Kristine Kieswetter, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Acclivity; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Stryker, Steris, CVS; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Megan Killian, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from



Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Do-Gyoon Kim, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Karen King, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Board of Bone & Joint Research; 9 - Serve on Board of Directors/Committee: No

**Thorsten Kirsch, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Christopher Kleck, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Consultant to Medicea, Medacta, and Medtronic; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Pfizer, MTF, Spinal Kinetics, Integra Life Sciences Corp., Orthoflex, Vertiflex, SI Bone, Aesculap - Research, Globus - Fellowship funding; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Board of Directors - Orthopaedics; 9 - Serve on Board of Directors/Committee: Yes Board of Directors - Colorado Orthopaedic Society

**Melissa Kluczynski, MS**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Matthew Koff, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Spouse is employee of Johnson and Johnson (J&J); 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Spouse is employee of Johnson and Johnson (J&J); 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Review Board - Journal of Orthopaedic Research; 9 - Serve on Board of Directors/Committee: Yes Orthopaedic Research Society - Meniscus Study Group

**David Komatsu, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Seungbum Koo, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Sebastian Kopf, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes we editor of KSSTA journal; 9 - Serve on Board of Directors/Committee: Yes research committee of ISAKOS and AGA, U45 committee of ESSKA

**David Kovacevic, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Bone and Joint Surgery ; 9 - Serve on Board of Directors/Committee: Yes AAOS, American Orthopaedic Association

**Kenneth M. Kozloff, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Cayman Chemical, Tissue Regenerative Systems Inc., Mereo BioPharma; 6 - Financial or Material Support from Pharmaceutical or Company: Yes Amgen Inc., Mereo BioPharma: Research materials; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Bone and Mineral Research, Connective Tissue Research, Techniques in Orthopaedics; 9 - Serve on Board of Directors/Committee: Yes Orthopaedic Research Society

**Catherine Kuo PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Review Board of Journal of Orthopaedic Research; 9 - Serve on Board of Directors/Committee: Yes committees for ORS and advisory committee for ISL&T

**Young-Min Kwon, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Zimmer Biomet,

Stryker, Depuy, Corentec, Smith&Nephew; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Spencer Lake, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Review Board - JOR; 9 - Serve on Board of Directors/Committee: No

#### **Mario Lamontagne, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Microport Orthopedics Inc.; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Joseph Lane, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Bone therapeutics, SA, CollPlant, Inc. Radius Health; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes CollPlant, Inc.; 5 - Research or Institutional Support as a PI: Yes Novartis; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Drew Lansdown, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Lisa Larkin, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes I am a founder and CEO of STEL Technologies, LLC a tissue engineered ligament company; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Thomas Laumonier, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Michel Laurent, PhD**

1 – Royalties: Yes Bristol-Myers Squibb; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Zimmer Biomet; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Christine Le Maitre, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**William R. Ledoux, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Foot and Ankle International, Journal of Orthopaedic Research; 9 - Serve on Board of Directors/Committee: No

**Chang Lee, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Francis Lee, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Oscar Lee, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Associate Editor of Stem Cell Research and Therapy; 9 - Serve on Board of Directors/Committee: Yes Taiwan Orthopedic Research Society

**Wayne Lee, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Michael Lehmicke, MS**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes I am employed by Depuy Synthes, a Johnson and Johnson company ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes I own Johnson & Johnson stock; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopaedic Devices, No; 7B - Royalties, Financial/Material Support from Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Other than the ORS, I am a member of the Tissue Engineering Section (committee) of the Alliance for Regenerative Medicine.

**Gayle Lester, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7 - Royalties, Financial/Material Support from Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Philipp Leucht, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Ankasa Regenerative Therapeutics; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Ankasa Regenerative Therapeutics; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes AAOS Biological Implants Committee

**Victor Y. Leung, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes Novus Life Sciences Limited; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Orthopaedic Surgery, Annals of Orthopedics & Rheumatology; 9 - Serve on Board of Directors/Committee: No

**Cara Lewis, PT, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Karl Lewis, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes ORS

**Bingyun Li, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 -

Serve on Editorial or Governing Board: Yes Journal of Orthopadics & Bone Disorders, Journal of Bone Biology and Osteoporosis, World Journal of Orthopaedics; 9 - Serve on Board of Directors/Committee: No

### **Gang Li, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes I have received contract research from Amgen USA, ELi Lilly USA and Shenyang Pharmaceutical Company (China) respectively in the past 10 years.; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Guoan Li, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes I received research support from K2M Medical, Inc; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes Stryker/Mako; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Jiliang Li, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Research support from Eli Lilly & Co.; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Wan-Ju Li, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes PUR Biologics; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Xinning Li, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Equity in JoMI (Journal of Medical Insight); 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes American Journal of Sports Medicine, Journal of Bone and Joint Surgery- American, Journal of Medical Insight (JoMI), Orthopedic Reviews, World Journal of Orthopaedics; 9 - Serve on Board of Directors/Committee: No

### **Yong Li, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Zhen Li, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Sally LiArno, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Stryker; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Stryker; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Richard L. Lieber, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: Yes Book Royalties, Wolters Klower; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Chia-Ying Lin, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Fang (Amanda) Lin, DSc, MMed, BEng**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Hang Lin, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Sheldon Lin, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Biomimetic of Wright, DJ Orthopaedics, Tissuegene ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Foot and Ankle International; 9 - Serve on Board of Directors/Committee: Yes American Orthopaedic Foot and Ankle Society

**Alan Litsky, MD, ScD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes J Biomed Mat Res; VCOT; 9 - Serve on Board of Directors/Committee: No

**Christopher Little, DVM, PhD**

1 – Royalties: Yes Royalties from sale of antibodies (used for reserach) I helped develop; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Research fuding from a number of pharmaceutica companies. All funding is paid through contrcats negotaited and administered by the University of Sydney.; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Board member, Osteoarthritis and Cartilage, Journal of Experimental Orthopaedics, Journal of Orthopaedic Research; Associate Editor Bone and Joint Research; 9 - Serve on Board of Directors/Committee: Yes Board of Directors Osteoarthritis Research Society International

**Dianne Little, DVM, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Paid consultant (scientific review) for Peer Review and Science Management CSRA Inc; 3c - Unpaid Consultant: Yes Cytex Therapeutics Inc.; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Review Board of Veterinary Surgery; 9 - Serve on Board of Directors/Committee: No

**Chuanju Liu, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**X. Sherry Liu, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes International Chinese Musculoskeletal Research Society

**Alayna Loiselle, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Gabriela Loots, PhD**



1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Jeffrey Lotz, PhD**

1 – Royalties: Yes Relievent MedSystems; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Relievent MedSystems, Nocimed, Bioniks, ISTO Technologies, SMC Biotech, Aleeva Medical; 5 - Research or Institutional Support as a PI: Yes Orthofix, Depuy; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes Relievent MedSystems; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Deputy Editor for the journal Spine; 9 - Serve on Board of Directors/Committee: No

#### **Thomas Lozito, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Hannah J. Lundberg, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: ; 8 - Serve on Editorial or Governing Board: Yes Journal of Biomechanics editorial consultant; 9 - Serve on Board of Directors/Committee: No

#### **Karen Lyons, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes, Husband works for Baxalta; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes, Husband receives shares of Baxalta as part of his compensation. Will also own shares in Shire once merger is complete; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

#### **Jinjin Ma, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Henning Madry, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 -

Serve on Editorial or Governing Board: Yes Editor in Chief, Journal of Experimental Orthopaedics; 9 - Serve on Board of Directors/Committee: No

**Tristan Maerz, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Suzanne A. Maher, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Owner of AGelity Biomechanics - start up company; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Gregory B. Maletis, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Anne-Marie Malfait, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes: Eli Lilly/Pfizer, Regeneron, Galapagos; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes , Galapagos, Ferring ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes, Associate Editor for Osteoarthritis and Cartilage; Associate Editor for Arthritis and Rheumatology ; 9 - Serve on Board of Directors/Committee: Yes Board of Directors of the OARSI, Board of Directors of the Rheumatology Research Foundation, Chair of the Committee on Research of the American College of Rheumatology

**Neil Malhotra, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**William J. Maloney, MD**

1 – Royalties: Stryker, Zimmer ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Bristol-Myers Squibb, Flexion Therapeutics, Inc., Johnson & Johnson, Medtronic, Novartis, Pfizer, TJO ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Kenneth A Mann, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes JOR; 9 - Serve on Board of Directors/Committee: No

**Jeremy Mao, DDS, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Ralph Marcucio, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Speaker at Surrozen; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: Yes We receive a drug (PLX33970) from Plexxikon; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Board of JOR, Developmental Biology, Evolutionary Biology; 9 - Serve on Board of Directors/Committee: Yes Program committee of the American Association of Anatomists

**Bryan S. Margulies, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes CSO Fusologics, Inc.; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Stock and Stock Options in Fusologics, Inc.; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Deborah Mason, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes I collaborate with Novartis to use their compound under MTA; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Mathew T. Mathew, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Gloria L. Matthews, DVM, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Histogenics Corporation; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Histogenics Corporation; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties,

Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes ASGCT Musculoskeletal Committee AAOS Board of Ortho Specialties

**Robert Mauck, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes JOR, JEO, JMBBM Editorial Boards; 9 - Serve on Board of Directors/Committee: No

**Natalie McCabe Zwerger, Esq.**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

**James McCarthy, MD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Spoke for a Johnson and Johnson company; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes orthopediatrics; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Nuvasvie; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes POSNA

**Daniel McDonald, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: Yes – ORS

**Meghan McGee-Lawrence, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Orthopaedic Surgery and Research, Journal of Orthopaedic Research; 9 - Serve on Board of Directors/Committee: No

**Terence McIlff, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Todd McKinley, MD**

1 – Royalties: Yes innomed royalties for a retractor; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes bioventus; bone healing consultation; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No

; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Alexander McLaren, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Sonoran Biosciences ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes AAOS, American Board of Orthopaedic Surgery, Inc., Musculoskeletal Infection Society

**Amy McNulty, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Christopher Mendias, PhD, ATC**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes GlaxoSmithKline; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes GlaxoSmithKline; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial board, JOR; 9 - Serve on Board of Directors/Committee: No

**Gretchen Meyer, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Arthur Michalek, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**James D. Michelson, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes J Orthopaedic Trauma; 9 - Serve on Board of Directors/Committee: No

**Charles Milgrom, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Persimio Inc.; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

**Anna Miller, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Radius Health; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Orthopaedic Trauma; 9 - Serve on Board of Directors/Committee: Yes ACS, AAOS, OTA

**Mark Carl Miller, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Orthopaedic Trauma; 9 - Serve on Board of Directors/Committee: No

**Michael Mont, MD**

1 – Royalties: Yes Microport, Stryker; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes DJ Orthopaedics, Johnson and Johnson, Medical Compression Systems, Merz, Orthosensor, Pacira, Sage Products, Inc, Stryker, Tissue Gene, US Medical Innovations, reflexion, peerwell; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes DJ Orthopaedics, Johnson and Johnson, National Institutes of Health (NIAMS and NICHD), Ongoing Care Solutions, Orthosensor, Stryker, Tissue Gene; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes American Journal of Orthopedics, Journal of Arthroplasty, Journal of Knee Surgery, Orthopedics, Surgical Techniques International; 9 - Serve on Board of Directors/Committee: Yes American Academy of Orthopaedic Surgeons

**Meghan M. Moran, PhD**

1 – Royalties: Yes Stryker and Microport; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Abbott, Cymedica, DJO, J&J, Mallinckrodt, OCS, Orthosensor, Pacira, Performan Dynamics, Sage, Stryker, TissueGene; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Peerwell; 5 - Research or Institutional Support as a PI: Yes DJO, J&J, NIH, OCS, OrthoSensor, Stryker, TissueGene; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes Stryker and Microport; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes JOA, JKS, STI; 9 - Serve on Board of Directors/Committee: Yes AAOS

**Elise Morgan, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes I am an Associate Editor for Journal of Biomechanics; 9 - Serve on Board of Directors/Committee: No

**Michael M. Morlock, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes DePuy, Zimmer, Ceramtec, Smith&Nephew; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes DePuy, Zimmer; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes DePuy, Peter Brehm; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Mark Morrison, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Smith & Nephew; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Smith & Nephew; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Isaac Moss, MD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Pfizer, Stryker, Nuvasive; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Nuvasive, Stryker, Atlas Spine; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Orthozon, LLC; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Annegret Muendermann, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No; 3a - Paid Employee: Yes my husband works in R&D at Karl Storz Endoskopie ; 3b - Paid Consultant: No; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: Yes Secretary General, German Society of Biomechanics

**Ralph Müller, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Amgen; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Amgen; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Amgen; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Digital Medicine; 9 - Serve on Board of Directors/Committee: Yes International Society of Bone Morphometry

**Ken Muneoka, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Orhun Muratoglu, PhD**

1 – Royalties: Yes Zimmer Biomet Inc., Stryker Corp., Corin Group, Renovis Surgical Inc., Aston Medical, ConforMIS Inc.; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Zimmer Biomet Inc.; 3c -

Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Orthopaedic Technology Group; 5 - Research or Institutional Support as a PI: Yes Zimmer Biomet Inc., Stryker Corp., Depuy; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Volker Musahl, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Fackson Mwale, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Trepso Therapeutics Inc.; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Yusuke Nakagawa, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Raghu Natarajan, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Aniruddh Nayak, MS**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Institutional support - Stryker, Exactech; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Ara Nazarian, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Fred Nelson, MD**



1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Board Open Orthopaedics Journal and Journal of Arthroplasty; 9 - Serve on Board of Directors/Committee: No

**Valentina Ngai, PhD, Peng**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Jennifer Nichols, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Glen Niebur, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Johnson & Johnson, Merck, Proctor and Gamble; 5 - Research or Institutional Support as a PI: Yes Johnson & Johnson/Depuy Ethicon; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Biomechanics, Computer Methods in Biomechanics and Biomedical Engineering, Current Osteoporosis Reports; 9 - Serve on Board of Directors/Committee: No

**Laura Niedernhofer, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No 5 - Research or Institutional Support as a PI: No; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

**James T. Ninomiya, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No 5 - Research or Institutional Support as a PI: Yes Zimmer; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes Cimphoni Life Sciences, LLC; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes American Journal of Orthopedics; 9 - Serve on Board of Directors/Committee: Yes Society of Military Orthopaedic Surgeons

**Philip C. Noble, PhD**

1 – Royalties: Yes Stryker, Zimmer ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Zimmer ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Joint View LLC; 5 - Research or Institutional Support as a PI: Yes CeramTech, DJ Orthopaedics, Microport, Smith & Nephew, Zimmer; 6 - Financial or Material Support from Pharmaceutical or Company: Yes Musculoskeletal Transplant Foundation ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No, LLC; 7b – Royalties, Financial/Material Support

from Orthopaedic Publisher: Yes Springer; 8 - Serve on Editorial or Governing Board: Yes Journal of Arthroplasty, Journal of Hip Preservation Surgery; 9 - Serve on Board of Directors/Committee: Yes International Society for Technology in Arthroplasty

### **David Nuckley, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes I am an employee of Stryker Spine.; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Syam Nukavarapu, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Jeffry Nyman, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes I am on the Scientific Advisory Board of ActiveLife Scientific, Inc. without compensation.; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes My lab has done bone evaluations for Safoni Genzyme on a fee-for-service basis.; 6 - Financial or Material Support from Pharmaceutical or Company: Yes ActiveLife Scientific, Inc. has loaned a OsteoProbe device for clinical study being conducted at my institution. I am the PI of the study.; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes I on the editorial board of the journals Bone and Clinical Reviews in Bone and Mineral Metabolism; 9 - Serve on Board of Directors/Committee: No

### **Fergal O'Brien, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes SurgaColl Technologies ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes I serve on the Scientific and Medical Advisory Board (as Chairman) and receive an honorarium for this role. I am an associate editor with the Journal of the Mechanical Behavior of Biomedical Materials and receive an honorarium for this role. I serve on the editorial boards of Bioengineering (Since 2013), BioNanoMaterials (Since 2012), Journal of the Mechanical Behavior of Biomedical Materials (Since 2007), Frontiers in Bioengineering and Biotechnology (Tissue Engineering and Regenerative Medicine specialty section: since 2014), Journal of Tissue Engineering & Regenerative Medicine (since 2016).; 9 - Serve on Board of Directors/Committee: Yes I am a member of the World Council of Biomechanics. I am co-chair of the World Council of Biomechanics taking place in Ireland in 2018. I serve on the Steering Committee of Bone-Tec, international bone tissue engineering congress.

### **Grace O'Connell, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 -

Serve on Editorial or Governing Board: Yes Advisory Editorial Board for JOR Spine.; 9 - Serve on Board of Directors/Committee: No

**J. Patrick O'Connor, PhD**

1 – Royalties: Yes I receive royalties (less than \$300) from Rutgers for IP licensed from Rutgers to CreOsso LLC.; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes I am a minority owner of Accelalox Inc.; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes I receive royalties (less than \$300) from Rutgers for IP licensed from Rutgers to CreOsso LLC.; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Ruth Ochia, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Megan Oest, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Regis J O'Keefe, MD**

1 – Royalties: Yes Fate Therapeutics; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial Board, Bone; 9 - Serve on Board of Directors/Committee: Yes President, American Orthopaedic Association

**Rema Oliver, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Ebru Oral, PhD**

1 – Royalties: Yes IP licensed to Zimmer Biomet, MAKO/Stryker, Corin, Renovis, Conformis; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes Same as in 1; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Patrick Orth, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Donna Pacicca, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes Treasurer, Pediatric Research in Sports Medicine Society

**Maurizo Pacifici, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Jukka Pajarinen, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Shantanu Patil, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Girish Pattappa, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Karin Payne, PhD**

1 – Royalties: No Karin Payne is an inventor/intellectual property rights owner of a patent at the University of Pittsburgh, for which she receives <\$500/year; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Spouse owns stocks in Pfizer, Inc (value of financial interest is <5%); 5 - Research or Institutional Support as a PI: No Karin Payne received; 6 - Financial or Material Support from Pharmaceutical or Company: Yes Karin Payne received material support in the form of donated osteoprotegerin protein for a research project from Amgen, Inc; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Ming Pei, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Vincent D. Pellegrini, Jr., MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Synthes - provides maxillary plates for use in rat fracture model through research grant in kind.; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes Prior service on AAMC Board of Directors and CFAS Board of Directors. AOA development and academics committee; Hip Society Committee.. Current service on HVOC/Orthopaedics Overseas and SCOA Boards of Directors. Member Board of Overseers; Dartmouth Medical

**Matthew Pelletier, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Anthony Petrella, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Small research grant from Bristol-Myers Squibb; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Frank Petrigliano, MD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Zimmer-Biomet, Stryker; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Ferris M. Pfeiffer, PhD**

1 – Royalties: Yes Licensing royalties from Arthrex; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Robert Pilliar, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Smith-Nephew Scientific Advisory Board member; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes J&J common stock; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes J Biomed Mater Res - Applied Biomaterials; 9 - Serve on Board of Directors/Committee: No

#### **Andrew Pitsillides, BSc(Hons) PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes Haoma Medica Ltd; 4 - Stock or Stock Options: Yes Haoma Medica Ltd; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: Yes Haoma Medica Ltd, Evgen Pharma, UK; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Nancy Pleshko, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Heidi-Lynn Ploeg, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Medical Engineering & Physics; 9 - Serve on Board of Directors/Committee: Yes ORS Implant Section and Womens Leadership Forum

#### **Hollis Potter, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Paid consultant of Ortho RTI; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Stockholder and co-founder of Imagen Technologies; 5 - Research or Institutional Support as a PI: Yes Co-PI, Institutional Research Support, GE Healthcare; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Associate Editor for Imaging: Sports Health (AOSSM); Editorial Board: Osteoarthritis and Cartilage, Cartilage, Journal of Hip Preservation Surgery, Journal of Orthopaedic Research; 9 - Serve on Board of Directors/Committee: Yes Board of Trustees: International Society of Magnetic Resonance in Medicine

#### **Christopher Price, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Ling Qin, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or

Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes JBMR; 9 - Serve on Board of Directors/Committee: No

**Yi-Xian Qin, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

**Robin Queen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Quest Diagnostics; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes DonJoy; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes FAI, BJR; 9 - Serve on Board of Directors/Committee: Yes ASB, ACSM, AAOS, ORS, BMES

**Jennifer Racine, MBA**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes Clinical Research Committee for the ORS

**Muhammad Farooq Rai, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Michael J. Rainbow, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

**Cathleen Raggio, MD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Alexion, Ascendis, Biomarin; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes EDS, OIF

**R Lor Randall, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Daiichi Sankyo & Zimmer Biomet; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes CORR; 9 - Serve on Board of Directors/Committee: Yes MSTs - President Elect, ABJS - Second VP, COG - Chair of Orthopaedics and Vice Chair Bone Committee, NCCN - Vice Chair Soft Tissue Sarcoma Committee, MTF - Medical Board of Directors

#### **Mark Randolph, MASc**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Anthony Ratcliffe, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Synthasome, Inc; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Synthasome, Inc; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Cells Tissues Organs; 9 - Serve on Board of Directors/Committee: Yes TERMIS-AM

#### **Jeremy Rawlinson, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Scientific Employee of Medtronic (Spine); 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Employee Stock Purchases/Options of Medtronic (262); 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Spouse - Journal of Veterinary Dentistry; 9 - Serve on Board of Directors/Committee: Yes Spouse - American Veterinary Dental College

#### **Elizabeth Regan, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Gwendolen Reilly, DPhil**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes European Cells and Materials, Frontiers in Bioengineering and Biotechnology; 9 - Serve on Board of Directors/Committee: No

#### **Katherine Reuther, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Pfizer; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from



Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Stephen Richardson, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Associate editor at BMC Musculoskeletal Disorders; 9 - Serve on Board of Directors/Committee: Yes Treasurer and Board Member of the UK Tissue and Cell Engineering Society (TCES)

**Ryan Riddle, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Clinical Investigation, Bone Research; 9 - Serve on Board of Directors/Committee: No

**Claude Rieker, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Zimmer Biomet EMEA; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Zimmer Biomet EMEA; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Paul Robbins, PhD**

1 – Royalties: Yes Gene therapy for osteoarthritis patent licensed by Tissuegene Inc; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes SAB for Tissuegene Inc; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Tissuegene, Inc; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes Royalties on a gene therapy for osteoarthritis patent licensed by Tissuegene Inc; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Christopher Roche, MSE, MBA**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Exactech, Inc (Gainesville, FL); 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Exactech, Inc (Gainesville, FL); 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Scott Rodeo, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Rotation Medical; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes I am Associate Editor, American J. Sports Medicine; 9 - Serve on Board of Directors/Committee: No

**Bernd Rolauffs, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes TETEC AG; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Vicki Rosen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Associate Editor, Journal of Bone and Mineral Research; 9 - Serve on Board of Directors/Committee: No

**Paul J. Rullkoetter, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No; 3b - Paid Consultant: Yes DePuy, A Johnson & Johnson Company ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No; 5 - Research or Institutional Support as a PI: Yes DePuy, A Johnson & Johnson Company, Synthes; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**James T. Ryaby, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Orthofix; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Orthofix; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Jonathan Rylander, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Simo Saarakkala, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Robert L. Sah, MD, ScD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Bristol Myers Squibb, Medtronic, Johnson&Johnson; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: Yes 4WEB, ArthroDynamics; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes

Cartilage, Osteoarthritis & Cartilage, Journal of Orthopaedic Research ; 9 - Serve on Board of Directors/Committee: Yes ORS

**Daisuke Sakai, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Hideyuki Sakoda, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Linda Sandell, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editor in Chief, Journal of ORthopaedic Research; 9 - Serve on Board of Directors/Committee: Yes Program COmmittee, International Cartilage Repair Society

**Sophia Sangiorgio, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Spinal Kinetics, Wright Medical; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Uma Sankar, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Masato Sato, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes I'm a board member of delegate in the Japanese Orthopedic Association, and a director and councilor in the Japanese Society of Cartilage Metabolism

**Mitchell Schaffler, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Nathan Schiele, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Our lab receives collagen sponge samples as a gift from DSM Biomedical (Exton PA). These donated samples are only used for in vitro research in a model cell culture system.; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Ronen Schweitzer, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Blanka Sharma, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Jason Shearn, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Orthopaedic Research; 9 - Serve on Board of Directors/Committee: No

**Julia C. Shelton, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes MatOrtho; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Clinical biomechanics, Journal of tissue viability;; 9 - Serve on Board of Directors/Committee: No

**Hua Shen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from

Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Jie Shen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Tolou Shokuhfar, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Matthew Silva, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Merk Investigator Studies Program (MISP) grant; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editorial board member: Bone, Calcified Tissue Inter, J Bone Miner Res; 9 - Serve on Board of Directors/Committee: No

#### **Anita Singh, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes My spouse receive research support from CTL and other medical device companies; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Robert A. Siston, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Associate Editor, Journal of Applied Biomechanics; 9 - Serve on Board of Directors/Committee: No

#### **Harvey Smith, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Johnson and Johnson; 5 - Research or Institutional Support as a PI: Yes Johnson and Johnson clinical research grant; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes NASS, LSRS

#### **Lachlan Smith, PhD**

1 – Royalties: Yes Royalties from LBT Innovations (not orthopaedic related); 2 - Speakers Bureau: Yes Honorarium from Ultragenyx Pharmaceuticals to speak at 2017 WORLD Lysosomal Diseases Symposium; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Shares in LBT Innovations (not orthopaedic related); 5 - Research or Institutional Support as a PI: Yes Sponsored research from Ultragenyx Pharmaceuticals; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Margaret Smith, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Sylvan Scientific (veterinary products); 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Fidia Farmaceuti; Rotation Medical; Bioventis; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes American Journal of Sports Medicine; 9 - Serve on Board of Directors/Committee: No

#### **Jess Snedeker, PhD**

1 – Royalties: Yes ZuriMED BTB Converter; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes Novartis AG; ZuriMED AG; Prognosyst AG; 4 - Stock or Stock Options: Yes ZuriMED AG; Prognosyst AG; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes ZuriMED AG; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Brian Snyder, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes ORTHOPEDIATRICS; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes – AAOS, Orthopaedic Research Society, Pediatric Orthopaedic Society North America, Scoliosis Research Society

#### **Lynn Snyder-Mackler, PT, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes My husband is a consultant to Adavim Technologies; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes My husband has stock and options in Adavim Technologies; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes me- JOR, JOSPT, Physiotherapy in Sport, Journal of Sports Rehabilitation; 9 - Serve on Board of Directors/Committee: No

#### **Anna Spagnoli, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: YNo; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Kurt Spindler, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Cytori-Scientific Advisory Board, Mitek, NFL; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: Yes National Institutes of Health (NIAMS & NICHD); 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7 - Royalties, Financial/Material Support from Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes AAOS, American Orthopaedic Society for Sports Medicine, Orthopaedic Research Society

#### **Lin Song, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Stryker; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Stryker; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Yongnam Song, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Amber Stern, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Matthew Stewart, DVM, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Veterinary Comparative Orthopedics and Traumatology, European Cells and Materials; 9 - Serve on Board of Directors/Committee: Yes Veterinary Orthopedic Society

#### **Martin Stoddart, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Aaron Stoker, PhD**

1 – Royalties: Yes Arthrex, Musculoskeletal Transplant Foundation; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**D. Rick Sumner, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7A - Royalties, Financial/Material Support from Orthopedic Devices, No; 7B - Royalties, Financial/Material Support from Publisher: No; 8 - Serve on Editorial or Governing Board: Yes Journal of Musculoskeletal and Neuronal Interactions ; 9 - Serve on Board of Directors/Committee: Yes Association of Anatomy, Cell Biology and Neurobiology Chairpersons Secretary-Treasurer (2011 – present), American Society of Bone and Mineral Research Representative to the FASEB Training and Career Opportunities Subcommittee (2012-2017), American Association of Anatomists (Vice President, 2017-2019), International Society for Bone Morphometry (President, 2016-2019), International Federation of Musculoskeletal Research Societies (Secretary, 2016-present)

**Hui (Herb) Sun, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes New York R&D Center for Translational Medicine and Therapeutics, Inc; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Viswanathan Swaminathan, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Stryker Orthopaedics; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Stryker Orthopaedics; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Marc Swiontkowski, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes editor-in-chief journal of bone and joint surgery; 9 - Serve on Board of Directors/Committee: Yes immediate past president - mid america orthopedic association

**Spencer Szczesny, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Tsuneari Takahashi, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Yasunobu Tamaki, MD, PhD**



1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Simon Tang, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Tingting Tang, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Orthopaedi Translation; 9 - Serve on Board of Directors/Committee: Yes International Chinese Musculoskeletal Research Society

#### **Kenneth Taylor, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Material transfer from TriMed for biomechanical research; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes ASSH, AOA, ORS Committees

#### **Matthew Teeter, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes IdealFit Spacer Technologies, PersaFix Revision Technologies; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Yoshinori Terashima, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Stavros Thomopoulos, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Orthopaedic Research; 9 - Serve on Board of Directors/Committee: Yes ORS - see checked items above

**Harukazu Tohyama, MD**

1 – Royalties: No ; 2 - Speakers Bureau: ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes I received research support (9,916,463 JPY) as a principal investigator from Nipro Medical Corporation Japan.; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes I serve on the editorial board of The Journal of Arthroscopic and Related Surgery.; 9 - Serve on Board of Directors/Committee: Yes I serve on the Board of Directors of Japanese Orthopaedic Society of Knee, Arthroscopy and Sports Medicine.

**Ryan Tomlinson, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Steven Tommasini, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Jeffrey Toth, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Expert Witness and Scientific Consultant to Cytophil, Inc. Scientific Consultant to Medtronic.; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Institutional Research Support received from Medtronic and Cytophil, Inc.; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Francesco Travascio, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes I receive funds from Arthrex for a research project ending on December 2017; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Stephen Trippel, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Samumed; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Johnson & Johnson, 3M; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Orthopaedic Research and Reviews; 9 - Serve on Board of Directors/Committee: No

**Karen L. Troy, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Merck and Co., Inc. (Investigator initiated grant); 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Tsung-Yuan Tsai, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Riichiro Tsukamoto, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Wakenda Tyler, MD, MPH**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes Musculoskeletal Transplant Foundation; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes Journal of Geriatric Orthopaedics; 9 - Serve on Board of Directors/Committee: Yes Musculoskeletal Tumor Society

#### **Keita Uetsuki, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Teijin Nakashima Medical Co., Ltd., Japan; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Douglas Van Citters, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes DePuy Synthes, Orthosensor, Launchpad Medical; 6 - Financial or Material Support from Pharmaceutical or Company: Yes ConforMIS, TJO; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Marjolein CH van der Meulen, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Public stock ownership: JNJ, NVS, PG, RDUS; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material

Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: Yes BOD of Biomedical Engineering Society (BMES)

**Andre Van Wijnen, PhD**

1 – Royalties: No; 2 - Speakers Bureau: No; 3a - Paid Employee: No; 3b - Paid Consultant: No; 3c - Unpaid Consultant: No; 4 - Stock or Stock Options: No; 5 - Research or Institutional Support as a PI: No; 6 - Financial or Material Support from Pharmaceutical or Company: No; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

**Kartik M. Varadarajan, PhD**

1 – Royalties: Yes Stryker Corp.; 2 - Speakers Bureau: No; 3a - Paid Employee: No; 3b - Paid Consultant: Yes Orthopaedic Technology Group, ZimmerBiomet; 3c - Unpaid Consultant: No; 4 - Stock or Stock Options: Yes Orthopaedic Technology Group; 5 - Research or Institutional Support as a PI: Yes Evonik Industries; 6 - Financial or Material Support from Pharmaceutical or Company: No; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes Stryker Corp.; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

**Nico Verdonschot, PhD**

1 – Royalties: No; 2 - Speakers Bureau: No; 3a - Paid Employee: No; 3b - Paid Consultant: Yes Exactech Gainesville Florida and Invibio Knees, Thorton Clevelays, UK; 3c - Unpaid Consultant: No; 4 - Stock or Stock Options: No; 5 - Research or Institutional Support: Yes Invibio Knees, Thorton Clevelays, UK; DePuy, Zimmer-Biomet; 6 - Financial or Material Support from Pharmaceutical or Company: No; 7 - Royalties, Financial/Material Support from Publisher: No; 8 - Serve on Editorial or Governing Board: Yes Editorial board of the BJJ; 9 - Serve on Board of Directors/Committee: No

**Sophie Verrier, PhD**

1 – Royalties: No; 2 - Speakers Bureau: No; 3a - Paid Employee: No; 3b - Paid Consultant: No; 3c - Unpaid Consultant: No; 4 - Stock or Stock Options: No; 5 - Research or Institutional Support as a PI: No; 6 - Financial or Material Support from Pharmaceutical or Company: No; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: Yes Board member on the Swiss Bone and Mireral Society, Co-Chair of WLF within ORS

**Amarjit Virdi, PhD**

1 – Royalties: No; 2 - Speakers Bureau: No; 3a - Paid Employee: No; 3b - Paid Consultant: No; 3c - Unpaid Consultant: No; 4 - Stock or Stock Options: No; 5 - Research or Institutional Support as a PI: No; 6 - Financial or Material Support from Pharmaceutical or Company: No; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

**Nam Vo, PhD**

1 – Royalties: No; 2 - Speakers Bureau: No; 3a - Paid Employee: No; 3b - Paid Consultant: No; 3c - Unpaid Consultant: No; 4 - Stock or Stock Options: No; 5 - Research or Institutional Support as a PI: No; 6 - Financial or Material Support from Pharmaceutical or Company: No; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: ; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

**S. Randal Voss, PhD**

1 – Royalties: No; 2 - Speakers Bureau: No; 3a - Paid Employee: No; 3b - Paid Consultant: No; 3c - Unpaid Consultant: No; 4 - Stock or Stock Options: No; 5 - Research or Institutional Support as a PI: No; 6 - Financial or

Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Edward Vresilovic, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Stock options in Benvenue Medical; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Joseph Wallace, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Qun (Leo) Wan, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Regeneron; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Regeneron; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes I serve on scientific reports, f1000, medical and biological engineering and computing; 9 - Serve on Board of Directors/Committee: No

**Bing Wang, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Hali Wang, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**James Wang, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Jaw-Lin Wang, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes A-Spine Ltd.

Taiwan; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

#### **Tao Wang, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Vincent Wang, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes Associate Editor, Connective Tissue Research; Editorial Review Board, Journal of Orthopaedic Research; Editorial Advisory Board, Current Tissue Engineering; Associate Editor, BMC Musculoskeletal Disorders; 9 - Serve on Board of Directors/Committee: No

#### **David Wasserstein, MD, MSc, FRCSC**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: Yes Clinical fellowship education grant from ConMed Linvatec; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes I am a Board Member of the American Journal of Sports Medicine online editorial board; 9 - Serve on Board of Directors/Committee: No

#### **Jennifer Wayne, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: Yes Arthrex and DePuy Synthes, for implants in basic science studies; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Kristy Weber, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes AAOS Board of Directors

#### **Julien Wegrzyn, MD, PhD**

1 – Royalties: Yes Dediennne Sante; 2 - Speakers Bureau: Yes Stryker Orthopaedics; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Stryker Orthopaedics; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Lei Wei, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Jeffrey Weiss, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes JOR; 9 - Serve on Board of Directors/Committee: No

**Joseph Wenke, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Frederick W. Werner, MME**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Moximed; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes Hand and Wrist Biomechanics International

**Jessica Whited, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

**Britt Wildemann, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes DIZG, Heraeus; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes Bone & Joint Research, BMC Musculoskeletal Disorders, eCM; 9 - Serve on Board of Directors/Committee: No

**Jamie Williams, PhD**

1 – Royalties: Yes I receive royalties related to a patent for an explant retrieval kit.; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes My father is retired from Abbott Labs and holds company stock.; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from

Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**John L. Williams, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes Member, Journal of Prosthodontics Editorial Review Board since 2008; 9 - Serve on Board of Directors/Committee: Yes I am a voting member on subcommittees of the F04 Medical and Surgical Materials and Devices Committee of ASTM International

**Sophie Williams, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes DePuy Synthes; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes DePuy Synthes; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No; 9 - Serve on Board of Directors/Committee: No

**Bettina Willie, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes Mereo BioPharma Group plc; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes Mereo BioPharma Group plc; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Mereo BioPharma Group plc; 6 - Financial or Material Support from Pharmaceutical or Company: Yes Material support: Novartis, Amgen; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Ryan Willing, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes LIMA Corporate; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**David Wilson, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No DePuy, MedTronic; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Markus Wimmer, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: Yes Endolab GmbH; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Zimmer Biomet; 6 - Financial or Material Support from Pharmaceutical or Company: Yes Aesculap; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: Yes Editor, J Biotribology; 9 - Serve on Board of Directors/Committee: Yes ORS Orthopaedic Implants Section



**Beth Winkelstein, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes St. Jude Medical; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: Yes Taylor and Francis; 8 - Serve on Editorial or Governing Board: Yes Spine; 9 - Serve on Board of Directors/Committee: Yes BMES

**Edward Wojtys, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Editor-in-Chief of Sports Health Journal; 9 - Serve on Board of Directors/Committee: No

**Jennifer Woodell-May, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes I am an employee of Zimmer Biomet and my husband is an employee of Spine Wave.; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Zimmer Biomet and Spine Wave; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Timothy Wright, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes, Exactech Inc, Orthobond ; 5 - Research or Institutional Support as a PI: Yes Stryker ; 6 - Financial or Material Support from Pharmaceutical or Company: No; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: Yes Exactech Inc, Lima, Mathys Ltd ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes Knee Society

**Yang Xia, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Ei Yamamoto, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Raghunatha Yammani, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from

Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Wentian Yang, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes International Chinese Musculoskeletal Research Society

### **Hai Yao, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Wei Yao, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

### **Michael Yaszemski, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: Yes K2M, Inc & Medtronic; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes Journal of Biomedical Materials Research - J. Wiley, Inc. & Techniques in Orthopaedics; 9 - Serve on Board of Directors/Committee: Yes AAOS & Society of Military Orthopaedic Surgeons

### **Clare Yellowley, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes JOR associate editor; 9 - Serve on Board of Directors/Committee: No

### **Yener N. Yeni, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: Yes BONE; 9 - Serve on Board of Directors/Committee: No

### **Kelvin Yeung, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: Yes OrthoSmart Ltd.; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes OrthoSmart Ltd.; 5 - Research or Institutional Support

as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes OrthoSmart Ltd.

#### **Gokce Yildirim, MS**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes Self, Stryker employee; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: Yes Stryker, S&N, Conformis, Abbvie stocks; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Hiroki Yokota, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Toshitaka Yoshii, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Aliaa Youssef, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Hongchuan Yu, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Kiminori Yukata, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

#### **Chawon Yun, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or

Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Stephan Zeiter, DVM, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: Yes I am member of the council of the European College for laboratory Animal medicine.

**Ronald Zernicke, PhD, DSc**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Dimitrios Zeugolis, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Nianli Zhang, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: Yes I am a research scientist at Orthofix Inc; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Yaxia Zhang, MD, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Chunfeng Zhao, MD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: No ; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

**Michael Zuscik, PhD**

1 – Royalties: No ; 2 - Speakers Bureau: No ; 3a - Paid Employee: No ; 3b - Paid Consultant: No ; 3c - Unpaid Consultant: No ; 4 - Stock or Stock Options: No ; 5 - Research or Institutional Support as a PI: Yes Research

Contract with Rousselot BVBA, Belgium; 6 - Financial or Material Support from Pharmaceutical or Company: No ; 7a - Royalties, Financial/Material Support from Pharmaceutical or Company: No ; 7b – Royalties, Financial/Material Support from Orthopaedic Publisher: No ; 8 - Serve on Editorial or Governing Board: No ; 9 - Serve on Board of Directors/Committee: No

## **PODIUM AND POSTER PRESENTER DISCLOSURE**

**Aaron, Roy K** ..... *Disclosed no conflict of interest.*

**Aaronson, Jacob D** ..... *Disclosed no conflict of interest.*

**Abar, Orchideh** ..... *Disclosed no conflict of interest.*

**Abarado, Edward S** ..... *Disclosed no conflict of interest.*

**Abbasnia, Pegah** ..... *Disclosed no conflict of interest.*

**Abbina, Srinivas** ..... *Disclosed no conflict of interest.*

**Abboud, Joseph** ..... 3B: DJO, Globus Medical; 5: Smith Nephew.

**Abdeen, Ayesha** ..... *Disclosed no conflict of interest.*

**Abdel, Matthew P.** ..... 2: OsteoRemedies; 3B: Stryker; 7: Bone and Joint Journal Editorial Board; Springer.

**Abdel-Aziz, Sara** ..... *Disclosed no conflict of interest.*

**Abdelbary, Hesham** ..... *Disclosed no conflict of interest.*

**Abdelgaied, Abdellatif** ..... *Disclosed no conflict of interest.*

**Abdoun, Khaled** ..... *Disclosed no conflict of interest.*

**Abduljabbar, Fahad** ..... *Disclosed no conflict of interest.*

**Abdulkarim, Ali** ..... *Disclosed no conflict of interest.*

**Abe, Satomi** ..... *Disclosed no conflict of interest.*

**Abel, Richard** ..... *Disclosed no conflict of interest.*

**Abelin-Genevois, Kariman** ..... *Disclosed no conflict of interest.*

**Abidine, Yara** ..... *Disclosed no conflict of interest.*

**Abplanalp, David** ..... *Disclosed no conflict of interest.*

**Abraham, Adam C** ..... *Disclosed no conflict of interest.*

**Abraham, Amy E** ..... *Disclosed no conflict of interest.*

**Abt, John P** ..... *Disclosed no conflict of interest.*

**Abu-Amer, Yousef** ..... *Disclosed no conflict of interest.*

**Abuayyash, Adham** ..... *Disclosed no conflict of interest.*

**Abu-Hakmeh, Ahmad E** ..... *Disclosed no conflict of interest.*

**Abusara, Ziad** ..... *Disclosed no conflict of interest.*

**Abzug, Joshua M**..... *Disclosed no conflict of interest.*

**Ackerman, Colin**..... *Disclosed no conflict of interest.*

**Ackerman, Jessica**..... *Disclosed no conflict of interest.*

**Ackert-Bicknell, Cheryl L**..... *Disclosed no conflict of interest.*

**Adabala, Saahit** ..... *Disclosed no conflict of interest.*

**Adachi, Gen** ..... *Disclosed no conflict of interest.*

**Adachi, Nobuo**..... *Disclosed no conflict of interest.*

**Adachi, Taiji**..... *Disclosed no conflict of interest.*

**Adachi, Tetsuya** ..... *Disclosed no conflict of interest.*

**Adams, Douglas J**..... *Disclosed no conflict of interest.*

**Adams, Samuel** ..... 2: RTI, Stryker, Trimed; 3B: RTI, Stryker, Sonoma.

**Adams, Samuel B**..... 3B: Stryker, 4WEB, RTI.

**Adams, Sheila M**..... *Disclosed no conflict of interest.*

**Adams, Thomas H**..... *Disclosed no conflict of interest.*

**Adebayo, Olufunmilayo O** ..... *Disclosed no conflict of interest.*

**Adgate, Zachary** ..... *Disclosed no conflict of interest.*

**Adjeai, Isaac** ..... *Disclosed no conflict of interest.*

**Adjei, Isaac M** ..... *Disclosed no conflict of interest.*

**Adkar, Shaunak**..... *Disclosed no conflict of interest.*

**Adouni, Malek**..... *Disclosed no conflict of interest.*

**Afzal, Irrum** ..... *Disclosed no conflict of interest.*

**Agarwal, Anand**..... 4: Spinal Balance, OsteoNovus; 6: Paradigm Spine, Joimax, Element Orthopedics, Endosphere Spine, Spider Spine, Butterfly Spine, Intellisenze, B.O.N.E. LLC., NSF, Third Frontier Program, ODSA.

**Agarwal, Sandeep K**..... *Disclosed no conflict of interest.*

**Agha, Obiajulu**..... *Disclosed no conflict of interest.*

**Agrahari, Ashok** ..... *Disclosed no conflict of interest.*

**Agrawal, Virat**..... 3A: Zimmer Biomet.

**Agyeman, Kofi**..... *Disclosed no conflict of interest.*

**Ahlfeld, Tilman** ..... *Disclosed no conflict of interest.*

Ahmadzai, Nadera ..... *Disclosed no conflict of interest.*

Ahmed, Hamza ..... 6: OsteoRemedies.

Ahmed, Syed I ..... *Disclosed no conflict of interest.*

Ahn, Hyunhee ..... *Disclosed no conflict of interest.*

Ahn, Jaimo ..... 3B: Merck; 4: Skelegen LLC.

Ahn, Jeffrey A ..... *Disclosed no conflict of interest.*

Ailavajhala, Ramya ..... *Disclosed no conflict of interest.*

Ailavajhala, Ramyasri ..... *Disclosed no conflict of interest.*

Aiyangar, Ameet ..... *Disclosed no conflict of interest.*

Aizawa, Shin ..... *Disclosed no conflict of interest.*

Aizawa, Toshimi ..... *Disclosed no conflict of interest.*

Ajami, Elnaz ..... *Disclosed no conflict of interest.*

Akabudike, Ngozi ..... *Disclosed no conflict of interest.*

Akagi, Ryuichiro ..... *Disclosed no conflict of interest.*

Akahane, Manabu ..... *Disclosed no conflict of interest.*

Akaike, Keisuke ..... *Disclosed no conflict of interest.*

Akamatsu, Tadashi ..... *Disclosed no conflict of interest.*

Akamatsu, Tomotaka ..... *Disclosed no conflict of interest.*

Akamatsu, Yasushi ..... *Disclosed no conflict of interest.*

Akasaki, Yukio ..... *Disclosed no conflict of interest.*

Akazawa, Toshiyuki ..... *Disclosed no conflict of interest.*

Akbar, Moeed ..... *Disclosed no conflict of interest.*

Akbari Shandiz, Mohsen ..... *Disclosed no conflict of interest.*

Akeda, Koji ..... 5: NuVasive, Inc,

Akelman, Matthew R ..... *Disclosed no conflict of interest.*

Akerman, Jerome L ..... *Disclosed no conflict of interest.*

Akhbari, Bardiya ..... *Disclosed no conflict of interest.*

Akhbari, Pouya ..... *Disclosed no conflict of interest.*

Aki, Takashi ..... *Disclosed no conflict of interest.*

Akieda, Shizuka ..... *Disclosed no conflict of interest.*

Akihito Yoshida, Akihito ..... *Disclosed no conflict of interest.*

**Akisue, Toshihiro**..... *Disclosed no conflict of interest.*

**Akiyama, Gosuke** ..... *Disclosed no conflict of interest.*

**Akiyama, Haruhiko**..... *Disclosed no conflict of interest.*

**Akiyama, Shoshi** ..... *Disclosed no conflict of interest.*

**Akiyama, Shoushi** ..... *Disclosed no conflict of interest.*

**Akkus, Ozan** ..... 3B: Spectral Energies, LLC.

**Akpinar, Berkcan**..... *Disclosed no conflict of interest.*

**Akuzawa, Hiroshi** ..... *Disclosed no conflict of interest.*

**Aladlaan, Asaad** ..... *Disclosed no conflict of interest.*

**Al-Adlaan, Asaad A.**..... *Disclosed no conflict of interest.*

**Al-Amoodi, Mohamed J. H.**..... *Disclosed no conflict of interest.*

**Alamoudi, Mohammed**..... *Disclosed no conflict of interest.*

**Alarcon, Andrea** ..... *Disclosed no conflict of interest.*

**ALatassi, Raheef** ..... *Disclosed no conflict of interest.*

**Alba, Ismael** ..... *Disclosed no conflict of interest.*

**Albrecht, Lucas D.**..... *Disclosed no conflict of interest.*

**Album, Zoe** ..... *Disclosed no conflict of interest.*

**Album, Zoe M** ..... *Disclosed no conflict of interest.*

**Aldebert, Gregoire**..... *Disclosed no conflict of interest.*

**Aldebeyan, Wassim** ..... *Disclosed no conflict of interest.*

**Alder, Kareme D** ..... *Disclosed no conflict of interest.*

**Aldinger, Patrick**..... 3A: Smith & Nephew; 4: Smith & Nephew.

**Aldridge, John**..... 1: Exactech, Inc.; 3B: Exactech, Inc.; 5: Exactech, Inc,

**Alev, Cantas** ..... *Disclosed no conflict of interest.*

**Alex, Ashleigh** ..... *Disclosed no conflict of interest.*

**Alexander, Peter**..... *Disclosed no conflict of interest.*

**Alexander, Peter G.**..... *Disclosed no conflict of interest.*

**Alferiev, Ivan**..... *Disclosed no conflict of interest.*

**Alfonso, Edward**..... 3A: Stryker; 4: Stryker.

**AlGeshyan, Fahad**..... *Disclosed no conflict of interest.*

**Al-Hajjar, Mazen** ..... 6: DePuy Synthes.



**Alhammadi, Haitham**..... *Disclosed no conflict of interest.*

**Alhandi, Ali** ..... *Disclosed no conflict of interest.*

**Alhasan, Hend**..... *Disclosed no conflict of interest.*

**Ali, Azhar A**..... *Disclosed no conflict of interest.*

**Ali, Sayed**..... *Disclosed no conflict of interest.*

**Aliaga Crespo, Boris A**..... *Disclosed no conflict of interest.*

**Alini, Mauro** ..... *Disclosed no conflict of interest.*

**Alipit, Vincent**..... 3A: Stryker; 4: Stryker.

**Al-Jazrawe, Mushriq** ..... *Disclosed no conflict of interest.*

**Alkhelaifi, Khalid** ..... *Disclosed no conflict of interest.*

**Allan, Christopher**..... *Disclosed no conflict of interest.*

**Allen, Andrew D.**..... *Disclosed no conflict of interest.*

**Allen, Kyle D.**..... *Disclosed no conflict of interest.*

**Allen, Matthew**..... *Disclosed no conflict of interest.*

**Allen, Nicholas** ..... *Disclosed no conflict of interest.*

**Allen, R. Todd**..... *Disclosed no conflict of interest.*

**Allison, Daniel C.**..... *Disclosed no conflict of interest.*

**Allison, Hollie** ..... *Disclosed no conflict of interest.*

**Alliston, Tamara N.**..... *Disclosed no conflict of interest.*

**Alluri, R. Kiran** ..... *Disclosed no conflict of interest.*

**Alluri, Ram** ..... *Disclosed no conflict of interest.*

**Allyn, Gina**..... *Disclosed no conflict of interest.*

**Alman, Benjamin A.** ..... *Disclosed no conflict of interest.*

**Almubarak, Samar**..... *Disclosed no conflict of interest.*

**Al-rayess, Khalid**..... *Disclosed no conflict of interest.*

**Alsaqer, saqer F.**..... *Disclosed no conflict of interest.*

**Alsaran, Yazeed** ..... *Disclosed no conflict of interest.*

**Alsberg, Eben**..... *Disclosed no conflict of interest.*

**Altman, Perry**..... *Disclosed no conflict of interest.*

**Altman, Roy** ..... 3B: Ferring Pharmaceuticals, Norvartis, Pfizer; 3C: Sanofi-Aventis.

**Alvand, Abtin**..... *Disclosed no conflict of interest.*

**Alvarez-Garcia, Oscar**..... *Disclosed no conflict of interest.*

**Alvarez-Lorenzo, Carmen**..... *Disclosed no conflict of interest.*

**Alwood, Joshua S**..... *Disclosed no conflict of interest.*

**Amadio, Peter C**..... *Disclosed no conflict of interest.*

**Amadio, Peter C.**..... *Disclosed no conflict of interest.*

**Amalfitano, Andrea**..... *Disclosed no conflict of interest.*

**Amberg, Romina**..... *Disclosed no conflict of interest.*

**Ambrose, Catherine G**..... *Disclosed no conflict of interest.*

**Amemiya, Masaki**..... *Disclosed no conflict of interest.*

**Amin Yavari, Saber**..... *Disclosed no conflict of interest.*

**Amin, Arsalan**..... *Disclosed no conflict of interest.*

**Amin, Dhara B**..... *Disclosed no conflict of interest.*

**Amin, Mamta**..... *Disclosed no conflict of interest.*

**Amirouche, Farid**..... *Disclosed no conflict of interest.*

**Amirtharaj, Mark J**..... *Disclosed no conflict of interest.*

**Amoo-Achampong, Kelms**..... *Disclosed no conflict of interest.*

**Amra, Sarah**..... *Disclosed no conflict of interest.*

**Amstad, Fabian**..... 3A: Zimmer Biomet.

**An, Howard S**..... 6: NIH NCCIH.

**An, Kai-Nan**..... *Disclosed no conflict of interest.*

**Anastasopoulou, Lydia**..... *Disclosed no conflict of interest.*

**Andarawis-Puri, Nelly**..... *Disclosed no conflict of interest.*

**Anderson, Andrew E.**..... *Disclosed no conflict of interest.*

**Anderson, David Greg**..... 1: DePuy; 3B: DePuy; 4: ISD, PST; 6: Thieme; 7: Thieme.

**Anderson, Dennis**..... *Disclosed no conflict of interest.*

**Anderson, Donald D**..... *Disclosed no conflict of interest.*

**Anderson, Jeffrey P**..... *Disclosed no conflict of interest.*

**Anderson, John G**..... 3B: Paid consultant of Zimmer Biomet.

**Anderson, Matthew**..... *Disclosed no conflict of interest.*

**Andersson, Gunnar**..... 5: NIH NIAMS.

**Andersson, Gunnar BJ**..... *Disclosed no conflict of interest.*

**Anderst, William J** ..... *Disclosed no conflict of interest.*

**Ando, Kei** ..... 1: the Japan Agency for Medical Research and Development (AMED).

**Ando, Takashi** ..... *Disclosed no conflict of interest.*

**Andrew, John G**..... *Disclosed no conflict of interest.*

**Andrew, Reid** ..... *Disclosed no conflict of interest.*

**Andriacchi, Thomas P** ..... *Disclosed no conflict of interest.*

**Andriotis, Orestis G** ..... *Disclosed no conflict of interest.*

**Ang, Bryan K.** ..... *Disclosed no conflict of interest.*

**Ang, Ida**..... *Disclosed no conflict of interest.*

**Angers, Michelle**..... 3B: Consultant, fee for service, to Bodycad Inc.

**Angibaud, Laurent** ..... 3A: Exactech Inc, Laurent Angibaud; 4: Exactech Inc.

**Angibaud, Pierre** ..... 3A: Exactech Inc.

**Anijs, Thomas** ..... *Disclosed no conflict of interest.*

**Anil, Utkarsh** ..... *Disclosed no conflict of interest.*

**Anker, Jeffrey** ..... *Disclosed no conflict of interest.*

**Anthony, Chris A**..... *Disclosed no conflict of interest.*

**Anthony, Christopher A**..... *Disclosed no conflict of interest.*

**Antoci, Valentin** ..... *Disclosed no conflict of interest.*

**Antoniou, John**..... 4: Trepso Therapeutics Inc.

**Anz, Adam W** ..... 2: Arthrex; 5: Arthrex.

**Aoki, Akino** ..... *Disclosed no conflict of interest.*

**Aoki, Hayato** ..... *Disclosed no conflict of interest.*

**Aota, Yoichi** ..... *Disclosed no conflict of interest.*

**Aoyama, Tomoki** ..... *Disclosed no conflict of interest.*

**Aparicio, Conrado** ..... 5: 3M Oral care, Ormco Corporation, Mozo Grau Dental Implants.

**Aponte, Carlos** ..... 3A: Stryker; 4: Stryker.

**Arabi, Yasaman** ..... *Disclosed no conflict of interest.*

**Arai, Yuji** ..... *Disclosed no conflict of interest.*

**Araki, Akemi** ..... *Disclosed no conflict of interest.*

**Araki, Daisuke** ..... *Disclosed no conflict of interest.*

**Arakura, Michio** ..... *Disclosed no conflict of interest.*

**Aram, Parham**..... *Disclosed no conflict of interest.*

**Araujo, Jackeline**..... *Disclosed no conflict of interest.*

**Arauz, Paul** ..... *Disclosed no conflict of interest.*

**Arauz, Paul G**..... *Disclosed no conflict of interest.*

**Arbabi, Vahid**..... *Disclosed no conflict of interest.*

**Archer, Marilyn**..... *Disclosed no conflict of interest.*

**Archer, Nathan K**..... *Disclosed no conflict of interest.*

**Ardestani, Marzieh** ..... *Disclosed no conflict of interest.*

**Arena, Christopher**..... *Disclosed no conflict of interest.*

**Arendt-Nielsen, Lars** ..... *Disclosed no conflict of interest.*

**Arevalo, Sofia E**..... *Disclosed no conflict of interest.*

**Argenson, Jean Noel** ..... 1: Zimmer Biomet; 3B: Zimmer Biomet; 5: Adler Ortho, Euros, Symbios, Zimmer;  
7: Journal of Bone and Joint Surg Am.

**Argentieri, Erin C**..... *Disclosed no conflict of interest.*

**Arginteanu, Toren** ..... *Disclosed no conflict of interest.*

**Arima, Yasunobu**..... *Disclosed no conflict of interest.*

**Ariniello, Allison**..... *Disclosed no conflict of interest.*

**Ariumi, Akihiro** ..... *Disclosed no conflict of interest.*

**Armiento, Angela R**..... *Disclosed no conflict of interest.*

**Armstrong, Gillian**..... *Disclosed no conflict of interest.*

**Armstrong, Rachel E**..... *Disclosed no conflict of interest.*

**Arnaud, Ethan H**..... *Disclosed no conflict of interest.*

**Arney, Andrea** ..... *Disclosed no conflict of interest.*

**Arnholt, Christina M**..... 3A: Pfizer; 4: Pfizer.

**Arnold, Lauren** ..... *Disclosed no conflict of interest.*

**Arora, Akshi**..... *Disclosed no conflict of interest.*

**Arora, Shivani**..... *Disclosed no conflict of interest.*

**Arthurs, Owen J** ..... *Disclosed no conflict of interest.*

**Arts, Chris**..... *Disclosed no conflict of interest.*

**Arts, J.J.**..... *Disclosed no conflict of interest.*

**Arul, Michael R.**..... *Disclosed no conflict of interest.*

**Arulanandam, Rozanne** ..... *Disclosed no conflict of interest.*

**Aruwajoye, Olumide O**..... *Disclosed no conflict of interest.*

**Arvayo, Alberto L**..... *Disclosed no conflict of interest.*

**Asahara, Hiroshi**..... *Disclosed no conflict of interest.*

**Asano, Naofumi**..... *Disclosed no conflict of interest.*

**Asano, Takahiro**..... *Disclosed no conflict of interest.*

**Asano, Tamon**..... *Disclosed no conflict of interest.*

**Asano, Tsuyoshi**..... *Disclosed no conflict of interest.*

**Asanuma, Kunihiro**..... *Disclosed no conflict of interest.*

**Asanuma, Yumiko**..... *Disclosed no conflict of interest.*

**ASAO, Hironobu**..... *Disclosed no conflict of interest.*

**Asari, Toru**..... *Disclosed no conflict of interest.*

**Asay, Jessica L**..... *Disclosed no conflict of interest.*

**Asfour, Shihab**..... *Disclosed no conflict of interest.*

**Ashinsky, Beth G.**..... *Disclosed no conflict of interest.*

**Ashley, Blair S**..... *Disclosed no conflict of interest.*

**Ashley, Jason W**..... *Disclosed no conflict of interest.*

**Ashraf, Waheed**..... *Disclosed no conflict of interest.*

**Ashton, John M**..... *Disclosed no conflict of interest.*

**Askar, Mohamed**..... *Disclosed no conflict of interest.*

**Askarinejad, Sina**..... *Disclosed no conflict of interest.*

**Asmussen, Niels**..... *Disclosed no conflict of interest.*

**Asnaghi, M. Adelaide**..... *Disclosed no conflict of interest.*

**Asnis, Peter D**..... *Disclosed no conflict of interest.*

**Aso, Koji**..... *Disclosed no conflict of interest.*

**Asong, Njikem**..... *Disclosed no conflict of interest.*

**Asrar, Shabistan**..... *Disclosed no conflict of interest.*

**Assad, Michel**..... *Disclosed no conflict of interest.*

**Assemat, Pauline**..... *Disclosed no conflict of interest.*

**Astephen Wilson, Janie**..... *Disclosed no conflict of interest.*

**Ateshian, Gerard A.**..... *1: Allosource.*

**Athanasiou, Kyriacos A.**..... *Disclosed no conflict of interest.*

**Athwal, George**..... 1: Tornier/Wright, Imascap, Exactech, Conmed-Linvatec, Wright Medical; 3B: Tornier/Wright Biomedical, Depuy, Exactech, ConmedLivatec, Imascap, Wright Medical; 5: Tornier/Wright, Depuy.

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**Atsushi, Okawa** ..... *Disclosed no conflict of interest.*

**Attia, Tarik** ..... *Disclosed no conflict of interest.*

**Au, Tiffany Y** ..... *Disclosed no conflict of interest.*

**Auer, Dorothee P**..... *Disclosed no conflict of interest.*

**Awad, Fathi S.** ..... *Disclosed no conflict of interest.*

**Awad, Hani A.**..... *Disclosed no conflict of interest.*

**Awad, Mohamed E** ..... *Disclosed no conflict of interest.*

**Awwad, Hosam A-D A**..... *Disclosed no conflict of interest.*

**Ayala, Alfonso E**..... *Disclosed no conflict of interest.*

**Aydemir, Burcu** ..... *Disclosed no conflict of interest.*

**Aydogan, Umur** ..... *Disclosed no conflict of interest.*

**Aynardi, Michael C**..... *Disclosed no conflict of interest.*

**Aynardi, Mike**..... *Disclosed no conflict of interest.*

**Ayres, Douglas**..... *Disclosed no conflict of interest.*

**Ayturk, Ugur** ..... *Disclosed no conflict of interest.*

**Ayyalusamy, Ramamoorthy** ..... *Disclosed no conflict of interest.*

**Azem, Omar** ..... *Disclosed no conflict of interest.*

**Azukizawa, Masayuki**..... *Disclosed no conflict of interest.*

**Ba, Cong** ..... *Disclosed no conflict of interest.*

**Baar, Keith**..... *Disclosed no conflict of interest.*

**Baba, Rikiya**..... *Disclosed no conflict of interest.*

**Baba, Shoji** ..... *Disclosed no conflict of interest.*

**Babikian, Margaret**..... *Disclosed no conflict of interest.*

**Bachman, John** ..... *Disclosed no conflict of interest.*

**Bachmann, Barbara** ..... *Disclosed no conflict of interest.*

**Bachus, Kent** ..... *Disclosed no conflict of interest.*

**Back, Jungcho** ..... *Disclosed no conflict of interest.*

**Badalamente, Marie A.**..... 1: 1; 3B: 3B.

**Badar, Farid**..... *Disclosed no conflict of interest.*

**Bader, Dov A.** ..... *Disclosed no conflict of interest.*

**Badger, Gary J** ..... *Disclosed no conflict of interest.*

**Badida, Rohit N** ..... *Disclosed no conflict of interest.*

**Badin, Matthew**..... 3A: DePuy Synthes.

**Badon, Mary** ..... *Disclosed no conflict of interest.*

**Badrinath, Raghav** ..... *Disclosed no conflict of interest.*

**Bae, Hyun** ..... 1: Biomet, DePuy, LDR Spine, Nuvasive, Prosidyan, Stryker, Zimmer; 2: DePuy, LDR Spine, Medtronic, Nuvasive, Stryker, Zimmer; 3B: Synthes, Zimmer; 4: Medtronic, Stryker; 5: Bioness, Isotis Orthobiologics, LDR Spine, Medtronic, Mesoblast, Relievan, Orthorebirth.

**Bae, Hyun Cheol**..... *Disclosed no conflict of interest.*

**Bae, Won C** ..... *Disclosed no conflict of interest.*

**Baek, Dawoon** ..... *Disclosed no conflict of interest.*

**Baek, Jihye** ..... *Disclosed no conflict of interest.*

**Baek, Seung-Hoon** ..... *Disclosed no conflict of interest.*

**Baer, Geoffrey S.**..... *Disclosed no conflict of interest.*

**Baez, Rafael**..... 3A: Stryker.

**Bahcecioglu, Gokhan** ..... *Disclosed no conflict of interest.*

**Baht, Gurpreet**..... *Disclosed no conflict of interest.*

**Bai, Daisuke**..... *Disclosed no conflict of interest.*

**Bai, Hanying** ..... *Disclosed no conflict of interest.*

**Baik, Lloyd**..... *Disclosed no conflict of interest.*

**Bailey, Jeannie F**..... *Disclosed no conflict of interest.*

**Baily, Frank**..... *Disclosed no conflict of interest.*

**Bais, Manish V**..... *Disclosed no conflict of interest.*

**Bajcsy, Ruzena**..... *Disclosed no conflict of interest.*

**Bak, Seon Young**..... *Disclosed no conflict of interest.*

**Bakar Atici, Ayse**..... *Disclosed no conflict of interest.*

**Baker, Erin A** ..... 5: DePuy Synthes, Arthrex, K2M, Stryker, Zimmer.

**Baker, Ethan** ..... 3A: MicroPort Orthopedics Inc.

**Baker, Kevin C**..... *Disclosed no conflict of interest.*

**Baker, Rachel K**..... *Disclosed no conflict of interest.*

**Bakhshandeh, Sadra**..... *Disclosed no conflict of interest.*

**Bakker, Rob C.** ..... *Disclosed no conflict of interest.*

**Bakker, Ryan** ..... *Disclosed no conflict of interest.*

**Bakr, Mahmoud** ..... *Disclosed no conflict of interest.*

**Bal, B. Sonny** ..... 3A: Amedica Corporation; 4: Amedica Corporation.

**Balasubramanian, Sriram** ..... *Disclosed no conflict of interest.*

**Baldoni, Michele** ..... *Disclosed no conflict of interest.*

**Baldwin, Abigail** ..... *Disclosed no conflict of interest.*

**Baldwin, Avionna** ..... *Disclosed no conflict of interest.*

**Balko, Stefan** ..... *Disclosed no conflict of interest.*

**Ball, Christopher** ..... *Disclosed no conflict of interest.*

**Baloh, Robert** ..... *Disclosed no conflict of interest.*

**Bampo, Earl M** ..... *Disclosed no conflict of interest.*

**Ban, Ehsan** ..... *Disclosed no conflict of interest.*

**Bandaru, Raja** ..... *Disclosed no conflict of interest.*

**Banerjee, Samik** ..... *Disclosed no conflict of interest.*

**Banglmaier, Richard** ..... *Disclosed no conflict of interest.*

**Bankes, Marcus J. K.** ..... 4: Fortius Clinic.

**Banks, Scott A.** ..... 1: DJO Surgical, Stryker; 3B: DJO Surgical, Orthosensor, Smith & Nephew; 5: Exactech, Inc., Lima Corporate.

**Bannigan, S Shaeffer** ..... 3A: NuVasive; 4: NuVasive.

**Bansal, Ankit** ..... *Disclosed no conflict of interest.*

**Bansal, Sonia** ..... *Disclosed no conflict of interest.*

**Baraga, Michael** ..... *Disclosed no conflict of interest.*

**Baratz, Mark** ..... 3B: Consultant relationship with Elizur; Consultant relationship with Integra LifeSciences.

**Barazowski, Jessica** ..... 3A: Orthopedic Analysis.

**Barba, Mark** ..... *Disclosed no conflict of interest.*

**Barbe, Mary F** ..... *Disclosed no conflict of interest.*

**Barber, Douglas T** ..... *Disclosed no conflict of interest.*

**Barber, F. Alan** ..... 5: DePuy Synthes Mitek Sports Medicine.

**Barbera, Carlo** ..... 3A: The author is full time employee of Fidia Pharma Group.

**Barbieri, Davide** ..... 3A: Kuros Biosciences BV.



**Barbone, Paul** ..... *Disclosed no conflict of interest.*

**Barbosa, Sofia** ..... *Disclosed no conflict of interest.*

**Barboza, Erika** ..... *Disclosed no conflict of interest.*

**Barg, Alexej** ..... *Disclosed no conflict of interest.*

**Barnett, T. Marcus** ..... 5: Stryker.

**Baron, Matthew D** ..... *Disclosed no conflict of interest.*

**Barrère-de Groot, Florence G.** ..... 3A: Kuros Biosciences.

**Barret, Thomas** ..... 5: Stryker; 6: Stryker.

**Barrett, Stephen** ..... *Disclosed no conflict of interest.*

**Barrientos, Tomasa** ..... *Disclosed no conflict of interest.*

**Barroga, Charlene** ..... 3A: Samumed LLC; 4: Samumed LLC.

**Barrott, Jared** ..... *Disclosed no conflict of interest.*

**Barsoum, Wael K.** ..... 1: Stryker, Exatech, Zimmer, Custom Orthopaedic Solutions; 3B: Stryker, KEF Healthcare; 4: iVHR, Custom Orthopaedic Solutions, Otismed, Peerwell; 5: Zimmer, DJO, Orthosensor; 6: KEF Healthcare.

**Bartholf DeWitt, Suzanne** ..... *Disclosed no conflict of interest.*

**Bartlow, Christopher M.** ..... *Disclosed no conflict of interest.*

**Bartnikowski, Michal** ..... *Disclosed no conflict of interest.*

**Bartnikowski, Nicole** ..... *Disclosed no conflict of interest.*

**Bartol, Stephen** ..... 3C: Musculoskeletal Transplant Foundation; 4: Sentio LLC.

**Barton, Kristen I** ..... *Disclosed no conflict of interest.*

**Barton, Shane** ..... *Disclosed no conflict of interest.*

**Bartos, Jan** ..... *Disclosed no conflict of interest.*

**Barve, Raghav** ..... 4: Vad Scientific LLC, Huda Mediresearch Private Limited India.

**Basgul, Cemile** ..... *Disclosed no conflict of interest.*

**Basheer, Azam** ..... *Disclosed no conflict of interest.*

**Bashir, Azhar** ..... *Disclosed no conflict of interest.*

**Bassil, Alex M.** ..... *Disclosed no conflict of interest.*

**Bastrom, Tracey** ..... *Disclosed no conflict of interest.*

**Batani, Cyrus P** ..... *Disclosed no conflict of interest.*

**Bates, Nathaniel A.** ..... *Disclosed no conflict of interest.*

**Battle, Lauren** ..... *Disclosed no conflict of interest.*

**Battle, Lauren F** ..... *Disclosed no conflict of interest.*

**Batushansky, Albert** ..... *Disclosed no conflict of interest.*

**Batzinger, Kathleen E** ..... *Disclosed no conflict of interest.*

**Bauer, Christoph** ..... *Disclosed no conflict of interest.*

**Baumann, Charles A** ..... *Disclosed no conflict of interest.*

**Baumann, John R** ..... *Disclosed no conflict of interest.*

**Baumer, Tim** ..... *Disclosed no conflict of interest.*

**Baumer, Timothy G** ..... *Disclosed no conflict of interest.*

**Baunin, Christiane** ..... *Disclosed no conflict of interest.*

**Baxter, Jill N** ..... 2: Exponent; 3B: Exponent.

**Baxter, Josh** ..... *Disclosed no conflict of interest.*

**Baxter, Josh R** ..... *Disclosed no conflict of interest.*

**Bayers-Thering, Mary** ..... *Disclosed no conflict of interest.*

**Bay-Jensen, Anne C** ..... 5: Neo-epitope ELISA for aggrecan fragments is performed by Nordic Bioscience.

**Baykal, Doruk** ..... 3B: Exponent Inc,

**Baylon, Eva G** ..... *Disclosed no conflict of interest.*

**Baynard, Taurean** ..... *Disclosed no conflict of interest.*

**Bayne, Christopher O** ..... *Disclosed no conflict of interest.*

**Bayston, Roger** ..... *Disclosed no conflict of interest.*

**Beach, Zakary M** ..... *Disclosed no conflict of interest.*

**Beal, Matthew D** ..... 1: Medacta, Int'l; 3B: Medacta, Int'l, Zimmer/Biomet.

**Beane, Olivia** ..... 3A: EpiBone; 4: EpiBone.

**Beaulé, Paul E** ..... 1: CORIN, Microport Orthopaedics; 3B: CORIN, MatORTHO, Medacta, Microport Orthopaedics, Zimmer Biomet; 5: Depuy-Synthes, CORIN, Microport; 7: Lippincott Williams & Wilkins.

**Bechtold, Joan E** ..... 3C: Focusstart; 4: United Healthcare, GE, Twin Star; 5: Medtronic, SI Bone, SI Bone, Nuvasive.

**Bechtold, Victoria** ..... *Disclosed no conflict of interest.*

**Beck, Christina M** ..... *Disclosed no conflict of interest.*

**Beck, Frank M** ..... *Disclosed no conflict of interest.*

**Beck, Gina** ..... *Disclosed no conflict of interest.*

**Beckerman, Daniel** ..... *Disclosed no conflict of interest.*

**Bedard, Marc** ..... 3A: Bodycad employee.

**Bedard, Nicholas A** ..... *Disclosed no conflict of interest.*

**Bedi, Asheesh** ..... *Disclosed no conflict of interest.*

**Beeck, Aylin**..... *Disclosed no conflict of interest.*

**Beedall, Duncan** ..... 3A: Depuy Synthes.

**Beenken, Karen** ..... *Disclosed no conflict of interest.*

**Beetz, Jack** ..... *Disclosed no conflict of interest.*

**Befus, A Dean**..... *Disclosed no conflict of interest.*

**Begon, Mickael**..... *Disclosed no conflict of interest.*

**Begum, Saima** ..... *Disclosed no conflict of interest.*

**Behn, Anthony** ..... *Disclosed no conflict of interest.*

**Behn, Anthony W** ..... *Disclosed no conflict of interest.*

**Behnam, Yashar**..... *Disclosed no conflict of interest.*

**Behnke, Analicia L** ..... *Disclosed no conflict of interest.*

**Behre, Annie** ..... *Disclosed no conflict of interest.*

**Behrend, Caleb**..... *Disclosed no conflict of interest.*

**Belfrage, Ola**..... *Disclosed no conflict of interest.*

**Belinski, Alex V** ..... 3A: Apex Biomedical; 4: Intuitive Surgical.

**Bell, John C.** ..... *Disclosed no conflict of interest.*

**Bell, John-Erik**..... *Disclosed no conflict of interest.*

**Bell, Kevin M**..... *Disclosed no conflict of interest.*

**Bell, Rebecca**..... *Disclosed no conflict of interest.*

**Bell, Richard** ..... *Disclosed no conflict of interest.*

**Bell, Richard D** ..... *Disclosed no conflict of interest.*

**Bellare, Anuj** ..... *Disclosed no conflict of interest.*

**Beltejar, Michael-John G** ..... *Disclosed no conflict of interest.*

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**Ben-David, Shiran** ..... *Disclosed no conflict of interest.*

**Bender, Mark** ..... 3A: Exactech, Inc.

**Bendigo, Justin** ..... *Disclosed no conflict of interest.*

**Bendigo, Justin R**..... *Disclosed no conflict of interest.*

**Benjamin, Fleischer-Lück**..... *Disclosed no conflict of interest.*

**Benneker, Lorin M**..... *Disclosed no conflict of interest.*

**Bensusan, Jay**..... *Disclosed no conflict of interest.*

**Bentley, Karen L. de Mesy**..... 1: Silicon nitride implants that we used in this study.

**Benton, Garrison**..... *Disclosed no conflict of interest.*

**Benvenuti, Michael**..... *Disclosed no conflict of interest.*

**Benvenuti, Michael A**..... *Disclosed no conflict of interest.*

**Berebichez-Fridman, Roberto**..... *Disclosed no conflict of interest.*

**Berenblum, Ramy E**..... *Disclosed no conflict of interest.*

**Beretta Piccoli, Agnese**..... *Disclosed no conflict of interest.*

**Beretvas, Benjamin M**..... *Disclosed no conflict of interest.*

**Berger, Michael B**..... *Disclosed no conflict of interest.*

**Bergeron, Anabel**..... *Disclosed no conflict of interest.*

**Bergum, Christopher**..... *Disclosed no conflict of interest.*

**Berkoff, David J**..... *Disclosed no conflict of interest.*

**Berkowitz, Mark**..... *Disclosed no conflict of interest.*

**Berkson, Eric M**..... *Disclosed no conflict of interest.*

**Berman, Alycia G**..... *Disclosed no conflict of interest.*

**Bernstein, Jenna**..... *Disclosed no conflict of interest.*

**Bernstein, Joseph**..... 7: CORR.

**Bernthal, Nicholas**..... 3B: Onkos Surgical Inc,

**Berretta, Silvia**..... *Disclosed no conflict of interest.*

**Berry, Daniel J**..... 1: DePuy Synthes; 3B: Bodycad, DePuy Synthes; 7: Elsevier, Wolters Kluwer - LWW.

**Bertram, Herbert M**..... 3B: Exactech Inc.

**Berwick, Benjamin W**..... *Disclosed no conflict of interest.*

**Beshara, Peter**..... *Disclosed no conflict of interest.*

**Beski, Danielle**..... 3A: Materialise NV.

**Best, Katherine**..... *Disclosed no conflict of interest.*

**Best, Thomas**..... *Disclosed no conflict of interest.*

**Betsch, Marcel**..... *Disclosed no conflict of interest.*

**Beveridge, Jillian E.**..... *Disclosed no conflict of interest.*

**Bevill, Grant**..... *Disclosed no conflict of interest.*

**Bey, Michael J** ..... *Disclosed no conflict of interest.*

**Bezci, Semih E** ..... *Disclosed no conflict of interest.*

**Bhaattacharya, Rajarshi** ..... *Disclosed no conflict of interest.*

**Bhaduri, Sarit** ..... 4: OsteoNovus Inc.

**Bhargava, Tarun**..... 1: DJA Surgical, Innomed; 2: Malinkrodt Pharmaceuticals; 3B: DJO Surgical; 4: OrthAlign, New Era Orthopaedics.

**Bhashyam, Abhiram** ..... *Disclosed no conflict of interest.*

**Bhatt, Shashank**..... *Disclosed no conflict of interest.*

**Bhattacharya, Rajarshi** ..... *Disclosed no conflict of interest.*

**Bhattacharyya, Samir** ..... 3A: DePuy Synthes Mitek Sports Medicine.

**Bhattacharyya, Surjya** ..... *Disclosed no conflict of interest.*

**Bhatti, Fazal Ur Rehman**..... *Disclosed no conflict of interest.*

**Bhave, Anil** ..... 1: Guardian Inc; 3B: Cymedica, DJ Orthopaedics, On Going Care.

**Bhimani, Rehaan** ..... *Disclosed no conflict of interest.*

**Bhimani, Rohat B.**..... *Disclosed no conflict of interest.*

**Bhimani, Samrath**..... *Disclosed no conflict of interest.*

**Bhimani, Samrath J**..... *Disclosed no conflict of interest.*

**Bhumiratana, Sarindr**..... 3A: EpiBone; 4: EpiBone.

**Bhutani, Nidhi**..... *Disclosed no conflict of interest.*

**Bi, Xiaohong** ..... *Disclosed no conflict of interest.*

**Bian, Liming** ..... *Disclosed no conflict of interest.*

**Bible, Jesse** ..... *Disclosed no conflict of interest.*

**Bicknell, Ryan** ..... *Disclosed no conflict of interest.*

**Biggs, Paul R**..... *Disclosed no conflict of interest.*

**Bijukumar, Divya R** ..... *Disclosed no conflict of interest.*

**Bijukumar, Divyarani** ..... *Disclosed no conflict of interest.*

**Bilek, Laura**..... 5: TheraNova LLC.

**Bilgen, Bahar** ..... *Disclosed no conflict of interest.*

**Billow, Damien** ..... *Disclosed no conflict of interest.*

**Billy, Gregory** ..... *Disclosed no conflict of interest.*

**Binette, Francois**..... 3A: BioTime Inc.

**Bini, Stefano** ..... *Disclosed no conflict of interest.*

**Bini, Stephano** ..... *Disclosed no conflict of interest.*

**Birk, David E.** ..... *Disclosed no conflict of interest.*

**Birmingham, Trevor** ..... *Disclosed no conflict of interest.*

**Bischoff, Jeff** ..... 3A: Zimmer Biomet; 4: Zimmer Biomet.

**Bishop, Aaron R.** ..... 6: Theravance Biopharma.

**Bisson, Daniel G.** ..... *Disclosed no conflict of interest.*

**Bitter, Thom** ..... *Disclosed no conflict of interest.*

**Black, Marianne** ..... *Disclosed no conflict of interest.*

**Black, Marianne S** ..... *Disclosed no conflict of interest.*

**Blackmer, Michael B** ..... *Disclosed no conflict of interest.*

**Blackwell, Ryan** ..... *Disclosed no conflict of interest.*

**Blahut, Eric** ..... 3A: Histogenics; 4: Histogenics.

**Blain, Alasdair** ..... *Disclosed no conflict of interest.*

**Blain, Emma J** ..... *Disclosed no conflict of interest.*

**Blaine, Lucien N** ..... *Disclosed no conflict of interest.*

**Blaine, Theodore A** ..... 2: Tornier, Zimmer Biomet; 3B: Tornier, Zimmer Biomet; 4: Catalyst Orthoscience.

**Bland, Daniel C** ..... *Disclosed no conflict of interest.*

**Blaney Davidson, Esmeralda N** ... *Disclosed no conflict of interest.*

**Blank, Kenneth R.** ..... *Disclosed no conflict of interest.*

**Blevins, Elisabeth** ..... *Disclosed no conflict of interest.*

**Bleys, Ronald L** ..... *Disclosed no conflict of interest.*

**Bloebaum, Roy** ..... *Disclosed no conflict of interest.*

**Blom, Arjen B** ..... *Disclosed no conflict of interest.*

**Blom, Ashley** ..... *Disclosed no conflict of interest.*

**Bloom, Ona** ..... *Disclosed no conflict of interest.*

**Bloomfield, Riley** ..... *Disclosed no conflict of interest.*

**Blum, Deke** ..... *Disclosed no conflict of interest.*

**Blum, Deke M** ..... *Disclosed no conflict of interest.*

**Blum, Michelle M** ..... *Disclosed no conflict of interest.*

**Blumenthal, Daniel** ..... *Disclosed no conflict of interest.*

**Blüml, Stephan**..... *Disclosed no conflict of interest.*

**Blumstein, Gideon W**..... *Disclosed no conflict of interest.*

**Blunn, Gordon**..... 4: Accentus Medical; 5: Adler Otho, Lima, Smith and Nephew.

**Board, Tim**..... 2: DePuy Synthes; 3B: DePuy Synthes; 5: DePuy Synthes; 7: Springer.

**Board, Tim N**..... *Disclosed no conflict of interest.*

**Bobman, Jacob**..... *Disclosed no conflict of interest.*

**Boccaccini, Aldo R**..... *Disclosed no conflict of interest.*

**Bock, Ryan M**..... 3A: Amedica Corporation; 4: Amedica Corporation.

**Bodkin, Stephan G**..... *Disclosed no conflict of interest.*

**Bodnyk, Kyle A**..... *Disclosed no conflict of interest.*

**Bodt, Barry A**..... *Disclosed no conflict of interest.*

**Boehm, Cynthia**..... *Disclosed no conflict of interest.*

**Boel, Edwin**..... *Disclosed no conflict of interest.*

**Boelen, Erik**..... 3A: Xilloc Medical.

**Boerckel, Joel D**..... *Disclosed no conflict of interest.*

**Boeyer, Melanie E**..... *Disclosed no conflict of interest.*

**Bogdanowicz, Danielle R**..... *Disclosed no conflict of interest.*

**Bogner, Eric**..... *Disclosed no conflict of interest.*

**Boguszewski, Daniel V**..... 5: MTF.

**Bohay, Donald R**..... 3B: Paid consultant of Zimmer Biomet.

**Bohl, Daniel D**..... *Disclosed no conflict of interest.*

**Bohm, Eric R**..... *Disclosed no conflict of interest.*

**Böhm, Teresa**..... *Disclosed no conflict of interest.*

**Boiwka, Alexander**..... *Disclosed no conflict of interest.*

**Bokhari, Rakan Bokhari**..... *Disclosed no conflict of interest.*

**Boles, Logan R**..... 3A: Microport Orthopedics.

**Bolognesi, Michael**..... 3B: TJO.

**Bolt, Alicia**..... *Disclosed no conflict of interest.*

**Bolte, Julia**..... *Disclosed no conflict of interest.*

**Bolzinger, Manon**..... *Disclosed no conflict of interest.*

**Bomar, James D**..... *Disclosed no conflict of interest.*

**Bombosch, Sascha**..... 3A: Stryker Orthopaedics.

**Bömer, Nils** ..... *Disclosed no conflict of interest.*

**Bonassar, Lawrence** ..... 3B: Fidia Pharmaceuticals, Histogenics, Inc., and 3DBio Corp.; 5: Fidia Pharma Group, Histogenics; 6: AbbVie Inc.

**Bonnet, Cleo S** ..... *Disclosed no conflict of interest.*

**Bonnevie, Edward D** ..... *Disclosed no conflict of interest.*

**Bonnheim, Noah B.**..... *Disclosed no conflict of interest.*

**Bonthius, Daniel**..... *Disclosed no conflict of interest.*

**Bonutti, Peter M.**..... 3B: Joint Active Systems, Inc., Stryker.

**Boorman-Padgett, James F**..... *Disclosed no conflict of interest.*

**Bordeianu, Catalina** ..... *Disclosed no conflict of interest.*

**Borem, Ryan A** ..... *Disclosed no conflict of interest.*

**Borgelt, Allie** ..... *Disclosed no conflict of interest.*

**Borgese, Marissa** ..... *Disclosed no conflict of interest.*

**Born, Christopher** ..... 3B: Stryker Trauma; 3C: Biointraface, Inc,

**Born, Christopher T.** ..... 3B: Stryker Trauma; 3C: BioIntraface, Inc.

**Borotikiar, Bhushan**..... *Disclosed no conflict of interest.*

**Borrelli, Chiara** ..... *Disclosed no conflict of interest.*

**Borrelli, James** ..... *Disclosed no conflict of interest.*

**Borschneck, Dan**..... *Disclosed no conflict of interest.*

**Bortner, Benjamin A** ..... *Disclosed no conflict of interest.*

**Boruah, Sourabh** ..... *Disclosed no conflict of interest.*

**Bosch, Johan** ..... *Disclosed no conflict of interest.*

**Boschetto, Francesco**..... *Disclosed no conflict of interest.*

**Bostrom, Mathias PG**..... 3B: Smith & Nephew, 3C: Smith & Nephew, Inc.

**Botchwey, Edward A.**..... *Disclosed no conflict of interest.*

**Bothell, Corban** ..... *Disclosed no conflict of interest.*

**Bottlang, Michael** ..... *Disclosed no conflict of interest.*

**Bou-Akl, Therese**..... *Disclosed no conflict of interest.*

**Boughton, Oliver R** ..... *Disclosed no conflict of interest.*

**Bougioukli, Sofia**..... *Disclosed no conflict of interest.*

**Boulangé, Claire**..... 3A: Funded by Metabometrix LTD.



**Boutin, Robert D**..... *Disclosed no conflict of interest.*

**Bouxsein, Mary L** ..... *Disclosed no conflict of interest.*

**Bova, Wes**..... *Disclosed no conflict of interest.*

**Bovée, Judith V.**..... *Disclosed no conflict of interest.*

**Bowden, Anton E** ..... *Disclosed no conflict of interest.*

**Bowles, Robby D**..... *Disclosed no conflict of interest.*

**Bowles, Robert**..... *Disclosed no conflict of interest.*

**Bowman, Mackenzie** ..... *Disclosed no conflict of interest.*

**Boyan, Barbara D**..... 2: Titan Spine LLC; 3B: Spineology Inc, Johnson & Johnson Orthopaedics, Titan Spine LLC; 3C: Musculoskeletal Transplant Foundation, Exactech Inc.; 4: Cartiva Inc, Carticept Medical Corp, Spheringenics Inc; 5: AB Dental, Institut Straumann AG, Titan Spine LLC, Spineology; 6: Musculoskeletal Transplant Foundation.

**Boyd, Julia**..... *Disclosed no conflict of interest.*

**Boyle, John**..... *Disclosed no conflict of interest.*

**Boys, Alexander J**..... *Disclosed no conflict of interest.*

**Bozic, Kevin**..... 3B: Centers for Medicare and Medicaid Services, Harvard Business School, Yale-New Haven Center for Outcomes Research.

**Bozynski, Chantelle C**..... *Disclosed no conflict of interest.*

**Bracey, Daniel N**..... *Disclosed no conflict of interest.*

**Bradford, James R** ..... *Disclosed no conflict of interest.*

**Bradley, Elizabeth W.**..... *Disclosed no conflict of interest.*

**Bradshaw, Stanley** ..... *Disclosed no conflict of interest.*

**Bragdon, Beth** ..... *Disclosed no conflict of interest.*

**Brage, Michael E** ..... *Disclosed no conflict of interest.*

**Bramlet, Dale** ..... *Disclosed no conflict of interest.*

**Bramlett, Helen M.**..... *Disclosed no conflict of interest.*

**Braoudaki, Maria** ..... *Disclosed no conflict of interest.*

**Bras, Guillaume**..... 3A: Blue-Ortho.

**Braun, Benedikt J**..... 3C: Unpaid Advisor Motion GmbH.

**Brazell, Christopher** ..... *Disclosed no conflict of interest.*

**Brazier, Brett G**..... *Disclosed no conflict of interest.*

**Brazina, Sloane** ..... *Disclosed no conflict of interest.*

**Breen, Matthew** ..... *Disclosed no conflict of interest.*

**Breighner, Ryan** ..... *Disclosed no conflict of interest.*

**Breisch, Marina** ..... *Disclosed no conflict of interest.*

**Brennan, Conor** ..... *Disclosed no conflict of interest.*

**Bresina, Stephen** ..... 3A: Kyon AG.

**Bretschneider, Henriette** ..... *Disclosed no conflict of interest.*

**Brial, Caroline** ..... *Disclosed no conflict of interest.*

**Briant-Evans, Toby** ..... 6: Zimmer-Biomet.

**Bridgeman, Jay T** ..... *Disclosed no conflict of interest.*

**Bridgewater, Laura C** ..... *Disclosed no conflict of interest.*

**Brier, Livia W** ..... 3A: Valitor, Inc.; 4: Valitor, Inc,

**Brigande, John V** ..... *Disclosed no conflict of interest.*

**Brigati, David** ..... *Disclosed no conflict of interest.*

**Brigman, Brian** ..... *Disclosed no conflict of interest.*

**Brismar, Harald** ..... *Disclosed no conflict of interest.*

**Brito, Ilana L** ..... *Disclosed no conflict of interest.*

**Brito, Jose** ..... *Disclosed no conflict of interest.*

**Britt, Michael** ..... *Disclosed no conflict of interest.*

**Broden, Cyrus** ..... *Disclosed no conflict of interest.*

**Broderick, Kristen** ..... *Disclosed no conflict of interest.*

**Brolinson, P. Gunnar** ..... *Disclosed no conflict of interest.*

**Brooks, Corbin** ..... *Disclosed no conflict of interest.*

**Brooks, Kenneth** ..... *Disclosed no conflict of interest.*

**Broomfield, Cecily** ..... *Disclosed no conflict of interest.*

**Brophy, Robert H** ..... *Disclosed no conflict of interest.*

**Brown, Brandon T** ..... *Disclosed no conflict of interest.*

**Brown, Edward** ..... *Disclosed no conflict of interest.*

**Brown, Isabelle D** ..... *Disclosed no conflict of interest.*

**Brown, Mark** ..... *Disclosed no conflict of interest.*

**Brown, Stephen** ..... *Disclosed no conflict of interest.*

**Brown, Timothy S** ..... *Disclosed no conflict of interest.*

**Brownhill, James R** ..... 3A: DePuy Synthes.

**Bruder, Scott** ..... 3A: AgNovos Healthcare.

**Bruder, Scott P** ..... 3B: Lipogems; 4: Lipogems.

**Brunger, Jonathan M** ..... *Disclosed no conflict of interest.*

**Brunt, Athena R** ..... *Disclosed no conflict of interest.*

**Bruyas, Arnaud** ..... *Disclosed no conflict of interest.*

**Bryant, Donald M** ..... *Disclosed no conflict of interest.*

**Bryant, Sevara** ..... *Disclosed no conflict of interest.*

**Brzezinski, Andrzej** ..... *Disclosed no conflict of interest.*

**Buchanan, Thomas S** ..... *Disclosed no conflict of interest.*

**Buchler, Lucas T** ..... *Disclosed no conflict of interest.*

**Buchowski, Jacob M** ..... *Disclosed no conflict of interest.*

**Buckley, Conor T** ..... 5: Integra Life Sciences.

**Buckley, Mark R** ..... *Disclosed no conflict of interest.*

**Buckner, Brandt C** ..... *Disclosed no conflict of interest.*

**Budge, Kevin** ..... *Disclosed no conflict of interest.*

**Buell, Sezen** ..... 3A: Stryker; 4: Stryker.

**Buettmann, Evan** ..... *Disclosed no conflict of interest.*

**Bulinski, J. Chloe** ..... *Disclosed no conflict of interest.*

**Bulinski, Jeanette Chloe** ..... *Disclosed no conflict of interest.*

**Bullemer, Martin** ..... 3A: EOS GmbH.

**Buller, Dustin** ..... *Disclosed no conflict of interest.*

**Buller, Leonard** ..... *Disclosed no conflict of interest.*

**Bumgardner, Joel D** ..... *Disclosed no conflict of interest.*

**Bunnell, Bruce A** ..... *Disclosed no conflict of interest.*

**Bunting, Alexandra** ..... *Disclosed no conflict of interest.*

**Bunting, Alexandra Catherine** ..... *Disclosed no conflict of interest.*

**Burch, Shane** ..... *Disclosed no conflict of interest.*

**Burdick, Jason A** ..... *Disclosed no conflict of interest.*

**Burdin-Fracasso, Valerie** ..... *Disclosed no conflict of interest.*

**Burge, Alissa J** ..... *Disclosed no conflict of interest.*

**Burger-Van der Walt, Evalina** ..... 2: Globus; 3B: Globus; 5: Globus.

**Burgess, Donya**..... *Disclosed no conflict of interest.*

**Burke, Helen** ..... *Disclosed no conflict of interest.*

**Burke, Zachary D.C.**..... *Disclosed no conflict of interest.*

**Burnell, Simon**..... *Disclosed no conflict of interest.*

**Burnett, Daniel** ..... 3A: TheraNova LLC; 4: TheraNova LLC.

**Burnett, Robert**..... *Disclosed no conflict of interest.*

**Burnim, Kayla**..... *Disclosed no conflict of interest.*

**Burris, David L** ..... *Disclosed no conflict of interest.*

**Burton, Alex**..... *Disclosed no conflict of interest.*

**Burton, Denver A.**..... *Disclosed no conflict of interest.*

**Burton, Douglas** ..... 1: DePuy Spine; 3B: Consultant; 5: Research Support.

**Burton, William S** ..... *Disclosed no conflict of interest.*

**Bush, Christopher J**..... *Disclosed no conflict of interest.*

**Busse, Patricia** ..... *Disclosed no conflict of interest.*

**Butler, Rebecca D.** ..... *Disclosed no conflict of interest.*

**Butler, Reed**..... *Disclosed no conflict of interest.*

**Butterwick, Derek**..... *Disclosed no conflict of interest.*

**Bylski-Austrow, Donita I**..... 3C: SpineForm, LLC; 6: SpineForm, LLC.

**C, James L** ..... 1: Arthrex, Musculoskeletal Transplant Foundation; 2: Arthrex, CONMED Linvatec; 3B: Arthrex, CONMED Linvatec, Eli Lilly, Schwartz Biomedical; 5: Arthrex, Coulter Foundation, DePuy, A Johnson & Johnson Company, Musculoskeletal Transplant Foundation, National Institutes of Health (NIAMS & NICHD), u, Zimmer; 6: , Musculoskeletal Transplant Foundation; 7: , Thieme.

**Cabahug-Zuckerman, Pamela**..... *Disclosed no conflict of interest.*

**Cadossi, Ruggero** ..... 3A: Igea Clinical Biophysics.

**Cady, Nathaniel C.**..... *Disclosed no conflict of interest.*

**Cagle, Paul J**..... *Disclosed no conflict of interest.*

**Cahill-Rowley, Katelyn**..... *Disclosed no conflict of interest.*

**Cai, Charlie C**..... *Disclosed no conflict of interest.*

**Cai, Lei** ..... *Disclosed no conflict of interest.*

**Cai, Luyao**..... *Disclosed no conflict of interest.*

**Cai, Xiran** ..... *Disclosed no conflict of interest.*

**Caicedo, Marco** ..... 3A: Orthopedic Analysis LLC.

**Cain, Christopher** ..... 2: Globus; 3B: Globus; 5: Globus.

**Cain, Jarrett D.** ..... 2: BESPAs; 3B: BESPAs, Wright Medical Technology; 5: American College of Foot and Ankle Surgeons Research Grant, Penn State Orthopaedic Research Initiation Grant.

**Caird, Michelle** ..... *Disclosed no conflict of interest.*

**Caird, Michelle S** ..... *Disclosed no conflict of interest.*

**Calio, Brian** ..... *Disclosed no conflict of interest.*

**Callaghan, John J** ..... 1: Depuy, a Johnson & Johnson Company; 3B: Depuy, a Johnson & Johnson Company, Wolters Kluwer; 7: Wolters Kluwer Health, Journal of Arthroplasty.

**Callisti, Mauro** ..... *Disclosed no conflict of interest.*

**Camacho Morales, Alberto** ..... *Disclosed no conflict of interest.*

**Camera, Andrea** ..... *Disclosed no conflict of interest.*

**Camilleri, Emily T** ..... *Disclosed no conflict of interest.*

**Camp, Christopher L** ..... *Disclosed no conflict of interest.*

**Camp, Terese** ..... *Disclosed no conflict of interest.*

**Campau, Erica** ..... 3A: Intrexon; 4: Intrexon.

**Campbell, Bradley C** ..... *Disclosed no conflict of interest.*

**Campbell, Madeline** ..... *Disclosed no conflict of interest.*

**Campbell, Patricia A** ..... 3B: DePuy, WMT, Moximed, Zimmer-Biomet; 5: DePuy, Nuvasive, Spinal Kinetics; 7: Elsevier.

**Campbell, Phil** ..... *Disclosed no conflict of interest.*

**Cancienne, Jourdan M** ..... *Disclosed no conflict of interest.*

**Canham, Robert** ..... *Disclosed no conflict of interest.*

**Cann, Philippa** ..... *Disclosed no conflict of interest.*

**Cannata, Francesca** ..... *Disclosed no conflict of interest.*

**Cannizzaro, John P** ..... *Disclosed no conflict of interest.*

**Canseco, Karl** ..... *Disclosed no conflict of interest.*

**Canton, Stephen** ..... *Disclosed no conflict of interest.*

**Cao, Chike** ..... *Disclosed no conflict of interest.*

**Cao, Huijuan** ..... *Disclosed no conflict of interest.*

**Cao, Jiaxue** ..... *Disclosed no conflict of interest.*

**Cao, Xuan** ..... *Disclosed no conflict of interest.*

**Capella-Monsonís, Héctor** ..... *Disclosed no conflict of interest.*

**Capellini, Terence D**..... *Disclosed no conflict of interest.*

**Capin, Jacob**..... *Disclosed no conflict of interest.*

**Capogna, Elizabeth A** ..... *Disclosed no conflict of interest.*

**Caprara, Sebastiano** ..... *Disclosed no conflict of interest.*

**Carballido-Gamio, Julio**..... *Disclosed no conflict of interest.*

**Carballo, Camila B.** ..... *Disclosed no conflict of interest.*

**Cardona-Ramirez, Sebastian** ..... *Disclosed no conflict of interest.*

**Cardoso, Luis** ..... *Disclosed no conflict of interest.*

**Carey, James** ..... *Disclosed no conflict of interest.*

**Carey, James L**..... *Disclosed no conflict of interest.*

**Carey, John** ..... *Disclosed no conflict of interest.*

**Carl, Michael**..... 3A: GE Healthcare.

**Carli, Alberto** ..... *Disclosed no conflict of interest.*

**Carli, Alberto V** ..... *Disclosed no conflict of interest.*

**CarlLee, Tyler L** ..... *Disclosed no conflict of interest.*

**Carlson, Alyssa** ..... *Disclosed no conflict of interest.*

**Carlson, Cathy S** ..... 3B: Zoetis; 3C: Pfizer.

**Carlson, Daniel A** ..... *Disclosed no conflict of interest.*

**Carlson, Deborah** ..... *Disclosed no conflict of interest.*

**Carlson, Elijah L**..... *Disclosed no conflict of interest.*

**Carlson, Jaclyn A**..... *Disclosed no conflict of interest.*

**Carlson, Jon** ..... *Disclosed no conflict of interest.*

**Carlson, Kyrsten** ..... *Disclosed no conflict of interest.*

**Carney, Dwayne** ..... *Disclosed no conflict of interest.*

**Carpenetti, Ryan**..... *Disclosed no conflict of interest.*

**Carpenter, Dana** ..... 3B: Vertera Spine; 5: Vertera Spine.

**Carpenter, James**..... *Disclosed no conflict of interest.*

**Carpenter, R. Dana**..... *Disclosed no conflict of interest.*

**Carre, Antoine** ..... *Disclosed no conflict of interest.*

**Carrera, Guillermo H**..... *Disclosed no conflict of interest.*

**Carrier, Joseph S** ..... *Disclosed no conflict of interest.*

**Carrington, Nathan**..... *Disclosed no conflict of interest.*

**Carroll, Chad C**..... *Disclosed no conflict of interest.*

**Carroll, Kaitlin M**..... *Disclosed no conflict of interest.*

**Carry, Patrick M**..... *Disclosed no conflict of interest.*

**Carsen, Sasha** ..... *Disclosed no conflict of interest.*

**Carter, Andrew J** ..... 3A: Theracell.

**Carter, Erin** ..... *Disclosed no conflict of interest.*

**Casey, Ellen**..... *Disclosed no conflict of interest.*

**Cash, Hannah** ..... *Disclosed no conflict of interest.*

**Casler, Victor**..... *Disclosed no conflict of interest.*

**Cassady, Allan I** ..... *Disclosed no conflict of interest.*

**Cassimatis, Caitlyn** ..... *Disclosed no conflict of interest.*

**Cassimatis, Caitlyn M** ..... *Disclosed no conflict of interest.*

**Cassinelli, Spenser** ..... *Disclosed no conflict of interest.*

**Castagna, Alessandro** ..... 2: Sigma Tau pharmaceuticals; 3B: Lima, Conmed; 3C: NcS Lab; 4: Genextra.

**Castaneda, Pablo**..... *Disclosed no conflict of interest.*

**Castaneda, Paulo**..... *Disclosed no conflict of interest.*

**Castano, Irene Mencia** ..... *Disclosed no conflict of interest.*

**Castile, Ryan** ..... *Disclosed no conflict of interest.*

**Castile, Ryan M.** ..... *Disclosed no conflict of interest.*

**Castilho, Miguel**..... *Disclosed no conflict of interest.*

**Castillejo Becerra, Clara M.**..... *Disclosed no conflict of interest.*

**Castillo, Alesha** ..... *Disclosed no conflict of interest.*

**Castillo, Tiffany** ..... *Disclosed no conflict of interest.*

**Castro, Alberto** ..... *Disclosed no conflict of interest.*

**Castro, Carlos E** ..... *Disclosed no conflict of interest.*

**Castrogiovanni, Paola** ..... *Disclosed no conflict of interest.*

**Catani, Fabio** ..... 2: Smith & Nephew, Stryker; 3B: Adler, Exactech, Lima, Smith & Nephew, Stryker; 5: Lima, Smith & Nephew, Stryker; 6: Adler, Exactech, Lima, Smith & Nephew, Stryker.

**Catelli, Danilo S**..... *Disclosed no conflict of interest.*

**Cattaneo, Gabriele** ..... *Disclosed no conflict of interest.*

**Cauble, Meagan**..... *Disclosed no conflict of interest.*

**Cavaignac, Etienne** ..... *Disclosed no conflict of interest.*

**Cavallaro, Salvatore M** ..... *Disclosed no conflict of interest.*

**Cavanagh, Brenton** ..... *Disclosed no conflict of interest.*

**Celik, Haydar** ..... *Disclosed no conflict of interest.*

**Cerquiglini, Arianna** ..... *Disclosed no conflict of interest.*

**Cetrulo, Curtis L** ..... *Disclosed no conflict of interest.*

**Cha, Thomas D** ..... *Disclosed no conflict of interest.*

**Chaboureau, Amelie** ..... *Disclosed no conflict of interest.*

**Chahal, Jaskarndip** ..... *Disclosed no conflict of interest.*

**Chahine, Nadeen** ..... *Disclosed no conflict of interest.*

**Chahine, Nadeen O** ..... *Disclosed no conflict of interest.*

**Chakkalaka, Joe** ..... *Disclosed no conflict of interest.*

**Chakkalaka, Joe V** ..... *Disclosed no conflict of interest.*

**Chalivendra, Vijaya** ..... *Disclosed no conflict of interest.*

**Chalmers, Peter N** ..... *Disclosed no conflict of interest.*

**Chamberlain, Aaron** ..... *Disclosed no conflict of interest.*

**Chamberlain, Aaron M** ..... *Disclosed no conflict of interest.*

**Chamberlain, Connie S** ..... *Disclosed no conflict of interest.*

**Chambers, Stephen** ..... *Disclosed no conflict of interest.*

**Chan, Calvin** ..... *Disclosed no conflict of interest.*

**Chan, Calvin A** ..... *Disclosed no conflict of interest.*

**Chan, Calvin K** ..... *Disclosed no conflict of interest.*

**Chan, Danny** ..... *Disclosed no conflict of interest.*

**Chan, Ding-Cheng** ..... *Disclosed no conflict of interest.*

**Chan, Hiok Yang** ..... *Disclosed no conflict of interest.*

**Chan, Jennifer** ..... *Disclosed no conflict of interest.*

**Chan, Jimmy J** ..... *Disclosed no conflict of interest.*

**Chan, Justin P** ..... *Disclosed no conflict of interest.*

**Chan, Kai Ming** ..... *Disclosed no conflict of interest.*

**Chan, Kaiming** ..... *Disclosed no conflict of interest.*

**Chan, Kiara M** ..... *Disclosed no conflict of interest.*



**Chan, Virginia**..... *Disclosed no conflict of interest.*

**Chan, Wing.P**..... *Disclosed no conflict of interest.*

**Chandaria, Vikesh V**..... *Disclosed no conflict of interest.*

**Chandra, Abhishek** ..... *Disclosed no conflict of interest.*

**Chandra, Tulika** ..... *Disclosed no conflict of interest.*

**Chandrasekaran, Prashant**..... *Disclosed no conflict of interest.*

**Chandrashekar, Naveen** ..... *Disclosed no conflict of interest.*

**Chang, Angela**..... *Disclosed no conflict of interest.*

**Chang, Chee Cheng Paul** ..... *Disclosed no conflict of interest.*

**Chang, Chih-Hung**..... *Disclosed no conflict of interest.*

**Chang, Chih-Wei** ..... *Disclosed no conflict of interest.*

**Chang, Chun wei**..... *Disclosed no conflict of interest.*

**Chang, Danny**..... 3A: MicroPort Orthopedics Inc.

**Chang, Eric Y**..... *Disclosed no conflict of interest.*

**Chang, James**..... *Disclosed no conflict of interest.*

**Chang, Je-Ken**..... *Disclosed no conflict of interest.*

**Chang, Jiun Chiun** ..... *Disclosed no conflict of interest.*

**Chang, Kevin** ..... *Disclosed no conflict of interest.*

**Chang, Kevin Y**..... *Disclosed no conflict of interest.*

**Chang, Leslie**..... *Disclosed no conflict of interest.*

**Chang, Ling-Hua** ..... *Disclosed no conflict of interest.*

**Chang, Nai-Jen**..... *Disclosed no conflict of interest.*

**Chang, Ru-Yi** ..... *Disclosed no conflict of interest.*

**Chang, Ting-Kuo** ..... *Disclosed no conflict of interest.*

**Chang, Tsung Wei**..... 3A: United Orthopedic Corp.; 4: United Orthopedic Corp.

**Chang, Victor**..... 3B: DePuy/Synthes Spine, Globus Medical.

**Chang, Weipang**..... *Disclosed no conflict of interest.*

**Chao, Pen-hsiu Grace**..... *Disclosed no conflict of interest.*

**Chao, Yuan-Hung** ..... *Disclosed no conflict of interest.*

**Chapman, Ryan M**..... *Disclosed no conflict of interest.*

**Charles, James**..... *Disclosed no conflict of interest.*

**Charlton, Timothy** ..... 3A: Extremity Medical.

**Chase, Kevin** ..... *Disclosed no conflict of interest.*

**Chatterjee, Monideepa**..... *Disclosed no conflict of interest.*

**Chaudhari, Abhijit**..... *Disclosed no conflict of interest.*

**Chaudhari, Abhijit J.** ..... *Disclosed no conflict of interest.*

**Chaudhari, Ajit M.W.** ..... *Disclosed no conflict of interest.*

**Chaudhary, Miriam**..... *Disclosed no conflict of interest.*

**Chavarria, Jason M** ..... 3A: DePuy Synthes.

**Chazono, Masaaki** ..... *Disclosed no conflict of interest.*

**Chazono1, Masaaki**..... *Disclosed no conflict of interest.*

**Che, Yan-Jun** ..... *Disclosed no conflict of interest.*

**Cheah, Kathryn S** ..... *Disclosed no conflict of interest.*

**Cheatham, Seth A** ..... *Disclosed no conflict of interest.*

**Chelly, Marjorie** ..... *Disclosed no conflict of interest.*

**Chen, Albert C** ..... *Disclosed no conflict of interest.*

**Chen, Andrew** ..... *Disclosed no conflict of interest.*

**Chen, Andy** ..... *Disclosed no conflict of interest.*

**Chen, Anmin** ..... *Disclosed no conflict of interest.*

**Chen, An-min**..... *Disclosed no conflict of interest.*

**Chen, Antonia**..... 3B: ACI, Stryker, DJO, Halyard, Pfizer, Convatec, bOne, Stryker; 4: Joint Purification Systems, Sonoran, Graftworx; 5: Irrisept, Smith&Nephew, SterileBits; 7: SLACK publishing.

**Chen, Antonia F.**..... 3B: DJ Orthopaedics, Stryker, ACI, Pfizer; 4: Sonoran, Def Medical Technologies, Joint Purification Systems; 5: 3M, Myoscience, Stryker; 6: Stryker.

**Chen, Austin W.**..... *Disclosed no conflict of interest.*

**Chen, Brian** ..... *Disclosed no conflict of interest.*

**Chen, Brian P** ..... *Disclosed no conflict of interest.*

**Chen, Chia-Hsien** ..... *Disclosed no conflict of interest.*

**Chen, Chider**..... *Disclosed no conflict of interest.*

**Chen, Chien-Hsueh**..... *Disclosed no conflict of interest.*

**Chen, Chih Hwa**..... *Disclosed no conflict of interest.*

**Chen, Chih-Hwa**..... *Disclosed no conflict of interest.*

**Chen, Chih-Yu** ..... *Disclosed no conflict of interest.*

**Chen, Chung-Hwan**..... *Disclosed no conflict of interest.*

**Chen, Chun-Hung**..... 3C: Unpaid consultant for any pharmaceutical, biomaterial or orthopaedic product or device or equipment company, or supplier.

**Chen, Danying**..... *Disclosed no conflict of interest.*

**Chen, Dennis** ..... *Disclosed no conflict of interest.*

**Chen, Donna** ..... *Disclosed no conflict of interest.*

**Chen, Fengyu** ..... *Disclosed no conflict of interest.*

**Chen, Gang** ..... *Disclosed no conflict of interest.*

**Chen, Guofen** ..... *Disclosed no conflict of interest.*

**Chen, Hui-Ting** ..... *Disclosed no conflict of interest.*

**Chen, Jhen-Wei** ..... *Disclosed no conflict of interest.*

**Chen, Jian-Chin**..... *Disclosed no conflict of interest.*

**Chen, Jing**..... *Disclosed no conflict of interest.*

**Chen, Jingming** ..... *Disclosed no conflict of interest.*

**Chen, Jinnhong**..... *Disclosed no conflict of interest.*

**Chen, Jonathan Y**..... *Disclosed no conflict of interest.*

**Chen, Joshua V** ..... *Disclosed no conflict of interest.*

**Chen, Judy**..... *Disclosed no conflict of interest.*

**Chen, Julia**..... *Disclosed no conflict of interest.*

**Chen, Kai** ..... *Disclosed no conflict of interest.*

**Chen, Liang** ..... *Disclosed no conflict of interest.*

**Chen, Liang-Yu**..... *Disclosed no conflict of interest.*

**Chen, Lu**..... *Disclosed no conflict of interest.*

**Chen, Maggie**..... *Disclosed no conflict of interest.*

**Chen, Mengcun** ..... *Disclosed no conflict of interest.*

**Chen, Mo**..... *Disclosed no conflict of interest.*

**Chen, Qian** ..... 4: Nanode Therapeutics, Inc.

**Chen, Ruei-Ming**..... *Disclosed no conflict of interest.*

**Chen, San-Yuan**..... *Disclosed no conflict of interest.*

**Chen, Tony** ..... 4: Agelity Biomechanics.

**Chen, Wanqun**..... *Disclosed no conflict of interest.*

**Chen, weijia** ..... *Disclosed no conflict of interest.*

**Chen, Wen-Chien** ..... *Disclosed no conflict of interest.*

**Chen, Willa**..... *Disclosed no conflict of interest.*

**Chen, Xiang** ..... *Disclosed no conflict of interest.*

**Chen, Xiaomin** ..... *Disclosed no conflict of interest.*

**Chen, Xin** ..... *Disclosed no conflict of interest.*

**Chen, Yi-Hsing** ..... *Disclosed no conflict of interest.*

**Chen, Yu-Chun** ..... *Disclosed no conflict of interest.*

**Chen, Yuehong**..... *Disclosed no conflict of interest.*

**Chen, Yupeng**..... 4: Nanode Therapeutics, Inc.

**Chen, Zhongqiang**..... *Disclosed no conflict of interest.*

**Cheng, Albert** ..... *Disclosed no conflict of interest.*

**Cheng, Chih-Hsiu** ..... *Disclosed no conflict of interest.*

**Cheng, Haizi** ..... *Disclosed no conflict of interest.*

**Cheng, Jack Chun Yiu** ..... *Disclosed no conflict of interest.*

**Cheng, Jai-Hong**..... *Disclosed no conflict of interest.*

**Cheng, Kai-yuan**..... *Disclosed no conflict of interest.*

**Cheng, Kevin** ..... *Disclosed no conflict of interest.*

**Cheng, Liming** ..... *Disclosed no conflict of interest.*

**Cheng, Louis** ..... 4: Bioniks.

**Cheng, Peng** ..... *Disclosed no conflict of interest.*

**Cheng, Wei** ..... *Disclosed no conflict of interest.*

**Cheng, Ya Wen**..... 3A: United Orthopedic Corp.; 4: United Orthopedic Corp,

**CHENG, YENWEN** ..... *Disclosed no conflict of interest.*

**Cheng, Yu-Shiuan** ..... *Disclosed no conflict of interest.*

**Cheng, Zoe** ..... *Disclosed no conflict of interest.*

**Chenu, Chantal**..... *Disclosed no conflict of interest.*

**Chery, Daphney R**..... *Disclosed no conflict of interest.*

**Cheuk, Yau Chuk**..... *Disclosed no conflict of interest.*

**Cheung, Berry** ..... *Disclosed no conflict of interest.*

**Cheung, Emilie**..... *Disclosed no conflict of interest.*

**Cheung, Justin**..... *Disclosed no conflict of interest.*

**Cheung, Kenneth** ..... *Disclosed no conflict of interest.*

**Cheung, Kenneth M C** ..... *Disclosed no conflict of interest.*

**Cheung, Kenneth M.C** ..... *Disclosed no conflict of interest.*

**Cheung, Matthew** ..... *Disclosed no conflict of interest.*

**Cheung, Wing Hoi** ..... *Disclosed no conflict of interest.*

**Cheung, Wing-hoi** ..... *Disclosed no conflict of interest.*

**Cheverud, James M** ..... *Disclosed no conflict of interest.*

**Chiapale, Danilo** ..... *Disclosed no conflict of interest.*

**Chiba, Daisuke** ..... *Disclosed no conflict of interest.*

**Chiba, Yusuke** ..... *Disclosed no conflict of interest.*

**Chien, Andy** ..... *Disclosed no conflict of interest.*

**Chien, Chun** ..... *Disclosed no conflict of interest.*

**Chigusa, Naoki** ..... *Disclosed no conflict of interest.*

**Chih-Hwa, Chen** ..... *Disclosed no conflict of interest.*

**Chijimatsu, Ryota** ..... *Disclosed no conflict of interest.*

**Chikuda, Hirotaka** ..... *Disclosed no conflict of interest.*

**Chim, Yu Ning** ..... *Disclosed no conflict of interest.*

**Chimbe, Masashi** ..... *Disclosed no conflict of interest.*

**Chin, Kaitlyn E** ..... *Disclosed no conflict of interest.*

**Chin, Kingsley** ..... *Disclosed no conflict of interest.*

**Chin, Matthew** ..... *Disclosed no conflict of interest.*

**Chinzei, Nobuaki** ..... *Disclosed no conflict of interest.*

**Chisholm, Jolene** ..... *Disclosed no conflict of interest.*

**Chiu, Chen Y** ..... *Disclosed no conflict of interest.*

**Chiu, Chen-Yuan** ..... *Disclosed no conflict of interest.*

**Chizari, Mahmoud** ..... *Disclosed no conflict of interest.*

**Chlebek, Carolyn** ..... 3C: Hercules Spine, LLC,

**Chmiel, Tomasz** ..... 3A: ADEISS Canada.

**Cho, Hanna** ..... *Disclosed no conflict of interest.*

**Cho, Hongsik** ..... *Disclosed no conflict of interest.*

**Cho, In-A** ..... *Disclosed no conflict of interest.*

**Cho, Minho** ..... *Disclosed no conflict of interest.*

**Choe, Hyomin** ..... *Disclosed no conflict of interest.*

**Choe, Hyonmin** ..... *Disclosed no conflict of interest.*

**Choh, Alex Chaw Tat** ..... *Disclosed no conflict of interest.*

**Choh, Chaw Tat Alex** ..... *Disclosed no conflict of interest.*

**Choi, Chong-Hyuk** ..... *Disclosed no conflict of interest.*

**Choi, Horace** ..... *Disclosed no conflict of interest.*

**Choi, Joshua** ..... *Disclosed no conflict of interest.*

**Choi, Seong Mi** ..... *Disclosed no conflict of interest.*

**Choi, Ugeun** ..... *Disclosed no conflict of interest.*

**Choi, Yoorim** ..... *Disclosed no conflict of interest.*

**Chojookhuu, Narantsog** ..... *Disclosed no conflict of interest.*

**Choma, Theodore J** ..... 4: Gentis, Inc; 5: Stryker.

**Chong, Yang** ..... *Disclosed no conflict of interest.*

**Choong, Peter** ..... 1: Medacta International; 2: Medacta International; 3B: Medacta International; 5: Medacta International; 7: Medacta International.

**Chopra, Rajiv** ..... *Disclosed no conflict of interest.*

**Chorny, Micheal** ..... *Disclosed no conflict of interest.*

**Chosa, Etsuo** ..... *Disclosed no conflict of interest.*

**Chothiakadavil-George, Anju** ..... *Disclosed no conflict of interest.*

**Chotkowski, Gregory** ..... *Disclosed no conflict of interest.*

**Chou, Andrew Chia Chen** ..... *Disclosed no conflict of interest.*

**Chou, Edwin F** ..... *Disclosed no conflict of interest.*

**Chou, Hsiang** ..... *Disclosed no conflict of interest.*

**Chou, Laing Yin** ..... *Disclosed no conflict of interest.*

**Chou, Te-Feng** ..... *Disclosed no conflict of interest.*

**Chou, Wen-Yi** ..... *Disclosed no conflict of interest.*

**Chou, Yu** ..... *Disclosed no conflict of interest.*

**Choung, Yang** ..... *Disclosed no conflict of interest.*

**Chow, Simon Kwoon Ho** ..... *Disclosed no conflict of interest.*

**Chow, Simon Kwoon-Ho** ..... *Disclosed no conflict of interest.*

**Choy, Victoria Man Huen** ..... *Disclosed no conflict of interest.*

**Christiansen, Blaine**..... *Disclosed no conflict of interest.*

**Christiansen, Blaine A**..... *Disclosed no conflict of interest.*

**Christoforetti, John**..... 6: Received materials from Arthrex to perform this project,

**Christophel, Jared**..... *Disclosed no conflict of interest.*

**Christou, Chris** ..... *Disclosed no conflict of interest.*

**Chu, Alice** ..... *Disclosed no conflict of interest.*

**CHU, CHIH-JOU** ..... *Disclosed no conflict of interest.*

**Chu, Constance R**..... 5: GE provided research magnet time and sequence support.

**Chu, Constance R.** ..... *Disclosed no conflict of interest.*

**Chu, I Ming**..... *Disclosed no conflict of interest.*

**Chu, Paul K.**..... *Disclosed no conflict of interest.*

**Chu, Sunny** ..... *Disclosed no conflict of interest.*

**Chuang, Er-Yuan** ..... *Disclosed no conflict of interest.*

**Chuang, Philip J**..... 3A: Stryker; 4: Stryker.

**Chubinskaya, Susan**..... *Disclosed no conflict of interest.*

**Chubinskaya, Susanna**..... 5: PI on grant from Nutech Inc in 2016.

**Chughtai, Morad**..... 3B: DJ Orthopaedics, Sage Products, Stryker.

**Chujo, Yuta** ..... *Disclosed no conflict of interest.*

**chung, seek won** ..... *Disclosed no conflict of interest.*

**Chung, Ung-il** ..... *Disclosed no conflict of interest.*

**Chung, Yeon-ho** ..... *Disclosed no conflict of interest.*

**Chyou, Susan** ..... *Disclosed no conflict of interest.*

**Cil, Akin**..... 3B: Stryker Orthopaedics; 5: Stryker Orthopaedics.

**Ciolko, Alexandra**..... *Disclosed no conflict of interest.*

**Ciraldo, Francesca E**..... *Disclosed no conflict of interest.*

**Cirit, Murat**..... *Disclosed no conflict of interest.*

**Citron, Kate**..... *Disclosed no conflict of interest.*

**Civitelli, Roberto**..... *Disclosed no conflict of interest.*

**Claeys, Gilles**..... *Disclosed no conflict of interest.*

**Clanton, Thomas O** ..... 1: Royalties from Arthrex, Inc. and Stryker, Inc.; 2: Speaking fees from Arthrex, Inc., Stryker, Inc., Small Bone Innovations and Wright Medical Technology; 3B: Consultant for Arthrex, Inc., Stryker, Inc., Small Bone Innovations and Wright Medical Technology; 5: PI affiliated with the Steadman Philippon Research

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**Clapp, Ian** ..... *Disclosed no conflict of interest.*

**Clark, Andrea L** ..... *Disclosed no conflict of interest.*

**Clark, Charles R** ..... 1: DePuy; Johnson & Johnson; 2: DePuy, Johnson & Johnson; 3B: DePuy, Johnson & Johnson, Zimmer.

**Clark, Daniel** ..... *Disclosed no conflict of interest.*

**Clark, Matthew** ..... *Disclosed no conflict of interest.*

**Clark, Rachel A** ..... *Disclosed no conflict of interest.*

**Clary, Chadd W** ..... 5: DepuySynthes, Inc.

**Clary, Steven** ..... *Disclosed no conflict of interest.*

**Clavijo Rincón, Juliana Maria** ..... *Disclosed no conflict of interest.*

**Cleary, May** ..... *Disclosed no conflict of interest.*

**Clements, Anna E.B.** ..... *Disclosed no conflict of interest.*

**Clohisy, John** ..... 3B: Microport Orthopedics, Inc, Zimmer; 5: Zimmer; 7: Wolters Kluwer Health-Lippincott Williams & Wilkins.

**Clough, Ashley M** ..... *Disclosed no conflict of interest.*

**Clouthier, Allison L** ..... *Disclosed no conflict of interest.*

**Clutton, Juliet M** ..... *Disclosed no conflict of interest.*

**Coates, Brandon A** ..... *Disclosed no conflict of interest.*

**Coathup, Melanie** ..... *Disclosed no conflict of interest.*

**Coats-Thomas, Margaret S** ..... *Disclosed no conflict of interest.*

**Cobb, Justin P** ..... 1: Embody Orthopaedics; 4: Embody Orthopaedics.

**Cobelli, Neil J** ..... *Disclosed no conflict of interest.*

**Coburn, James** ..... *Disclosed no conflict of interest.*

**Coca, Olivia** ..... *Disclosed no conflict of interest.*

**Cocciolone, Austin J** ..... *Disclosed no conflict of interest.*

**Cochran, Michael** ..... *Disclosed no conflict of interest.*

**Coelho, Paulo G** ..... *Disclosed no conflict of interest.*

**Coffer, Paul J** ..... *Disclosed no conflict of interest.*

**Cohen, Brian** ..... 1: Arthrex, Inc.; 3B: Arthrex, Inc., Atreon Orthopaedics, Paragen, Inc,

**Cohen, D. Joshua** ..... *Disclosed no conflict of interest.*



**Cohen, Danielle** ..... *Disclosed no conflict of interest.*

**Cohen, Eric** ..... *Disclosed no conflict of interest.*

**Cohen, Itai**..... *Disclosed no conflict of interest.*

**Cohn, Randy** ..... *Disclosed no conflict of interest.*

**Cohn-Yakubovich, Doron** ..... *Disclosed no conflict of interest.*

**Colado Gimeno, Alessia** ..... *Disclosed no conflict of interest.*

**Colbath, Aimee C** ..... *Disclosed no conflict of interest.*

**Cole, Heather** ..... *Disclosed no conflict of interest.*

**Cole, Jacque** ..... *Disclosed no conflict of interest.*

**Cole, Jacqueline H** ..... *Disclosed no conflict of interest.*

**Cole, Jacqueline** ..... *Disclosed no conflict of interest.*

**Cole, Kimberly A** ..... *Disclosed no conflict of interest.*

**Cole, Peter A**..... 4: BoneFoams, Inc.; 5: Stryker Orthopaedic, DePuy Synthes, Zimmer, Acumed.

**Coleman, Cynthia**..... *Disclosed no conflict of interest.*

**Coleman, Cynthia M**..... 3C: Zoan Biomed; 5: Zoan Biomed.

**Coleman, Latasha** ..... 3A: Orthopedic Analysis.

**Coleman, Mitchell**..... *Disclosed no conflict of interest.*

**Collavino, Kristina**..... *Disclosed no conflict of interest.*

**Collins, Amber T**..... *Disclosed no conflict of interest.*

**Collins, Caitlyn J** ..... *Disclosed no conflict of interest.*

**Collins, George** ..... *Disclosed no conflict of interest.*

**Collins, John A**..... *Disclosed no conflict of interest.*

**Collins, Joseph M**..... *Disclosed no conflict of interest.*

**Collins, Kelsey H**..... *Disclosed no conflict of interest.*

**Collins, Sunniva** ..... *Disclosed no conflict of interest.*

**Colman, Mathew**..... *Disclosed no conflict of interest.*

**Compton, Jocelyn**..... *Disclosed no conflict of interest.*

**Concheiro, Angel** ..... *Disclosed no conflict of interest.*

**Condello, Vincenzo**..... *Disclosed no conflict of interest.*

**Cone, Stephanie G** ..... *Disclosed no conflict of interest.*

**Cong, Guang-Ting**..... *Disclosed no conflict of interest.*

**Conley, Caitlin E.-W.** ..... *Disclosed no conflict of interest.*

**Connizzo, Brianne K.** ..... *Disclosed no conflict of interest.*

**Conroy, Patrick** ..... *Disclosed no conflict of interest.*

**Cook, Bryson P.** ..... *Disclosed no conflict of interest.*

**Cook, Cristi R** ..... 1: Arthrex, CONMED Linvatec; 2: Arthrex, CONMED Linvatec, Musculoskeletal Transplant foundation; 3B: Arthrex, CONMED Linvatec; 5: Arthrex, Zimmer.

**Cook, James L.** ..... 1: Arthrex, Musculoskeletal Transplant Foundation; 2: Arthrex, CONMED Linvatec; 3B: Arthrex, CONMED Linvatec, Eli Lilly, Schwartz Biomedical; 5: Arthrex, Coulter Foundation, DePuy, A Johnson & Johnson Company, Musculoskeletal Transplant Foundation, National Institutes of Health (NIAMS & NICHD), U.S. Department of Defense, Zimmer; 6: Musculoskeletal Transplant Foundation; 7: Thieme.

**Cook, Michael J** ..... *Disclosed no conflict of interest.*

**Cook, Richard B** ..... 3B: Zimmer Biomet; 5: Zimmer Biomet.

**Cooke, John** ..... *Disclosed no conflict of interest.*

**Cooper, Benjamin G.** ..... *Disclosed no conflict of interest.*

**Cornaghie, Margaret M** ..... *Disclosed no conflict of interest.*

**Cornwall, Roger** ..... *Disclosed no conflict of interest.*

**Corona, Benjamin T.** ..... *Disclosed no conflict of interest.*

**Corrigan, Michele A** ..... *Disclosed no conflict of interest.*

**Cortes, Daniel H.** ..... *Disclosed no conflict of interest.*

**Cory, Esther** ..... *Disclosed no conflict of interest.*

**Cosgarea, Andrew J.** ..... 7: Elsevier.

**Coskey, Andrew** ..... *Disclosed no conflict of interest.*

**Cosmi, Francesca** ..... 4: M2TEST srl.

**Costa, Meggin** ..... *Disclosed no conflict of interest.*

**Costi, John J** ..... *Disclosed no conflict of interest.*

**Costi, John Jack** ..... *Disclosed no conflict of interest.*

**Cottam, William J** ..... *Disclosed no conflict of interest.*

**Cottrell, Jessica** ..... *Disclosed no conflict of interest.*

**Coughlin, Thomas** ..... *Disclosed no conflict of interest.*

**Court-Brown, Charles** ..... *Disclosed no conflict of interest.*

**Coury, Josephine R** ..... *Disclosed no conflict of interest.*

**Cowman, Mary K.** ..... *Disclosed no conflict of interest.*

**Cox, Michael** ..... *Disclosed no conflict of interest.*

**Cox, Ryan** ..... *Disclosed no conflict of interest.*

**Cracaoanu, Ioan** ..... 3A: 3A: DePuy Synthes Joint Reconstruction.

**Craig, Edward** ..... 1: Zimmer Biomet; 3B: Zimmer Biomet; 7: Wolters-Kluwer.

**Craig, Tina** ..... *Disclosed no conflict of interest.*

**Crainic, Alina M** ..... *Disclosed no conflict of interest.*

**Craiovan, Benjamin**..... *Disclosed no conflict of interest.*

**Crawford, Alvin H.**..... 3C: SpineForm, LLC.

**Crawford, Rebecca J.**..... *Disclosed no conflict of interest.*

**Creecy, Amy** ..... *Disclosed no conflict of interest.*

**Crisco, Joseph J.** ..... *Disclosed no conflict of interest.*

**Crispim, João** ..... *Disclosed no conflict of interest.*

**Crist, Brett D** ..... 2: DePuy, KCI; 3B: KCI, DePuy; 3C: SMV; 4: Amedica, Orthopaedic Implant Company; 5: KCI, Bonesupport; 6: Arthrex.

**Croen, Brett** ..... *Disclosed no conflict of interest.*

**Croley, J. Sawyer** ..... *Disclosed no conflict of interest.*

**Cronin, Michael** ..... 2: MicroPort Orthopedics; 3B: MicroPort Orthopedics.

**Cronstein, Bruce N.**..... *Disclosed no conflict of interest.*

**Crook, Karla**..... *Disclosed no conflict of interest.*

**Cross, Michael B** ..... 1: - Smith & Nephew; 3B: Acelity; Exactech; Intellijoint Surgical, Inc.; LinkBio Corp.

**Crowder, Christian** ..... *Disclosed no conflict of interest.*

**Crozier, Stuart** ..... *Disclosed no conflict of interest.*

**Crues, John V** ..... *Disclosed no conflict of interest.*

**Cruickshank, Nicholas**..... *Disclosed no conflict of interest.*

**Cruz, Geneva E**..... *Disclosed no conflict of interest.*

**Cryan, Sally-Ann** ..... *Disclosed no conflict of interest.*

**Cubria, Maria B**..... *Disclosed no conflict of interest.*

**Cucchiaroni, Magali** ..... *Disclosed no conflict of interest.*

**Cuellar, Jason** ..... 4: Cytonics, 7: cytonics.

**Cui, Fuai**..... *Disclosed no conflict of interest.*

**Cui, Qunjun**..... *Disclosed no conflict of interest.*

**Cui, Yan**..... *Disclosed no conflict of interest.*

**Culla, Anna Carla** ..... *Disclosed no conflict of interest.*

**Cullen, David A**..... *Disclosed no conflict of interest.*

**Culliford, David J**..... *Disclosed no conflict of interest.*

**Cummins, Erin**..... *Disclosed no conflict of interest.*

**Cunningham, Brian** ..... 6: CODE Technology.

**Cunningham, Hailey C**..... *Disclosed no conflict of interest.*

**Curran, Patrick** ..... *Disclosed no conflict of interest.*

**Currie, J Brooke** ..... *Disclosed no conflict of interest.*

**Currier, Barbara H**..... *Disclosed no conflict of interest.*

**Currier, John H**..... *Disclosed no conflict of interest.*

**Curtin, Caroline M** ..... *Disclosed no conflict of interest.*

**Curtis, Gannon L**..... *Disclosed no conflict of interest.*

**Cush, Gerard J**..... *Disclosed no conflict of interest.*

**Custers, Roel J**..... *Disclosed no conflict of interest.*

**Cutcliffe, Hattie**..... *Disclosed no conflict of interest.*

**Cutcliffe, Hattie C** ..... *Disclosed no conflict of interest.*

**Cvetanovich, Gregory**..... *Disclosed no conflict of interest.*

**Cvetko, Steve T** ..... 3A: Employee of Novarad Corporation.

**D’Lima, Darryl**..... *Disclosed no conflict of interest.*

**Dahle, Reena** ..... 4: inSense Medical.

**Dahners, Laurence E** ..... *Disclosed no conflict of interest.*

**Dai, Eric N. Dai N**..... *Disclosed no conflict of interest.*

**Dai, Xiaojing** ..... *Disclosed no conflict of interest.*

**Dai, Yifei**..... 3A: Exactech Inc; 4: Exactech Inc.

**Dailey, Hannah** ..... 4: OrthoXel, DAC; 5: OrthoXel, DAC; 6: OrthoXel,DAC.

**Daiss, John L**..... *Disclosed no conflict of interest.*

**Daisuke, Momma**..... *Disclosed no conflict of interest.*

**Dalati, Mutaz** ..... *Disclosed no conflict of interest.*

**Dale, Harvard**..... *Disclosed no conflict of interest.*

**Damron, Timothy A**..... 1: Stryker, Inc., Orthovita, Inc., Wright Medical, Inc.; 3B: Cerament, Inc.; 3C: Cerament, Inc.; 5: NIAMS, Carol Baldwin Breast Cancer Research Foundation, Jim and Juli Boeheim Foundation,

Stryker, Inc., Orthovita, Inc., Wright Medical, Inc.; 7: eMedicine (author), UpToDate (author), Lippincott, Williams, and Wilkins (book author), Journal of Surgical Oncology Editorial Board.

**Dan, Junpei**..... *Disclosed no conflict of interest.*

**Danaher, Michael**..... *Disclosed no conflict of interest.*

**Danelson, Kerry A**..... *Disclosed no conflict of interest.*

**Daneshvar Hashjin, Nazanin** ..... *Disclosed no conflict of interest.*

**Dang, Alan BC** ..... 2: Medtronic; 5: Johnson & Johnson.

**Dang, Alexis B.C.** ..... *Disclosed no conflict of interest.*

**Dang, Debbie Y**..... *Disclosed no conflict of interest.*

**Daniels, Chris** ..... *Disclosed no conflict of interest.*

**Danoff, Jonathan R**..... 5: Stryker; 6: Stryker.

**Daoud, Adam I**..... *Disclosed no conflict of interest.*

**Dar, Ayelet** ..... *Disclosed no conflict of interest.*

**Dar, Qurratul-Ain** ..... *Disclosed no conflict of interest.*

**Darabi, Radbod** ..... *Disclosed no conflict of interest.*

**Dart, Bradley R**..... *Disclosed no conflict of interest.*

**Das, Rohit** ..... *Disclosed no conflict of interest.*

**Dasa, MD, Vinod**..... 2: Bioventus, myoscience, vector medical; 3B: Bioventus, myoscience, vector medical; 4: myoscience, vector medical; 5: United orthopedics.

**Dattilo, Jonathan R** ..... *Disclosed no conflict of interest.*

**Davey, J. Roderick** ..... *Disclosed no conflict of interest.*

**David, Michael A**..... *Disclosed no conflict of interest.*

**David, Robin** ..... *Disclosed no conflict of interest.*

**Davidson, Rick** ..... 4: Cimphoni Life Sciences LLC.

**Davies, Michael R**..... *Disclosed no conflict of interest.*

**Davis, Alan**..... *Disclosed no conflict of interest.*

**Davis, Alan R** ..... *Disclosed no conflict of interest.*

**Davis, Bryton** ..... *Disclosed no conflict of interest.*

**Davis, Derik L** ..... *Disclosed no conflict of interest.*

**Davis, Eleanor L** ..... *Disclosed no conflict of interest.*

**Davis, Elissa S**..... *Disclosed no conflict of interest.*

**Davis, Matthew** ..... *Disclosed no conflict of interest.*

**Davis, Zachary G** ..... *Disclosed no conflict of interest.*

**Dawson, Lindsay A** ..... *Disclosed no conflict of interest.*

**Day, Molly A** ..... *Disclosed no conflict of interest.*

**Day, Robert E** ..... 6: Johnson & Johnson DePuy Synthes.

**Dayanidhi, Sudarshan** ..... *Disclosed no conflict of interest.*

**de Bakker, Chantal** ..... *Disclosed no conflict of interest.*

**de Bakker, Chantal M** ..... *Disclosed no conflict of interest.*

**de Bruijn, Joost D** ..... 3A: Employee of Kuros Biosciences BV.

**De Caro, Anna** ..... *Disclosed no conflict of interest.*

**de Courcy - Grylls, Alice** ..... 3A: DePuy Synthes Joint Reconstruction; 4: DePuy Synthes Joint Reconstruction.

**De Gregorio, Michael** ..... *Disclosed no conflict of interest.*

**de Groot, Florence** ..... 3A: Employee of Kuros Biosciences BV.

**de Ladoucette, Aymard** ..... 2: MicroPort Orthopedics; 3B: MicroPort Orthopedics.

**De Mel, Sandra** ..... *Disclosed no conflict of interest.*

**de Mesy Bentley, Karen L** ..... *Disclosed no conflict of interest.*

**De Pieri, Andrea** ..... *Disclosed no conflict of interest.*

**de Roy, Luisa** ..... *Disclosed no conflict of interest.*

**de Ruijter, Mylene** ..... *Disclosed no conflict of interest.*

**de Steiger, Richard** ..... *Disclosed no conflict of interest.*

**de Winter, Matthijs** ..... *Disclosed no conflict of interest.*

**Dean, Delphine** ..... *Disclosed no conflict of interest.*

**Deaver, Juanita** ..... *Disclosed no conflict of interest.*

**DeBaun, Malcolm R** ..... *Disclosed no conflict of interest.*

**Debski, Richard E** ..... *Disclosed no conflict of interest.*

**Deckey, David** ..... *Disclosed no conflict of interest.*

**Deckx, Julien** ..... 3A: Materialise NV.

**Deehan, David J** ..... *Disclosed no conflict of interest.*

**Deepak, Rithica** ..... *Disclosed no conflict of interest.*

**Dees, Ryan** ..... 3A: Smith & Nephew.

**DeFoor, Mikalyn** ..... *Disclosed no conflict of interest.*

**DeFrate, Louis E** ..... *Disclosed no conflict of interest.*

**DeHority, Kaitlyn** ..... *Disclosed no conflict of interest.*

**Deland, Jonathan T** ..... 1: Arthrex, Inc; 3B: Arthrex, Inc, Zimmer.

**Delaney, Sean P** ..... *Disclosed no conflict of interest.*

**Delco, Michelle L** ..... *Disclosed no conflict of interest.*

**Delgado, Domenica** ..... *Disclosed no conflict of interest.*

**Della Valle, Craig** ..... 1: Zimmet Biomet; 3B: Zimmer Biomet, Smith & Nephew, Depuy; 5: Smith & Nephew, Stryker.

**Dellamary, Luis** ..... 3A: Samumed LLC; 4: Samumed LLC.

**Delserro, Sean** ..... *Disclosed no conflict of interest.*

**DeLucca, John** ..... *Disclosed no conflict of interest.*

**Deluzio, Kevin J** ..... *Disclosed no conflict of interest.*

**DeMartino, Ivan** ..... 3B: Lima.

**deMeireles, Alirio** ..... *Disclosed no conflict of interest.*

**Demers Lavelle, Elizabeth** ..... *Disclosed no conflict of interest.*

**Demetracopoulos, Constantine A.** 3B: Integra LifeSciences, Stryker, RTI Surgical, Wright Medical Technology, Inc.

**DeMik, David** ..... *Disclosed no conflict of interest.*

**Demir-Deviren, Sibel** ..... *Disclosed no conflict of interest.*

**Demirtas, Ahmet** ..... *Disclosed no conflict of interest.*

**Demissie, Serkalem** ..... *Disclosed no conflict of interest.*

**Demiya, Koji** ..... *Disclosed no conflict of interest.*

**Demiya, Kouji** ..... *Disclosed no conflict of interest.*

**den Hollander, Wouter** ..... *Disclosed no conflict of interest.*

**Denaro, Vincenzo** ..... *Disclosed no conflict of interest.*

**Deng, Gang** ..... *Disclosed no conflict of interest.*

**deng, jin** ..... *Disclosed no conflict of interest.*

**Deng, Lianfu** ..... *Disclosed no conflict of interest.*

**Deng, Xinag-Hua** ..... *Disclosed no conflict of interest.*

**Deng, Yuhao** ..... *Disclosed no conflict of interest.*

**Deng, Zhenhan** ..... *Disclosed no conflict of interest.*

**Deng, Zhenhang** ..... *Disclosed no conflict of interest.*

**Deng, Zi J** ..... *Disclosed no conflict of interest.*

**Denney, Brandon** ..... *Disclosed no conflict of interest.*

Dennis, James E ..... 1: Osiris; 4: Osiris, Biotime.

Derynck, Michelle..... *Disclosed no conflict of interest.*

Desai, Josaua S..... *Disclosed no conflict of interest.*

DeSanto, Matt ..... *Disclosed no conflict of interest.*

DeSanto, Matthew ..... *Disclosed no conflict of interest.*

Deshmukh, Vishal ..... 3A: Samumed LLC; 4: Samumed LLC.

DesJardins, John ..... *Disclosed no conflict of interest.*

Desloovere, Kaat ..... *Disclosed no conflict of interest.*

Desoutter, George C ..... 4: Desoutter Medical.

Deveza, Lorenzo ..... 3B: Orthomade, Inc,

Devlin, Maureen ..... *Disclosed no conflict of interest.*

Dhafer, Yasin ..... *Disclosed no conflict of interest.*

Dharia, Anand A ..... *Disclosed no conflict of interest.*

Dharia, Mehul A ..... 3A: Zimmer Biomet; 4: Zimmer Biomet.

Dhawan, Ravi..... *Disclosed no conflict of interest.*

Di Giacomo, Giuseppina..... *Disclosed no conflict of interest.*

Di Stasi, Stephanie..... *Disclosed no conflict of interest.*

Diallo, Jean-Simon ..... *Disclosed no conflict of interest.*

Diamantides, Nicole ..... 5: Histogenics.

Dias, Shaquielle T ..... *Disclosed no conflict of interest.*

Dibbern, Kevin N ..... *Disclosed no conflict of interest.*

Dickerson, Austin..... *Disclosed no conflict of interest.*

Dickey, Lauren ..... *Disclosed no conflict of interest.*

Dicks, Amanda ..... *Disclosed no conflict of interest.*

DiDomenico, Chris ..... 6: AbbVie Inc,

Diefenbeck, Michael..... 3A: Bone Support AB.

Diekman, Brian O ..... *Disclosed no conflict of interest.*

Diep, Phong T ..... 3A: Exactech, Inc.; 4: Exactech, Inc,

Diessel, Gemma ..... *Disclosed no conflict of interest.*

Dietrich, Dalton W ..... *Disclosed no conflict of interest.*

Dietz, Matthew ..... *Disclosed no conflict of interest.*



DiGeorgio, Caitlin..... 3A: Exactech, Inc,  
Dighe, Abhijit..... *Disclosed no conflict of interest.*  
Dimitriou, Dimitri ..... *Disclosed no conflict of interest.*  
Dines, David ..... 1: Zimmer Biomet; 3B: Wright Medica Technology, Inc,7: Lippencott, Thieme.  
Ding, Boyin ..... *Disclosed no conflict of interest.*  
Ding, Catherine ..... *Disclosed no conflict of interest.*  
Ding, Jing..... *Disclosed no conflict of interest.*  
Ding, Mengmeng ..... *Disclosed no conflict of interest.*  
Ding, Yuanjing ..... *Disclosed no conflict of interest.*  
Dingwall, Heather..... *Disclosed no conflict of interest.*  
Dinkel, Sabrina ..... *Disclosed no conflict of interest.*  
Dion, Matthew K ..... *Disclosed no conflict of interest.*  
DiRisio, Darryl J ..... 4: ReVivo Medical.  
Dischler, Jack..... *Disclosed no conflict of interest.*  
Disser, Nathaniel ..... *Disclosed no conflict of interest.*  
DiStefano, Tyler J..... *Disclosed no conflict of interest.*  
Diwan, Ashish D ..... *Disclosed no conflict of interest.*  
Diwan, Waqaar ..... *Disclosed no conflict of interest.*  
Dixit, Nikhil ..... *Disclosed no conflict of interest.*  
Dixon, James E ..... 3B: Locate Therapeutics.  
D'John, Matthew..... *Disclosed no conflict of interest.*  
D'Lima, Darryl ..... *Disclosed no conflict of interest.*  
D'Lima, Darryl D ..... 4: Protalix and XpandOrtho; 5: Exactech, Smith & Nephew, Stryker.  
Dogan, Oguz..... *Disclosed no conflict of interest.*  
Dobransky, Johanna..... *Disclosed no conflict of interest.*  
Dobson, Brittany ..... *Disclosed no conflict of interest.*  
Docheva, Denitsa ..... *Disclosed no conflict of interest.*  
Dodd, Kevin ..... *Disclosed no conflict of interest.*  
Dodge, George R..... *Disclosed no conflict of interest.*  
Doe, Anton Ph ..... *Disclosed no conflict of interest.*  
Doering, Jonathan..... *Disclosed no conflict of interest.*

**Does, Mark**..... *Disclosed no conflict of interest.*

**Dohke, Takayuki**..... *Disclosed no conflict of interest.*

**Doita, Minoru** ..... *Disclosed no conflict of interest.*

**Dokter, Inge** ..... *Disclosed no conflict of interest.*

**Dolan, Connor** ..... *Disclosed no conflict of interest.*

**Domb, Benjamin**..... 1: Arthrex, Inc: IP royalties, DJO Global: IP royalties, Orthomerica: IP royalties; 2: Arthrex, Inc: Paid presenter or speaker; 3B: Amplitude: Paid consultant, Arthrex, Inc: Paid consultant, Medacta: Paid consultant, Pacira: Paid consultant, Stryker: Paid consultant; 5: Adventist Hinsdale Hospital: Research support, Arthrex, Inc: Research support, ATI: Research support, Breg: Research support, Medacta: Research support, Pacira: Research support, Stryker: Research support.

**Dombrowski, Malcolm** ..... *Disclosed no conflict of interest.*

**Donahoe, Ryan M**..... 3A: NuVasive; 4: NuVasive.

**Donahue, Henry J**..... *Disclosed no conflict of interest.*

**Donaldson, William F**..... *Disclosed no conflict of interest.*

**Donda, Keyur**..... *Disclosed no conflict of interest.*

**Donegan, Derek J**..... 3B: DePuy Synthes; 5: DePuy Synthes.

**Dong, Nick** ..... 3A: Trauson Medical (China).

**Dong, Qing**..... *Disclosed no conflict of interest.*

**Dong, Xuanliang Neil** ..... *Disclosed no conflict of interest.*

**Dong, Yonghui** ..... *Disclosed no conflict of interest.*

**Dong, Yufeng**..... *Disclosed no conflict of interest.*

**Donius, Amalie** ..... *Disclosed no conflict of interest.*

**Donnelly, Eve** ..... *Disclosed no conflict of interest.*

**Dornacher, Daniel** ..... *Disclosed no conflict of interest.*

**Dorthé, Erik W** ..... *Disclosed no conflict of interest.*

**Doutre, Madison S**..... *Disclosed no conflict of interest.*

**Dow, Steven W** ..... *Disclosed no conflict of interest.*

**Dowding, Chris**..... *Disclosed no conflict of interest.*

**Dowdle, S. Blake** ..... *Disclosed no conflict of interest.*

**Dowdle, Spencer B**..... *Disclosed no conflict of interest.*

**Dowsey, Michelle M** ..... 5: Medacta International.

**Doyle, Ruben J**..... 5: Desoutter Medical.

**Draeger, Reid W** ..... *Disclosed no conflict of interest.*

**Drake, Rebecca L** ..... *Disclosed no conflict of interest.*

**Drazan, John F** ..... *Disclosed no conflict of interest.*

**Dreher, Maureen L** ..... *Disclosed no conflict of interest.*

**Drekler, Michael** ..... *Disclosed no conflict of interest.*

**Drezek, Kamila** ..... *Disclosed no conflict of interest.*

**Driscoll, Adam** ..... *Disclosed no conflict of interest.*

**Drissi, Hicham** ..... 5: unrestricted grant from the Merck investigator initiated program.

**D'Souza, Sunita** ..... *Disclosed no conflict of interest.*

**Du, Jiang** ..... *Disclosed no conflict of interest.*

**Du, Peter Z** ..... *Disclosed no conflict of interest.*

**Du, Xuejun** ..... *Disclosed no conflict of interest.*

**Du, Zhe** ..... *Disclosed no conflict of interest.*

**Duan, Rongquan** ..... 3A: Kuros Biosciences BV.

**Duan, Zhenfeng** ..... *Disclosed no conflict of interest.*

**Duarte, Felipe C** ..... *Disclosed no conflict of interest.*

**Duchman, Kyle** ..... *Disclosed no conflict of interest.*

**Duclos, Sarah E** ..... *Disclosed no conflict of interest.*

**Duda, Georg** ..... 3B: CeramTec, DePuy Synthes, ImplanTec; 5: Aesculap, CeramTec, DePuy Synthes, LINK, OHST, Peter Brehm, Smith & Nephew, Zimmer Biomet.

**Duerselen, Lutz** ..... 5: Orthox Ltd,

**Duffy, Garry** ..... *Disclosed no conflict of interest.*

**Dugarte, Anthony J** ..... *Disclosed no conflict of interest.*

**Dugopolski, Caroline** ..... 3A: Histogenics; 4: Histogenics.

**Duhon, Bradley** ..... *Disclosed no conflict of interest.*

**Duke, Victoria R** ..... *Disclosed no conflict of interest.*

**Dulatova, Galina** ..... 3A: DiscGenics, Inc; 4: DiscGenics, Inc,

**Dumas, Oliver** ..... 3A: DePuy Synthes.

**Dun, Shouchen** ..... 3A: Paid Employee.

**Dunbar, Michael** ..... 1: Stryker; 3B: Stryker; 5: Stryker, Zimmer, Depuy, Smith & Nephew, Kinduct, EMOVI; 7: The Knee Journal, Arthropedia, JBJS, Knee Society.

**Duncan, Neil** ..... *Disclosed no conflict of interest.*

**Dunham, Chelsey L** ..... *Disclosed no conflict of interest.*

Dunitz, Scott ..... 1: Exactech, Inc.; 3B: Exactech, Inc.; 5: Exactech, Inc,

Dunman, Paul M ..... *Disclosed no conflict of interest.*

Dunn, Michael G ..... 4: NovoPedics Inc,

Duong, Le ..... 3A: Merck employee.

Duren, Dana L ..... *Disclosed no conflict of interest.*

Durney, Krista M ..... *Disclosed no conflict of interest.*

Dürselen, Lutz ..... *Disclosed no conflict of interest.*

Duvall, Grant ..... *Disclosed no conflict of interest.*

Dwivedi, Garima ..... *Disclosed no conflict of interest.*

Dwivedi, Girish ..... *Disclosed no conflict of interest.*

Dyer, George ..... *Disclosed no conflict of interest.*

Dykstra, Peter B ..... *Disclosed no conflict of interest.*

Dyment, Nathaniel A. .... *Disclosed no conflict of interest.*

Eamsobhana, Perajit ..... *Disclosed no conflict of interest.*

Easa, Anas ..... *Disclosed no conflict of interest.*

Easley, Jeremiah ..... *Disclosed no conflict of interest.*

Easley, Jeremiah T ..... *Disclosed no conflict of interest.*

Easson, Garrett W.D. .... *Disclosed no conflict of interest.*

Ebert, Kerry A ..... *Disclosed no conflict of interest.*

Ebraheim, Nabil ..... *Disclosed no conflict of interest.*

Ebramzadeh, Edward ..... 5: Depuy Synthes, Arthrex, Wright Medical, Extremity Medical, Amgen, NuVasive, Spinal Kinetics, Zimmer Biomet

Eby, Michael R ..... *Disclosed no conflict of interest.*

Eccles, Christian ..... *Disclosed no conflict of interest.*

Economides, Aris ..... 3A: Regeneron Pharmaceuticals.

Ede, David ..... *Disclosed no conflict of interest.*

Edmonds, Eric W ..... 2: Ossur, Arthrex; 5: DePuy, A Johnson & Johnson Company:.

Edwards, Jennifer H ..... *Disclosed no conflict of interest.*

Edwards, Kimberley L ..... *Disclosed no conflict of interest.*

Eekhoff, Jeremy D ..... *Disclosed no conflict of interest.*

Effiong, Linda ..... *Disclosed no conflict of interest.*

Egan, James ..... *Disclosed no conflict of interest.*

Egan, Jonathan Z ..... *Disclosed no conflict of interest.*

Egawa, Satoru ..... *Disclosed no conflict of interest.*

Egawa, Takuya ..... *Disclosed no conflict of interest.*

Eglin, David ..... *Disclosed no conflict of interest.*

Egol, Ken ..... 1: Exactech, Inc; 3B: Exactech, Inc.

Ehrlich, Michael ..... 4: Nanode Therapeutics, Inc.

Eichholz, Kian ..... *Disclosed no conflict of interest.*

Eichholz, Kian F ..... *Disclosed no conflict of interest.*

Eid, Mohab ..... *Disclosed no conflict of interest.*

Eigenhuis, Carlijn ..... *Disclosed no conflict of interest.*

Eismont, Adam ..... *Disclosed no conflict of interest.*

Eismont, Frank ..... *Disclosed no conflict of interest.*

El Daou, Hadi ..... *Disclosed no conflict of interest.*

El Haj, Alicia J. .... *Disclosed no conflict of interest.*

El Warrak, Alexander O ..... *Disclosed no conflict of interest.*

Elad, Akiva ..... 1: Botiss Biomaterials AG; 2: Botiss Biomaterials AG.

Elakkari, Ali ..... *Disclosed no conflict of interest.*

Elbarbary, Reyad ..... *Disclosed no conflict of interest.*

Elford, Carole ..... *Disclosed no conflict of interest.*

Elgafy, Hossein ..... *Disclosed no conflict of interest.*

Elhabian, Shireen Y ..... *Disclosed no conflict of interest.*

Elias, John J ..... 5: NorthShore University HealthSystem.

Eliseev, Roman ..... *Disclosed no conflict of interest.*

Ellenberg, Elie ..... *Disclosed no conflict of interest.*

Ellingson, Arin M. .... *Disclosed no conflict of interest.*

Elliott, Dawn M. .... *Disclosed no conflict of interest.*

Ellis, Scott J ..... *Disclosed no conflict of interest.*

Elmasry, Shady ..... *Disclosed no conflict of interest.*

Elnour, Salah ..... *Disclosed no conflict of interest.*

El-Quadi, Monaliza El-Quadi ..... *Disclosed no conflict of interest.*

Elsaid, Khaled A ..... *Disclosed no conflict of interest.*

**Elsalanty, Mohammed** ..... *Disclosed no conflict of interest.*

**Elsayed, Ranya**..... *Disclosed no conflict of interest.*

**Elser, Christoph** ..... 3A: Arthrex.

**El-Shall, M. Samy** ..... *Disclosed no conflict of interest.*

**Elson, David W** ..... *Disclosed no conflict of interest.*

**Eltoukhy, Moataz**..... *Disclosed no conflict of interest.*

**Elwell, Josie A** ..... *Disclosed no conflict of interest.*

**Elwin, Sarah**..... *Disclosed no conflict of interest.*

**Ely, Erica V** ..... *Disclosed no conflict of interest.*

**Emami, Armaun J**..... *Disclosed no conflict of interest.*

**Emanski, Eric** ..... *Disclosed no conflict of interest.*

**Emerzian, Shannon R**..... *Disclosed no conflict of interest.*

**Endicott, Jamie** ..... *Disclosed no conflict of interest.*

**Endo, Hirooki**..... *Disclosed no conflict of interest.*

**Endo, Naoto**..... *Disclosed no conflict of interest.*

**Endo, Takeshi**..... *Disclosed no conflict of interest.*

**Englander, Zoë A**..... *Disclosed no conflict of interest.*

**Englund, Martin**..... *Disclosed no conflict of interest.*

**Engstrom, Craig** ..... *Disclosed no conflict of interest.*

**Enomoto, Takahiro**..... *Disclosed no conflict of interest.*

**Enomoto-Iwamoto, Motomi** ..... *Disclosed no conflict of interest.*

**Eppell, Steven** ..... *Disclosed no conflict of interest.*

**Epperson, Richard** ..... *Disclosed no conflict of interest.*

**Epple, Matthias**..... *Disclosed no conflict of interest.*

**Epure, Laura** ..... *Disclosed no conflict of interest.*

**Epure, Laura M** ..... *Disclosed no conflict of interest.*

**Eranki, Avinash** ..... *Disclosed no conflict of interest.*

**Erdemir, Ahmet** ..... *Disclosed no conflict of interest.*

**Erdenekhuyag, Yanjmaa**..... *Disclosed no conflict of interest.*

**Erhart-Hledik, Jennifer C** ..... *Disclosed no conflict of interest.*

**Erickson, Christopher**..... *Disclosed no conflict of interest.*

**Erickson, Isaac**..... 3A: DiscGenics, Inc; 4: DiscGenics, Inc,  
**Erickson, Melissa M**..... *Disclosed no conflict of interest.*  
**Eriten, Melih**..... *Disclosed no conflict of interest.*  
**Erndt-Marino, Josh** ..... *Disclosed no conflict of interest.*  
**Ernst, Frank** ..... *Disclosed no conflict of interest.*  
**Ertl, Peter** ..... *Disclosed no conflict of interest.*  
**Esannason, Kristen**..... *Disclosed no conflict of interest.*  
**Eskander, Mark** ..... *Disclosed no conflict of interest.*  
**Eskelinen, Atte S.**..... *Disclosed no conflict of interest.*  
**Esparza, Mary C** ..... *Disclosed no conflict of interest.*  
**Espinoza Orias, Alejandro A**..... 6: NIH NCCIH.  
**Esposito, Alessandra**..... *Disclosed no conflict of interest.*  
**Esposito, Christina** ..... *Disclosed no conflict of interest.*  
**Essner, Aaron**..... 3A: Stryker; 4: Stryker.  
**Est, Savannah E.**..... *Disclosed no conflict of interest.*  
**Estell, Eben G**..... *Disclosed no conflict of interest.*  
**Estivalezes, Erik**..... *Disclosed no conflict of interest.*  
**Estroff, Lara A** ..... *Disclosed no conflict of interest.*  
**Etchels, Lee W**..... 6: DePuy Synthes.  
**Ettyreddy, Adarsh**..... *Disclosed no conflict of interest.*  
**Evans, Bronwen A.**..... *Disclosed no conflict of interest.*  
**Evans, Chris** ..... 3B: Orthogen AG; TissueGene Inc.; Cellastra Inc.  
**Evans, Emily**..... *Disclosed no conflict of interest.*  
**Evans, Kevin D**..... *Disclosed no conflict of interest.*  
**Evans, Peter J** ..... *Disclosed no conflict of interest.*  
**Evans, Thos A.**..... 3B: CoolSystems, Inc,  
**Evashwick-Rogler, Thomas W.**.... *Disclosed no conflict of interest.*  
**Evers, Stefanie** ..... *Disclosed no conflict of interest.*  
**Evseenko, Denis** ..... *Disclosed no conflict of interest.*  
**Eward, William**..... *Disclosed no conflict of interest.*  
**Ewing, Joseph A.** ..... *Disclosed no conflict of interest.*

Ewing, Morgan ..... 3A: MicroPort Orthopedics Inc.

Eyre, David R..... *Disclosed no conflict of interest.*

Faber, Kenneth J ..... 1: Exactech; 3B: Exactech.

Fadale, Paul D ..... *Disclosed no conflict of interest.*

Faieghi, Mohammadreza ..... *Disclosed no conflict of interest.*

Fairag, Rayan ..... *Disclosed no conflict of interest.*

Fairhurst, Stephen ..... *Disclosed no conflict of interest.*

Faisal, Tanvir ..... *Disclosed no conflict of interest.*

Faizan, Ahmad..... 3A: Stryker; 4: Stryker.

Fajardo, Roberto ..... *Disclosed no conflict of interest.*

Falcione, Alyssa D. .... *Disclosed no conflict of interest.*

Falcon, Jessica M..... *Disclosed no conflict of interest.*

Falzon, Rebecca..... *Disclosed no conflict of interest.*

Fan, Audrey ..... *Disclosed no conflict of interest.*

Fan, Dongwei..... *Disclosed no conflict of interest.*

Fan, Ping..... *Disclosed no conflict of interest.*

Fang, Fei ..... *Disclosed no conflict of interest.*

Fang, Hsu-Wei ..... *Disclosed no conflict of interest.*

Fang, Qian ..... *Disclosed no conflict of interest.*

Faour, Mhamad ..... *Disclosed no conflict of interest.*

Farach-Carson, Mary C..... *Disclosed no conflict of interest.*

Farber, Daniel C..... 4: JMEA.

Fareed, Jawed ..... *Disclosed no conflict of interest.*

Farhang, Niloofar ..... *Disclosed no conflict of interest.*

Farhat, Youssef ..... *Disclosed no conflict of interest.*

Farkas, Gary J ..... *Disclosed no conflict of interest.*

Farn, Chui-Jia ..... *Disclosed no conflict of interest.*

Farnsworth, Christine Lynn ..... *Disclosed no conflict of interest.*

Farnsworth, Christopher W..... *Disclosed no conflict of interest.*

Farrokhi, Shawn ..... *Disclosed no conflict of interest.*

Farzi, Mohsen ..... *Disclosed no conflict of interest.*



**Faundez, Antonio** ..... *Disclosed no conflict of interest.*

**Favre, Julien** ..... *Disclosed no conflict of interest.*

**Favre, Philippe** ..... 3A: Zimmer Biomet.

**Fazio, Antonietta** ..... *Disclosed no conflict of interest.*

**Fearing, Bailey V.** ..... *Disclosed no conflict of interest.*

**Featherall, Joseph**..... *Disclosed no conflict of interest.*

**Fedje-Johnston, Gus** ..... *Disclosed no conflict of interest.*

**Fedje-Johnston, William N** ..... *Disclosed no conflict of interest.*

**Feeley, Brian**..... 4: Bioniks.

**Feeney, Elizabeth**..... 6: Fidia Pharma Group.

**Feher, Anthony**..... *Disclosed no conflict of interest.*

**Fehr, Shayne** ..... *Disclosed no conflict of interest.*

**Feigenson, Marina**..... *Disclosed no conflict of interest.*

**Feliz, Emilio** ..... *Disclosed no conflict of interest.*

**Felländer-Tsai, Li**..... *Disclosed no conflict of interest.*

**Feller, Julian** ..... 5: Smith and Nephew.

**Feller, Julian A** ..... 2: Smith & Nephew; 5: Smith & Nephew.

**Felson, David T** ..... *Disclosed no conflict of interest.*

**Feltman, Peter** ..... *Disclosed no conflict of interest.*

**Femia, Alexandra** ..... *Disclosed no conflict of interest.*

**Femino, Elise**..... *Disclosed no conflict of interest.*

**Feng, Jianmin**..... *Disclosed no conflict of interest.*

**Feng, Meng** ..... *Disclosed no conflict of interest.*

**Feng, Shaoqing** ..... *Disclosed no conflict of interest.*

**Feng, Shiqing** ..... *Disclosed no conflict of interest.*

**Feng, Yi**..... *Disclosed no conflict of interest.*

**Feng, Yong** ..... *Disclosed no conflict of interest.*

**Fennema, Megan** ..... *Disclosed no conflict of interest.*

**Fenstad, Anne MARie** ..... *Disclosed no conflict of interest.*

**Ferguson, Virginia L** ..... *Disclosed no conflict of interest.*

**Fernandes, Hugo**..... *Disclosed no conflict of interest.*

**Fernandes, Russell** ..... *Disclosed no conflict of interest.*

**Fernandez, Andrew** ..... *Disclosed no conflict of interest.*

**Fernicola, Stephen D** ..... *Disclosed no conflict of interest.*

**Fernie, Geoff R** ..... *Disclosed no conflict of interest.*

**Ferradaes, Thais** ..... *Disclosed no conflict of interest.*

**Ferrari, Kim D** ..... *Disclosed no conflict of interest.*

**Ferreira, Louis M** ..... *Disclosed no conflict of interest.*

**Ferrer, Gerald** ..... *Disclosed no conflict of interest.*

**Fertala, Andrzej** ..... *Disclosed no conflict of interest.*

**Fertala, Jolanta** ..... *Disclosed no conflict of interest.*

**Festen-Schrier, Verena** ..... *Disclosed no conflict of interest.*

**Feuer, Zachary M** ..... *Disclosed no conflict of interest.*

**Fick, James M** ..... *Disclosed no conflict of interest.*

**Field, Richard E** ..... 2: Medacta; 3B: Medacta; 5: Medacta, Corin, JRI Orthopaedics, Smith and Nephew, MathOrtho.

**Fields, Aaron J** ..... *Disclosed no conflict of interest.*

**Fields, Kara** ..... *Disclosed no conflict of interest.*

**Figgie, Mark** ..... 1: Biomet, Inc, Lima Corporate; 4: Mekanika, Inc; 5: Zimmer.

**Filip, Alex B.** ..... *Disclosed no conflict of interest.*

**Filippi, Christopher G** ..... *Disclosed no conflict of interest.*

**Finnilä, Mikko AJ** ..... *Disclosed no conflict of interest.*

**Firestein, Gary S** ..... *Disclosed no conflict of interest.*

**Fisch, Matthew** ..... *Disclosed no conflict of interest.*

**Fischbach, Jack** ..... *Disclosed no conflict of interest.*

**Fischer, Arielle G** ..... *Disclosed no conflict of interest.*

**Fischer, Verena** ..... *Disclosed no conflict of interest.*

**Fischer, Wayne** ..... *Disclosed no conflict of interest.*

**Fischgrund, Jeffrey** ..... 1: Stryker Spine; 3B: Relievant; 5: Smith & Nephew; 7: JAAOS Editorial Board Member.

**Fisher, Amy** ..... 4: GSK.

**Fisher, John** ..... 2: DePuy Synthes, Invibio; 3B: DePuy Synthes, Invibio, Tissue Regenix, Simulation Solutions; 4: Tissue Regenix; 5: DePuy Synthes, Invibio, Corin, Mathys, Biocomposites, Tissue Regenix.

**Fisher, Matthew B** ..... *Disclosed no conflict of interest.*

**Fitch, David**..... 3A: MicroPort Orthopedics.

**Fitze, Daniel** ..... *Disclosed no conflict of interest.*

**Fitzgerald, G. Kelley**..... *Disclosed no conflict of interest.*

**Fitzgerald, Jamie** ..... *Disclosed no conflict of interest.*

**Fitzpatrick, Clare K**..... *Disclosed no conflict of interest.*

**Fitzpatrick, James A.J.** ..... *Disclosed no conflict of interest.*

**Fitzpatrick, Sean M**..... 5: Epic Extremity.

**Flaman, Lisa** ..... *Disclosed no conflict of interest.*

**Flanagan, Christopher**..... *Disclosed no conflict of interest.*

**Flanagan, Colleen** ..... *Disclosed no conflict of interest.*

**Flannery, Sean W** ..... *Disclosed no conflict of interest.*

**Flatow, Evan L**..... *Disclosed no conflict of interest.*

**Fleck, Allison**..... *Disclosed no conflict of interest.*

**Fleck, Allison K M** ..... *Disclosed no conflict of interest.*

**Fleck, Claudia**..... *Disclosed no conflict of interest.*

**Fleischer, Mackenzie M** ..... *Disclosed no conflict of interest.*

**Fleischer-Lück, Benjamin**..... *Disclosed no conflict of interest.*

**Fleischhacker, Viviane**..... *Disclosed no conflict of interest.*

**Fleischli, James** ..... *Disclosed no conflict of interest.*

**Fleming, Braden C.** ..... 4: Spouse (MMM) is an equity holder in MIACH Orthopaedics.; 7: BCF receives a stipend from the American Journal of Sports Medicine., BCF receive royalties from Springer Publishing,

**Fleming, Emma N.**..... 4: Family member MMM is equity holder in MIACH Orthopaedics.; 7: Family members BCF and MMM receive royalties from Springer Publishing., Family member BCF receives a stipend from the American Journal of Sports Medicine,

**Fletcher, James W**..... *Disclosed no conflict of interest.*

**Fletcher, Nathan A.** ..... *Disclosed no conflict of interest.*

**Flivik, Gunnar** ..... *Disclosed no conflict of interest.*

**Florea, Cristina**..... *Disclosed no conflict of interest.*

**Flores, Vianey**..... 3A: Orthopedic Analysis.

**Florida, Shelby** ..... *Disclosed no conflict of interest.*

**Flowers, Christopher W**..... *Disclosed no conflict of interest.*

Floyd, Warren ..... *Disclosed no conflict of interest.*

Flück, Martin ..... *Disclosed no conflict of interest.*

Fluit, Ad ..... *Disclosed no conflict of interest.*

Flurin, Pierre Henri ..... 1: Exactech, Inc.

Flynn, Evelyn ..... *Disclosed no conflict of interest.*

Flynn, Jeffrey ..... *Disclosed no conflict of interest.*

Flynn, Michael J ..... *Disclosed no conflict of interest.*

Foley, Kevin T ..... 3B: Medtronic; 4: DiscGenics, Derma Sciences, Medtronic, NuVasive, SpineWave, Truevision.

Folkesson, Elin ..... *Disclosed no conflict of interest.*

Folsom, Ryan J ..... *Disclosed no conflict of interest.*

Foltz, Carol ..... *Disclosed no conflict of interest.*

Foltz, Mary H ..... *Disclosed no conflict of interest.*

Fong, Michael C ..... *Disclosed no conflict of interest.*

Fontan, Francisco R ..... *Disclosed no conflict of interest.*

Forbes, Nicole ..... *Disclosed no conflict of interest.*

Ford, Audrey C ..... *Disclosed no conflict of interest.*

Ford, Maggie ..... *Disclosed no conflict of interest.*

Fordham, Lynn A ..... *Disclosed no conflict of interest.*

Foreman, K Bo ..... *Disclosed no conflict of interest.*

Foreman, Mark ..... *Disclosed no conflict of interest.*

Forsberg, Flemming ..... 2: Toshiba Medical Systems, GE; 5: Toshiba Medical Systems, Siemens, GE.

Forster, Alan ..... *Disclosed no conflict of interest.*

Forster, Mark ..... *Disclosed no conflict of interest.*

Fortier, Lisa A ..... *Disclosed no conflict of interest.*

Fortin, Paul J ..... 3B: Stryker, Wright Medical, Smith & Nephew.

Forwood, Mark R ..... *Disclosed no conflict of interest.*

Foster, Brent H ..... *Disclosed no conflict of interest.*

Foster, Brock ..... *Disclosed no conflict of interest.*

Foster, Daniel ..... *Disclosed no conflict of interest.*

Foucher, Kharma ..... *Disclosed no conflict of interest.*

Fowkes, Mary E ..... *Disclosed no conflict of interest.*

**Fowler, John** ..... *Disclosed no conflict of interest.*

**Fox, Paige** ..... *Disclosed no conflict of interest.*

**Fragomen, Austin T** ..... *Disclosed no conflict of interest.*

**Framstad, Amber** ..... *Disclosed no conflict of interest.*

**Franco, Jonathan** ..... *Disclosed no conflict of interest.*

**Frangi, Alejandro** ..... *Disclosed no conflict of interest.*

**Frangiamore, Salvatore J** ..... *Disclosed no conflict of interest.*

**Frank, Alex** ..... *Disclosed no conflict of interest.*

**Frank, Cyril B** ..... *Disclosed no conflict of interest.*

**Frank, Eliot H.** ..... *Disclosed no conflict of interest.*

**Franke, Graham** ..... *Disclosed no conflict of interest.*

**Frankel, William C** ..... *Disclosed no conflict of interest.*

**Franklin, Austin** ..... *Disclosed no conflict of interest.*

**Franklin, Patricia D.** ..... *Disclosed no conflict of interest.*

**Frazier, Sarah E** ..... *Disclosed no conflict of interest.*

**Fredericks, Douglas** ..... *Disclosed no conflict of interest.*

**Freedman, Benjamin R** ..... *Disclosed no conflict of interest.*

**Freehill, Michael T** ..... *3B: Mitek, Smith & Nephew; 5: Smith & Nephew.*

**Freeman, Fiona E** ..... *Disclosed no conflict of interest.*

**Freeman, Theresa** ..... *Disclosed no conflict of interest.*

**Freisinger, Gregory M.** ..... *Disclosed no conflict of interest.*

**French, Zachary** ..... *Disclosed no conflict of interest.*

**Frick, Carl P.** ..... *Disclosed no conflict of interest.*

**Fricka, Kevin B** ..... *1: Smith and Nephew, Zimmer Biomet, Orthocare RN.*

**Fricke, Dennis** ..... *Disclosed no conflict of interest.*

**Friedman, James L.** ..... *Disclosed no conflict of interest.*

**Friedman, James M.** ..... *Disclosed no conflict of interest.*

**Friedman, Michael A** ..... *Disclosed no conflict of interest.*

**Friedman, Nathan** ..... *3A: W.L. Gore & Associates Inc,*

**Friedrich, Craig** ..... *Disclosed no conflict of interest.*

**Frimpong, Emmanuel** ..... *Disclosed no conflict of interest.*

**Fripp, Jurgen** ..... *Disclosed no conflict of interest.*

**Frisbie, David D** ..... *Disclosed no conflict of interest.*

**Fritton, J. C** ..... *Disclosed no conflict of interest.*

**Fritton, Susannah P.** ..... *Disclosed no conflict of interest.*

**Fritz, Anto** ..... *Disclosed no conflict of interest.*

**Fritz, Jessica** ..... *Disclosed no conflict of interest.*

**Froehlich, John** ..... *Disclosed no conflict of interest.*

**Frondelius, Tuomas** ..... *Disclosed no conflict of interest.*

**Frostick, Simon P.** ..... *Disclosed no conflict of interest.*

**Fryhofer, George W.** ..... *Disclosed no conflict of interest.*

**Fu, Chen-Ju** ..... *Disclosed no conflict of interest.*

**Fu, Cong** ..... *Disclosed no conflict of interest.*

**Fu, Freddie H** ..... *Disclosed no conflict of interest.*

**Fu, Freddie H.** ..... *Disclosed no conflict of interest.*

**Fu, Sai Chuen** ..... *Disclosed no conflict of interest.*

**Fu, Weili** ..... *Disclosed no conflict of interest.*

**Fu, Wenyu** ..... *Disclosed no conflict of interest.*

**Fu, Yin-Chih** ..... *Disclosed no conflict of interest.*

**Fu, Yuhong** ..... *Disclosed no conflict of interest.*

**Fuentes Mera, Lizeth A** ..... *Disclosed no conflict of interest.*

**Fujie, Hiromichi** ..... *Disclosed no conflict of interest.*

**Fujihara, Ryuji** ..... 6: Asahi Kasei Pharma Corporation.

**Fujii, Jiro** ..... *Disclosed no conflict of interest.*

**Fujii, Masanori** ..... *Disclosed no conflict of interest.*

**Fujii, Masataka** ..... *Disclosed no conflict of interest.*

**Fujii, Shizuka** ..... *Disclosed no conflict of interest.*

**Fujii, Takayuki** ..... *Disclosed no conflict of interest.*

**Fujii, Takeshi** ..... *Disclosed no conflict of interest.*

**Fujii, Yuta** ..... *Disclosed no conflict of interest.*

**Fujimiya, Mineko** ..... *Disclosed no conflict of interest.*

**Fujino, Keitaro** ..... *Disclosed no conflict of interest.*

Fujisawa, Ryota ..... *Disclosed no conflict of interest.*

Fujita, Koji..... *Disclosed no conflict of interest.*

Fujita, Nobuyuki ..... *Disclosed no conflict of interest.*

FUJITA, TAKU ..... *Disclosed no conflict of interest.*

Fujita, Yuki..... *Disclosed no conflict of interest.*

Fujitani, Teruaki ..... *Disclosed no conflict of interest.*

Fujito, Toshitaka..... *Disclosed no conflict of interest.*

Fujiwara, Hiroyoshi..... *Disclosed no conflict of interest.*

Fujiwara, Kazuo..... 6: TEIJIN NAKASHIMA MEDICAL CO., LTD.

Fujiwara, Shuichi..... *Disclosed no conflict of interest.*

Fujiwara, Shuuichi ..... *Disclosed no conflict of interest.*

Fujiwara, Tomohiro ..... *Disclosed no conflict of interest.*

Fujiwara, Toshiyoshi..... *Disclosed no conflict of interest.*

Fujiyoshi, Kanehiro..... *Disclosed no conflict of interest.*

Fukai, Fumio ..... *Disclosed no conflict of interest.*

Fukano, Mako ..... *Disclosed no conflict of interest.*

Fukasawa, Naoto..... *Disclosed no conflict of interest.*

Fukase, Naomasa..... *Disclosed no conflict of interest.*

Fukubayashi, Toru ..... *Disclosed no conflict of interest.*

Fukuda, Hideaki ..... *Disclosed no conflict of interest.*

Fukuda, Yoshitsugu..... *Disclosed no conflict of interest.*

Fukuhara, Yusuke ..... *Disclosed no conflict of interest.*

Fukui, Daisuke..... *Disclosed no conflict of interest.*

Fukui, Tomoaki..... *Disclosed no conflict of interest.*

Fukunaga, Michihiko..... *Disclosed no conflict of interest.*

Fukushima, Shigenobu..... *Disclosed no conflict of interest.*

Fukushima, Takashi..... *Disclosed no conflict of interest.*

Fukutoku, Tatsuhiro..... *Disclosed no conflict of interest.*

Fullam, Spencer ..... *Disclosed no conflict of interest.*

Fuller, Carley ..... *Disclosed no conflict of interest.*

Fuller, Corey B ..... *Disclosed no conflict of interest.*

**Funakoshi, Tadao** ..... *Disclosed no conflict of interest.*

**Funk, Grahmm A** ..... *Disclosed no conflict of interest.*

**Furey, Andrew** ..... *Disclosed no conflict of interest.*

**Furman, Bridgette D.** ..... *Disclosed no conflict of interest.*

**Furnes, Ove** ..... *Disclosed no conflict of interest.*

**Furu, Moritoshi** ..... *Disclosed no conflict of interest.*

**Furukawa, Jun-ichi** ..... *Disclosed no conflict of interest.*

**Furukawa, Ken-Ichi** ..... *Disclosed no conflict of interest.*

**Furumatsu, Takayuki** ..... *Disclosed no conflict of interest.*

**Furuta, Taisuke** ..... *Disclosed no conflict of interest.*

**Futai, Kazuma** ..... *Disclosed no conflict of interest.*

**Futakuchi, Mitsuru** ..... *Disclosed no conflict of interest.*

**Gabra, Joseph N.** ..... *Disclosed no conflict of interest.*

**Gadaleta, Dominick** ..... *Disclosed no conflict of interest.*

**Gage, William H.** ..... *Disclosed no conflict of interest.*

**Gagnier, Joel J** ..... 3B: 3B; Barrasso Usdin Kupperman Freeman & Sarver, L.L.C., on behalf of Johnson & Johnson.

**Gaio, Natalie** ..... *Disclosed no conflict of interest.*

**Gajudo, Gio** ..... *Disclosed no conflict of interest.*

**Galatz, Leesa M.** ..... *Disclosed no conflict of interest.*

**Gale, Tom** ..... *Disclosed no conflict of interest.*

**Galesso, Devis** ..... 3A: Fidia Pharma Group.

**Galindo, Diego** ..... *Disclosed no conflict of interest.*

**Gall, Ken** ..... 3C: Vertera, Inc. / NuVasive Inc.; 4: Vertera, Inc. / NuVasive Inc,

**Gallagher, Maurice P.** ..... *Disclosed no conflict of interest.*

**Gallagher, Michelle B.** ..... 3A: Titan Spine, LLC.

**Gallardo, Giselle M.** ..... *Disclosed no conflict of interest.*

**Gallien, Thomas** ..... *Disclosed no conflict of interest.*

**Gallini, Adeline** ..... *Disclosed no conflict of interest.*

**Gallo, Matthew C** ..... *Disclosed no conflict of interest.*

**Galloway, Jenna L.** ..... *Disclosed no conflict of interest.*

**Gama, Aman-Ra** ..... *Disclosed no conflict of interest.*



**Gamada, Kazuyoshi** ..... 4: GLAB corp,  
**Gamero-Barrero, Esther** ..... *Disclosed no conflict of interest.*  
**Gamer, Laura W** ..... *Disclosed no conflict of interest.*  
**Gamini, Ramya** ..... *Disclosed no conflict of interest.*  
**Gammal, Isaac** ..... *Disclosed no conflict of interest.*  
**Gamradt, Seth C** ..... *Disclosed no conflict of interest.*  
**Ganapathy, Pramodh** ..... *Disclosed no conflict of interest.*  
**Gandhi, Rajiv** ..... *Disclosed no conflict of interest.*  
**Gandhi, Sapan** ..... *Disclosed no conflict of interest.*  
**Gansau, Jennifer** ..... *Disclosed no conflict of interest.*  
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**Gao, Liang** ..... *Disclosed no conflict of interest.*  
**Gao, Ming** ..... *Disclosed no conflict of interest.*  
**Gao, Shanshan** ..... *Disclosed no conflict of interest.*  
**Gao, Victor** ..... *Disclosed no conflict of interest.*  
**Gao, Xueqin** ..... *Disclosed no conflict of interest.*  
**Gao, YanChun** ..... *Disclosed no conflict of interest.*  
**Gao, Yang** ..... *Disclosed no conflict of interest.*  
**Gao, Yubo** ..... *Disclosed no conflict of interest.*  
**Gao, Yun** ..... *Disclosed no conflict of interest.*  
**Garcia, Dioscaris** ..... 3A: Materials Science Associates.  
**Garcia, Dioscaris R.** ..... 3A: Materials Science Associates.  
**Garcia, Geronimo** ..... *Disclosed no conflict of interest.*  
**Garcia, Jeannette M** ..... *Disclosed no conflict of interest.*  
**Garcia, Julian J** ..... *Disclosed no conflict of interest.*  
**Garcia, Leslie** ..... *Disclosed no conflict of interest.*  
**Garcia-Lopez, Edgar E** ..... *Disclosed no conflict of interest.*  
**Gardezi, Mursal** ..... *Disclosed no conflict of interest.*  
**Gardinier, Joseph** ..... *Disclosed no conflict of interest.*  
**Gardner, Michael J** ..... *Disclosed no conflict of interest.*

**Gardner, Thomas R**..... *Disclosed no conflict of interest.*

**Garfin, Steven R**..... *Disclosed no conflict of interest.*

**Garg, Ankur** ..... *Disclosed no conflict of interest.*

**Garland, Katie**..... *Disclosed no conflict of interest.*

**Garland, Theodore** ..... *Disclosed no conflict of interest.*

**Garrett, William E** ..... *Disclosed no conflict of interest.*

**Gartland, Alison** ..... *Disclosed no conflict of interest.*

**Garvin, Kevin L**..... *Disclosed no conflict of interest.*

**Gaspar, Diana**..... *Disclosed no conflict of interest.*

**Gatt, Charles J**..... 4: NovoPedics Inc,

**Gatti, Vittorio** ..... *Disclosed no conflict of interest.*

**Gatzka, Martina** ..... *Disclosed no conflict of interest.*

**Gauger, Erica**..... *Disclosed no conflict of interest.*

**Gaul, Florian** ..... *Disclosed no conflict of interest.*

**Gauthier- Kwan, Olivier** ..... *Disclosed no conflict of interest.*

**Gauthier, Paul**..... *Disclosed no conflict of interest.*

**Gawlitta, Debby** ..... *Disclosed no conflict of interest.*

**Gawronski, Karissa M**..... *Disclosed no conflict of interest.*

**GAZI, Md. Yeashin**..... *Disclosed no conflict of interest.*

**Gazit, Dan** ..... 4: GamlaStem Medical Inc.; TavorStem Therapeutics Inc., Frizbee Medical Inc,

**Gazit, Zulma**..... 4: GamlaStem Medical Inc.; TavorStem Therapeutics Inc,

**Gazza, Laura**..... 3A: MicroPort Orthopedics Inc.

**Ge, Kai**..... *Disclosed no conflict of interest.*

**Geanon, Daniel J**..... *Disclosed no conflict of interest.*

**Gehrke, Corinn** ..... *Disclosed no conflict of interest.*

**Gehweiler, Dominic**..... *Disclosed no conflict of interest.*

**Geiger, Brett C**..... *Disclosed no conflict of interest.*

**Geishecker, Emily** ..... *Disclosed no conflict of interest.*

**Geisinger, Jonathon** ..... *Disclosed no conflict of interest.*

**Geißler, Sven** ..... *Disclosed no conflict of interest.*

**Gejo, Ryuichi** ..... 6: financial support.

**Gelberman, Richard H** ..... *Disclosed no conflict of interest.*

**Gelbs, Michelle J.**..... *Disclosed no conflict of interest.*

**Gelinsky, Michael**..... *Disclosed no conflict of interest.*

**Gelmi, Amy** ..... *Disclosed no conflict of interest.*

**Gendron, Remi** ..... *Disclosed no conflict of interest.*

**Genin PhD, Guy**..... *Disclosed no conflict of interest.*

**Gentile, Joseph** ..... *Disclosed no conflict of interest.*

**Geoghegan, Ivor P** ..... *Disclosed no conflict of interest.*

**George, Jaiben** ..... *Disclosed no conflict of interest.*

**Gerber, Christian**..... *Disclosed no conflict of interest.*

**Gerber, Michael B.**..... *Disclosed no conflict of interest.*

**Gerland, Roger** ..... *Disclosed no conflict of interest.*

**Gersbach, Charles A**..... 3A: Element Genomics; 4: Element Genomics.

**Gerstenfeld, Louis C.**..... *Disclosed no conflict of interest.*

**Gerveshi, Carina** ..... *Disclosed no conflict of interest.*

**Gessler, Monika** ..... 3A: EOS GmbH.

**Geurts, J.** ..... *Disclosed no conflict of interest.*

**GHALAYANI ESFAHANI, ARASH.** *Disclosed no conflict of interest.*

**Ghanayem, Alexander J.** ..... *Disclosed no conflict of interest.*

**Gharaibeh, Burhan**..... *Disclosed no conflict of interest.*

**Ghassemi, Omeed**..... *Disclosed no conflict of interest.*

**Ghazwan, Aseel**..... *Disclosed no conflict of interest.*

**Ghert, Michelle** ..... 3B: Wright Medical, Kuros Biosciences.

**Ghiassi, Alidad** ..... *Disclosed no conflict of interest.*

**Ghita, Oana** ..... *Disclosed no conflict of interest.*

**Ghivizzani, Steven**..... *Disclosed no conflict of interest.*

**Ghodbane, Salim A** ..... 3A: Ethicon Inc,

**Ghodsi, Reza** ..... *Disclosed no conflict of interest.*

**Gholson, J. Joseph**..... *Disclosed no conflict of interest.*

**Ghosh, Kanishka M**..... *Disclosed no conflict of interest.*

**Ghosh, Paulomi**..... *Disclosed no conflict of interest.*

**Ghouse, Shaaz** ..... *Disclosed no conflict of interest.*

**Ghrandiz, Rojin** ..... *Disclosed no conflict of interest.*

**Gibbons, Michael** ..... *Disclosed no conflict of interest.*

**Gibbons, Michael C** ..... *Disclosed no conflict of interest.*

**Gibby, Jacob T** ..... *Disclosed no conflict of interest.*

**Gibon, Emmanuel** ..... *Disclosed no conflict of interest.*

**Gibson, Gary** ..... *Disclosed no conflict of interest.*

**Gieling, Fabian** ..... *Disclosed no conflict of interest.*

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**Gilbert, Sophie J** ..... *Disclosed no conflict of interest.*

**Gilbert-Honick, Jordana** ..... *Disclosed no conflict of interest.*

**Giles, Joshua W** ..... 6: Received implants from Mathys to conduct this study but company had no input on design, conduct, or analysis of this study,

**Gill, Harinderjit S** ..... *Disclosed no conflict of interest.*

**Gill, Sanjitpal** ..... *Disclosed no conflict of interest.*

**Gill, Steven R** ..... *Disclosed no conflict of interest.*

**Gilmour, Laura J** ..... 3A: EOS North America; 4: Smith & Nephew.

**Gilotra, Mohit N** ..... *Disclosed no conflict of interest.*

**Gineyts, Evelyn** ..... *Disclosed no conflict of interest.*

**Gingery, Anne** ..... *Disclosed no conflict of interest.*

**Giordani, Mauro** ..... *Disclosed no conflict of interest.*

**Giori, Nicholas J** ..... *Disclosed no conflict of interest.*

**Gittings, Daniel J** ..... *Disclosed no conflict of interest.*

**Glaeser, Juliane D** ..... 5: Medtronic.

**Glaser, Benjamin** ..... *Disclosed no conflict of interest.*

**Glaser, Diana** ..... 3A: MicroPort Orthopedics.

**Glaser, Diana A** ..... 3A: MicroPort Orthopedics.

**Glass, Katherine A** ..... *Disclosed no conflict of interest.*

**Glass, Natalie A** ..... *Disclosed no conflict of interest.*

**Glasser, Jillian** ..... *Disclosed no conflict of interest.*

**Glassman, Andrew H.** ..... 1: Exactech, Innomed; 3B: Exactech.

**Glatt, Vaida** ..... *Disclosed no conflict of interest.*

**Gleason, Allison** ..... *Disclosed no conflict of interest.*

**Glembotski, Nicholas** ..... *Disclosed no conflict of interest.*

**Glen, Lachlan** ..... *Disclosed no conflict of interest.*

**Glenday, Jonathan** ..... *Disclosed no conflict of interest.*

**Glennon, Joseph C** ..... 4: ReVivo Medical.

**Glimpel, Nikola** ..... *Disclosed no conflict of interest.*

**Glos, David L.** ..... *Disclosed no conflict of interest.*

**Gloss, Catherine C** ..... *Disclosed no conflict of interest.*

**Glowacki, Julie** ..... *Disclosed no conflict of interest.*

**Gluck, Matthew J.** ..... *Disclosed no conflict of interest.*

**Gocerler, Hakan** ..... *Disclosed no conflict of interest.*

**Gochuico, Joanna** ..... 3A: Vertera Spine.

**Godbout, Charles** ..... *Disclosed no conflict of interest.*

**Godfrey, Dana A** ..... *Disclosed no conflict of interest.*

**Goebel, Lars K. H.** ..... *Disclosed no conflict of interest.*

**Goel, Peeyush** ..... *Disclosed no conflict of interest.*

**Goel, Vijay** ..... 1: Globus, Endosphere, Butterfly; 3B: Spinal Balance Inc., OsteoNovus Inc., Depuy Synthes Inc., Spinal Elements Inc., K2M InC.; 4: Spinal Balance, OsteoNovus, Intellisense; 5: NIH, NSF, OsteoNovus, DePuy, Si Bone, AO, third Frontier Program (ODSA), Turning Point; 6: OsteoNovus, Spinal Balance, DePuy, Si Bone, AO Foundation, Spine Scoliosis LLC, FDA, Spider Spine LLC, 4 WEB.

**Goetz, Jessica E** ..... 5: Mortise Medical LLC.

**Gofton, Wade** ..... 2: MicroPort Orthopedics; 3B: MicroPort Orthopedics, Zimmer Biomet

**Goh, James C.** ..... *Disclosed no conflict of interest.*

**Gohin, Stephanie** ..... 6: Haoma Medica.

**Gold, Garry E** ..... 5: GE Healthcare.

**Gold, Stuart** ..... 1: Consultatnt/Educator for Stryker, Smith and Nephew, Orthofix.

**Goldberg, Benjamin** ..... *Disclosed no conflict of interest.*

**Goldberg, Tyler D** ..... 1: Medacta; 2: Medacta; 3B: Medacta; 5: Medacta.

**Goldman, Julia L** ..... *Disclosed no conflict of interest.*

**Goldman, Stephen M** ..... *Disclosed no conflict of interest.*

**Goldring, Hannah R** ..... *Disclosed no conflict of interest.*

**Goldring, Mary B.** ..... *Disclosed no conflict of interest.*

**Goldring, Steven R.** ..... *Disclosed no conflict of interest.*

**Goldstein, Wayne** ..... *Disclosed no conflict of interest.*

**Golman, Mikhail** ..... *Disclosed no conflict of interest.*

**Golub, Lorne** ..... *Disclosed no conflict of interest.*

**Gomez, Jaime A.** ..... *Disclosed no conflict of interest.*

**Gomez, Jodie A** ..... *Disclosed no conflict of interest.*

**Gomez, Joel** ..... *Disclosed no conflict of interest.*

**Gómez-Aristizábal, Alejandro** ..... *Disclosed no conflict of interest.*

**Gomez-Brouchet, Anne** ..... *Disclosed no conflict of interest.*

**Gomez-Hoyos, Juan** ..... *Disclosed no conflict of interest.*

**Gondo, Hiroataka** ..... *Disclosed no conflict of interest.*

**Gong, Qimei** ..... *Disclosed no conflict of interest.*

**Gong, Yanqing** ..... *Disclosed no conflict of interest.*

**Gonzalez Vazquez, Arlyng G** ..... *Disclosed no conflict of interest.*

**Gonzalez, Mark** ..... *Disclosed no conflict of interest.*

**Gonzalez, Sabrina** ..... *Disclosed no conflict of interest.*

**Goodale, Margaret B** ..... *Disclosed no conflict of interest.*

**Goode, Adam P** ..... *Disclosed no conflict of interest.*

**Goodman, Avi** ..... *Disclosed no conflict of interest.*

**Goodman, Howard** ..... *Disclosed no conflict of interest.*

**Goodman, Stuart B.** ..... *Disclosed no conflict of interest.*

**Goodrich, Laurie R.** ..... *4: Advanced Regenerative Therapies.*

**Goodship, Allen E** ..... *Disclosed no conflict of interest.*

**Goodwillie, Andrew** ..... *Disclosed no conflict of interest.*

**Gopalakrishnan, Ananthkrishnan**...3A: Stryker; 4: Stryker.

**Gordish-Dressman, Heather** ..... *Disclosed no conflict of interest.*

**Gordon, Ben DH.** ..... *Disclosed no conflict of interest.*

**Gordon, Robert J.** ..... *Disclosed no conflict of interest.*

**Gorth, Deborah J.** ..... *Disclosed no conflict of interest.*

**Gortler, Hilary** ..... *Disclosed no conflict of interest.*

**Gortzak, Yair** ..... *Disclosed no conflict of interest.*

**Gosey, G. Max** ..... *Disclosed no conflict of interest.*

**Goswami, Karan** ..... *Disclosed no conflict of interest.*

**Goto, Hideyuki** ..... *Disclosed no conflict of interest.*

**Goto, Kazunori** ..... *Disclosed no conflict of interest.*

**Goto, Koji** ..... *Disclosed no conflict of interest.*

**Goto, Norio** ..... *Disclosed no conflict of interest.*

**Goto, Tsuyoshi** ..... *Disclosed no conflict of interest.*

**Gottardi, Riccardo** ..... *Disclosed no conflict of interest.*

**Govande, Sonali** ..... *Disclosed no conflict of interest.*

**Govey, Peter** ..... 3A: Globus Medical.

**Grace, Trevor R** ..... *Disclosed no conflict of interest.*

**Graceffa, Valeria** ..... *Disclosed no conflict of interest.*

**Grad, Sibylle** ..... *Disclosed no conflict of interest.*

**Graf, Tyler** ..... *Disclosed no conflict of interest.*

**Graham, Brian T** ..... *Disclosed no conflict of interest.*

**Grammatopoulos, George** ..... *Disclosed no conflict of interest.*

**Granados-Montiel, Julio** ..... *Disclosed no conflict of interest.*

**Grande, Daniel A.** ..... *Disclosed no conflict of interest.*

**Grandi, Fiorella C.** ..... *Disclosed no conflict of interest.*

**Grandy, Emily L.** ..... *Disclosed no conflict of interest.*

**Grange, Robert** ..... *Disclosed no conflict of interest.*

**Granger, Jeffrey F.** ..... *Disclosed no conflict of interest.*

**Granke, Mathilde** ..... *Disclosed no conflict of interest.*

**Grant, John A.** ..... 3B: Ossur; 5: Joint Restoration Foundation.

**Grant, Michael P** ..... *Disclosed no conflict of interest.*

**Grasmik, Viktoria** ..... *Disclosed no conflict of interest.*

**Grässel, Susanne** ..... *Disclosed no conflict of interest.*

**Gravare Silbernagel, Karin** ..... *Disclosed no conflict of interest.*

**Graven-Nielsen, Thomas** ..... *Disclosed no conflict of interest.*

**Grawe, Brian** ..... *Disclosed no conflict of interest.*

**Gray, Hans A** ..... *Disclosed no conflict of interest.*

**Gray, Ryan S** ..... *Disclosed no conflict of interest.*

**Graybeal, Kaori** ..... *Disclosed no conflict of interest.*

**Grayson, Warren L** ..... 4: EpiBone.

**Green, Jordan** ..... *Disclosed no conflict of interest.*

**Green, Samuel** ..... *Disclosed no conflict of interest.*

**Greenberg, Danielle C** ..... *Disclosed no conflict of interest.*

**Greene, Alexander T** ..... 3A: Exactech, Inc.; 4: Exactech, Inc,

**Greenfield, Edward M** ..... *Disclosed no conflict of interest.*

**Greisberg, Justin K** ..... *Disclosed no conflict of interest.*

**Greising, Sarah M** ..... *Disclosed no conflict of interest.*

**Grier, Alex** ..... *Disclosed no conflict of interest.*

**Griffin, Timothy M** ..... *Disclosed no conflict of interest.*

**Griffiths, Jamie T** ..... 6: Zimmer-Biomet.

**Grifka, Joachim** ..... *Disclosed no conflict of interest.*

**Grimal, Quentin** ..... *Disclosed no conflict of interest.*

**Grindel, Steven I** ..... 5: Wright Medical Technology, Inc,

**Grinstaff, Mark W** ..... *Disclosed no conflict of interest.*

**Grinstein, Mor** ..... *Disclosed no conflict of interest.*

**Grodzinsky, Alan J** ..... 4: 3-D Matrix Ltd.

**Groen, Alexandra** ..... *Disclosed no conflict of interest.*

**Grogan, Shawn P** ..... *Disclosed no conflict of interest.*

**Gross, Richard** ..... *Disclosed no conflict of interest.*

**Gross, Valerie** ..... *Disclosed no conflict of interest.*

**Grosso, Matthew** ..... 5: Stryker; 6: Stryker.

**Grow, David** ..... *Disclosed no conflict of interest.*

**Gruber, Stacey M.S.** ..... *Disclosed no conflict of interest.*

**Gruczynski, Mark** ..... 3A: Stryker Orthopaedics; 4: Stryker.

**Gruizinga, Brandt** ..... *Disclosed no conflict of interest.*

**Grynpas, Marc** ..... *Disclosed no conflict of interest.*



**Gu, Jianguo G** ..... *Disclosed no conflict of interest.*

**Gu, Weiyong** ..... *Disclosed no conflict of interest.*

**Guadagnin, Eleonora** ..... *Disclosed no conflict of interest.*

**Guan, Hanfeng** ..... *Disclosed no conflict of interest.*

**Guan, Shanyuanye** ..... *Disclosed no conflict of interest.*

**Guan, Yingjie** ..... *Disclosed no conflict of interest.*

**Guang, Young** ..... *Disclosed no conflict of interest.*

**Guarise, Cristian** ..... 3A: The author is full time employee of Fidia Pharma Group.

**Guerendiain, Daniel** ..... *Disclosed no conflict of interest.*

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**Guerriero, Massimo** ..... *Disclosed no conflict of interest.*

**Gugala, Zbigniew** ..... *Disclosed no conflict of interest.*

**Guilak, Farshid** ..... 3A: Cytex Therapeutics Inc.; 4: Cytex Therapeutics Inc,

**Guisado, Gabriel G** ..... *Disclosed no conflict of interest.*

**Guldberg, Robert E** ..... 3C: Vertera Spine / NuVasive Inc.; 4: Vertera Spine / NuVasive Inc.; 5: Vertera Spine / NuVasive Inc,

**Gullbrand, Sarah E** ..... *Disclosed no conflict of interest.*

**Gulledge, Caleb** ..... *Disclosed no conflict of interest.*

**Gulotta, Lawrence** ..... 2: ZimmerBiomet; 3B: ZimmerBiomet.

**Gumucio, Jonathan P** ..... *Disclosed no conflict of interest.*

**Gunbay, Suzan** ..... *Disclosed no conflict of interest.*

**Guo, Baosheng** ..... *Disclosed no conflict of interest.*

**Guo, Fengjin** ..... *Disclosed no conflict of interest.*

**Guo, Fengjing** ..... *Disclosed no conflict of interest.*

**Guo, Helena** ..... *Disclosed no conflict of interest.*

**Guo, Ping** ..... *Disclosed no conflict of interest.*

**Guo, Weimin** ..... *Disclosed no conflict of interest.*

**Guo, X. Edward** ..... *Disclosed no conflict of interest.*

**Gupta, Celia** ..... 3A: DePuy Synthes.

**Gupta, Munish C** ..... 1: DePuy; 2: DePuy; 3B: DePuy; 4: Johnson&Johnson; Proctor and Gamble.

**Gupta, Ranjan** ..... *Disclosed no conflict of interest.*

**Gupte, Chinmay M.**..... *Disclosed no conflict of interest.*

**Gurbani, Barkha N.**..... *Disclosed no conflict of interest.*

**Gurevich, Mikhail** ..... *Disclosed no conflict of interest.*

**Gurkar, Aditi** ..... *Disclosed no conflict of interest.*

**Guss, Jason D** ..... *Disclosed no conflict of interest.*

**Gustafson, Jonathan A.**..... *Disclosed no conflict of interest.*

**Gwosdz, James** ..... *Disclosed no conflict of interest.*

**Gwynne, Peter J** ..... *Disclosed no conflict of interest.*

**Ha, Chul-Won** ..... 3B: Exactech Inc.

**Haar, Peter J** ..... *Disclosed no conflict of interest.*

**Haber, Daniel** ..... *Disclosed no conflict of interest.*

**Hackett, Eileen S** ..... *Disclosed no conflict of interest.*

**Hada, Masaru**..... *Disclosed no conflict of interest.*

**Hada, Masataka** ..... *Disclosed no conflict of interest.*

**Haddad, Fares S**..... *Disclosed no conflict of interest.*

**Hadfield, Fiona** ..... 3A: DePuy Synthes Joint Reconstruction; 4: DePuy Synthes Joint Reconstruction.

**Hadley-Miller, Nancy** ..... *Disclosed no conflict of interest.*

**Haerberle, Heather S** ..... *Disclosed no conflict of interest.*

**Haffner-Luntzer, Melanie** ..... *Disclosed no conflict of interest.*

**Hafner, Carina** ..... 3A: Zimmer Biomet.

**Hagan, Kenton L**..... *Disclosed no conflict of interest.*

**Hagan, Mackenzie** ..... *Disclosed no conflict of interest.*

**Hägele, Yvonne** ..... *Disclosed no conflict of interest.*

**Hagemeister, Nicola**..... *Disclosed no conflict of interest.*

**Hagen, Jennifer** ..... *Disclosed no conflict of interest.*

**Haggard, Warren O.** ..... 2: BioNova Medical; 3B: AgNovus Medical, Microport Orthopedics; 4: Extremity Innovations; 5: Zimmer-Biomet, Microport Orthopedics; 6: Zimmer-Biomet, Wright Medical Technology, Smith-Nephew, Medtronic; 7: Springer.

**Haghshenas, Varan**..... *Disclosed no conflict of interest.*

**Hagi, Tomohito**..... *Disclosed no conflict of interest.*

**Hagino, Tetsuo** ..... *Disclosed no conflict of interest.*

Hagiwara, Shigeo ..... *Disclosed no conflict of interest.*

Haglund, Lisbet ..... *Disclosed no conflict of interest.*

Hagmeijer, Michella H ..... 6: Smith & Nephew, Stryker.

Hahn, Mariah S ..... *Disclosed no conflict of interest.*

Hahn, Michael E ..... *Disclosed no conflict of interest.*

Haider, Hani ..... 3B: AMTI, Zimmer Biomet, Optimotion; 4: Trak Surgical Inc.; 5: Arthrex, NYU.

Haishima, Yuji ..... *Disclosed no conflict of interest.*

Haislup, Brett ..... *Disclosed no conflict of interest.*

Hajnal, Joseph V ..... *Disclosed no conflict of interest.*

Hak, David ..... *Disclosed no conflict of interest.*

Hakimiyan, Arnavaz A ..... *Disclosed no conflict of interest.*

Halanski, Matthew A ..... *Disclosed no conflict of interest.*

Halder, Saiti S ..... *Disclosed no conflict of interest.*

Haleem, Meraaj S ..... *Disclosed no conflict of interest.*

Hall, Arielle ..... *Disclosed no conflict of interest.*

Hall, Deborah J ..... 3B: Wright Medical Technology; 5: Wright Medical Technology, Zimmer.

Hall, Mary E ..... *Disclosed no conflict of interest.*

Hall, Stephen ..... *Disclosed no conflict of interest.*

Hallab, Nadim ..... 3A: Orthopedic Analysis, 4: BioEngineering Solutions Inc, Orthopedic Analysis LLC

Hallan, Geir ..... *Disclosed no conflict of interest.*

Hallare, Jericho A ..... *Disclosed no conflict of interest.*

Halloran, Bernard ..... *Disclosed no conflict of interest.*

Halloran, Jason P ..... *Disclosed no conflict of interest.*

Halter, Ryan J ..... *Disclosed no conflict of interest.*

Hamad, Cyril ..... 3A: Blue-Ortho.

Hamada, Hidetoshi ..... *Disclosed no conflict of interest.*

Hamada, Hiroaki ..... *Disclosed no conflict of interest.*

Hamada, Shunsuke ..... *Disclosed no conflict of interest.*

Hamai, Satoshi ..... *Disclosed no conflict of interest.*

Hamamoto, Yosuke ..... *Disclosed no conflict of interest.*

Hamano, Hiroki ..... *Disclosed no conflict of interest.*

**Hamasaki, Masanari**..... *Disclosed no conflict of interest.*

**Hambright, Sealy**..... *Disclosed no conflict of interest.*

**Hameed, Hafsah** ..... *Disclosed no conflict of interest.*

**Hamilton, Geraldine** ..... 3A: Emulate Inc.; 4: Emulate Inc,

**Hamilton, Matthew A**..... 3A: Exactech, Inc.; 4: Exactech, Inc,

**Hammett, Ellen** ..... *Disclosed no conflict of interest.*

**Hammond, Paula T**..... 2: Novartis, Moderna. Pfizer; 3B: Moderna; 4: LayerBio; 5: Novartis.

**Hammouche, Salah**..... 6: Johnson & Johnson, Invibio™ Biomaterial Solutions.

**Hampp, Emily** ..... 3A: Stryker; 4: Stryker.

**Han, Biao** ..... *Disclosed no conflict of interest.*

**Han, Cheol-Min**..... *Disclosed no conflict of interest.*

**Han, Guebum**..... *Disclosed no conflict of interest.*

**Han, Hyuk-Soo** ..... *Disclosed no conflict of interest.*

**Han, Jeong-Won**..... *Disclosed no conflict of interest.*

**Han, Lin**..... *Disclosed no conflict of interest.*

**Han, Misung**..... *Disclosed no conflict of interest.*

**Han, Shuyang** ..... *Disclosed no conflict of interest.*

**Han, Yang** ..... *Disclosed no conflict of interest.*

**Hanada, Masuo**..... *Disclosed no conflict of interest.*

**Hanada, Shuji** ..... *Disclosed no conflict of interest.*

**Hanaeda, Katsuhiko**..... *Disclosed no conflict of interest.*

**Hanai, Tatsuhiro**..... *Disclosed no conflict of interest.*

**Hanaka, Megumi**..... *Disclosed no conflict of interest.*

**Hanawa, Hiroki** ..... *Disclosed no conflict of interest.*

**Handa, Kyoichi** ..... *Disclosed no conflict of interest.*

**Handerhan, Brian** ..... *Disclosed no conflict of interest.*

**Haneda, Katsuhiko**..... *Disclosed no conflict of interest.*

**Haneda, Masahiko**..... *Disclosed no conflict of interest.*

**Hankenson, Kurt D.**..... 4: Skelegen.

**Hanley, Jessica** ..... *Disclosed no conflict of interest.*

**Hanley, Jr, Edward**..... *Disclosed no conflict of interest.*

**Hanna, Gabi** ..... *Disclosed no conflict of interest.*

**Hanna, Philip** ..... *Disclosed no conflict of interest.*

**Hanne, Nicholas J** ..... *Disclosed no conflict of interest.*

**Hansen, Erik J** ..... *Disclosed no conflict of interest.*

**Hansen, Glen** ..... *Disclosed no conflict of interest.*

**Hansen, Heather** ..... *Disclosed no conflict of interest.*

**Hansen, Marc** ..... *Disclosed no conflict of interest.*

**Hansen, Ulrich** ..... *Disclosed no conflict of interest.*

**Hanson, Jon** ..... 3C: Unpaid Consultant for Neva Electromagnetics, LLC.

**Hanson, Keenan** ..... 3A: Stryker; 4: Stryker.

**Hanssen, Arlen D.** ..... 3B: Stryker Hip and Knee; 7: Elsevier.

**Hanstein, Regina** ..... *Disclosed no conflict of interest.*

**Hao, Tianqing** ..... *Disclosed no conflict of interest.*

**Haq-Siddiqi, Nada A.** ..... *Disclosed no conflict of interest.*

**Hara, Hitomi** ..... *Disclosed no conflict of interest.*

**Hara, Toshihiko** ..... *Disclosed no conflict of interest.*

**Hara, Yuki** ..... *Disclosed no conflict of interest.*

**Hara, Yusuke** ..... *Disclosed no conflict of interest.*

**Harato, Kengo** ..... *Disclosed no conflict of interest.*

**Haratoh, Kengo** ..... *Disclosed no conflict of interest.*

**Hardaker, Catherine** ..... 3A: DePuy Synthes Joint Reconstruction; 4: DePuy Synthes Joint Reconstruction.

**Hardin, John** ..... *Disclosed no conflict of interest.*

**Hardisty, Michael** ..... *Disclosed no conflict of interest.*

**Hardman, Jasmin** ..... *Disclosed no conflict of interest.*

**Hardy, Brendan M** ..... *Disclosed no conflict of interest.*

**Hare, Joseph** ..... *Disclosed no conflict of interest.*

**Hargens, Alan R** ..... *Disclosed no conflict of interest.*

**Hargreaves, Brian A.** ..... 5: GE Healthcare.

**Harigane, Kengo** ..... *Disclosed no conflict of interest.*

**Harley, Brian J** ..... *Disclosed no conflict of interest.*

**Harman, Melinda** ..... *Disclosed no conflict of interest.*

**Harman, Melinda K**..... *Disclosed no conflict of interest.*

**Harner, Christopher D**..... *Disclosed no conflict of interest.*

**Haro, Hirotaka** ..... *Disclosed no conflict of interest.*

**Harper, Lindsey** ..... *Disclosed no conflict of interest.*

**Harrington, Melvin**..... 5: Stryker; 6: Stryker.

**Harrington, Melvyn**..... 3B: Zimmer, KCI.

**Harris, Gerald** ..... *Disclosed no conflict of interest.*

**Harris, Joshua D**..... 2: Ossur, AAOS, American Orthopedic Society for Sports Medicine, Arthroscopy, Arthroscopy Association of North America, Frontiers in Surgery, Smith & Nephew; 3B: Ossur, NIA Magellan, Smith & Nephew; 5: DePuy, Smith & Nephew; 6: DePuy, A Johnson & Johnson, Smith & Nephew; 7: SLACK Incorporated, Arthroscopy, Frontiers in Surgery.

**Harris, Michele Y** ..... *Disclosed no conflict of interest.*

**Harris, Mitchel B**..... *Disclosed no conflict of interest.*

**Harris, Tom** ..... 3B: Arthrex Inc.

**Hart, Alister J**..... 3B: DePuy.

**Hart, David A** ..... *Disclosed no conflict of interest.*

**Hart, Joseph M** ..... *Disclosed no conflict of interest.*

**Hart, Olivia R** ..... *Disclosed no conflict of interest.*

**Hart, Richard T** ..... 4: Medtronic.

**Härtl, Roger** ..... 3B: AO Spine, Brainlab, DePuy-Synthes and Lanx; 5: Baxter.

**Hartman, Curtis W**..... 2: Smith & Nephew; 3B: Smith & Nephew; 5: Smith & Nephew, Pfizer.

**Hartner, Samantha E**..... *Disclosed no conflict of interest.*

**Hartwig, Jacob W** ..... *Disclosed no conflict of interest.*

**Hartzband, Mark** ..... 1: Zimmer; 2: Zimmer; 3B: Zimmer.

**Hartzler, Molly A**..... *Disclosed no conflict of interest.*

**Harvestine, Jenna N**..... *Disclosed no conflict of interest.*

**Hasan, Syed A** ..... *Disclosed no conflict of interest.*

**Hase, Kimitaka** ..... *Disclosed no conflict of interest.*

**Hasegawa, Masahiro**..... *Disclosed no conflict of interest.*

**Hasegawa, Seiichiro** ..... *Disclosed no conflict of interest.*

**Hasei, Joe** ..... *Disclosed no conflict of interest.*

**Hashimoto, Akira**..... *Disclosed no conflict of interest.*

Hashimoto, Ko..... *Disclosed no conflict of interest.*

Hashimoto, Kunihiro ..... *Disclosed no conflict of interest.*

Hashimoto, Kyoko..... *Disclosed no conflict of interest.*

Hashimoto, Naoya..... *Disclosed no conflict of interest.*

Hashimoto, Shingo ..... *Disclosed no conflict of interest.*

Hashmi, Sohaib ..... *Disclosed no conflict of interest.*

Hasirci, Nesrin ..... *Disclosed no conflict of interest.*

Hasirci, Vasif ..... *Disclosed no conflict of interest.*

Haskins, James T ..... *Disclosed no conflict of interest.*

Hassan, Chaudhry R ..... *Disclosed no conflict of interest.*

Hast, Michael W..... 5: DePuy Synthes, Integra.

Hasty, Karen ..... *Disclosed no conflict of interest.*

Hasty, Karen A ..... *Disclosed no conflict of interest.*

Hata, Junichi..... *Disclosed no conflict of interest.*

Hatanaka, Hiroyuki..... *Disclosed no conflict of interest.*

Hatch III, George F "Rick" ..... 3B: Arthrex, Inc.

Hatsell, Sarah ..... 3A: Regeneron Pharmaceuticals.

Hattori, Tetsuya ..... *Disclosed no conflict of interest.*

Hatzikotoulas, Konstantinos ..... *Disclosed no conflict of interest.*

Hatzikotoulas, Kostas ..... *Disclosed no conflict of interest.*

Haudenschild, Anne K..... *Disclosed no conflict of interest.*

Haudenschild, Dominik R..... *Disclosed no conflict of interest.*

Haus, Samantha H..... *Disclosed no conflict of interest.*

Hausman, Bryan S ..... *Disclosed no conflict of interest.*

Hausman, Michael R ..... 3C: Checkpoint Surgical LLC; 4: Checkpoint Surgical LLC.

Havey, Robert M..... *Disclosed no conflict of interest.*

Hawley, Gregory..... *Disclosed no conflict of interest.*

Hayakawa, Ryoji..... *Disclosed no conflict of interest.*

Hayashi, Fumio ..... *Disclosed no conflict of interest.*

Hayashi, Hiroyuki..... *Disclosed no conflict of interest.*

Hayashi, Seiju..... *Disclosed no conflict of interest.*

Hayashi, Shigeki ..... *Disclosed no conflict of interest.*

Hayashi, Shinya ..... *Disclosed no conflict of interest.*

Hayashi, Takuo ..... *Disclosed no conflict of interest.*

Hayashi, Toyohiko ..... *Disclosed no conflict of interest.*

Hayball, John ..... *Disclosed no conflict of interest.*

Hayek, Kevin ..... *Disclosed no conflict of interest.*

Hayes, Alex J ..... 6: Johnson & Johnson DePuy Synthes.

Haynor, David R ..... *Disclosed no conflict of interest.*

He, Aishan ..... *Disclosed no conflict of interest.*

He, Bo ..... *Disclosed no conflict of interest.*

He, Jade ..... *Disclosed no conflict of interest.*

He, Ling ..... *Disclosed no conflict of interest.*

He, Wenjun ..... *Disclosed no conflict of interest.*

He, Ying ..... *Disclosed no conflict of interest.*

He, Zhengqiang ..... *Disclosed no conflict of interest.*

Healey, Robert M ..... *Disclosed no conflict of interest.*

Heard, Bryan J ..... *Disclosed no conflict of interest.*

Heath, Paul R ..... *Disclosed no conflict of interest.*

Hecht, Andrew C ..... 1: Zimmer Spine 3B: Zimmer, Medtronic.

Heck, Chris ..... *Disclosed no conflict of interest.*

Heck, Christopher ..... *Disclosed no conflict of interest.*

Heckelman, Lauren N ..... *Disclosed no conflict of interest.*

Heckelsmiller, David ..... *Disclosed no conflict of interest.*

Heckmann, Nathanael ..... *Disclosed no conflict of interest.*

Hedlund, Håkan ..... *Disclosed no conflict of interest.*

Heebner, Nicholas R ..... *Disclosed no conflict of interest.*

Heggen, Marc ..... *Disclosed no conflict of interest.*

Heggeness, Michael H ..... 1: Relievant Medsystems; 4: Relievant Medsystems.

Heidari, Keemia S ..... *Disclosed no conflict of interest.*

Heise, Andreas ..... *Disclosed no conflict of interest.*

Heldreth, Mark ..... 3A: 3A: DePuy Synthes Joint Reconstruction.



Helke, Kristi ..... *Disclosed no conflict of interest.*

Helmke, Elizabeth..... *Disclosed no conflict of interest.*

Hematti, Peiman ..... *Disclosed no conflict of interest.*

Henak, Corinne R..... *Disclosed no conflict of interest.*

Henckel, Johann..... *Disclosed no conflict of interest.*

Henderson, Shasta..... *Disclosed no conflict of interest.*

Henn III, R. Frank..... *Disclosed no conflict of interest.*

Henn, Ralph Frank ..... *Disclosed no conflict of interest.*

Hennig, Windhagen..... *Disclosed no conflict of interest.*

Henning, Elizabeth A ..... *Disclosed no conflict of interest.*

Henninger, Heath B..... *Disclosed no conflict of interest.*

Henry, Brandon Michael ..... *Disclosed no conflict of interest.*

Heo, Su-Jin ..... *Disclosed no conflict of interest.*

Herath, Steven C ..... *Disclosed no conflict of interest.*

Herbert, Anthony..... *Disclosed no conflict of interest.*

Herbst, Elmar..... *Disclosed no conflict of interest.*

Hernandez, Christopher J ..... *Disclosed no conflict of interest.*

Hernandez, Jorge ..... *Disclosed no conflict of interest.*

Hernandez, Paula A..... *Disclosed no conflict of interest.*

Herod, Tyler W..... *Disclosed no conflict of interest.*

Herrera, Elizabeth..... 3A: Stryker; 4: Stryker.

Herrera, Lizeth ..... 3A: Stryker.

Herrmann, Marietta ..... *Disclosed no conflict of interest.*

Herzig, Matthew S. .... *Disclosed no conflict of interest.*

Herzog, Walter ..... *Disclosed no conflict of interest.*

Hettinghouse, Aubyanne ..... *Disclosed no conflict of interest.*

Hetzel, Scott ..... *Disclosed no conflict of interest.*

Hewett, Timothy E..... *Disclosed no conflict of interest.*

Hickok, Noreen J..... 5: IBX, NIH, Irrisept, SterileBits, Zimmer.

Hicks, Justin ..... *Disclosed no conflict of interest.*

Higaki, Hidehiko ..... *Disclosed no conflict of interest.*

**Higashi, Hidetaka** ..... *Disclosed no conflict of interest.*

**Higashihira, Shota**..... *Disclosed no conflict of interest.*

**Higgs, Genymphas B.**..... *Disclosed no conflict of interest.*

**Highmore, Kerri**..... *Disclosed no conflict of interest.*

**Higuchi, Hiroshi**..... *Disclosed no conflict of interest.*

**Higuchi, Shohei**..... *Disclosed no conflict of interest.*

**Higuchi, Yoshitoshi**..... *Disclosed no conflict of interest.*

**Higuera, Carlos A**..... 3B: KCI, Zimmer Biomet, Covance, Pfizer; 5: Aerobiotix, Stryker, Myoscience, CD Diagnostics, KCI, OREF, Pacira, Orthofix, OREF, Cymedica, 3M.

**Higuera-Rueda, Carlos** ..... *Disclosed no conflict of interest.*

**Higuma, Yasuo** ..... *Disclosed no conflict of interest.*

**Hildebrand, Kevin**..... *Disclosed no conflict of interest.*

**Hildebrand, Maria** ..... *Disclosed no conflict of interest.*

**Hill, Genevieve** ..... *Disclosed no conflict of interest.*

**Hill, J. Ryan**..... *Disclosed no conflict of interest.*

**Hill, Ronald** ..... 3A: AgNovos Healthcare; 4: AgNovos Healthcare.

**Hill, William**..... *Disclosed no conflict of interest.*

**Hills, Andrew F**..... *Disclosed no conflict of interest.*

**Hillstrom, Howard J** ..... 3B: Consultant; 5: PI.

**Hillstrom, Rajshree** ..... 5: PI.

**Hilton, Matthew J**..... *Disclosed no conflict of interest.*

**Hindieh, Jennifer**..... *Disclosed no conflict of interest.*

**Hines, Gary** ..... 3A: MicroPort Orthopedics Inc.

**Hing, Karin A.** ..... *Disclosed no conflict of interest.*

**Hino, Kyosuke** ..... 3A: KYosuke HIno.

**Hino, Tomohito**..... *Disclosed no conflict of interest.*

**Hinojosa, Christopher**..... 3A: Emulate Inc.; 4: Emulate Inc,

**Hippensteel, Elizabeth**..... 3A: DePuy Synthes Joint Reconstruction; 4: DePuy Synthes Joint Reconstruction.

**Hirano, Fumitaka**..... *Disclosed no conflict of interest.*

**Hirata, Hitoshi**..... *Disclosed no conflict of interest.*

**Hirata, Keisuke** ..... *Disclosed no conflict of interest.*

**Hiratsuka, Shigeto**..... *Disclosed no conflict of interest.*

**Hirayama, Noriaki**..... *Disclosed no conflict of interest.*

**Hiroshima, Yuji**..... *Disclosed no conflict of interest.*

**Hirschmann, Michael** ..... 3B: DePuy, A Johnson & Johnson Company, Smith&Newpew.

**Hirsh, David** ..... *Disclosed no conflict of interest.*

**Hirvasniemi, Jukka**..... *Disclosed no conflict of interest.*

**Hishikawa, Yoshitaka**..... *Disclosed no conflict of interest.*

**Hishimura, Ryosuke**..... *Disclosed no conflict of interest.*

**Hishimura, Ryosuku** ..... *Disclosed no conflict of interest.*

**Hitt, Kirby D.** ..... 3B: Stryker.

**Hittel, Dustin** ..... *Disclosed no conflict of interest.*

**Hiyama, Akihiko** ..... *Disclosed no conflict of interest.*

**Ho, Charles P**..... 3B: Rotation Medical consultant; 5: PI affiliated with the Steadman Philippon Research Institute which receives corporate support from Smith & Nephew Endoscopy, Arthrex, Siemens Medical Solutions, USA, Ossur Americas, and Vail Health.

**Ho, Fang Yuan**..... 3A: United Orthopedic Corp.; 4: United Orthopedic Corp,

**Ho, Ki Wai Kevin**..... *Disclosed no conflict of interest.*

**Ho, Kiwai** ..... *Disclosed no conflict of interest.*

**Ho, Mei-Ling** ..... *Disclosed no conflict of interest.*

**Ho, Nathan C** ..... *Disclosed no conflict of interest.*

**Ho, Noelani B**..... *Disclosed no conflict of interest.*

**Ho, Pei-Shan** ..... *Disclosed no conflict of interest.*

**Hoang, Henry**..... *Disclosed no conflict of interest.*

**Hoang, Victor C** ..... *Disclosed no conflict of interest.*

**Hoang-Kim, Amy** ..... *Disclosed no conflict of interest.*

**Hodes, Shoshana**..... *Disclosed no conflict of interest.*

**Hoerrner, Megan E**..... *Disclosed no conflict of interest.*

**Hoey, David A**..... *Disclosed no conflict of interest.*

**Hoffman, Jason** ..... *Disclosed no conflict of interest.*

**Hoffman, Jeffrey W** ..... *Disclosed no conflict of interest.*

**Hoffman, Joshua**..... *Disclosed no conflict of interest.*

**Hofilena, Brian**..... 3A: Samumed LLC; 4: Samumed LLC.

Hogan, MaCalus ..... *Disclosed no conflict of interest.*

Hogan, MaCalus V ..... *Disclosed no conflict of interest.*

Hogue, Brenna ..... *Disclosed no conflict of interest.*

Hogue, Grant D ..... *Disclosed no conflict of interest.*

Hokari, Sho ..... *Disclosed no conflict of interest.*

holden, paul ..... *Disclosed no conflict of interest.*

Holdsworth, David W ..... 3C: ADEISS Canada.

Holguin, Nilsson ..... *Disclosed no conflict of interest.*

Holland, Tai C ..... *Disclosed no conflict of interest.*

Hollenbeck, Justin F M ..... *Disclosed no conflict of interest.*

Hollenberg, Morley ..... *Disclosed no conflict of interest.*

Hollister, Scott ..... *Disclosed no conflict of interest.*

Holt, Cathy A ..... *Disclosed no conflict of interest.*

**Holt, Melissa** ..... *Disclosed no conflict of interest.*

Holyoak, Derek ..... *Disclosed no conflict of interest.*

Holyoak, Derek T ..... *Disclosed no conflict of interest.*

Hom, Warren W ..... *Disclosed no conflict of interest.*

Homan, Kentaro ..... *Disclosed no conflict of interest.*

Honegger, Jasmin ..... *Disclosed no conflict of interest.*

Hong, Minpyo ..... *Disclosed no conflict of interest.*

Hong, Soohyung ..... *Disclosed no conflict of interest.*

Hong, Xin ..... *Disclosed no conflict of interest.*

Hongbin, Lu ..... *Disclosed no conflict of interest.*

Honma, Ryusuke ..... *Disclosed no conflict of interest.*

Hontani, Kazutoshi ..... *Disclosed no conflict of interest.*

Hood, Brandon ..... *Disclosed no conflict of interest.*

Hopkins, Leone S ..... *Disclosed no conflict of interest.*

Hopkinson, William ..... *Disclosed no conflict of interest.*

Hoppensteadt, Debra ..... *Disclosed no conflict of interest.*

Horaguchi, Takashi ..... *Disclosed no conflict of interest.*

Hori, Tsubasa ..... *Disclosed no conflict of interest.*

**Horie, Masafumi** ..... *Disclosed no conflict of interest.*  
**Horie, Tatsunori**..... *Disclosed no conflict of interest.*  
**Horigome, Kazuhiko** ..... 3A: Kazuhiko Horigome.  
**Horii, Motoyuki** ..... *Disclosed no conflict of interest.*  
**Horikawa, Etsuo** ..... *Disclosed no conflict of interest.*  
**Horiuchi, Keisuke**..... *Disclosed no conflict of interest.*  
**Hornbuckle, Jacob H.T.** ..... *Disclosed no conflict of interest.*  
**Horne, Devante A** ..... *Disclosed no conflict of interest.*  
**Hornicek, Francis** ..... *Disclosed no conflict of interest.*  
**Horsfield, Michael W** ..... *Disclosed no conflict of interest.*  
**Horton, Jason A.** ..... *Disclosed no conflict of interest.*  
**Horwitz, Edwin M**..... *Disclosed no conflict of interest.*  
**Hoshi, Kenji** ..... *Disclosed no conflict of interest.*  
**Hoshino, Hironobu**..... *Disclosed no conflict of interest.*  
**Hoshino, Masahiro** ..... *Disclosed no conflict of interest.*  
**Hoshino, Takashi** ..... *Disclosed no conflict of interest.*  
**hoshino, yuichi**..... *Disclosed no conflict of interest.*  
**Hoshiyama, Minoru** ..... *Disclosed no conflict of interest.*  
**Hosihika, Shota** ..... *Disclosed no conflict of interest.*  
**Hosoi, Takashi**..... *Disclosed no conflict of interest.*  
**Hothi, Harry** ..... *Disclosed no conflict of interest.*  
**Hou, Chun Han** ..... *Disclosed no conflict of interest.*  
**Hou, Sheng-Mou**..... *Disclosed no conflict of interest.*  
**Houston, John M** ..... *Disclosed no conflict of interest.*  
**Howard, Linda** ..... *Disclosed no conflict of interest.*  
**Howarth, Holly M** ..... *Disclosed no conflict of interest.*  
**Howden, Reuben** ..... *Disclosed no conflict of interest.*  
**Howe, Kathryn** ..... *Disclosed no conflict of interest.*  
**Howe, Lia** ..... *Disclosed no conflict of interest.*  
**Howe, Tet Sen** ..... *Disclosed no conflict of interest.*  
**Howell, Jared** ..... *Disclosed no conflict of interest.*

**Howell, Kristen** ..... *Disclosed no conflict of interest.*

**Howell, Stephen M.** ..... 1: Zimmer Biomet; 2: Zimmer Biomet; 3B: Zimmer Biomet, THINK Surgical; 5: Zimmer Biomet; 7: Saunders/Mosby-Elsevier.

**Hoy, Robert**..... 3A: First Ray, LLC.

**Hoyland, Judith A.**..... *Disclosed no conflict of interest.*

**Hoyt, Anthony J.**..... *Disclosed no conflict of interest.*

**Hozack, William J** ..... 5: Stryker; 6: Stryker.

**Hsia, Allison W** ..... *Disclosed no conflict of interest.*

**Hsieh, Adam H.**..... *Disclosed no conflict of interest.*

**Hsieh, Tien-Jye**..... *Disclosed no conflict of interest.*

**Hsu, Erin L** ..... 1: Stryker; 2: AONA, Stryker; 3B: Stryker, Bacterin, Graftys, Globus, AONA, SI Bone, Relevant, Ceramtec, Medtronic Sofamor Danek, Bioventus, LifeNet, RTI; 5: Medtronic.

**Hsu, Erin L.** ..... 1: Stryker; 2: AONA; 3B: Stryker, Bacterin, Graftys, Globus, AONA, SI Bone, Relevant, Ceramtec, Medtronic Sofamor Danek, Bioventus, LifeNet, RTI; 5: Medtronic.

**Hsu, Felix H** ..... *Disclosed no conflict of interest.*

**Hsu, Horng-Chaung** ..... *Disclosed no conflict of interest.*

**Hsu, Lin-I**..... *Disclosed no conflict of interest.*

**Hsu, Ming-Lun** ..... *Disclosed no conflict of interest.*

**Hsu, Shan-Ling**..... *Disclosed no conflict of interest.*

**Hsu, Shiaowen David**..... *Disclosed no conflict of interest.*

**Hsu, Wellington** ..... 1: Stryker; 2: AONA; 3B: Stryker, Bacterin, Graftys, Globus, AONA, SI Bone, Relevant, Ceramtec, Medtronic Sofamor Danek, Bioventus, LifeNet, RTI; 5: Medtronic.

**Hsu, Wellington K.** ..... 1: Stryker; 2: AONA; 3B: Stryker, Bacterin, Graftys, Globus, AONA, SI Bone, Relevant, Ceramtec, Medtronic Sofamor Danek, Bioventus, LifeNet, RTI; 5: Medtronic.

**Hu, Gene S.**..... *Disclosed no conflict of interest.*

**Hu, Jerry C.**..... *Disclosed no conflict of interest.*

**Hu, Liangjun** ..... *Disclosed no conflict of interest.*

**Hu, Ming-Hsiao**..... *Disclosed no conflict of interest.*

**Hu, Nan** ..... *Disclosed no conflict of interest.*

**Hu, Yizhong** ..... *Disclosed no conflict of interest.*

**Hua, Jia** ..... *Disclosed no conflict of interest.*

**Huang, Alice H.**..... 2: Novartis.

**Huang, Angela**..... 3A: EpiBone; 4: EpiBone.

Huang, Bert..... *Disclosed no conflict of interest.*  
Huang, Chang-Hung ..... *Disclosed no conflict of interest.*  
Huang, Chun-Hao..... *Disclosed no conflict of interest.*  
Huang, Chun-Hsiung ..... *Disclosed no conflict of interest.*  
Huang, Chun-Yuh..... *Disclosed no conflict of interest.*  
Huang, Hsin-Yi ..... *Disclosed no conflict of interest.*  
Huang, Hsuan-Ti..... *Disclosed no conflict of interest.*  
Huang, Jhih-Fong..... *Disclosed no conflict of interest.*  
Huang, Junming ..... *Disclosed no conflict of interest.*  
Huang, Mengting ..... *Disclosed no conflict of interest.*  
Huang, Ming-Tung..... *Disclosed no conflict of interest.*  
Huang, Shu-Wei..... *Disclosed no conflict of interest.*  
Huang, Xiayun ..... *Disclosed no conflict of interest.*  
Huang, Yu-Ting..... *Disclosed no conflict of interest.*  
HUANG, YU-WEN ..... *Disclosed no conflict of interest.*  
Huang, Yuzhao ..... *Disclosed no conflict of interest.*  
Huang, Zhenyue ..... *Disclosed no conflict of interest.*  
Huang, Zhiyu ..... *Disclosed no conflict of interest.*  
Huard, Charles ..... *Disclosed no conflict of interest.*  
Huard, Charles A..... *Disclosed no conflict of interest.*  
Huard, Johnny ..... *Disclosed no conflict of interest.*  
Hudson, David M..... *Disclosed no conflict of interest.*  
Hudson, Wendy ..... *Disclosed no conflict of interest.*  
Huebinger, Ryan..... *Disclosed no conflict of interest.*  
Huebner, Janet L..... *Disclosed no conflict of interest.*  
Huegel, Julianne..... *Disclosed no conflict of interest.*  
Huesken, Laura ..... *Disclosed no conflict of interest.*  
Huff, Daniel N ..... 3A: Depuy Synthes.  
Hughes-Oliver, Cherice ..... *Disclosed no conflict of interest.*  
Hui, James H. .... *Disclosed no conflict of interest.*  
Hulbert, Brianna ..... *Disclosed no conflict of interest.*

Hull, Maury L ..... 5: THINK Surgical, Zimmer Biomet.

Hullfish, Todd J ..... *Disclosed no conflict of interest.*

Hulstyn, Michael J ..... *Disclosed no conflict of interest.*

Hum, Julia M ..... *Disclosed no conflict of interest.*

Hume, Donald R ..... *Disclosed no conflict of interest.*

Hung, Clark T ..... 1: Allosource, 7: Editor, Journal of Orthopedic Research.

Hung, Han-Hwa K ..... *Disclosed no conflict of interest.*

Hung, Hsiaomin ..... *Disclosed no conflict of interest.*

Hung, Li-Wei ..... *Disclosed no conflict of interest.*

Hunt, Emily ..... *Disclosed no conflict of interest.*

Hurst, Emily ..... *Disclosed no conflict of interest.*

Hurtig, Mark ..... *Disclosed no conflict of interest.*

Hurvitz, Edward ..... *Disclosed no conflict of interest.*

Hüsken, Laura ..... *Disclosed no conflict of interest.*

Husman, Regina ..... *Disclosed no conflict of interest.*

Hussain, Ibrahim ..... *Disclosed no conflict of interest.*

Hussein, Amira I ..... *Disclosed no conflict of interest.*

Hussein, Khaled ..... *Disclosed no conflict of interest.*

Hussein, Nazar ..... *Disclosed no conflict of interest.*

Hutter, Erin E ..... *Disclosed no conflict of interest.*

Huynh, Nguyen PT ..... *Disclosed no conflict of interest.*

Hwang, Phillip ..... *Disclosed no conflict of interest.*

Hyodo, Akinobu ..... *Disclosed no conflict of interest.*

Hysong, Alexander A ..... *Disclosed no conflict of interest.*

Iannotti, Joseph P ..... *Disclosed no conflict of interest.*

Iatridis, James C ..... *Disclosed no conflict of interest.*

Iba, Kousuke ..... *Disclosed no conflict of interest.*

Ibanez, Jennifer R ..... *Disclosed no conflict of interest.*

Ibanez, Maureen ..... 3A: Samumed LLC; 4: Samumed LLC.

Ibaraki, Kazuyuki ..... *Disclosed no conflict of interest.*

IBARRA, CLEMENTE ..... *Disclosed no conflict of interest.*



Ibrahim, Ahmed S..... *Disclosed no conflict of interest.*  
Ibrahim, Mazen M ..... *Disclosed no conflict of interest.*  
Ibrahim, Miriam ..... *Disclosed no conflict of interest.*  
Ibrahim, Muhammad ..... *Disclosed no conflict of interest.*  
Ichikawa, Jiro ..... *Disclosed no conflict of interest.*  
Ichimaru, Shohei ..... *Disclosed no conflict of interest.*  
Ichinohe, Masayuki ..... *Disclosed no conflict of interest.*  
Ichinose, Shizuko..... *Disclosed no conflict of interest.*  
Idkaidek, Ashraf ..... *Disclosed no conflict of interest.*  
Igarashi, Hidetoshi..... *Disclosed no conflict of interest.*  
Igarashi, Yoichi ..... *Disclosed no conflict of interest.*  
Ignatius, Anita ..... *Disclosed no conflict of interest.*  
Iguchi, Hiroataka ..... *Disclosed no conflict of interest.*  
iida, tsuyoshi ..... *Disclosed no conflict of interest.*  
Iijima, Yuki ..... *Disclosed no conflict of interest.*  
Iino, Takahiro..... *Disclosed no conflict of interest.*  
Iinuma, Yoshitugu..... *Disclosed no conflict of interest.*  
Iizawa, Norishige ..... *Disclosed no conflict of interest.*  
Ikari, Katsunori..... *Disclosed no conflict of interest.*  
Ike, Hiroyuki..... *Disclosed no conflict of interest.*  
Ikebe, Satoru ..... *Disclosed no conflict of interest.*  
Ikeda, Hiroshi ..... *Disclosed no conflict of interest.*  
Ikegami, Akira..... *Disclosed no conflict of interest.*  
Ikegami, Hiroyasu ..... *Disclosed no conflict of interest.*  
Ikeguchi, Ryosuke..... *Disclosed no conflict of interest.*  
Ikemura, Satoshi ..... *Disclosed no conflict of interest.*  
Ikeuchi, Masahiko ..... *Disclosed no conflict of interest.*  
Ikeya, Makoto ..... 5: Makoto Ikeya.  
Ikoma, Kazuya ..... *Disclosed no conflict of interest.*  
Ikumi, Akira..... *Disclosed no conflict of interest.*  
Ikuta, Kunihiro..... *Disclosed no conflict of interest.*

**Iliff, Grady** ..... *Disclosed no conflict of interest.*

**Ilkayeva, Olga** ..... *Disclosed no conflict of interest.*

**Illien-Junger, Svenja** ..... *Disclosed no conflict of interest.*

**Iloanya, Michael** ..... *Disclosed no conflict of interest.*

**Ilyashov, Isaac** ..... *Disclosed no conflict of interest.*

**Im, Gi Hye** ..... *Disclosed no conflict of interest.*

**Im, Gun-Il** ..... *Disclosed no conflict of interest.*

**Im, Hee-Jeong** ..... *Disclosed no conflict of interest.*

**Imagama, Shiro** ..... 1: the Japan Agency for Medical Research and Development (AMED).

**Imai, Satoshi** ..... *Disclosed no conflict of interest.*

**Imai, Sousuke** ..... *Disclosed no conflict of interest.*

**Imbesi, Rosa** ..... *Disclosed no conflict of interest.*

**Imbrie-Moore, Annabel** ..... *Disclosed no conflict of interest.*

**Imhauser, Carl W** ..... *Disclosed no conflict of interest.*

**Imholt, Felisha** ..... *Disclosed no conflict of interest.*

**Inaba, Naoto** ..... *Disclosed no conflict of interest.*

**Inaba, Yutaka** ..... 2: Stryker, Zimmer Biomet; 5: Stryker, Smith & Nephew, Zimmer Biomet.

**Inagaki, Naoya** ..... *Disclosed no conflict of interest.*

**Inagaki, Yusuke** ..... *Disclosed no conflict of interest.*

**Inamdar, Ankita** ..... *Disclosed no conflict of interest.*

**Inamdar, Gaurav P** ..... *Disclosed no conflict of interest.*

**Incavo, Stephen** ..... 1: Biomet, Innomed, Zimmer, Smith & Nephew, Wright Medical Technology Inc.; 3B: Zimmer; 4: Zimmer; 7: Journal of Arthroplasty.

**Indelli, Pier F** ..... *Disclosed no conflict of interest.*

**Indresano, Andy** ..... *Disclosed no conflict of interest.*

**Ingham, Eileen** ..... 3B: Tissue Regenix, DePuy, Stryker; 3C: DePuy; 4: Tissue Regenix; 5: Tissue Regenix, DePuy.

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**Inkrott, Bradley** ..... *Disclosed no conflict of interest.*

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**Inomata, Kei** ..... *Disclosed no conflict of interest.*

**Inoue, Hiroaki** ..... *Disclosed no conflict of interest.*

**Inoue, Nozumu** ..... 5: National Institutes of Health (NCCIH).

**Inoue, Takayuki** ..... 3A: TEIJIN NAKASHIMA MEDICAL CO., LTD.

**Inui, Atsuyuki** ..... *Disclosed no conflict of interest.*

**Inui, Hiroshi** ..... *Disclosed no conflict of interest.*

**Iorio, Richard** ..... 3B: DJO, MCS ActiveCare, Pacira Pharmaceutical; 4: Force Therapeutics, MCS ActiveCare, URX Mobile, Wellbe; 5: Bioventus, Ferring Pharmaceutical, Orthofix, Orthosensor, Pacira Pharmaceutical, Vericel.

**Irie, Tohru** ..... *Disclosed no conflict of interest.*

**Iriuchishima, Takanori** ..... *Disclosed no conflict of interest.*

**Irrgang, James** ..... *Disclosed no conflict of interest.*

**Irwin, Pdraig** ..... *Disclosed no conflict of interest.*

**Irwin, Rebecca M** ..... 6: Fidia Pharma Group.

**Isa, Diana A.** ..... *Disclosed no conflict of interest.*

**Isaksson, Hanna** ..... *Disclosed no conflict of interest.*

**Iseki, Tomoya** ..... *Disclosed no conflict of interest.*

**Isenberg, Jeffery** ..... *Disclosed no conflict of interest.*

**Ishibashi, Hidenobu** ..... *Disclosed no conflict of interest.*

**Ishibashi, Teruya** ..... *Disclosed no conflict of interest.*

**Ishibashi, Yasuyuki** ..... *Disclosed no conflict of interest.*

**Ishibashi, Yoichi** ..... *Disclosed no conflict of interest.*

**Ishida, Kazunari** ..... *Disclosed no conflict of interest.*

**Ishida, Masashi** ..... *Disclosed no conflict of interest.*

**Ishida, Shoichi** ..... *Disclosed no conflict of interest.*

**Ishida, Tomoya** ..... *Disclosed no conflict of interest.*

**Ishidou, Yasuhiro** ..... *Disclosed no conflict of interest.*

**Ishiguro, Hiroyuki** ..... *Disclosed no conflict of interest.*

**Ishiguro, Naoki** ..... *Disclosed no conflict of interest.*

**Ishii, Hana** ..... *Disclosed no conflict of interest.*

**Ishii, Ken** ..... *Disclosed no conflict of interest.*

**Ishii, Tomoo** ..... *Disclosed no conflict of interest.*

**Ishii, Yoshinori** ..... *Disclosed no conflict of interest.*

**Ishikawa, Masahiro** ..... 1: Silicon nitride implants that we used in this study.

**Ishikawa, Masakazu** ..... *Disclosed no conflict of interest.*

**Ishimatsu, Tetsuro** ..... *Disclosed no conflict of interest.*

**Islam, Tasnim** ..... *Disclosed no conflict of interest.*

**Ismaily, Sabir** ..... *Disclosed no conflict of interest.*

**Ita, Meagan** ..... *Disclosed no conflict of interest.*

**Itai, Yoshinori** ..... 3A: Paid employee.

**itakura, go** ..... *Disclosed no conflict of interest.*

**Itamura, John M.** ..... 2: Accumed, Wright Medical; 3B: Accumed, Arthrex, Tournier, Wright Medical.

**Ithurburn, Matthew P** ..... *Disclosed no conflict of interest.*

**Ito, Akira** ..... *Disclosed no conflict of interest.*

**Ito, Hiromu** ..... 5: Bristol-Myers, Astellas.

**Ito, Hiroshi** ..... *Disclosed no conflict of interest.*

**Ito, Kazuya** ..... *Disclosed no conflict of interest.*

**Ito, Kuniyuki** ..... *Disclosed no conflict of interest.*

**Ito, Masaaki** ..... *Disclosed no conflict of interest.*

**Ito, Naoya** ..... *Disclosed no conflict of interest.*

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**Ito, Takuji** ..... *Disclosed no conflict of interest.*

**Itoh, Kyoko** ..... *Disclosed no conflict of interest.*

**Itoi, Eiji** ..... *Disclosed no conflict of interest.*

**Itsuji, Tomonori** ..... *Disclosed no conflict of interest.*

**Iversen, Timothy** ..... *Disclosed no conflict of interest.*

**Ivkovic, Alan** ..... *Disclosed no conflict of interest.*

**Iwa, Eiichiro** ..... *Disclosed no conflict of interest.*

**Iwabuchi, Sarina** ..... *Disclosed no conflict of interest.*

**Iwakura, Takashi** ..... *Disclosed no conflict of interest.*

**Iwama, Genki** ..... *Disclosed no conflict of interest.*

**Iwamoto, Masahiro** ..... *Disclosed no conflict of interest.*

**Iwamoto, Masami** ..... *Disclosed no conflict of interest.*

**Iwamoto, Takuji** ..... *Disclosed no conflict of interest.*

**Iwamoto, Wataru** ..... *Disclosed no conflict of interest.*

**IWASAKI, KOJI** ..... *Disclosed no conflict of interest.*

**Iwasaki, Norimasa** ..... *Disclosed no conflict of interest.*

**Iwata, Eiichiro** ..... *Disclosed no conflict of interest.*

**Iwata, Ken** ..... *Disclosed no conflict of interest.*

**Iwatmoto, Masahiro** ..... *Disclosed no conflict of interest.*

**Iwatsuki, Katsuyuki** ..... *Disclosed no conflict of interest.*

**Iyer, Shama R** ..... *Disclosed no conflict of interest.*

**IZAGUIRRE, ALDO** ..... *Disclosed no conflict of interest.*

**Izpisua Belmonte, Juan C** ..... *Disclosed no conflict of interest.*

**Izuchukwu, Ibe** ..... *Disclosed no conflict of interest.*

**Izumi, Masashi** ..... *Disclosed no conflict of interest.*

**Izumi, Sohtaroh** ..... *Disclosed no conflict of interest.*

**Jaasma, Michael** ..... 3A: TheraNova LLC.

**Jaber, Fatima** ..... *Disclosed no conflict of interest.*

**Jablonowski, Lauren J** ..... *Disclosed no conflict of interest.*

**Jack, Ashley** ..... *Disclosed no conflict of interest.*

**Jackson, Alicia R** ..... *Disclosed no conflict of interest.*

**Jackson, Nancy** ..... *Disclosed no conflict of interest.*

**Jackson, Wesley M** ..... 3A: Valitor, Inc.; 4: Valitor, Inc,

**Jacobs, Brittany Y** ..... *Disclosed no conflict of interest.*

**Jacobs, Cale** ..... *Disclosed no conflict of interest.*

**Jacobs, Joshua** ..... *Disclosed no conflict of interest.*

**Jacobs, Joshua J** ..... 3B: Medtronic Sofamor Danek; 4: Implant Protection; 5: Medtronic Sofamor Danek, NuVasive, Zimmer.

**Jacobs, Tom W** ..... *Disclosed no conflict of interest.*

**Jacobsen, Christina** ..... *Disclosed no conflict of interest.*

**Jacobsen, Hayley** ..... *Disclosed no conflict of interest.*

**Jacobsen, Hayley E** ..... *Disclosed no conflict of interest.*

**Jacobsen, Stephen** ..... *Disclosed no conflict of interest.*

**Jacobsen, Timothy** ..... *Disclosed no conflict of interest.*

**Jacobson, Richard** ..... *Disclosed no conflict of interest.*

**Jacxsens, Matthijs** ..... *Disclosed no conflict of interest.*

Jagga, Supriya ..... *Disclosed no conflict of interest.*

Jaggard, Mattew ..... *Disclosed no conflict of interest.*

Jaggard, Matthew ..... *Disclosed no conflict of interest.*

Jahandar, Hamidreza ..... *Disclosed no conflict of interest.*

Jahr, Holger ..... *Disclosed no conflict of interest.*

Jakubowitz, Eike ..... *Disclosed no conflict of interest.*

Jakus, Adam ..... *Disclosed no conflict of interest.*

Jalota, Sahil ..... 3A: SeaSpine.

James, Aaron ..... *Disclosed no conflict of interest.*

James, Aaron W ..... *Disclosed no conflict of interest.*

Jamieson, Paul ..... *Disclosed no conflict of interest.*

Jamison, David ..... *Disclosed no conflict of interest.*

Jamsen, Eemeli ..... *Disclosed no conflict of interest.*

Jämsen, Eemeli ..... *Disclosed no conflict of interest.*

Jancuska, Jeffrey ..... *Disclosed no conflict of interest.*

Jang, Eugene ..... 5: Stryker; 6: Stryker.

Jang, Eui-Chan ..... *Disclosed no conflict of interest.*

Jang, Shian-Ching ..... *Disclosed no conflict of interest.*

Jang, Younghoon ..... *Disclosed no conflict of interest.*

Jang, YoungWoong ..... *Disclosed no conflict of interest.*

Janney, Cory ..... *Disclosed no conflict of interest.*

Janssen, Dennis ..... *Disclosed no conflict of interest.*

Janssen, Nard G. .... *Disclosed no conflict of interest.*

Jansson, Hayley ..... *Disclosed no conflict of interest.*

Janz, Viktor ..... *Disclosed no conflict of interest.*

Jasiuk, Iwona ..... *Disclosed no conflict of interest.*

Javan, Ramin ..... *Disclosed no conflict of interest.*

Jawad, Michael ..... *Disclosed no conflict of interest.*

Jay, Gregory ..... 4: Lubris.

Jayaram, Rohith ..... *Disclosed no conflict of interest.*

Jayasuriya, Chathuraka ..... *Disclosed no conflict of interest.*

Jayasuriya, Chathuraka T..... *Disclosed no conflict of interest.*

Jayasuriya, Chathuraka T..... *Disclosed no conflict of interest.*

Jazrawe, Mushriq al ..... *Disclosed no conflict of interest.*

Jeffers, Jonathan ..... 1: Embody Orthopaedics; 4: Embody Orthopaedics.

Jeffers, Jonathan ..... 4: Embody.

Jeffers, Jonathan R. T..... 3A: Embody; 4: Embody.

Jeffers, Jonathan RT..... 4: Embody Ortho.

Jeffords, Megan..... *Disclosed no conflict of interest.*

Jeffords, Megan E ..... *Disclosed no conflict of interest.*

Jeffords, Megan E. .... *Disclosed no conflict of interest.*

Jejurikar, Neha ..... *Disclosed no conflict of interest.*

Jenkins, Daniel..... *Disclosed no conflict of interest.*

Jenkins, Lenicia N..... *Disclosed no conflict of interest.*

Jenkins, Thomas ..... *Disclosed no conflict of interest.*

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Jennings, J. Amber ..... 6: Osteoremedies, Promend; 7: Elsevier.

Jennings, Jessica A..... 6: Osteoremedies, Promend; 7: Elsevier.

Jennings, Jessica A..... 6: OsteoRemedies, Promend; 7: Elsevier.

Jennings, Louise..... 5: Invibio, DePuy Synthes, Mathys, Biocomposites.

Jennings, Louise M..... 5: Invibio, DePuy Synthes, Mathys, Biocomposites.

Jens, Axel K..... *Disclosed no conflict of interest.*

Jensen, Andrew ..... *Disclosed no conflict of interest.*

Jensen, Brian D ..... *Disclosed no conflict of interest.*

Jeon, Patrick..... *Disclosed no conflict of interest.*

Jeon, Sang Woo ..... *Disclosed no conflict of interest.*

Jeong, Se-Young..... *Disclosed no conflict of interest.*

Jeong, Soyeon ..... *Disclosed no conflict of interest.*

Jerban, Saeed..... *Disclosed no conflict of interest.*

Jevsevar, Kori ..... *Disclosed no conflict of interest.*

Jeyakumar, Vivek..... *Disclosed no conflict of interest.*

Jeyaram, Archana ..... *Disclosed no conflict of interest.*

**Ji, Gang**..... *Disclosed no conflict of interest.*

**Ji, Youngmu** ..... *Disclosed no conflict of interest.*

**Jia, Haorua**..... *Disclosed no conflict of interest.*

**Jia, Haoruo** ..... *Disclosed no conflict of interest.*

**JIAN, JIAO** ..... *Disclosed no conflict of interest.*

**Jian, Jinlong** ..... *Disclosed no conflict of interest.*

**Jiang, Hua-Ye** ..... *Disclosed no conflict of interest.*

**Jiang, Lei** ..... *Disclosed no conflict of interest.*

**Jiang, Ni-En** ..... *Disclosed no conflict of interest.*

**Jiang, Tongmeng** ..... *Disclosed no conflict of interest.*

**Jiang, Weibo** ..... *Disclosed no conflict of interest.*

**Jiang, Xi** ..... *Disclosed no conflict of interest.*

**Jiang, Xuesong** ..... *Disclosed no conflict of interest.*

**Jiang, Yangzi** ..... *Disclosed no conflict of interest.*

**Jin, Li**..... *Disclosed no conflict of interest.*

**Jin, Xin** ..... *Disclosed no conflict of interest.*

**Jin, Yonghui** ..... *Disclosed no conflict of interest.*

**Jin, Zhongmin** ..... *Disclosed no conflict of interest.*

**Jing, Liufang**..... *Disclosed no conflict of interest.*

**Jing, Xingzhi**..... *Disclosed no conflict of interest.*

**Jinnah, Alexander H**..... 7: Wright Medical Technology, Inc,

**Jinno, Tetsuya**..... 2: Stryker, Zimmer Biomet, DePuy Synthes.

**Jinzaki, Masahiro** ..... *Disclosed no conflict of interest.*

**Jiraneck, William A** ..... *Disclosed no conflict of interest.*

**Jirik, Frank**..... *Disclosed no conflict of interest.*

**Jirovec, Anna** ..... *Disclosed no conflict of interest.*

**Jobin, Charles M** ..... 3B: Tornier, Acumed; 3C: Zimmer, JAAOS.

**Joeng, Kyu-Sang**..... *Disclosed no conflict of interest.*

**Joens, Matthew S**..... *Disclosed no conflict of interest.*

**Johan, Muhammad P** ..... *Disclosed no conflict of interest.*

**Johanson, Norman**..... *Disclosed no conflict of interest.*



**John, Britton M**..... 5: Zimmer Biomet.

**Johnson, Alexa K**..... *Disclosed no conflict of interest.*

**Johnson, Casey P**..... *Disclosed no conflict of interest.*

**Johnson, Francis** ..... *Disclosed no conflict of interest.*

**Johnson, Gillian P**..... *Disclosed no conflict of interest.*

**Johnson, James**..... *Disclosed no conflict of interest.*

**Johnson, James A** ..... *Disclosed no conflict of interest.*

**Johnson, James A.**..... *Disclosed no conflict of interest.*

**Johnson, Jed**..... 3A: Atreon Orthopaedics.

**Johnson, Kimberly**..... *Disclosed no conflict of interest.*

**Johnson, Marit E** ..... *Disclosed no conflict of interest.*

**Johnson, Seth** ..... *Disclosed no conflict of interest.*

**Johnston, Helena** ..... *Disclosed no conflict of interest.*

**Johnston, Jessica M.**..... *Disclosed no conflict of interest.*

**Johnstone, Alan** ..... *Disclosed no conflict of interest.*

**Johnstone, Brian**..... 1: Royalties for patent licensed to Osiris Therapeutics.

**Jones, Alison**..... 6: DePuy Synthes.

**Jones, Bob**..... 3A: Smith & Nephew; 4: Smith & Nephew.

**Jones, Chad**..... *Disclosed no conflict of interest.*

**Jones, Kerwyn C** ..... *Disclosed no conflict of interest.*

**Jones, Kevin** ..... *Disclosed no conflict of interest.*

**Jones, Kristofer J**..... 5: MTF.

**Jones, Whitney**..... *Disclosed no conflict of interest.*

**Jonkers, Ilse** ..... *Disclosed no conflict of interest.*

**Jonkheijm, Pascal** ..... *Disclosed no conflict of interest.*

**Joseph, Gabby B**..... *Disclosed no conflict of interest.*

**Josephson, Anne Marie**..... *Disclosed no conflict of interest.*

**Joshi, Tej** ..... *Disclosed no conflict of interest.*

**Jösler, Lisa** ..... *Disclosed no conflict of interest.*

**Jost, Tyler**..... *Disclosed no conflict of interest.*

**Joukar, Amin** ..... *Disclosed no conflict of interest.*

**Jouret, Jill E**..... *Disclosed no conflict of interest.*

**Joutoku, Zenta** ..... *Disclosed no conflict of interest.*

**Judhi, Adham** ..... *Disclosed no conflict of interest.*

**Juhl, Otto J** ..... *Disclosed no conflict of interest.*

**Jukka, Pajarinen**..... *Disclosed no conflict of interest.*

**Juliano, Lauren** ..... *Disclosed no conflict of interest.*

**Juliano, Paul**..... *Disclosed no conflict of interest.*

**Junaid, Sarah** ..... *Disclosed no conflict of interest.*

**Jundt, Franziska**..... *Disclosed no conflict of interest.*

**June, Ronald** ..... 4: Stock in Beartooth Biotech.

**Juneau, Daniel**..... *Disclosed no conflict of interest.*

**Jung, Amaury** ..... 3A: Blue-Ortho.

**Jung, Gyu Ik** ..... *Disclosed no conflict of interest.*

**Jung, Min** ..... *Disclosed no conflict of interest.*

**Jungck, Ladina**..... *Disclosed no conflict of interest.*

**Jupiter, Daniel** ..... *Disclosed no conflict of interest.*

**Jurvelin, Jukka S**..... *Disclosed no conflict of interest.*

**Kabashima, Mototaka** ..... *Disclosed no conflict of interest.*

**Kabuto, Yukichi**..... *Disclosed no conflict of interest.*

**Kadhim, Muayad**..... *Disclosed no conflict of interest.*

**Kadirkamanathan, Visakan** ..... *Disclosed no conflict of interest.*

**Kadiyala, Manasa** ..... *Disclosed no conflict of interest.*

**Kadoor, Adarsh** ..... *Disclosed no conflict of interest.*

**Kadoya, Ken** ..... *Disclosed no conflict of interest.*

**Kafienah, Wael** ..... *Disclosed no conflict of interest.*

**Kage, Craig C** ..... *Disclosed no conflict of interest.*

**Kaghazchi, Aydin** ..... *Disclosed no conflict of interest.*

**Kaimrajh, David**..... *Disclosed no conflict of interest.*

**Kainz, Bernhard**..... *Disclosed no conflict of interest.*

**Kaiser, Jarred** ..... *Disclosed no conflict of interest.*

**Kaiser, Kathrin** ..... *Disclosed no conflict of interest.*

**Kaito, Takashi**..... *Disclosed no conflict of interest.*

**Kaizawa, Yukitoshi**..... *Disclosed no conflict of interest.*

**Kaji, Deepak A** ..... *Disclosed no conflict of interest.*

**Kaji, Yoshio** ..... *Disclosed no conflict of interest.*

**Kajiwara, Tomoko** ..... *Disclosed no conflict of interest.*

**Kakar, Sanjeev** ..... *Disclosed no conflict of interest.*

**Kaki, Mohamad**..... *Disclosed no conflict of interest.*

**Kakiuchi, Yuji** ..... *Disclosed no conflict of interest.*

**Kakoi, Hironori** ..... *Disclosed no conflict of interest.*

**Kakutani, Kenichiro** ..... *Disclosed no conflict of interest.*

**Kalagara, Saisanjana** ..... *Disclosed no conflict of interest.*

**Kalajzic, Ivo** ..... *Disclosed no conflict of interest.*

**Kalandiak, Steve** ..... 3B: Globus Medical.

**Kalinowski, Judith**..... *Disclosed no conflict of interest.*

**Kallenbach, Jacob G.**..... *Disclosed no conflict of interest.*

**Kalore, Niraj V** ..... *Disclosed no conflict of interest.*

**Kalra, Mayank**..... *Disclosed no conflict of interest.*

**Kalshoven, Josephine M** ..... *Disclosed no conflict of interest.*

**Kalsi, Gurdyal**..... 3A: TissueGene.

**Kamada, Satoshi** ..... *Disclosed no conflict of interest.*

**Kamal, Fadia** ..... *Disclosed no conflict of interest.*

**Kamarul, Tunku** ..... *Disclosed no conflict of interest.*

**Kamata, Etsuko** ..... *Disclosed no conflict of interest.*

**Kamata, Kei** ..... *Disclosed no conflict of interest.*

**Kamatani, Takashi**..... *Disclosed no conflict of interest.*

**Kamatsuki, Yusuke** ..... *Disclosed no conflict of interest.*

**Kameda, Toshiaki**..... *Disclosed no conflict of interest.*

**Kamei, Keita** ..... *Disclosed no conflict of interest.*

**Kamei, Naosuke** ..... *Disclosed no conflict of interest.*

**Kamimura, Daisuke**..... *Disclosed no conflict of interest.*

**Kan, Ho-Man** ..... *Disclosed no conflict of interest.*

**KANAJI, ARIHIKO**..... *Disclosed no conflict of interest.*

**Kanamori, Akihiro** ..... *Disclosed no conflict of interest.*

**Kanaya, Kumiko** ..... *Disclosed no conflict of interest.*

**Kanaya, Yuji**..... *Disclosed no conflict of interest.*

**Kanayama, Sadaaki**..... *Disclosed no conflict of interest.*

**Kanazawa, Motonori** ..... *Disclosed no conflict of interest.*

**Kanazawa, Tomonoshin** ..... *Disclosed no conflict of interest.*

**Kanda, Hiroساتo**..... *Disclosed no conflict of interest.*

**Kanda, Yutaro**..... *Disclosed no conflict of interest.*

**Kandel, Rita** ..... *Disclosed no conflict of interest.*

**Kandel, Shital** ..... *Disclosed no conflict of interest.*

**Kaneda, Daisuke** ..... *Disclosed no conflict of interest.*

**Kaneko, Kazuo** ..... *Disclosed no conflict of interest.*

**Kaneko, Keiko** ..... *Disclosed no conflict of interest.*

**Kaneko, Yasuhito**..... *Disclosed no conflict of interest.*

**Kanemitsu, Munekazu** ..... *Disclosed no conflict of interest.*

**Kanemura, Naohiko** ..... *Disclosed no conflict of interest.*

**Kaneoka, Koji** ..... *Disclosed no conflict of interest.*

**Kaneuji, Ayumi**..... *Disclosed no conflict of interest.*

**Kaneyama, Ryutaku**..... *Disclosed no conflict of interest.*

**Kang, Hyunwoo Paco** ..... *Disclosed no conflict of interest.*

**Kang, James D** ..... *Disclosed no conflict of interest.*

**Kang, Jason**..... *Disclosed no conflict of interest.*

**Kang, Kyeong-Rok**..... *Disclosed no conflict of interest.*

**Kang, Kyoung-Tak** ..... *Disclosed no conflict of interest.*

**Kang, Mi-Lan** ..... *Disclosed no conflict of interest.*

**Kanim, Linda** ..... 4: Medtronic.

**Kannan, Abhishek**..... *Disclosed no conflict of interest.*

**Kanno, Haruo** ..... *Disclosed no conflict of interest.*

**Kano, Takuma** ..... *Disclosed no conflict of interest.*

**Kanzaki, Koji**..... *Disclosed no conflict of interest.*

**kanzaki, noriyuki** ..... *Disclosed no conflict of interest.*  
**Kao, Yi-Ling** ..... *Disclosed no conflict of interest.*  
**Kaplan, Lee** ..... *Disclosed no conflict of interest.*  
**Kapoor, Mohit** ..... *Disclosed no conflict of interest.*  
**Karabetsos, Matthew** ..... *Disclosed no conflict of interest.*  
**Karam, Matthew D** ..... 4: Mortise Medical LLC.  
**Karamchedu, Naga Padmini** ..... *Disclosed no conflict of interest.*  
**Karamchedu, Padmini** ..... *Disclosed no conflict of interest.*  
**Karchner, James P** ..... *Disclosed no conflict of interest.*  
**Karim, Lamya** ..... *Disclosed no conflict of interest.*  
**Karim, Syed M** ..... *Disclosed no conflict of interest.*  
**Karita, Yukiko** ..... *Disclosed no conflict of interest.*  
**Karkenny, Alexa J** ..... *Disclosed no conflict of interest.*  
**Karner, Courtney M** ..... *Disclosed no conflict of interest.*  
**Karpal, Fatih** ..... *Disclosed no conflict of interest.*  
**Kärholm, Johan** ..... *Disclosed no conflict of interest.*  
**Kartha, Sonia** ..... *Disclosed no conflict of interest.*  
**Karuppaiah, Kannan** ..... *Disclosed no conflict of interest.*  
**Kasai, Yusuke** ..... *Disclosed no conflict of interest.*  
**Kaseta, Timothy** ..... *Disclosed no conflict of interest.*  
**Kashiwa, Kaori** ..... *Disclosed no conflict of interest.*  
**Kassey, Victor** ..... *Disclosed no conflict of interest.*  
**Kasten, Philip** ..... *Disclosed no conflict of interest.*  
**Kasukonis, Ben** ..... *Disclosed no conflict of interest.*  
**Katagiri, Hiroki** ..... *Disclosed no conflict of interest.*  
**Katagiri, Kenta** ..... *Disclosed no conflict of interest.*  
**Katakura, Mai** ..... *Disclosed no conflict of interest.*  
**Katano, Hisako** ..... *Disclosed no conflict of interest.*  
**Kataoka, Hiroaki** ..... *Disclosed no conflict of interest.*  
**Kataoka, Kohei** ..... *Disclosed no conflict of interest.*  
**Kataoka, Takeshi** ..... *Disclosed no conflict of interest.*

**Kataoka, Tatsunori**..... *Disclosed no conflict of interest.*

**Katayama, Etsuko** ..... *Disclosed no conflict of interest.*

**Katchko, Karina**..... *Disclosed no conflict of interest.*

**Katchko, Karina M**..... *Disclosed no conflict of interest.*

**Katchky, Adam M** ..... *Disclosed no conflict of interest.*

**Kates, Stephen L**..... 5: Depuy Synthes, Arthrex; 6: AO Foundation, Arthrex, Inc., Naples, FL, Depuy Synthes, Warsaw, IN.

**Kato, Ken** ..... 3A: Megmilk Snow Brand Co., Ltd,

**Kato, Kenji** ..... *Disclosed no conflict of interest.*

**Kato, Ryuji** ..... *Disclosed no conflict of interest.*

**Kato, Sho** ..... *Disclosed no conflict of interest.*

**Kato, Yukinari** ..... *Disclosed no conflict of interest.*

**Katsumi, Ryota**..... *Disclosed no conflict of interest.*

**KATSUYAMA, ERI** ..... *Disclosed no conflict of interest.*

**Katz, Dakota** ..... *Disclosed no conflict of interest.*

**Kauber, Catherine** ..... *Disclosed no conflict of interest.*

**kawabata, soya**..... *Disclosed no conflict of interest.*

**Kawaguchi, Atsushi**..... *Disclosed no conflict of interest.*

**Kawaguchi, Masahito**..... *Disclosed no conflict of interest.*

**Kawaguchi, Yoshiharu**..... *Disclosed no conflict of interest.*

**Kawahara, Norio**..... *Disclosed no conflict of interest.*

**Kawahara, Shinya** ..... *Disclosed no conflict of interest.*

**Kawai, Akira**..... *Disclosed no conflict of interest.*

**Kawai, Shunsuke**..... *Disclosed no conflict of interest.*

**Kawai, Toshiyuki** ..... *Disclosed no conflict of interest.*

**KAWAKAMI, Kensaku**..... *Disclosed no conflict of interest.*

**Kawakami, Koichi**..... *Disclosed no conflict of interest.*

**Kawakami, Mamoru**..... *Disclosed no conflict of interest.*

**Kawakami, Yohei**..... *Disclosed no conflict of interest.*

**Kawamoto, Shintaro** ..... *Disclosed no conflict of interest.*

**Kawamoto, Teruya** ..... *Disclosed no conflict of interest.*

**Kawamura, Daisuke** ..... *Disclosed no conflict of interest.*

**Kawamura, Masaki** ..... *Disclosed no conflict of interest.*

**Kawanishi, Yusuke** ..... *Disclosed no conflict of interest.*

**Kawano, Fuminori** ..... *Disclosed no conflict of interest.*

**Kawano, Koichiro** ..... *Disclosed no conflict of interest.*

**Kawano, Shunsuke** ..... *Disclosed no conflict of interest.*

**Kawarai, Yuya** ..... *Disclosed no conflict of interest.*

**Kawasaki, Makoto** ..... *Disclosed no conflict of interest.*

**Kawcak, Chris** ..... *Disclosed no conflict of interest.*

**Kaya, Serra** ..... *Disclosed no conflict of interest.*

**Kayani, Babar** ..... *Disclosed no conflict of interest.*

**Kaythampillai, Lourdes N** ..... *Disclosed no conflict of interest.*

**Kazemi, Masume** ..... *Disclosed no conflict of interest.*

**KC, Sunil** ..... 3A: Samumed LLC; 4: Samumed LLC.

**Kean, Thomas J** ..... *Disclosed no conflict of interest.*

**Keane, Anna** ..... *Disclosed no conflict of interest.*

**Keane, Robert W** ..... *Disclosed no conflict of interest.*

**Kearney, Cathal J** ..... *Disclosed no conflict of interest.*

**Keating, Armand** ..... *Disclosed no conflict of interest.*

**Keaveny, Tony M** ..... *Disclosed no conflict of interest.*

**Kedzierska, Anna** ..... *Disclosed no conflict of interest.*

**Keene, Doug** ..... *Disclosed no conflict of interest.*

**Keeney, James** ..... *Disclosed no conflict of interest.*

**Keeney, James A** ..... *Disclosed no conflict of interest.*

**Keever, Abigail L** ..... *Disclosed no conflict of interest.*

**Kegelman, Christopher D** ..... *Disclosed no conflict of interest.*

**Keggi, John** ..... 3B: Omnilife Science.

**Keith, Aidan** ..... *Disclosed no conflict of interest.*

**Kelkar, Amey** ..... *Disclosed no conflict of interest.*

**Keller, Marisa K** ..... *Disclosed no conflict of interest.*

**Kellett, Catherine F** ..... 3C: L & T.

**Kelley, Benjamin** ..... *Disclosed no conflict of interest.*

Kelly IV, John D..... 7: SLACK, Springer.

Kelly, Bryan T ..... 3B: Arthrex, Inc.; 3C: A3 Surgical; 4: A3 Surgical.

Kelly, Daniel..... *Disclosed no conflict of interest.*

Kelly, Michael P..... *Disclosed no conflict of interest.*

Kelly, Natalie H..... *Disclosed no conflict of interest.*

Kelly, Terri-Ann ..... 3A: EpiBone; 4: EpiBone.

Kelly, Wendy L ..... *Disclosed no conflict of interest.*

Kemeny, Hanna ..... *Disclosed no conflict of interest.*

Kemp, Philip ..... 3A: Stryker Orthopaedics.

Kempshall, Pete ..... *Disclosed no conflict of interest.*

Kenan, Shachar ..... *Disclosed no conflict of interest.*

Kennedy, Mitchell..... *Disclosed no conflict of interest.*

Kennedy, Oran ..... *Disclosed no conflict of interest.*

Kennedy, Stephen..... 3A: Histogenics; 4: Histogenics.

Kennedy, Steve ..... 3A: Histogenics Corporation.

Kenney, Deborah E. .... *Disclosed no conflict of interest.*

Kenny, Lena..... *Disclosed no conflict of interest.*

Kent, Robert N..... *Disclosed no conflict of interest.*

Keogh, Michael..... *Disclosed no conflict of interest.*

Kepler, Christopher..... 5: Biomet, Medtronic, Pfizer.

Ker, Dai Fei Elmer ..... *Disclosed no conflict of interest.*

Ker, Elmer ..... *Disclosed no conflict of interest.*

Kerckhofs, Greet ..... *Disclosed no conflict of interest.*

Kerkhof, Anita ..... *Disclosed no conflict of interest.*

Kern, Daniela ..... *Disclosed no conflict of interest.*

Kernkamp, Willem A. .... *Disclosed no conflict of interest.*

Kerr, Bethany A..... *Disclosed no conflict of interest.*

Kerr, David L..... *Disclosed no conflict of interest.*

Kerrigan, Jason ..... *Disclosed no conflict of interest.*

Kersh, Mariana ..... *Disclosed no conflict of interest.*

Kerslake, Robert W ..... *Disclosed no conflict of interest.*



**Kesseli, Fioleda P**..... *Disclosed no conflict of interest.*

**Kessler, Oliver**..... 3B: Orthox Ltd,

**Kesteris, Uldis**..... *Disclosed no conflict of interest.*

**Ketcham, Paulina**..... *Disclosed no conflict of interest.*

**Kettenbach, Alina**..... *Disclosed no conflict of interest.*

**Ketz, John P**..... *Disclosed no conflict of interest.*

**Keyak, Joyce H**..... *Disclosed no conflict of interest.*

**Khan, Aysha**..... *Disclosed no conflict of interest.*

**Khan, Aysha N**..... *Disclosed no conflict of interest.*

**Khan, Ilyas M**..... *Disclosed no conflict of interest.*

**Khan, Imran**..... 3A: Zimmer Biomet.

**Khan, Kamran**..... *Disclosed no conflict of interest.*

**Khan, Kamran Z**..... *Disclosed no conflict of interest.*

**Khan, Safdar**..... *Disclosed no conflict of interest.*

**Khan, Sobiah**..... *Disclosed no conflict of interest.*

**Khan, Tahsin**..... *Disclosed no conflict of interest.*

**Khan, Yusuf**..... *Disclosed no conflict of interest.*

**Khandaker, Morshed**..... *Disclosed no conflict of interest.*

**Khandha, Ashutosh**..... *Disclosed no conflict of interest.*

**Khanna, Rajan**..... *Disclosed no conflict of interest.*

**Kharlamov, Alexander**..... *Disclosed no conflict of interest.*

**Kharrazi, Daniel**..... *Disclosed no conflict of interest.*

**Khatib, Nidal**..... *Disclosed no conflict of interest.*

**Khauv, Veronica**..... *Disclosed no conflict of interest.*

**Khayatzaeh, Saeed**..... *Disclosed no conflict of interest.*

**Kheir, Matthew**..... *Disclosed no conflict of interest.*

**Kheir, Michael M**..... *Disclosed no conflict of interest.*

**Khieu, Kristine T**..... *Disclosed no conflict of interest.*

**Khlopas, Anton**..... *Disclosed no conflict of interest.*

**Khoshgoftar, Mehdi**..... *Disclosed no conflict of interest.*

**Khoury, Anthony N**..... *Disclosed no conflict of interest.*

**Khoury, Joseph** ..... *Disclosed no conflict of interest.*

**Khuyagbaatar, Batbayar** ..... *Disclosed no conflict of interest.*

**Kia, Mohammad** ..... *Disclosed no conflict of interest.*

**Kiapour, Ali** ..... *Disclosed no conflict of interest.*

**Kiapour, Ata M.** ..... *Disclosed no conflict of interest.*

**Kido, Masamitsu** ..... *Disclosed no conflict of interest.*

**Kihara, Shinsuke** ..... *Disclosed no conflict of interest.*

**Kijowski, Richard** ..... *Disclosed no conflict of interest.*

**Kikuchi, Toshiyuki** ..... *Disclosed no conflict of interest.*

**Kikuchi, Yuki** ..... *Disclosed no conflict of interest.*

**Kikuta, Kazutaka** ..... *Disclosed no conflict of interest.*

**Killian, Megan L.** ..... *Disclosed no conflict of interest.*

**Killian, Megan Leigh** ..... *Disclosed no conflict of interest.*

**Kim, Aerang** ..... *Disclosed no conflict of interest.*

**Kim, Charlie** ..... *Disclosed no conflict of interest.*

**Kim, Chun-Sung** ..... *Disclosed no conflict of interest.*

**Kim, Do Kyung** ..... *Disclosed no conflict of interest.*

**Kim, Do-Gyoon** ..... *Disclosed no conflict of interest.*

**Kim, Dong Hwa** ..... *Disclosed no conflict of interest.*

**Kim, Dong-Hyun** ..... *Disclosed no conflict of interest.*

**Kim, Harry** ..... 5: Medivir.

**Kim, Harry K.w.** ..... 5: Medivir.

**Kim, Hee Joong** ..... 3B: Corentec company.

**Kim, Hubert** ..... *Disclosed no conflict of interest.*

**Kim, Hye Young** ..... *Disclosed no conflict of interest.*

**Kim, Hyun Jung** ..... *Disclosed no conflict of interest.*

**Kim, Ja Yeon** ..... *Disclosed no conflict of interest.*

**Kim, Jae** ..... *Disclosed no conflict of interest.*

**Kim, Jae-Sung** ..... *Disclosed no conflict of interest.*

**Kim, Ja-Yeon** ..... *Disclosed no conflict of interest.*

**Kim, Ji Hye** ..... *Disclosed no conflict of interest.*

Kim, Jihyun..... *Disclosed no conflict of interest.*  
Kim, Johntaehwan ..... *Disclosed no conflict of interest.*  
Kim, Jong-Keun..... *Disclosed no conflict of interest.*  
Kim, Jongkil..... *Disclosed no conflict of interest.*  
Kim, Ju Young..... *Disclosed no conflict of interest.*  
Kim, Jung Sung..... *Disclosed no conflict of interest.*  
Kim, Jung-Kyong ..... *Disclosed no conflict of interest.*  
Kim, Kevin ..... *Disclosed no conflict of interest.*  
Kim, Kyungsoo..... *Disclosed no conflict of interest.*  
Kim, Minwook..... *Disclosed no conflict of interest.*  
Kim, Peter C.W. .... *Disclosed no conflict of interest.*  
Kim, Samuel Y ..... *Disclosed no conflict of interest.*  
Kim, Seong Hwan..... *Disclosed no conflict of interest.*  
Kim, Shin-Yoon ..... *Disclosed no conflict of interest.*  
Kim, Su-Gwan..... *Disclosed no conflict of interest.*  
Kim, Sun J ..... *Disclosed no conflict of interest.*  
Kim, Sung-Hwan..... *Disclosed no conflict of interest.*  
Kim, Sung-Jae ..... *Disclosed no conflict of interest.*  
Kim, Sungwoo ..... *Disclosed no conflict of interest.*  
Kim, Sunjung ..... *Disclosed no conflict of interest.*  
Kim, Wook-Cheol ..... *Disclosed no conflict of interest.*  
Kim, Woong ..... *Disclosed no conflict of interest.*  
Kim, WooYoung ..... *Disclosed no conflict of interest.*  
Kim, Yoon Hyuk..... *Disclosed no conflict of interest.*  
Kim, Yu Jeong ..... *Disclosed no conflict of interest.*  
Kimmerling, Kelly A. .... 3A: NuTech a Division of Organogenesis.  
Kimura, Masashi..... *Disclosed no conflict of interest.*  
Kimura, Seiji ..... *Disclosed no conflict of interest.*  
Kimura, Tomoatsu..... *Disclosed no conflict of interest.*  
Kimura, Tsuyoshi..... *Disclosed no conflict of interest.*  
Kimura, Yuka ..... *Disclosed no conflict of interest.*

**Kindig, Matthew W** ..... *Disclosed no conflict of interest.*

**Kindt, Philipp** ..... *Disclosed no conflict of interest.*

**King, Brendan** ..... *Disclosed no conflict of interest.*

**King, Graham J. W.** ..... 1: Wright Medical.

**King, Jillian T.** ..... *Disclosed no conflict of interest.*

**King, Joseph J** ..... 3B: Exactech, Inc,

**King, Karen B** ..... *Disclosed no conflict of interest.*

**King, William** ..... 3A: Zimmer Biomet.

**Kingston, Scott** ..... *Disclosed no conflict of interest.*

**Kingwell, Stephen P** ..... *Disclosed no conflict of interest.*

**Kink, John A.** ..... *Disclosed no conflict of interest.*

**Kinney, Matthew C** ..... *Disclosed no conflict of interest.*

**Kinoshita, Miyu** ..... *Disclosed no conflict of interest.*

**Kiracofe, Caitlin** ..... *Disclosed no conflict of interest.*

**Kiraly, Alex** ..... *Disclosed no conflict of interest.*

**Kiriakos, Daniilidis** ..... *Disclosed no conflict of interest.*

**Kirizuki, Shinsuke** ..... *Disclosed no conflict of interest.*

**Kirkland, James L** ..... *Disclosed no conflict of interest.*

**Kirn-Safran, Catherine B.** ..... *Disclosed no conflict of interest.*

**Kirsch, Thorsten** ..... *Disclosed no conflict of interest.*

**Kishida, Akio** ..... *Disclosed no conflict of interest.*

**Kishima, Koichiro** ..... 3A: Sony Imaging Products & Solutions Inc,

**Kiss-Toth, Endre** ..... *Disclosed no conflict of interest.*

**Kita, Hiroki** ..... *Disclosed no conflict of interest.*

**Kitade, Kazuki** ..... *Disclosed no conflict of interest.*

**Kitaguchi, Kazuma** ..... *Disclosed no conflict of interest.*

**Kitajima, Masaru** ..... *Disclosed no conflict of interest.*

**Kitoh, Hiroshi** ..... *Disclosed no conflict of interest.*

**Kiu, Steve S** ..... *Disclosed no conflict of interest.*

**Kivitz, Griffin** ..... *Disclosed no conflict of interest.*

**Kiyama, Takahiko** ..... *Disclosed no conflict of interest.*

**Kiyono, Masahiro** ..... *Disclosed no conflict of interest.*

**Kizawa, Momoko** ..... *Disclosed no conflict of interest.*

**Kizhakkedathu, Jayachandran N.**.....*Disclosed no conflict of interest.*

**Kizher Shajahan, Mohamed Buhary.**.....*Disclosed no conflict of interest.*

**Klatte-Schulz, Franka**..... *Disclosed no conflict of interest.*

**Kleck, Christopher J.**..... 2: Globus; 3B: Globus; 5: Globus.

**Kleimeyer, John** ..... *Disclosed no conflict of interest.*

**Klein, Ashley** ..... *Disclosed no conflict of interest.*

**Klein, Christopher M**..... *Disclosed no conflict of interest.*

**Klein, Gregg R**..... 1: Corentec; 2: Zimmer; 3B: Corentec, Zimmer; 5: Zimmer; 7: Corentec, Jay Pee Publishers.

**Klein, Jason C** ..... *Disclosed no conflict of interest.*

**Klein, Karina** ..... *Disclosed no conflict of interest.*

**Klein, Moritz**..... *Disclosed no conflict of interest.*

**Kleinhans, Kelsey** ..... *Disclosed no conflict of interest.*

**Klett, Katarina**..... *Disclosed no conflict of interest.*

**Klika, Alison K**..... *Disclosed no conflict of interest.*

**Klose, Alanna** ..... *Disclosed no conflict of interest.*

**Klose, Svenja**..... *Disclosed no conflict of interest.*

**Klosterhoff, Brett S.** ..... 3A: Vertera Spine.

**Kluck, Dylan** ..... *Disclosed no conflict of interest.*

**Knisely, Alex**..... 3A: Exactech, Inc.; 4: Exactech, Inc,

**Knoblach, Susan**..... *Disclosed no conflict of interest.*

**Knothe Tate, Melissa** ..... *Disclosed no conflict of interest.*

**Knott, Samantha**..... *Disclosed no conflict of interest.*

**Knowles, Nikolas K**..... *Disclosed no conflict of interest.*

**Knox, Joseph** ..... *Disclosed no conflict of interest.*

**Knudson, Everett** ..... *Disclosed no conflict of interest.*

**Ko, Frank** ..... *Disclosed no conflict of interest.*

**Ko, Ji-Yun** ..... *Disclosed no conflict of interest.*

**Kobatake, Tomoki** ..... *Disclosed no conflict of interest.*

**Kobayashi, Akira**..... *Disclosed no conflict of interest.*

**Kobayashi, Daigo** ..... *Disclosed no conflict of interest.*

**Kobayashi, Koichi** ..... *Disclosed no conflict of interest.*

**Kobayashi, Kouichi** ..... *Disclosed no conflict of interest.*

**Kobayashi, Makoto** ..... *Disclosed no conflict of interest.*

**Kobayashi, Masaaki** ..... *Disclosed no conflict of interest.*

**Kobayashi, Naomi** ..... *Disclosed no conflict of interest.*

**Kobayashi, Shu** ..... *Disclosed no conflict of interest.*

**Kobayashi, Takuma** ..... *Disclosed no conflict of interest.*

**Kobayashi, Yohei** ..... *Disclosed no conflict of interest.*

**Koch, John** ..... *Disclosed no conflict of interest.*

**Kodama, Yuya** ..... *Disclosed no conflict of interest.*

**Kodigudla, Manoj** ..... *Disclosed no conflict of interest.*

**Koeller, Manfred** ..... *Disclosed no conflict of interest.*

**Koenig, Katherine** ..... *Disclosed no conflict of interest.*

**Koerner, John** ..... 5: Biomet, Pfizer, Medtronic.

**Koff, Matthew F.** ..... 5: HSS has an institutional research agreement with GE Healthcare.

**Koga, Hideyuk** ..... *Disclosed no conflict of interest.*

**Koga, Hideyuki** ..... *Disclosed no conflict of interest.*

**Koga, Yoshio** ..... *Disclosed no conflict of interest.*

**Kogan, Feliks** ..... *Disclosed no conflict of interest.*

**Koh, Joyce SB** ..... *Disclosed no conflict of interest.*

**Koh, Joyce Suang Bee** ..... *Disclosed no conflict of interest.*

**Koh, Suang Bee Joyce** ..... *Disclosed no conflict of interest.*

**Koh, Yong-Gon** ..... *Disclosed no conflict of interest.*

**Köhler, Tino** ..... *Disclosed no conflict of interest.*

**Kohn, David H** ..... *Disclosed no conflict of interest.*

**Kohno, Yuji** ..... *Disclosed no conflict of interest.*

**Kohno, Yusuke** ..... *Disclosed no conflict of interest.*

**Kohyama, Jun** ..... *Disclosed no conflict of interest.*

**Koike, Hiroshi** ..... *Disclosed no conflict of interest.*

**Kojima, Kota** ..... *Disclosed no conflict of interest.*

**Kojima, Toshihisa** ..... *Disclosed no conflict of interest.*

**Kokko, Michael A.** ..... *Disclosed no conflict of interest.*

**Kokubu, Takeshi** ..... *Disclosed no conflict of interest.*

**Kokubun, Takanori**..... *Disclosed no conflict of interest.*

**Kolakowski, Logan**..... *Disclosed no conflict of interest.*

**Kolipaka, Arunark** ..... *Disclosed no conflict of interest.*

**Kolisek, Frank R.**..... *3B: Stryker; 5: DJ Orthopaedics.*

**Kolk, Sjoerd** ..... *3A: Materialise NV.*

**Köller, Manfred**..... *Disclosed no conflict of interest.*

**Komai, Masahiko**..... *Disclosed no conflict of interest.*

**Komaki, Hirokazu** ..... *Disclosed no conflict of interest.*

**Komatsu, David E.**..... *Disclosed no conflict of interest.*

**Komatsu, Issei**..... *Disclosed no conflict of interest.*

**Komatsubara, Tadashi**..... *Disclosed no conflict of interest.*

**Komeili, Amin** ..... *Disclosed no conflict of interest.*

**Komine, Mai** ..... *Disclosed no conflict of interest.*

**Komiya, Setsuro**..... *Disclosed no conflict of interest.*

**Komori, Keiichiro** ..... *Disclosed no conflict of interest.*

**Komura, Shingo** ..... *Disclosed no conflict of interest.*

**Konan, Sujith** ..... *Disclosed no conflict of interest.*

**Konda, Shoji** ..... *Disclosed no conflict of interest.*

**Kondo, Eiji** ..... *Disclosed no conflict of interest.*

**Kondo, Tadashi** ..... *Disclosed no conflict of interest.*

**Konigsberg, Beau S**..... *Disclosed no conflict of interest.*

**Konishi, Takayuki**..... *Disclosed no conflict of interest.*

**Kono, Kenichi**..... *Disclosed no conflict of interest.*

**Konofagou, Elisa E** ..... *Disclosed no conflict of interest.*

**Konop, Katie** ..... *Disclosed no conflict of interest.*

**Konopka, Joseph** ..... *Disclosed no conflict of interest.*

**Kontaxis, Andreas**..... *Disclosed no conflict of interest.*

**Koo, Seungbum**..... *Disclosed no conflict of interest.*

**Korber, Shane** ..... *Disclosed no conflict of interest.*

**Korda, Nimrod** ..... *Disclosed no conflict of interest.*

**Koressel, Joseph E** ..... *Disclosed no conflict of interest.*

**Korhonen, Rami K.** ..... *Disclosed no conflict of interest.*

**Korpershoek, Jasmijn V** ..... *Disclosed no conflict of interest.*

**Kostesic, Petar** ..... *Disclosed no conflict of interest.*

**KOTAKE, Satoshi** ..... *Disclosed no conflict of interest.*

**Kotamathi, Janavi** ..... *Disclosed no conflict of interest.*

**Kotecki, Keith** ..... *Disclosed no conflict of interest.*

**Kotelsky, Alexander** ..... *Disclosed no conflict of interest.*

**Kouichi, Kobayashi** ..... *Disclosed no conflict of interest.*

**Kouwenhoven, Jan-Willem** ..... *Disclosed no conflict of interest.*

**Kovacevic, David** ..... *Disclosed no conflict of interest.*

**Kovtun, Anna** ..... *Disclosed no conflict of interest.*

**Kowalski, Erik** ..... *Disclosed no conflict of interest.*

**Koyama, Eiki** ..... *Disclosed no conflict of interest.*

**Koyama, Kazuhige** ..... *Disclosed no conflict of interest.*

**Koyano, Gaku** ..... *Disclosed no conflict of interest.*

**Kozar, Al** ..... *Disclosed no conflict of interest.*

**Kozloff, Kenneth M.** ..... *Disclosed no conflict of interest.*

**Kozono, Naoya** ..... *Disclosed no conflict of interest.*

**Kraay, Matthew** ..... *Disclosed no conflict of interest.*

**Kradinova, Katerina V.** ..... *Disclosed no conflict of interest.*

**Kraus, Petra** ..... *Disclosed no conflict of interest.*

**Kraus, Virginia B** ..... *Disclosed no conflict of interest.*

**Krause, Andrew** ..... *Disclosed no conflict of interest.*

**Krebs, Melissa D** ..... *Disclosed no conflict of interest.*

**Kremer, Antje** ..... *Disclosed no conflict of interest.*

**Kreulen, R. Tim** ..... *Disclosed no conflict of interest.*

**Kreulen, Randall Tim** ..... *Disclosed no conflict of interest.*

**Kreviazuk, Cheryl** ..... *Disclosed no conflict of interest.*



**Krickus, Casey** ..... *Disclosed no conflict of interest.*

**Krishnamoorthy, Divya** ..... *Disclosed no conflict of interest.*

**Krishnan, Amit** ..... *Disclosed no conflict of interest.*

**Krishnan, Laxminarayanan** ..... *Disclosed no conflict of interest.*

**Krishnan, Yamini** ..... 4: Biocon, Lupin Pharmaceuticals, Sun Pharmaceuticals.

**Krock, Emerson** ..... *Disclosed no conflict of interest.*

**Krom, Jim** ..... 3A: Histogenics Corporation.

**Kropf, Michael** ..... *Disclosed no conflict of interest.*

**Krug, Roland** ..... *Disclosed no conflict of interest.*

**Kruger, Karen** ..... *Disclosed no conflict of interest.*

**Kruse, Jessee** ..... *Disclosed no conflict of interest.*

**Kruse, Jessee D** ..... *Disclosed no conflict of interest.*

**Krych, Aaron J** ..... *Disclosed no conflict of interest.*

**Kubo, Kazutoshi** ..... *Disclosed no conflict of interest.*

**Kubo, Tadahiko** ..... *Disclosed no conflict of interest.*

**Kubo, Toshikazu** ..... *Disclosed no conflict of interest.*

**Kubo, Yusuke** ..... *Disclosed no conflict of interest.*

**Kubota, Daisuke** ..... *Disclosed no conflict of interest.*

**Kubota, Keisuke** ..... *Disclosed no conflict of interest.*

**Kubota, Ryo** ..... *Disclosed no conflict of interest.*

**Kudo, Hitoshi** ..... *Disclosed no conflict of interest.*

**Kuhns, Benjamin D** ..... *Disclosed no conflict of interest.*

**Kulidjian, Anna A** ..... *Disclosed no conflict of interest.*

**Kulkarni, Aniket N** ..... *Disclosed no conflict of interest.*

**Kulvaranon, Micaela** ..... *Disclosed no conflict of interest.*

**Kumabe, Yohei** ..... *Disclosed no conflict of interest.*

**Kumagai, Gentaro** ..... *Disclosed no conflict of interest.*

**Kumagai, Ken** ..... *Disclosed no conflict of interest.*

**Kumai, Tsukasa** ..... *Disclosed no conflict of interest.*

**Kumar, Ashok** ..... *Disclosed no conflict of interest.*

**Kumar, Shreedevi** ..... *Disclosed no conflict of interest.*

**Kumaran, Dilini**..... *Disclosed no conflict of interest.*

**Kumbar, Sangamesh** ..... *Disclosed no conflict of interest.*

**Kun, Yoon**..... *Disclosed no conflict of interest.*

**Kunii, Saori** ..... *Disclosed no conflict of interest.*

**Kunisada, Toshiyuki** ..... *Disclosed no conflict of interest.*

**Kunkle, Bryce** ..... *Disclosed no conflict of interest.*

**Kunselman, Allen R** ..... *Disclosed no conflict of interest.*

**Kuntz, Andrew F**..... *3B: Orthofix, Inc,*

**Kuntze, Gregor** ..... *Disclosed no conflict of interest.*

**Kunze, Kyle N** ..... *Disclosed no conflict of interest.*

**Kuo, Alfred**..... *Disclosed no conflict of interest.*

**Kuo, Catherine K.**..... *Disclosed no conflict of interest.*

**Kuo, Yi-Jie** ..... *Disclosed no conflict of interest.*

**Kupper, Jessica C**..... *Disclosed no conflict of interest.*

**Kura, Hideji** ..... *Disclosed no conflict of interest.*

**Kuraliaj, Iden** ..... *Disclosed no conflict of interest.*

**Kuremoto, Naoki** ..... *Disclosed no conflict of interest.*

**Kurien, Thomas** ..... *Disclosed no conflict of interest.*

**Kurihara, Taisei** ..... *Disclosed no conflict of interest.*

**Kurimoto, Shigeru**..... *Disclosed no conflict of interest.*

**Kuriyama, Shinichi**..... *Disclosed no conflict of interest.*

**Kuroda, Ryosuke**..... *Disclosed no conflict of interest.*

**Kuroda, Yuichi**..... *Disclosed no conflict of interest.*

**Kuroda, Yutaka**..... *Disclosed no conflict of interest.*

**Kuroiwa, Tomoyuki**..... *Disclosed no conflict of interest.*

**Kuroiwa, Yu** ..... *Disclosed no conflict of interest.*

**Kurokawa, Hiroaki**..... *Disclosed no conflict of interest.*

**Kurosawa, Takashi**..... *Disclosed no conflict of interest.*

**Kurose, Yasuo**..... *Disclosed no conflict of interest.*

**Kurowicki, Jennifer**..... *Disclosed no conflict of interest.*

**Kurpad, Deepa**..... *Disclosed no conflict of interest.*

**Kurra, Swamy** ..... *Disclosed no conflict of interest.*

**Kurtoglu, Alper** ..... *Disclosed no conflict of interest.*

**Kurtz, Josef M** ..... *Disclosed no conflict of interest.*

**Kurtz, Stephen M** ..... 2: Exponent; 3B: Exponent; 5: Active Implants, Aesculap/B.Braun, Celanese, Ceramtec, DePuy Synthes, DJO, Ferring Pharmaceuticals, Formae, Kyocera Medical, Medtronic, Simplify Medical, Smith & Nephew, Stelkast, Stryker, Wright Medical Technology, Zimmer Biomet, Invibio; 6: Exponent; 7: Elsevier.

**Kushida, Yoshihisa** ..... *Disclosed no conflict of interest.*

**Kushioka, Junichi** ..... *Disclosed no conflict of interest.*

**Kusins, Jonathan R** ..... *Disclosed no conflict of interest.*

**Kuster, Markus S** ..... 1: Zimmer Biomet; 5: Zimmer Biomet.

**Kutschke, Michael J** ..... *Disclosed no conflict of interest.*

**Kuzawa, Cole** ..... *Disclosed no conflict of interest.*

**Kwak, Jinny** ..... *Disclosed no conflict of interest.*

**Kwak, Yoon Hae** ..... *Disclosed no conflict of interest.*

**Kwan, Kenny** ..... *Disclosed no conflict of interest.*

**Kwang-ho, Kim** ..... *Disclosed no conflict of interest.*

**Kwon, Hyuk-Kwon** ..... *Disclosed no conflict of interest.*

**Kwon, Jinha** ..... *Disclosed no conflict of interest.*

**Kwon, Jiyoung** ..... *Disclosed no conflict of interest.*

**Kwon, Nicholas** ..... *Disclosed no conflict of interest.*

**Kwon, Oh-Ryong** ..... *Disclosed no conflict of interest.*

**Kwon, Ronald** ..... *Disclosed no conflict of interest.*

**Kwon, Sae-Kwang** ..... *Disclosed no conflict of interest.*

**Kwon, Young-Min** ..... 5: Stryker, Zimmer Biomet, Depuy, Corentec, Smith & Nephew.

**Kyle, Richard** ..... 1: Exactech, Inc; 3B: Exactech, Inc.; 4: Celling; 7: Smith and Nephew, Zimmer.

**Labour, Marie-Noelle** ..... *Disclosed no conflict of interest.*

**Labus, Kevin** ..... *Disclosed no conflict of interest.*

**LaChaud, Greg** ..... *Disclosed no conflict of interest.*

**Lackner, Ina** ..... *Disclosed no conflict of interest.*

**Ladd, Amy L** ..... *Disclosed no conflict of interest.*

**Lagadec, Pierre** ..... 3A: Vald Performance, Brisbane, Australia.

**Lai, Alon** ..... *Disclosed no conflict of interest.*

Lai, Chien-Ying ..... *Disclosed no conflict of interest.*

Lai, Chun-Feng ..... *Disclosed no conflict of interest.*

Lai, Dar-Ming ..... *Disclosed no conflict of interest.*

Lai, Jianyu ..... *Disclosed no conflict of interest.*

Lai, Jim ..... *Disclosed no conflict of interest.*

Lai, Jim K ..... *Disclosed no conflict of interest.*

Lai, Yen-Chun ..... *Disclosed no conflict of interest.*

Lai, Yuxiao ..... *Disclosed no conflict of interest.*

Laila, Amar A. .... *Disclosed no conflict of interest.*

Laiva, Ashang L ..... *Disclosed no conflict of interest.*

Lake, Spencer P. .... *Disclosed no conflict of interest.*

Lakes, Emily ..... *Disclosed no conflict of interest.*

Lakes, Emily H ..... *Disclosed no conflict of interest.*

Lakstins, Katherine ..... *Disclosed no conflict of interest.*

Lalonde, Molly K ..... *Disclosed no conflict of interest.*

Lalone, Emily A ..... *Disclosed no conflict of interest.*

Lalor, Peggy ..... 5: AgNovos Healthcare.

Lam, Leann ..... *Disclosed no conflict of interest.*

Lam, Phillip ..... *Disclosed no conflict of interest.*

Lam, Wing Ki ..... *Disclosed no conflict of interest.*

Lama, Christopher J ..... *Disclosed no conflict of interest.*

Lama, Polly ..... *Disclosed no conflict of interest.*

Lambeth, Emily P. .... *Disclosed no conflict of interest.*

Lambrou, George ..... *Disclosed no conflict of interest.*

Lamontagne, Mario ..... 5: Medacta International.

Landeros, Ana ..... *Disclosed no conflict of interest.*

Landers, James P ..... *Disclosed no conflict of interest.*

Lang, Charles ..... *Disclosed no conflict of interest.*

Lang, Gernot ..... *Disclosed no conflict of interest.*

Lang, Thomas F ..... *Disclosed no conflict of interest.*

Langhor, G. Daniel G ..... *Disclosed no conflict of interest.*

**Langhorn, Jason** ..... 3A: DePuy Synthes Joint Reconstruction; 4: DePuy Synthes Joint Reconstruction.

**Langohr, Daniel G** ..... *Disclosed no conflict of interest.*

**Langworthy, Michael**..... *Disclosed no conflict of interest.*

**Lansdown, Jason**..... 3A: Jason Lansdown.

**Lansdown, Jason G** ..... 3A: Paid employee of Exactech Inc; 4: Exactech Inc.

**Lanting, Brent**..... 3B: DePuy, Integra, IntelliJoint, Smith & Nephew, Stryker; 4: IdealFit Spacer Solutions Inc, PersaFix Revision Solutions Inc; 5: DePuy, Smith & Nephew, Stryker; 6: DePuy, Smith & Nephew, Stryker, Zimmer.

**LaPorta, Guido** ..... *Disclosed no conflict of interest.*

**LaPrade, Robert F.** ..... 1: Arthrex; Ossur; Smith & Nephew; 3B: Arthrex; Ossur; Smith & Nephew; 5: Arthrex; Ossur; Siemens; Smith & Nephew.

**Largaespada, David A.**..... *Disclosed no conflict of interest.*

**Lark, Karl G.**..... *Disclosed no conflict of interest.*

**Larkin, Lisa M** ..... *Disclosed no conflict of interest.*

**Larsson, David** ..... *Disclosed no conflict of interest.*

**Laschke, Matthias W.**..... *Disclosed no conflict of interest.*

**Lata, Michal** ..... *Disclosed no conflict of interest.*

**Latifi, Seyed Mohsen** ..... *Disclosed no conflict of interest.*

**Latt, L. Daniel** ..... 3B: Medshape; 3C: Footbeat; 4: Medshape; 5: Guided Therapy Systems, Paragon 28, Wright Medical Technology, Inc; 6: Paragon 28, Wright Medical Technology, Inc.

**Latt, Leonard D.**..... 2: Paragon 28: Paid presenter or speaker, Wright Medical Technology, Inc.: Paid presenter or speaker; 3B: Medshape: Paid consultant; 3C: Footbeat: Unpaid consultant; 4: Medshape: stock or stock options; 5: Paragon 28: Research support, Wright Medical Technology: Research support, Guided Therapy Systems: Research support.

**Latta, Loren** ..... 7: Springer-Verlag, ASOP, Elsevier.

**Lattermann, Christian** ..... *Disclosed no conflict of interest.*

**Lau, Edmund** ..... 1: Sanofi US.

**Lau, Johnson**..... 3B: Avalon SpineCare(HK).

**Lau, Lok Ting**..... *Disclosed no conflict of interest.*

**Laudier, Damien M** ..... *Disclosed no conflict of interest.*

**Lauer, Caroline S.**..... *Disclosed no conflict of interest.*

**Laugier, Pascal**..... *Disclosed no conflict of interest.*

**Laumonerie, Pierre**..... *Disclosed no conflict of interest.*

Laurencin, Cato T ..... 4: Hot-Bone Inc., Natural Polymer Devices, Inc,  
Laurenson, Ian F ..... *Disclosed no conflict of interest.*  
Laurent, Michel ..... *Disclosed no conflict of interest.*  
Lauters, Austin ..... *Disclosed no conflict of interest.*  
Lavelle, William F ..... 5: DePuy, Medtronic, IntegraLife, Premier Orthopedic Solutions, Sigmus, Inc.,  
Spinal Kinetics, Inc., K2M, Inc., Providence Technologies, Stryker Spine, Vertebral Technologies, Inc,  
Lavender, Steven A ..... *Disclosed no conflict of interest.*  
Lavery, Jessica ..... *Disclosed no conflict of interest.*  
Law, Gin Way ..... *Disclosed no conflict of interest.*  
Lawerance, Rebekah L ..... *Disclosed no conflict of interest.*  
Lawrence, Brandon ..... *Disclosed no conflict of interest.*  
Lawrence, Dylan ..... *Disclosed no conflict of interest.*  
Lawrence, Jeff ..... 3B: Omnilife Science.  
Lawrence, Rebekah L ..... *Disclosed no conflict of interest.*  
Lawrenchuk, Mike ..... 3A: Materialise NV.  
Lawson, Taylor B ..... *Disclosed no conflict of interest.*  
Laz, Peter J ..... 5: DePuy Synthes.  
Lazar, Sophia ..... *Disclosed no conflict of interest.*  
Le Bleu, Heather K ..... *Disclosed no conflict of interest.*  
Le Boeuf, Fabrice ..... *Disclosed no conflict of interest.*  
Le Cann, Sophie ..... *Disclosed no conflict of interest.*  
Le Huec, Jean-Charles ..... *Disclosed no conflict of interest.*  
Le, Andy ..... *Disclosed no conflict of interest.*  
Le, Daniel T ..... 3B: MicroPort Orthopedics; 6: MicroPort Orthopedics.  
Le, David ..... 6: Microport Orthopedics.  
Leach, J. Kent ..... *Disclosed no conflict of interest.*  
Leahy, Thomas ..... *Disclosed no conflict of interest.*  
Leary, Emily ..... *Disclosed no conflict of interest.*  
Leary, Emily V. .... *Disclosed no conflict of interest.*  
Leasure, Jeremi ..... *Disclosed no conflict of interest.*  
Leatherwood, William H ..... *Disclosed no conflict of interest.*  
Leavitt, Laurel ..... *Disclosed no conflict of interest.*

**Leavitt, Olivia**..... *Disclosed no conflict of interest.*

**Lebaschi, Amir** ..... *Disclosed no conflict of interest.*

**Lebaschi, Amir H**..... *Disclosed no conflict of interest.*

**Lechtig, Aron**..... *Disclosed no conflict of interest.*

**Leddy, Holly A.**..... *Disclosed no conflict of interest.*

**Ledet, Eric H**..... 4: ReVivo Medical, I/O Surgical, inSense Medical; 5: Musculoskeletal Transplant Foundation; 6: ReVivo Medical.

**Ledoux, William R**..... *Disclosed no conflict of interest.*

**Lee, Andrea H.**..... *Disclosed no conflict of interest.*

**Lee, Andy**..... *Disclosed no conflict of interest.*

**Lee, Brendan** ..... *Disclosed no conflict of interest.*

**Lee, Brian**..... *Disclosed no conflict of interest.*

**Lee, Brian K**..... *Disclosed no conflict of interest.*

**Lee, Bumsup** ..... *Disclosed no conflict of interest.*

**Lee, Chang H**..... *Disclosed no conflict of interest.*

**Lee, Daniel Z**..... *Disclosed no conflict of interest.*

**Lee, Danny**..... *Disclosed no conflict of interest.*

**Lee, Deokcheol**..... *Disclosed no conflict of interest.*

**Lee, Dong Yeon**..... *Disclosed no conflict of interest.*

**Lee, Dong-oh**..... *Disclosed no conflict of interest.*

**Lee, Doo Jae**..... *Disclosed no conflict of interest.*

**Lee, DooJae**..... *Disclosed no conflict of interest.*

**Lee, Do-Yoon**..... *Disclosed no conflict of interest.*

**Lee, Eric**..... *Disclosed no conflict of interest.*

**Lee, Erin**..... *Disclosed no conflict of interest.*

**Lee, Eugene**..... *Disclosed no conflict of interest.*

**Lee, Francis Y**..... *Disclosed no conflict of interest.*

**Lee, Gwo-Chin**..... 2: Ceramtec, DePuy; 3B: Stryker, Pacira, Depuy; 5: CD Diagnostics, Smith and Nephew, Zimmer.

**Lee, Jae H**..... *Disclosed no conflict of interest.*

**Lee, Jae Han** ..... *Disclosed no conflict of interest.*

**Lee, Jae S** ..... *Disclosed no conflict of interest.*

Lee, JaeHee ..... *Disclosed no conflict of interest.*

Lee, Jieun ..... *Disclosed no conflict of interest.*

Lee, Jin Woo ..... *Disclosed no conflict of interest.*

Lee, John Y. .... *Disclosed no conflict of interest.*

Lee, Jong Min ..... *Disclosed no conflict of interest.*

Lee, Joon Y ..... *Disclosed no conflict of interest.*

Lee, Jungsun ..... 3C: Biosolution Co., Ltd.,

Lee, Katie ..... *Disclosed no conflict of interest.*

Lee, Kichoon ..... *Disclosed no conflict of interest.*

Lee, Kwang Il ..... *Disclosed no conflict of interest.*

Lee, Kwon Yong ..... *Disclosed no conflict of interest.*

Lee, Kyoung Min ..... *Disclosed no conflict of interest.*

Lee, Kyoung-Mi ..... *Disclosed no conflict of interest.*

Lee, Lawrence ..... *Disclosed no conflict of interest.*

Lee, Myung Chul ..... *Disclosed no conflict of interest.*

Lee, Natsuyo Shishido ..... 3A: Collagen Matrix, Inc,

Lee, Power ..... *Disclosed no conflict of interest.*

Lee, Sang Yang ..... *Disclosed no conflict of interest.*

Lee, Sang-Soo ..... *Disclosed no conflict of interest.*

Lee, Seunghwan ..... *Disclosed no conflict of interest.*

Lee, Sooyeon ..... *Disclosed no conflict of interest.*

Lee, SuKyoung ..... *Disclosed no conflict of interest.*

Lee, Sung Jae ..... *Disclosed no conflict of interest.*

Lee, Tien-Ching ..... *Disclosed no conflict of interest.*

Lee, Tien-Jung ..... *Disclosed no conflict of interest.*

Lee, Whasil ..... *Disclosed no conflict of interest.*

Lee, Wonsae ..... *Disclosed no conflict of interest.*

Lee, Woo-Suk ..... *Disclosed no conflict of interest.*

Lee, Yeon Soo ..... *Disclosed no conflict of interest.*

Lee, Yeon-Hee ..... *Disclosed no conflict of interest.*

Lee, Yong Seuk ..... *Disclosed no conflict of interest.*



Lee, Yong-Soo ..... *Disclosed no conflict of interest.*

Lee, You Jin ..... *Disclosed no conflict of interest.*

Lee, Young-Han ..... *Disclosed no conflict of interest.*

Leeflang, Sander M.A. .... *Disclosed no conflict of interest.*

Leek, Connor C ..... *Disclosed no conflict of interest.*

Lehenkari, Petri ..... *Disclosed no conflict of interest.*

Leigh, Nicholas D. .... *Disclosed no conflict of interest.*

Leiphart, Ryan ..... *Disclosed no conflict of interest.*

Lellouch, Alexandre G ..... *Disclosed no conflict of interest.*

Lemak, Lawrence ..... *Disclosed no conflict of interest.*

Lemay, Celeste A ..... *Disclosed no conflict of interest.*

Lemmon, Elisabeth A. .... *Disclosed no conflict of interest.*

Lendhey, Matin ..... *Disclosed no conflict of interest.*

Lenz, Mary E ..... *Disclosed no conflict of interest.*

Leon, Daniel S ..... *Disclosed no conflict of interest.*

Leonard, Alexander ..... 3A: W.L. Gore & Associates Inc,

Leonard, Donovan N ..... *Disclosed no conflict of interest.*

Leonard, Timothy ..... *Disclosed no conflict of interest.*

Leonardi, Ph.D, Claudia ..... *Disclosed no conflict of interest.*

Leong, Daniel ..... 3A: New York R&D Center for Translational Medicine and Therapeutics, Inc,

Lephart, Scott M ..... *Disclosed no conflict of interest.*

Lerner, Laura ..... *Disclosed no conflict of interest.*

Lesniak, Bryson P ..... *Disclosed no conflict of interest.*

Lesporis, Jurinus E ..... *Disclosed no conflict of interest.*

Lessard, Samantha ..... *Disclosed no conflict of interest.*

Leucht, Philipp ..... 3B: Ankasa Regenerative Therapeutics, Inc.

Leung, Frankie ..... *Disclosed no conflict of interest.*

Leung, Jason ..... *Disclosed no conflict of interest.*

Leung, Kwok Sui ..... *Disclosed no conflict of interest.*

Leung, Victor YL ..... *Disclosed no conflict of interest.*

LeVasseur, Clarissa ..... *Disclosed no conflict of interest.*

**Levato, Riccardo** ..... *Disclosed no conflict of interest.*

**Levenston, Marc E.** ..... *Disclosed no conflict of interest.*

**Leverant, Calen** ..... *Disclosed no conflict of interest.*

**Levin, Adam**..... *Disclosed no conflict of interest.*

**Levin, Scott**..... *Disclosed no conflict of interest.*

**Levine, Benjamin D**..... *Disclosed no conflict of interest.*

**Levine, Michael A.**..... *Disclosed no conflict of interest.*

**Levine, Mitchell** ..... *Disclosed no conflict of interest.*

**Levine, William N.**..... *Disclosed no conflict of interest.*

**Levy, Jonathan**..... 3B: DJO, Globus Medical.

**Lewandowski, John** ..... *Disclosed no conflict of interest.*

**Lewis, Cara L**..... *Disclosed no conflict of interest.*

**Lewis, Greg**..... *Disclosed no conflict of interest.*

**Lewis, Gregory S.**..... 5: Depuy-Synthes.

**Lewis, Jacqueline M.**..... *Disclosed no conflict of interest.*

**Lewton, Kristi** ..... *Disclosed no conflict of interest.*

**Leyden, Jacinta** ..... *Disclosed no conflict of interest.*

**Li, Alfred** ..... *Disclosed no conflict of interest.*

**Li, Bai-Yan** ..... *Disclosed no conflict of interest.*

**Li, Bianca C.Y.**..... *Disclosed no conflict of interest.*

**Li, Bingyun** ..... *Disclosed no conflict of interest.*

**Li, Chenxi**..... 3A: Smith & Nephew; 4: Smith & Nephew.

**Li, Christopher** ..... *Disclosed no conflict of interest.*

**Li, Chunyi**..... *Disclosed no conflict of interest.*

**Li, Daofeng** ..... *Disclosed no conflict of interest.*

**Li, Deborah** ..... *Disclosed no conflict of interest.*

**Li, Fangfei**..... *Disclosed no conflict of interest.*

**Li, Feng**..... *Disclosed no conflict of interest.*

**Li, Gang**..... *Disclosed no conflict of interest.*

**Li, Guoan** ..... 1: MAKO Surgical Corp/Stryker; 5: K2M, DePuy Synthes.

**LI, GUOAN** ..... 1: Stryker K2M, Mako surgical corp; 5: Depuy Synthes.

Li, Hai-Tao..... *Disclosed no conflict of interest.*

Li, Hongbin ..... *Disclosed no conflict of interest.*

Li, Hongshuai ..... *Disclosed no conflict of interest.*

LI, Huafang ..... *Disclosed no conflict of interest.*

Li, Jian..... *Disclosed no conflict of interest.*

Li, Jianyu ..... *Disclosed no conflict of interest.*

Li, Jiewen..... *Disclosed no conflict of interest.*

Li, Jing ..... *Disclosed no conflict of interest.*

Li, Jing-Sheng ..... *Disclosed no conflict of interest.*

Li, Jingyi ..... *Disclosed no conflict of interest.*

Li, Jun ..... 5: Ferring Pharmaceuticals.

Li, Kai ..... *Disclosed no conflict of interest.*

Li, La..... *Disclosed no conflict of interest.*

Li, Li..... *Disclosed no conflict of interest.*

Li, Long..... *Disclosed no conflict of interest.*

Li, Michelle Meng Chen ..... *Disclosed no conflict of interest.*

Li, Neill ..... *Disclosed no conflict of interest.*

Li, Qing..... *Disclosed no conflict of interest.*

Li, Sai-Sek..... *Disclosed no conflict of interest.*

Li, Samuel C ..... 3A: Edwards Lifesciences.

li, shengchun..... *Disclosed no conflict of interest.*

Li, Shuai ..... *Disclosed no conflict of interest.*

Li, Shu-Tung ..... 3A: Collagen Matrix, Inc,

Li, Tieshi ..... *Disclosed no conflict of interest.*

Li, Tong..... *Disclosed no conflict of interest.*

Li, vivian..... *Disclosed no conflict of interest.*

Li, Welwei..... *Disclosed no conflict of interest.*

Li, Wentian..... *Disclosed no conflict of interest.*

LI, XIAOFEI ..... *Disclosed no conflict of interest.*

Li, Xiaojuan ..... 5: Ferring Pharma; UCB Pharma.

Li, Xiaojuan ..... 5: Ferring Pharmaceuticals, UCB Pharmaceuticals.

Li, Xiaoning..... *Disclosed no conflict of interest.*

Li, Xudong ..... *Disclosed no conflict of interest.*

Li, Xue-Jun..... *Disclosed no conflict of interest.*

Li, Yageng..... *Disclosed no conflict of interest.*

Li, Yang..... 3A: 3-Helix, Inc; 4: 3-Helix, Inc; 5: 3-Helix, Inc.

Li, Ye ..... *Disclosed no conflict of interest.*

Li, Yihan ..... *Disclosed no conflict of interest.*

Li, Yong..... *Disclosed no conflict of interest.*

Li, Zemin ..... *Disclosed no conflict of interest.*

Li, Zhanchun..... *Disclosed no conflict of interest.*

Li, Zhiwen ..... *Disclosed no conflict of interest.*

Li, Zhongyu..... 4: DT MedTech, Keranetics.

Li, Zong-Ming ..... *Disclosed no conflict of interest.*

Lian, Jayson ..... *Disclosed no conflict of interest.*

Liang, Chao ..... *Disclosed no conflict of interest.*

Liang, Chengzhen ..... *Disclosed no conflict of interest.*

Liang, Haixiang ..... *Disclosed no conflict of interest.*

Liang, Hudson ..... *Disclosed no conflict of interest.*

Liang, Shuang ..... *Disclosed no conflict of interest.*

Liang, Ting..... *Disclosed no conflict of interest.*

Liao, Chun-Hsing Liao..... *Disclosed no conflict of interest.*

Liao, Mei-Hsiu..... *Disclosed no conflict of interest.*

Liao, Weiming..... *Disclosed no conflict of interest.*

Liao, Zhenhua..... *Disclosed no conflict of interest.*

Liao, Zheting..... *Disclosed no conflict of interest.*

LiArno, Sally ..... 3A: Stryker Orthopaedics; 4: Stryker.

Liau, Jiann-Jong..... 3A: United Orthopedic Corp.; 4: United Orthopedic Corp,

Lidén, Eva ..... 3A: Bone Support AB.

Lidgren, Lars ..... 3B: board member of Bonesupport AB, Lund, Sweden, 4: Bonesupport AB.

Lie, Tjiauw Tjoen Denny ..... *Disclosed no conflict of interest.*

Liebenberg, Ellen C..... *Disclosed no conflict of interest.*

Lieber, Richard L..... *Disclosed no conflict of interest.*

Lieberman, Jay R. .... 4: Hip Innovation Technologies, Inc; 6: Depuy Inc.

Liebowitz, Andrea B..... *Disclosed no conflict of interest.*

Liedert, Astrid..... *Disclosed no conflict of interest.*

Liedtke, Wolfgang B..... *Disclosed no conflict of interest.*

Lietaert, Karel ..... 3A: 3D Systems - LayerWise NV.

Lieu, Virginia ..... *Disclosed no conflict of interest.*

Liles, Jeffrey ..... *Disclosed no conflict of interest.*

Lilley, Cullen ..... *Disclosed no conflict of interest.*

Lillis, Jacquelyn A..... *Disclosed no conflict of interest.*

Lilly, Tanner ..... *Disclosed no conflict of interest.*

Lim, Dohyung ..... *Disclosed no conflict of interest.*

Lima, Diego..... *Disclosed no conflict of interest.*

Limfat, Sean..... *Disclosed no conflict of interest.*

Lin, Albert ..... *Disclosed no conflict of interest.*

Lin, Allen H ..... *Disclosed no conflict of interest.*

Lin, Angela..... *Disclosed no conflict of interest.*

Lin, Angela S.P..... *Disclosed no conflict of interest.*

Lin, Bin..... *Disclosed no conflict of interest.*

Lin, Che-Yu ..... *Disclosed no conflict of interest.*

Lin, Chia-Ying J..... *Disclosed no conflict of interest.*

Lin, Chih-Chan ..... *Disclosed no conflict of interest.*

Lin, Chih-YI ..... *Disclosed no conflict of interest.*

Lin, Dasheng ..... *Disclosed no conflict of interest.*

Lin, Feng-Huei ..... *Disclosed no conflict of interest.*

Lin, Hang..... *Disclosed no conflict of interest.*

Lin, Huizi A ..... *Disclosed no conflict of interest.*

Lin, Jack..... *Disclosed no conflict of interest.*

Lin, Jinn ..... *Disclosed no conflict of interest.*

Lin, Lei ..... *Disclosed no conflict of interest.*

Lin, Mei Yun..... *Disclosed no conflict of interest.*

Lin, Pei-I ..... *Disclosed no conflict of interest.*  
Lin, Sien ..... *Disclosed no conflict of interest.*  
Lin, Sue Hwa ..... *Disclosed no conflict of interest.*  
Lin, Sung-Yen ..... *Disclosed no conflict of interest.*  
Lin, Tom ..... *Disclosed no conflict of interest.*  
Lin, Tzu-Hsiang ..... *Disclosed no conflict of interest.*  
Lin, Tzuhua ..... *Disclosed no conflict of interest.*  
Lin, Tzu-hua ..... *Disclosed no conflict of interest.*  
Lin, Tzu-Hung ..... *Disclosed no conflict of interest.*  
Lin, Yi-Hsiung ..... *Disclosed no conflict of interest.*  
Lin, Yi-Shan ..... *Disclosed no conflict of interest.*  
Lin, Yu-Yang ..... *Disclosed no conflict of interest.*  
Lin, Zhao ..... *Disclosed no conflict of interest.*  
Lin, Zhengjie ..... *Disclosed no conflict of interest.*  
Linde, Monica A. .... *Disclosed no conflict of interest.*  
Lindeman, Robert W ..... *Disclosed no conflict of interest.*  
Linderman, Shannon E ..... 3A: Figur8 Inc.  
Linderman, Stephen W ..... *Disclosed no conflict of interest.*  
Lindgren, Bruce ..... *Disclosed no conflict of interest.*  
Lindon, John ..... *Disclosed no conflict of interest.*  
Lindquist, Carin ..... 3A: TheraNova LLC.  
Lindsey, Ronald W. .... 7: JBJS.  
Linford, Eric H ..... *Disclosed no conflict of interest.*  
Ling, Junqi ..... *Disclosed no conflict of interest.*  
Lingampalli, Nithya ..... *Disclosed no conflict of interest.*  
Linhardt, Robert J ..... *Disclosed no conflict of interest.*  
Link, Jarrett M ..... *Disclosed no conflict of interest.*  
Link, Thomas ..... *Disclosed no conflict of interest.*  
Link, Thomas M. .... *Disclosed no conflict of interest.*  
Linn, Erika T ..... *Disclosed no conflict of interest.*  
Lins, Laura ..... *Disclosed no conflict of interest.*

**Liou, Jr-Jiun J** ..... *Disclosed no conflict of interest.*

**Liou, William** ..... *Disclosed no conflict of interest.*

**Lipman, Joseph** ..... 1: Exactech, Lima, Mathys Ltd, Ortho Development Corporation; 3C: Extremity Medical.

**Lipner, Justin H** ..... *Disclosed no conflict of interest.*

**Lippacher, Sabine** ..... *Disclosed no conflict of interest.*

**Little, Dianne** ..... *Disclosed no conflict of interest.*

**Liu, Ai Qin** ..... *Disclosed no conflict of interest.*

**Liu, Betty** ..... *Disclosed no conflict of interest.*

**Liu, Chao** ..... *Disclosed no conflict of interest.*

**Liu, Chuanju** ..... *Disclosed no conflict of interest.*

**Liu, Chuan-Ju** ..... *Disclosed no conflict of interest.*

**Liu, David R.** ..... 1: Ensemble Therapeutics, Permeon Biologics, Editas Medicine, and Monsanto; 2: Novartis, Monsanto; 3B: Editas Medicine, Beam Therapeutics; 4: Editas Medicine, Beam Therapeutics; 5: Ipsen, Monsanto.

**Liu, Dongliang** ..... *Disclosed no conflict of interest.*

**Liu, Dr. Xue-Cheng** ..... *Disclosed no conflict of interest.*

**Liu, Gang-Yu** ..... *Disclosed no conflict of interest.*

**Liu, Hsuan-Chih** ..... *Disclosed no conflict of interest.*

**Liu, Hui** ..... *Disclosed no conflict of interest.*

**Liu, Huiyong** ..... *Disclosed no conflict of interest.*

**Liu, Huizhong** ..... *Disclosed no conflict of interest.*

**Liu, James** ..... *Disclosed no conflict of interest.*

**Liu, Jennifer W** ..... *Disclosed no conflict of interest.*

**Liu, Ju-Fang** ..... *Disclosed no conflict of interest.*

**Liu, Leening P** ..... *Disclosed no conflict of interest.*

**Liu, Lei** ..... *Disclosed no conflict of interest.*

**Liu, Lidi** ..... *Disclosed no conflict of interest.*

**Liu, Meigen** ..... *Disclosed no conflict of interest.*

**Liu, Mengyao** ..... *Disclosed no conflict of interest.*

**Liu, Min** ..... *Disclosed no conflict of interest.*

**Liu, Ming** ..... *Disclosed no conflict of interest.*

**Liu, Pengcheng** ..... *Disclosed no conflict of interest.*

**Liu, Qian**..... *Disclosed no conflict of interest.*

**Liu, Ronghan** ..... *Disclosed no conflict of interest.*

**Liu, Shengzhi**..... *Disclosed no conflict of interest.*

**Liu, Shing H** ..... *Disclosed no conflict of interest.*

**Liu, Songyun** ..... *Disclosed no conflict of interest.*

**Liu, Steve** ..... *Disclosed no conflict of interest.*

**Liu, Steve S**..... *Disclosed no conflict of interest.*

**Liu, Tang** ..... *Disclosed no conflict of interest.*

**Liu, Weiqiang**..... *Disclosed no conflict of interest.*

**Liu, Wenguang** ..... *Disclosed no conflict of interest.*

**Liu, Wenxuan**..... *Disclosed no conflict of interest.*

**Liu, X. Sherry** ..... *Disclosed no conflict of interest.*

**Liu, Xiangyi (Cheryl)** ..... 3A: Stryker Orthopaedics.

**Liu, Xiaoming** ..... *Disclosed no conflict of interest.*

**Liu, Xing**..... *Disclosed no conflict of interest.*

**Liu, Xin-Ting** ..... *Disclosed no conflict of interest.*

**Liu, Xinyue**..... *Disclosed no conflict of interest.*

**Liu, Xizhe** ..... *Disclosed no conflict of interest.*

**Liu, Xue Cheng**..... *Disclosed no conflict of interest.*

**Liu, Xuhui**..... *Disclosed no conflict of interest.*

**Liu, Yang**..... *Disclosed no conflict of interest.*

**Liu, Yunlong** ..... *Disclosed no conflict of interest.*

**Liu, Zhaoyang**..... *Disclosed no conflict of interest.*

**Liu, Zhihong** ..... *Disclosed no conflict of interest.*

**Liu, Zun**..... *Disclosed no conflict of interest.*

**Liu-Bryan, Ru** ..... *Disclosed no conflict of interest.*

**Livingston Arinzeh, Treena** ..... *Disclosed no conflict of interest.*

**Lo, Darrick**..... 1: orthodevelopment; 4: medtronic, bristol myers squibb.

**Lockard, Carly A**..... *Disclosed no conflict of interest.*

**Locke, Ryan C** ..... *Disclosed no conflict of interest.*



Lockhart, Jason S ..... *Disclosed no conflict of interest.*

Lode, Anja ..... *Disclosed no conflict of interest.*

Loenen, Arjan ..... *Disclosed no conflict of interest.*

Loeser, Richard F ..... 3B: Unity Biotechnology.

Loftis, Christopher M ..... *Disclosed no conflict of interest.*

Logishetty, Kartik ..... *Disclosed no conflict of interest.*

Loiselle, Alayna ..... *Disclosed no conflict of interest.*

Lombardo, Joseph ..... *Disclosed no conflict of interest.*

London, Daniel ..... *Disclosed no conflict of interest.*

Long, Austin A ..... *Disclosed no conflict of interest.*

Long, Lauren A ..... *Disclosed no conflict of interest.*

Long, Steven ..... 4: Iowa Simulation Solutions.

Longaray, Jason A ..... 3A: Stryker; 4: Stryker.

Longjohn, Donald ..... *Disclosed no conflict of interest.*

Longoni, Alessia ..... *Disclosed no conflict of interest.*

Longstaff, Lee ..... *Disclosed no conflict of interest.*

Looft, John M ..... *Disclosed no conflict of interest.*

Loots, Gabriela ..... *Disclosed no conflict of interest.*

Lopez, Christopher D ..... *Disclosed no conflict of interest.*

Lopez, Jesus R ..... *Disclosed no conflict of interest.*

Lopez, Monica Romero ..... *Disclosed no conflict of interest.*

López-Marcial, Gabriel R ..... *Disclosed no conflict of interest.*

López-Reyes, Alberto ..... *Disclosed no conflict of interest.*

Lord, Elizabeth L ..... *Disclosed no conflict of interest.*

Loree, Jillian ..... *Disclosed no conflict of interest.*

Lorenowicz, Magdalena J ..... *Disclosed no conflict of interest.*

Lorentz, Jeremiah ..... *Disclosed no conflict of interest.*

Lorenzo, Joseph ..... *Disclosed no conflict of interest.*

Lotz, Jeffrey C. .... 4: Bioniks LLC; 5: NIH STTR Grant # AR068202 to Bioniks LLC.

Lotz, Martin K ..... *Disclosed no conflict of interest.*

Loubrieu, Gauthier ..... *Disclosed no conflict of interest.*

Loughlin, John ..... 5: research grant from GlaxoSmithKline.

Louhghalam, Arghavan ..... *Disclosed no conflict of interest.*

Loureiro, Rui ..... *Disclosed no conflict of interest.*

Louth, Sophie ..... 3A: Smith & Nephew.

Lovelady, Elaine ..... 3A: Zimmer Biomet.

Lovering, Richard M. .... *Disclosed no conflict of interest.*

Lovric, Goran ..... *Disclosed no conflict of interest.*

Lovric, Vedran ..... *Disclosed no conflict of interest.*

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Lowe, Evan ..... *Disclosed no conflict of interest.*

Lowe, Mark ..... *Disclosed no conflict of interest.*

Lowe, Walter ..... 3B: Consultant for Arthrex, Inc., Consultant for DonJoy Orthopaedics.

Lowell, Julie A. .... *Disclosed no conflict of interest.*

Loza, Kateryna ..... *Disclosed no conflict of interest.*

Lu, Aiping ..... *Disclosed no conflict of interest.*

Lu, Cheng Kuang ..... 3A: United Orthopedic Corp.; 4: United Orthopedic Corp,

Lu, Helen ..... *Disclosed no conflict of interest.*

Lu, Helen H. .... *Disclosed no conflict of interest.*

Lu, Hongbin ..... *Disclosed no conflict of interest.*

Lu, Junyu ..... *Disclosed no conflict of interest.*

Lu, Laura ..... *Disclosed no conflict of interest.*

Lu, Meng-Ling ..... *Disclosed no conflict of interest.*

Lu, Qinghua ..... *Disclosed no conflict of interest.*

Lu, Theresa T ..... *Disclosed no conflict of interest.*

Lu, Tyler M ..... *Disclosed no conflict of interest.*

Lu, Wei ..... *Disclosed no conflict of interest.*

Lu, William ..... *Disclosed no conflict of interest.*

Lu, X. Lucas ..... *Disclosed no conflict of interest.*

Lu, Yung-Chang ..... *Disclosed no conflict of interest.*

Lu, Zhen ..... 5: Depuy Synthes.

Luangphakdy, Viviane ..... *Disclosed no conflict of interest.*

Lubbe, Ryan ..... *Disclosed no conflict of interest.*

Lubinski, Jake ..... *Disclosed no conflict of interest.*

lucas, caitlin ..... *Disclosed no conflict of interest.*

Luchetti, Jeffrey ..... *Disclosed no conflict of interest.*

Luczak, Stephen B ..... *Disclosed no conflict of interest.*

Ludewig, Paula M ..... *Disclosed no conflict of interest.*

Ludewig, Paula M ..... *Disclosed no conflict of interest.*

Ludwig, Alfred ..... *Disclosed no conflict of interest.*

Ludwig, Jonathan A ..... *Disclosed no conflict of interest.*

Lufkin, Thomas ..... *Disclosed no conflict of interest.*

Lukawski, Audrey ..... *Disclosed no conflict of interest.*

Lukosius, Eric ..... *Disclosed no conflict of interest.*

Lum, Zachary C ..... *Disclosed no conflict of interest.*

Luna Ferrer, Patricia ..... *Disclosed no conflict of interest.*

Luna, Marysol ..... *Disclosed no conflict of interest.*

Lundberg, Hannah J ..... *Disclosed no conflict of interest.*

luo, simin ..... *Disclosed no conflict of interest.*

Luo, Tianyi D ..... *Disclosed no conflict of interest.*

Luo, Xiaoman ..... *Disclosed no conflict of interest.*

Luo, Xuan ..... *Disclosed no conflict of interest.*

Luo, Zongping ..... *Disclosed no conflict of interest.*

Luo, Zong-Ping ..... *Disclosed no conflict of interest.*

Luqman, Saad ..... *Disclosed no conflict of interest.*

Lustig, Steven R ..... *Disclosed no conflict of interest.*

Lützner, Jörg ..... *Disclosed no conflict of interest.*

Luyt, Leonard ..... *Disclosed no conflict of interest.*

Lv, Mengxi ..... *Disclosed no conflict of interest.*

Lv, Zheng-tao ..... *Disclosed no conflict of interest.*

Lybrand, Kyle ..... *Disclosed no conflict of interest.*

Lykotrafitis, George ..... *Disclosed no conflict of interest.*

Lynch, Andrew ..... *Disclosed no conflict of interest.*

**Lynch, Maureen**..... *Disclosed no conflict of interest.*

**Lynch, Rik**..... *Disclosed no conflict of interest.*

**Lyon, Roger** ..... *Disclosed no conflict of interest.*

**Lyons, Colden M** ..... *Disclosed no conflict of interest.*

**Lyons, Kathleen** ..... *Disclosed no conflict of interest.*

**Ma, Andy K** ..... *Disclosed no conflict of interest.*

**Ma, Benjamin**..... 3B: Stryker, Zimmer, Conmed, Valeris Medical; 5: Zimmer, Histogenics, Moximed.

**Ma, Hongdao** ..... *Disclosed no conflict of interest.*

**Ma, Richard**..... *Disclosed no conflict of interest.*

**Ma, Shaocheng**..... *Disclosed no conflict of interest.*

**Ma, Tianchi** ..... *Disclosed no conflict of interest.*

**Ma, Xiaoyuan** ..... *Disclosed no conflict of interest.*

**Ma, Xinlong**..... *Disclosed no conflict of interest.*

**MA, XUE** ..... *Disclosed no conflict of interest.*

**Ma, Yajun** ..... *Disclosed no conflict of interest.*

**Ma, Yuan** ..... *Disclosed no conflict of interest.*

**Maag, Chase** ..... 3A: DePuy Synthes Joint Reconstruction

**Maassen, Nicholas H.** ..... *Disclosed no conflict of interest.*

**MacAuliffe, Jonh** ..... *Disclosed no conflict of interest.*

**MacDermid, Joy** ..... *Disclosed no conflict of interest.*

**MacDonald, Daniel W.**..... *Disclosed no conflict of interest.*

**MacDonald, Graham Z**..... *Disclosed no conflict of interest.*

**Macgroarty, Kelly A.**..... *Disclosed no conflict of interest.*

**Machan, Jason T** ..... *Disclosed no conflict of interest.*

**Machida, Jiro** ..... *Disclosed no conflict of interest.*

**Macinnes, Scott**..... *Disclosed no conflict of interest.*

**Mackey, Abigail** ..... *Disclosed no conflict of interest.*

**MacLeod, Alistair R.**..... *Disclosed no conflict of interest.*

**Madeline, Allison L.**..... *Disclosed no conflict of interest.*

**Madeline, Lee A.**..... *Disclosed no conflict of interest.*

**Madete, June** ..... *Disclosed no conflict of interest.*

**Madhu, Vedavathi**..... *Disclosed no conflict of interest.*

**Madonna, Vincenzo**..... *Disclosed no conflict of interest.*

**Madry, Henning** ..... *Disclosed no conflict of interest.*

**Mae, Tatsuo** ..... *Disclosed no conflict of interest.*

**Maeda, Eijiro** ..... *Disclosed no conflict of interest.*

**MAEDA, Tatsunori**..... *Disclosed no conflict of interest.*

**Maeguchi, Kosuke**..... *Disclosed no conflict of interest.*

**Maehara, Miki** ..... *Disclosed no conflict of interest.*

**Maerz, Tristan** ..... *Disclosed no conflict of interest.*

**Maesawa, Chihaya** ..... *Disclosed no conflict of interest.*

**Maeyama, Akira** ..... *Disclosed no conflict of interest.*

**Mageswaran, Prasath** ..... *Disclosed no conflict of interest.*

**Magnusdottir, Ran**..... *Disclosed no conflict of interest.*

**Magnussen, Robert A** ..... *Disclosed no conflict of interest.*

**Magome, Takuya** ..... *Disclosed no conflict of interest.*

**Magrath, Walker J** ..... *Disclosed no conflict of interest.*

**Mahadevan-Jansen, Anita** ..... *Disclosed no conflict of interest.*

**Mahajan, John** ..... *Disclosed no conflict of interest.*

**Maher, Patrick L.** ..... *Disclosed no conflict of interest.*

**Maher, Suzanne A**..... 4: Agelity Biomechanics.

**Mahomed, Mavish** ..... 3A: Valitor, Inc.; 4: Valitor, Inc,

**Mahomed, Nizar**..... *Disclosed no conflict of interest.*

**Mahometa, Michael J** ..... *Disclosed no conflict of interest.*

**Mahoney, Christopher M** ..... *Disclosed no conflict of interest.*

**Mahoney, Eric**..... *Disclosed no conflict of interest.*

**Mahoney, Ormonde M**..... 3B: Stryker; 5: DJ Orthopaedics.

**Mahtani, Gordhan B** ..... *Disclosed no conflict of interest.*

**Mailhiot, Sarah E** ..... *Disclosed no conflict of interest.*

**Majeska, Robert J**..... *Disclosed no conflict of interest.*

**Majima, Tokifumi** ..... *Disclosed no conflict of interest.*

**Majumdar, Sharmila** ..... *Disclosed no conflict of interest.*

**Makarov, Sergey** ..... *Disclosed no conflict of interest.*

**Mäkelä, Janne Toivo August**..... *Disclosed no conflict of interest.*

**Maki, Brian E** ..... *Disclosed no conflict of interest.*

**Makino, Hiroto** ..... *Disclosed no conflict of interest.*

**Makino, Takahiro**..... *Disclosed no conflict of interest.*

**Malda, Jos**..... *Disclosed no conflict of interest.*

**Maleszewski, Joseph J** ..... *Disclosed no conflict of interest.*

**Malhotra, Neil R**..... *Disclosed no conflict of interest.*

**Malik, Jeremy** ..... 3A: NuVasive; 4: NuVasive.

**Maliki, Mohammed A**..... *Disclosed no conflict of interest.*

**Malizos, Konstantinos** ..... *Disclosed no conflict of interest.*

**Malkani, Aurthur**..... 1: Stryker; 2: Stryker; 3B: Stryker; 5: Stryker.

**Malloy, Philip** ..... *Disclosed no conflict of interest.*

**Maloney, William J** ..... *Disclosed no conflict of interest.*

**Maltenfort, Mitchell G**..... *Disclosed no conflict of interest.*

**Mamidi, Murali** ..... *Disclosed no conflict of interest.*

**Manal, Kurt** ..... *Disclosed no conflict of interest.*

**Manalo, John P**..... *Disclosed no conflict of interest.*

**Manchanda, Kshitij** ..... *Disclosed no conflict of interest.*

**Mancini, Nickolas S**..... *Disclosed no conflict of interest.*

**Mandair, Gurjit S** ..... *Disclosed no conflict of interest.*

**Mandalapu, Sai**..... *Disclosed no conflict of interest.*

**Mandell, Jonathan**..... *Disclosed no conflict of interest.*

**Manegold, Sebastian** ..... *Disclosed no conflict of interest.*

**Maneval, James E** ..... *Disclosed no conflict of interest.*

**Mangrum, Shane** ..... 4: TheraNova LLC.

**Mangudi Varadarajan, Kartik**..... 1: Stryker Corp; 3B: ZimmerBiomet, CeramTec, Orthopaedic Technology Group;  
4: Orthopaedic Technology Group; 5: Evonik Industries.

**Maniar, Niraj** ..... 3A: Stryker.

**Mann, Kenneth A**..... *Disclosed no conflict of interest.*

**Mann, Koren K**..... *Disclosed no conflict of interest.*

**Mannava, Sandeep**..... 1: Wake Forest University Health Sciences; 6: Wake Forest University Health Sciences.

**Männel, Christian** ..... *Disclosed no conflict of interest.*

**Mannen, Erin M** ..... *Disclosed no conflict of interest.*

**Manning, John**..... *Disclosed no conflict of interest.*

**Manning, William A**..... *Disclosed no conflict of interest.*

**Manoli III, Arthur**..... *Disclosed no conflict of interest.*

**Manoukian, Martain AC** ..... *Disclosed no conflict of interest.*

**Mantovani, Giulia** ..... *Disclosed no conflict of interest.*

**Mantripragada, Venkata Prasanna R.***Disclosed no conflict of interest.*

**Mao, Hai-Quan**..... 1: LifeSprout; 4: LifeSprout; 5: Coulter Translational Research Fund.

**Mao, Jeremy . J** ..... 4: Mitogen, Inc,

**Mar, Damon** ..... *Disclosed no conflict of interest.*

**Marailiac, Kevin**..... *Disclosed no conflict of interest.*

**Maratt, Joseph**..... 3B: Zimmer Biomed.

**Marawar, Satyajit**..... *Disclosed no conflict of interest.*

**Marcaccio, Stephen** ..... *Disclosed no conflict of interest.*

**Marchand, Robert C.**..... 3B: Stryker; 4: Stryker.

**Marchitto, Mark C**..... *Disclosed no conflict of interest.*

**Marcolongo, Michele**..... 3C: Invisalert; 4: Invisalert; 5: FMC.

**Marcu, Laura**..... *Disclosed no conflict of interest.*

**Marcucio, Ralph** ..... *Disclosed no conflict of interest.*

**Marecek, Geoffrey S.**..... *Disclosed no conflict of interest.*

**Marin, Arden** ..... *Disclosed no conflict of interest.*

**Marin, Elia** ..... *Disclosed no conflict of interest.*

**Marino, Rachelle**..... *Disclosed no conflict of interest.*

**Marionneaux, Alan M** ..... *Disclosed no conflict of interest.*

**Markel, David**..... 1: Stryker Orthopaedics; 3B: Stryker Orthopaedics; 5: Stryker.

**Markel, Jacob** ..... *Disclosed no conflict of interest.*

**Markes, Alexander R.**..... *Disclosed no conflict of interest.*

**Markolf, Keith L**..... *Disclosed no conflict of interest.*

**Markova, Dessislava Z.**..... *Disclosed no conflict of interest.*

Marks, Miriam ..... *Disclosed no conflict of interest.*

Marks, Richard M ..... *Disclosed no conflict of interest.*

Marlowe, Heather ..... *Disclosed no conflict of interest.*

Marouane, Hafedh ..... *Disclosed no conflict of interest.*

Marquardt, Tamara L ..... *Disclosed no conflict of interest.*

Marquez-Lara, Alejandro ..... *Disclosed no conflict of interest.*

Marra, Guido ..... 1: Zimmer-Biomet.

Marra, Kacey G ..... *Disclosed no conflict of interest.*

Marras, Alexander E ..... *Disclosed no conflict of interest.*

Marras, William S ..... *Disclosed no conflict of interest.*

Marriott, Tim ..... 3A: Zimmer Biomet.

Marsh, John Lawrence ..... 1: Orthohelix, Biomet, Oxford Press.

Marshall, Brandon D ..... *Disclosed no conflict of interest.*

Marshall, Kenneth Wayne ..... *Disclosed no conflict of interest.*

Marshall, Wayne ..... *Disclosed no conflict of interest.*

Martel, Anne ..... *Disclosed no conflict of interest.*

Martelli, Saulo ..... *Disclosed no conflict of interest.*

Martens, Kayla ..... 3B: Tannin A. Schmidt.

Martín, Anthony ..... *Disclosed no conflict of interest.*

Martin, Audrey ..... 6: DePuy.

Martin, Hal ..... 3B: Educational Consultant, Smith and Nephew.

Martin, Ivan ..... *Disclosed no conflict of interest.*

Martin, Jill ..... *Disclosed no conflict of interest.*

Martin, John T ..... *Disclosed no conflict of interest.*

Martin, Ryan ..... *Disclosed no conflict of interest.*

Martinez Fernandez, Jose ..... *Disclosed no conflict of interest.*

MARTINEZ, VALENTIN ..... *Disclosed no conflict of interest.*

Martino, Alice ..... *Disclosed no conflict of interest.*

Martin-Pena, Alfonso ..... *Disclosed no conflict of interest.*

Marulli, Tiffany ..... *Disclosed no conflict of interest.*

Marumo, Keishi ..... *Disclosed no conflict of interest.*



**Maruyama, Masahiro**..... *Disclosed no conflict of interest.*

**Marvi, Tanya K**..... *Disclosed no conflict of interest.*

**Masahiro, Kiyono** ..... *Disclosed no conflict of interest.*

**Masahiro, Maruyama**..... *Disclosed no conflict of interest.*

**Masakazu, Ishikawa** ..... *Disclosed no conflict of interest.*

**Masakazu, Kogawa** ..... 1: Kazutomo Miura; 2: Eiichi tsuda; 3A: Ishibashi Yasuyuki.

**Masanori, Tsubosaka**..... *Disclosed no conflict of interest.*

**Mascarenhas, Randy** ..... *Disclosed no conflict of interest.*

**Mashiatulla, Maleeha** ..... *Disclosed no conflict of interest.*

**Mashiba, Tasuku** ..... 6: Asahi Kasei Pharma Corporation; 7: Asahi Kasei Pharma Corporation,

**Masini, Michael A** ..... 1: DePuy, Stryker; 2: Stryker; 3B: Stryker; 5: Stryker.

**Mason, Deborah J** ..... 6: One drug supplied by Novartis.

**Mason, Devon E** ..... *Disclosed no conflict of interest.*

**Mason, J Bohannon** ..... 1: DepuySynthes, Inc; 3A: DepuySynthes, Inc.

**Massimini, Daniel F**..... 3A: Boston Scientific; 4: Boston Scientific.

**Masters, Elysia A**..... *Disclosed no conflict of interest.*

**Mastio, Michele** ..... *Disclosed no conflict of interest.*

**Masuda, Keisuke**..... *Disclosed no conflict of interest.*

**Masuda, Koichi**..... 5: AnGes MG inc.

**Masuda, Shin**..... *Disclosed no conflict of interest.*

**Masuda, Yoko**..... *Disclosed no conflict of interest.*

**Masumoto, Jun**..... 3A: Paid employee.

**Matheny, Heather** ..... *Disclosed no conflict of interest.*

**Matheson, Austyn** ..... *Disclosed no conflict of interest.*

**Mathew, Mathew T**..... *Disclosed no conflict of interest.*

**Mathieu, Axel P** ..... *Disclosed no conflict of interest.*

**Mathis, Kenneth B**..... *Disclosed no conflict of interest.*

**Mathur, Kishan** ..... *Disclosed no conflict of interest.*

**Matre, Polina R**..... *Disclosed no conflict of interest.*

**Matsubara, Shinji** ..... *Disclosed no conflict of interest.*

**Matsubara, Tsunemasa** ..... *Disclosed no conflict of interest.*

**Matsuda, Junpei** ..... *Disclosed no conflict of interest.*

**Matsuda, Ken-ichi** ..... *Disclosed no conflict of interest.*

**Matsuda, Michiharu** ..... *Disclosed no conflict of interest.*

**Matsuda, Shuichi** ..... *Disclosed no conflict of interest.*

**Matsuda, Yoko** ..... *Disclosed no conflict of interest.*

**Matsui, Yuichiro** ..... *Disclosed no conflict of interest.*

**Matsui, Yuki** ..... *Disclosed no conflict of interest.*

**Matsukawa, Akihiro** ..... *Disclosed no conflict of interest.*

**Matsuki, Keisuke** ..... 5: Exactech, Inc,

**Matsumine, Akihiko** ..... *Disclosed no conflict of interest.*

**Matsumoto, Hideo** ..... *Disclosed no conflict of interest.*

**Matsumoto, Koji** ..... *Disclosed no conflict of interest.*

**Matsumoto, Megumi** ..... *Disclosed no conflict of interest.*

**Matsumoto, Morio** ..... *Disclosed no conflict of interest.*

**Matsumoto, Rempei** ..... *Disclosed no conflict of interest.*

**Matsumoto, Tomoyuki** ..... 3C: Aesculap, Zimmer-Biomet.

**Matsumura, Etsuko** ..... *Disclosed no conflict of interest.*

**Matsumura, Noboru** ..... *Disclosed no conflict of interest.*

**Matsumura, Takashi** ..... *Disclosed no conflict of interest.*

**Matsunaga, Naoto** ..... *Disclosed no conflict of interest.*

**Matsuoka, Masatake** ..... *Disclosed no conflict of interest.*

**Matsushita, Masaki** ..... *Disclosed no conflict of interest.*

**Matsushita, Takehiko** ..... *Disclosed no conflict of interest.*

**Matsuyama, Yukihiro** ..... *Disclosed no conflict of interest.*

**Matsuzaki, Hiromi** ..... *Disclosed no conflict of interest.*

**Matsuzaki, Tokio** ..... *Disclosed no conflict of interest.*

**Matthew, Robert Peter** ..... 5: Bioniks.

**Matthews, Robert** ..... *Disclosed no conflict of interest.*

**Matthias, Nadine** ..... *Disclosed no conflict of interest.*

**Mattson, Anna M** ..... *Disclosed no conflict of interest.*

**Matuska, Andrea M** ..... 3A: Arthrex Inc.

**Matyas, John** ..... *Disclosed no conflict of interest.*

**Mauck, Robert L.** ..... *Disclosed no conflict of interest.*

**Mawatari, Masaaki** ..... *Disclosed no conflict of interest.*

**Mawatari, Taro** ..... *Disclosed no conflict of interest.*

**Mayer, Erik N.** ..... *Disclosed no conflict of interest.*

**Mayer, Lucas W.** ..... *Disclosed no conflict of interest.*

**Mayfield, Cory** ..... *Disclosed no conflict of interest.*

**Mayman, David J** ..... 3B: Stryker - Mako Surgical Corp.; OrthAlign, Inc.; Smith & Nephew.

**Mayor, Michael B.** ..... *Disclosed no conflict of interest.*

**Mazda, Osam** ..... *Disclosed no conflict of interest.*

**McAlinden, Audrey** ..... *Disclosed no conflict of interest.*

**McAllister, David R.** ..... 3B: MTF; 5: MTF.

**McAllister, Kyron** ..... *Disclosed no conflict of interest.*

**McBride-Gagyi, Sarah** ..... *Disclosed no conflict of interest.*

**McCabe, Megan** ..... *Disclosed no conflict of interest.*

**McCall, Blake** ..... *Disclosed no conflict of interest.*

**McCarley, Matthew** ..... *Disclosed no conflict of interest.*

**McCarthy, John J** ..... *Disclosed no conflict of interest.*

**McCarthy, Stephanie M.** ..... *Disclosed no conflict of interest.*

**McCarthy, Thomas F** ..... 3A: Stryker Orthopaedics; 4: Stryker Orthopaedics.

**McClelland, Jodie A** ..... *Disclosed no conflict of interest.*

**McClendon, Mark T** ..... *Disclosed no conflict of interest.*

**McClincy, Michael** ..... *Disclosed no conflict of interest.*

**McCloskey, Eugene V** ..... *Disclosed no conflict of interest.*

**McClure, Michael J.** ..... *Disclosed no conflict of interest.*

**McColl, Logan** ..... *Disclosed no conflict of interest.*

**McCormick, Brian** ..... *Disclosed no conflict of interest.*

**McCorry, Mary Clare** ..... *Disclosed no conflict of interest.*

**McCrackin, MA** ..... *Disclosed no conflict of interest.*

**McCreary, Dylan L** ..... *Disclosed no conflict of interest.*

**McCulloch, Patrick** ..... 2: Vericel, Journal of Knee Surgery, Orthobullets; 5: DePuy, A Johnson & Johnson Company, Arthrex.

**McCunney, Robert C** ..... *Disclosed no conflict of interest.*

**McDermott, Scott** ..... *Disclosed no conflict of interest.*

**McDonough, Ryan C** ..... *Disclosed no conflict of interest.*

**McEllin, Jennifer**..... *Disclosed no conflict of interest.*

**McEntire, Bryan J**..... 3A: Amedica Corporation; 4: Amedica Corporation.

**McFaline-Figueroa, Jennifer** ..... *Disclosed no conflict of interest.*

**McFetridge, Peter**..... *Disclosed no conflict of interest.*

**McGann, William** ..... *Disclosed no conflict of interest.*

**McGargill, Maureen**..... *Disclosed no conflict of interest.*

**McGee, William**..... *Disclosed no conflict of interest.*

**McGee-Lawrence, Meghan E**..... *Disclosed no conflict of interest.*

**McGilvray, Kirk C** ..... *Disclosed no conflict of interest.*

**McGoldrick, Samantha** ..... *Disclosed no conflict of interest.*

**McGowan, Dennis** ..... *Disclosed no conflict of interest.*

**Mcgrath, Brian**..... 5: Medtronic.

**McGrath, James L** ..... *Disclosed no conflict of interest.*

**McGregor, Martine E** ..... *Disclosed no conflict of interest.*

**McGuire, Jonathan E** ..... *Disclosed no conflict of interest.*

**McGuire, Robert** ..... 6: President Elect for the AO Foundation, consultant for Zavation and Rehab, Inc.

**McHugh, Kevin** ..... *Disclosed no conflict of interest.*

**McHugh, Martin P**..... *Disclosed no conflict of interest.*

**McIff, Terence**..... *Disclosed no conflict of interest.*

**McIff, Terence E** ..... *Disclosed no conflict of interest.*

**McIlwraith, C Wayne** ..... 3B: Arthrex; 4: Advanced Regenerative Therapies.

**McKee, Michael D**..... *Disclosed no conflict of interest.*

**McKendall, Kennedy** ..... *Disclosed no conflict of interest.*

**McKenzie, Jennifer A**..... *Disclosed no conflict of interest.*

**McKenzie, Steven**..... *Disclosed no conflict of interest.*

**McKnight, Braden** ..... *Disclosed no conflict of interest.*

**McKnight, Randall**..... *Disclosed no conflict of interest.*

**McLaren, Alex**..... 4: Sonoran Biosciences.

**McMahon, Patrick J** ..... 3A: Healthwise; 7: MCGraw Hill.

**McNallan, Michael** ..... *Disclosed no conflict of interest.*

**McNamara, Laoise**..... *Disclosed no conflict of interest.*

**McNamara, Laoise M**..... *Disclosed no conflict of interest.*

**McNary, Sean** ..... *Disclosed no conflict of interest.*

**McNeil, Paul**..... *Disclosed no conflict of interest.*

**McNulty, Amy L.** ..... *Disclosed no conflict of interest.*

**McPherson, April L** ..... *Disclosed no conflict of interest.*

**McQueen, Margaret**..... *Disclosed no conflict of interest.*

**McVeigh, Joanne**..... *Disclosed no conflict of interest.*

**Mead, Paul** ..... *Disclosed no conflict of interest.*

**Meadows, Kyle D**..... *Disclosed no conflict of interest.*

**Meagher, Matthew J**..... *Disclosed no conflict of interest.*

**Meath, Benjamin**..... *Disclosed no conflict of interest.*

**Mecham, Robert P**..... *Disclosed no conflict of interest.*

**Meehan, John P**..... *Disclosed no conflict of interest.*

**Mehraban Alvandi, Leila** ..... *Disclosed no conflict of interest.*

**Mehrabian, Hatef** ..... *Disclosed no conflict of interest.*

**Mehta, Ankit**..... *Disclosed no conflict of interest.*

**Mehta, Samir**..... 2: AO North America, Smith and Nephew, Zimmer; 3B: Smith and Nephew, DePuy Synthes; 5: Amgen Co., Medtronic, Smith and Nephew; 7: Wolters Kluwer Health.

**Meier, Thomas R.** ..... *Disclosed no conflict of interest.*

**Meininger, Alex** ..... *Disclosed no conflict of interest.*

**Meiring, Rebecca**..... *Disclosed no conflict of interest.*

**Mejia, Maria C** ..... *Disclosed no conflict of interest.*

**Melidone, Raffaele**..... 3B: DePuy Synthes Mitek Sports Medicine.

**Mell, Steven P** ..... *Disclosed no conflict of interest.*

**Melvani, Roshan**..... *Disclosed no conflict of interest.*

**Mencia Castaño, Irene** ..... *Disclosed no conflict of interest.*

**Mendez, Melanie E** ..... *Disclosed no conflict of interest.*

**Mendias, Christopher L** ..... 2: GlaxoSmithKline; 5: GlaxoSmithKline.

**Menezes, Roseline** ..... *Disclosed no conflict of interest.*

**Meng, Fangang**..... *Disclosed no conflict of interest.*

**Meng, Tan** ..... *Disclosed no conflict of interest.*

**Menger, Michael D.**..... *Disclosed no conflict of interest.*

**Mengsteab, Paulos**..... *Disclosed no conflict of interest.*

**Menuki, Kunitaka**..... *Disclosed no conflict of interest.*

**Menzel, Ursula** ..... *Disclosed no conflict of interest.*

**Mercado-Pagán, Ángel Enrique** ... *Disclosed no conflict of interest.*

**Mercer, Deana** ..... *Disclosed no conflict of interest.*

**Mercuri, Jeremy J.**..... *Disclosed no conflict of interest.*

**Merlo, Kelly** ..... *Disclosed no conflict of interest.*

**Merritt, Alexis** ..... *Disclosed no conflict of interest.*

**Mertz, Jerome** ..... *Disclosed no conflict of interest.*

**Mesfin, Addisu** ..... 5: Corelink, LES Society, AO Spine, Globus, OmEGA Foundation.

**Messamore, William G** ..... *Disclosed no conflict of interest.*

**Metcalf, Amber** ..... 3A: 3A: DePuy Synthes Joint Reconstruction.

**Metcalf, Andrew**..... *Disclosed no conflict of interest.*

**Meulenbelt, Ingrid** ..... *Disclosed no conflict of interest.*

**Meyer, Dominik C**..... *Disclosed no conflict of interest.*

**Meyer, Kenny**..... *Disclosed no conflict of interest.*

**Meyers, Carolyn A.**..... *Disclosed no conflict of interest.*

**Miao, Jun** ..... *Disclosed no conflict of interest.*

**Micevych, Paul S**..... *Disclosed no conflict of interest.*

**Michaelson, Jarett**..... 3A: Stryker Orthopaedics.

**Michalek, Arthur J**..... *Disclosed no conflict of interest.*

**Mickschl, Dara**..... *Disclosed no conflict of interest.*

**Miclau, Theodore**..... 3B: Amgen, Bone Therapeutics, Arquos, Surrozen, DePuy; 5: Baxter; 6: Inman Abott Society, Orthopaedic Research Society, International Combined Orthopaedic Research Societies, Osteosynthesis and Trauma Care Foundation, AO Foundation/AO Research Institute Advisory Committ.

**Middendorf, Jill** ..... *Disclosed no conflict of interest.*

**Midura, Ronald**..... 3C: NIH (NHLBI and NCI); 5: Orthofix Inc.

**Mienaltowski, Michael J**..... *Disclosed no conflict of interest.*

**Mifune, Yutaka**..... *Disclosed no conflict of interest.*

**Migliore, Eleonora**..... *Disclosed no conflict of interest.*

**Mignemi, Nicholas**..... *Disclosed no conflict of interest.*

**Miguel, Pedro** ..... 3A: DePuy Synthes.

**Mihalko, William M**..... 1: Aesculap/B.Braun; 2: Aesculap/B.Braun, Ceramtec, AAOS, ASTM, JOA, JOR, Orthopedic Clinics of North America, The Journal of Long Term Effects of Medical Implants; 3B: Aesculap/B.Braun, Stryker, Zimmer; 5: Aesculap/B.Braun, Department of Defense, Stryker; 7: Saunders/Mosby-Elsevier.

**Mika, Aleksander**..... *Disclosed no conflict of interest.*

**Mikami, Yasuo** ..... *Disclosed no conflict of interest.*

**Mikati, Husam**..... *Disclosed no conflict of interest.*

**Miles, Brad**..... 4: 360 Knee Systems.

**Miles, Imani**..... *Disclosed no conflict of interest.*

**Milgrom, Charles**..... 4: Persimio Inc,

**Millar, Neal L**..... *Disclosed no conflict of interest.*

**Millecamps, Magali**..... *Disclosed no conflict of interest.*

**Miller, Bruce** ..... *Disclosed no conflict of interest.*

**Miller, Douglas** ..... 5: Stryker; 6: Stryker.

**Miller, Helen C.**..... *Disclosed no conflict of interest.*

**Miller, Larry E** ..... 3B: DePuy Synthes Mitek Sports Medicine, Striker

**Miller, Lloyd S**..... 4: Noveome Biotherapeutics; 5: MedImmune, Regeneron Pharmaceuticals, Pfizer, Moderna Therapeutics.

**Miller, Mark A**..... *Disclosed no conflict of interest.*

**Miller, Mark Carl** ..... *Disclosed no conflict of interest.*

**Miller, Matthew** ..... *Disclosed no conflict of interest.*

**Miller, Nancy H** ..... *Disclosed no conflict of interest.*

**Miller, Robert J** ..... *Disclosed no conflict of interest.*

**Millhouse, Paul**..... *Disclosed no conflict of interest.*

**Milne, Ted** ..... *Disclosed no conflict of interest.*

**Milner, Piers**..... *Disclosed no conflict of interest.*

**Mima, Yuichiro** ..... *Disclosed no conflict of interest.*

**Mimata, Yoshikuni**..... *Disclosed no conflict of interest.*

**Minami, Masataka**..... *Disclosed no conflict of interest.*

**Mine, Hayato**..... *Disclosed no conflict of interest.*

**Minhas, Sumeet**..... *Disclosed no conflict of interest.*

**Minkwitz, Susann** ..... *Disclosed no conflict of interest.*

**Minneti, Michael** ..... *Disclosed no conflict of interest.*

**Minnig, Mary Catherine C** ..... *Disclosed no conflict of interest.*

**Minoda, Yukihide**..... 1: Microport; 2: Streker, Zimmer Biomet, Microport.

**Minoughan, Chelsea** ..... *Disclosed no conflict of interest.*

**Minter, Jon E** ..... 1: Stryker, DePuy; 2: Stryker, DePuy; 3B: Stryker, DePuy; 4: Stryker; 7: Stryker, DePuy.

**Mirando, Anthony J**..... *Disclosed no conflict of interest.*

**Mirbod, Parisa** ..... *Disclosed no conflict of interest.*

**Mirick, Gudrun**..... *Disclosed no conflict of interest.*

**Mirzamohammadi, Fatemeh** ..... *Disclosed no conflict of interest.*

**Misawa, Haruo** ..... *Disclosed no conflict of interest.*

**Mishima, Kenichi**..... *Disclosed no conflict of interest.*

**Mistretta, Katherine**..... *Disclosed no conflict of interest.*

**Mitchell, Ronald J**..... *Disclosed no conflict of interest.*

**Mitchell, Thomas** ..... *Disclosed no conflict of interest.*

**Mito, Kazuaki** ..... *Disclosed no conflict of interest.*

**Mitsugi, Naoto** ..... *Disclosed no conflict of interest.*

**Mitsuishi, Mamoru**..... *Disclosed no conflict of interest.*

**Mitsuo, Ochi** ..... *Disclosed no conflict of interest.*

**Mitsutake, Ryo**..... *Disclosed no conflict of interest.*

**Mitsuzawa, Sadaki**..... *Disclosed no conflict of interest.*

**Mitteer, Alan** ..... *Disclosed no conflict of interest.*

**Mittwede, Peter N.**..... *Disclosed no conflict of interest.*

**Miura, Kota** ..... *Disclosed no conflict of interest.*

**Miura, Michiaki** ..... *Disclosed no conflict of interest.*

**Miura, Ryohei** ..... *Disclosed no conflict of interest.*

**Miura, Taihei** ..... *Disclosed no conflict of interest.*

**Miura, Takuya** ..... *Disclosed no conflict of interest.*

**Mix, Kimberlee**..... *Disclosed no conflict of interest.*

**Miyaji, Nobuaki**..... *Disclosed no conflict of interest.*



**Miyaji, Raita** ..... *Disclosed no conflict of interest.*

**Miyake, Takamasa** ..... *Disclosed no conflict of interest.*

**Miyaki, Shigeru** ..... *Disclosed no conflict of interest.*

**Miyamoto, Hiroe** ..... *Disclosed no conflict of interest.*

**Miyamoto, Satoshi** ..... *Disclosed no conflict of interest.*

**Miyamoto, Takashi** ..... *Disclosed no conflict of interest.*

**MIYAMOTO, TAKESHI** ..... *Disclosed no conflict of interest.*

**Miyamura, Gaku** ..... *Disclosed no conflict of interest.*

**Miyata, Kohei** ..... *Disclosed no conflict of interest.*

**Miyatake, Kazuma** ..... *Disclosed no conflict of interest.*

**Miyazaki, Shingo** ..... *Disclosed no conflict of interest.*

**Miyazaki, Takuji** ..... *Disclosed no conflict of interest.*

**Miyazawa, Shinichi** ..... *Disclosed no conflict of interest.*

**miyoshi, hiroyuki** ..... *Disclosed no conflict of interest.*

**Mizuno, Mitsuru** ..... *Disclosed no conflict of interest.*

**Mizuno, Shuichi** ..... 5: Histogenics Corporation.

**Mizu-uchi, Hideki** ..... 2: ZimmerBiomet.

**Moawad, Christina** ..... *Disclosed no conflict of interest.*

**Mochida, Yuichi** ..... 6: Chugai Pharmaceutical Co., Ltd., Mitsubishi Tanabe Pharma Corporation, Teijin Limited, Astellas Pharma Inc., Daiichi Sankyo Company Limited.

**Mochizuki, Manabu** ..... *Disclosed no conflict of interest.*

**Mochizuki, Tomoharu** ..... *Disclosed no conflict of interest.*

**Mochizuki, Yusuke** ..... *Disclosed no conflict of interest.*

**Mogushi, Kaoru** ..... *Disclosed no conflict of interest.*

**Mohajer, Nicole** ..... 3A: Exactech, Inc.

**Mohamadi, Amin** ..... *Disclosed no conflict of interest.*

**Mohsenian, Firouz** ..... 3A: Intrexon; 4: Intrexon.

**Moini, Ariana** ..... *Disclosed no conflict of interest.*

**Moir, Janet** ..... *Disclosed no conflict of interest.*

**Mok, Sze Wing Story** ..... *Disclosed no conflict of interest.*

**Moke, Lieven** ..... 2: DePuy, Johnson & Johnson; 3B: DePuy, Johnson & Johnson; 5: Medtronic research funding.

**Mokete, Lipalo** ..... 2: Smith & Nephew, Medacta.

**Mokuda, Sho** ..... *Disclosed no conflict of interest.*

**Mollazadeh-Moghaddam, Kamyar**.. *Disclosed no conflict of interest.*

**Momma, Dausuke**..... *Disclosed no conflict of interest.*

**Momose, Takako** ..... *Disclosed no conflict of interest.*

**Monaco, Graziana** ..... *Disclosed no conflict of interest.*

**Monibi, Farrah A**..... *Disclosed no conflict of interest.*

**Mononen, Mika E**..... *Disclosed no conflict of interest.*

**Monroe, Jacquelyn A**..... *Disclosed no conflict of interest.*

**Monstad-Rios, Adrian**..... *Disclosed no conflict of interest.*

**Mont, Michael A**..... 1: Microport, Stryker; 3B: Cymedica, DJ Orthopaedics, Johnson & Johnson, Merz, Ongoing Care Solutions, Orthosensor, Pacira, Performance Dynamics Inc., Sage, Stryker, TissueGene, USA Medical Innovations; 4: Peerwell; 5: DJ Orthopaedics, Johnson & Johnson, National Institutes of Health (NIAMS & NICHD), Ongoing Care Solutions, Orthosensor, Stryker, TissueGene.

**Montagne, William**..... *Disclosed no conflict of interest.*

**Monte, Felipe** ..... *Disclosed no conflict of interest.*

**Moo, Eng Kuan**..... *Disclosed no conflict of interest.*

**Mooney, David J**..... 5: Novartis.

**Mooney, Robert A** ..... *Disclosed no conflict of interest.*

**Moore, Axel C** ..... *Disclosed no conflict of interest.*

**Moore, Douglas C**..... *Disclosed no conflict of interest.*

**Moore, Stephanie Nicole** ..... *Disclosed no conflict of interest.*

**Moore-Lotridge, Stephanie**..... *Disclosed no conflict of interest.*

**Morales-Wilde, Candace**..... *Disclosed no conflict of interest.*

**Moran, Meghan M**..... *Disclosed no conflict of interest.*

**Moran, Steven L** ..... *Disclosed no conflict of interest.*

**Morandi, Massimo M**..... *Disclosed no conflict of interest.*

**Morano, Ines** ..... *Disclosed no conflict of interest.*

**More, Karren L**..... *Disclosed no conflict of interest.*

**Morgan, David A**..... *Disclosed no conflict of interest.*

**Morgan, Elise F** ..... 2: Dr. Morgan receives an honorarium for duties as Associate Editor for Journal of Biomechanics; 7: Honorarium for duties as Associate Editor for Journal of Biomechanics.

**Morgan, Oliver J**..... *Disclosed no conflict of interest.*

**Mori, Katsunori**..... *Disclosed no conflict of interest.*

**Mori, Satoshi** ..... *Disclosed no conflict of interest.*

**MORI, YUKI** ..... *Disclosed no conflict of interest.*

**Moriguchi, Yu** ..... *Disclosed no conflict of interest.*

**Morikawa, Masakazu**..... *Disclosed no conflict of interest.*

**Morimoto, Koichi**..... *Disclosed no conflict of interest.*

**Morimoto, Masashi**..... *Disclosed no conflict of interest.*

**Morimoto, Masatoshi** ..... *Disclosed no conflict of interest.*

**Morimoto, Yasuhiko**..... *Disclosed no conflict of interest.*

**Morin, Joey R** ..... *Disclosed no conflict of interest.*

**Morioka, Hideo** ..... *Disclosed no conflict of interest.*

**Morisawa, Yutaka** ..... *Disclosed no conflict of interest.*

**Morishige, Yutaro**..... *Disclosed no conflict of interest.*

**Morishita, Masayuki** ..... *Disclosed no conflict of interest.*

**Morishita, Yuri** ..... *Disclosed no conflict of interest.*

**Morita, Daigo** ..... *Disclosed no conflict of interest.*

**MORITA, MAYU** ..... *Disclosed no conflict of interest.*

**Morita, Takuya**..... *Disclosed no conflict of interest.*

**Morita, Yugo** ..... *Disclosed no conflict of interest.*

**Moriyama, Shigeaki**..... *Disclosed no conflict of interest.*

**Morris, Dalton**..... *Disclosed no conflict of interest.*

**Morris, Elizabeth R**..... *Disclosed no conflict of interest.*

**Morris, Michael D** ..... *Disclosed no conflict of interest.*

**Morris, Randal P**..... *Disclosed no conflict of interest.*

**Morrison, Nigel A** ..... *Disclosed no conflict of interest.*

**Morrison, Tina** ..... *Disclosed no conflict of interest.*

**Morscheid, Yannik P**..... *Disclosed no conflict of interest.*

**Morscher, Melanie A** ..... *Disclosed no conflict of interest.*

**Morsy, Mohamed**..... *Disclosed no conflict of interest.*

**Mortazavi, Seyyed Mohammadjavad**.. *Disclosed no conflict of interest.*

**Morton, Amy M** ..... *Disclosed no conflict of interest.*

**Mortreux, Marie** ..... *Disclosed no conflict of interest.*

**Mosahebi, Ash**..... *Disclosed no conflict of interest.*

**Mosca, Michael J**..... *Disclosed no conflict of interest.*

**Moschetti, Wayne E** ..... 6: Omni Life Science.

**Moscibricki, Cathleen** ..... *Disclosed no conflict of interest.*

**Moser, Helen L** ..... *Disclosed no conflict of interest.*

**Moses, Jalea T**..... *Disclosed no conflict of interest.*

**Mosich, Gina**..... *Disclosed no conflict of interest.*

**Mosley, Grace E** ..... *Disclosed no conflict of interest.*

**Moss, Isaac L**..... 1: Spineart; 2: Pfizer; 3B: Nuvasive, Stryker, Atlas Spine, Avitus Ortho; 4: Orthozon.

**Moss, Lynnsey** ..... *Disclosed no conflict of interest.*

**Mosselmanns, Frederick W** ..... *Disclosed no conflict of interest.*

**Motomura, Goro** ..... *Disclosed no conflict of interest.*

**Moulton, Julia N** ..... *Disclosed no conflict of interest.*

**Mourkioti, Foteini** ..... *Disclosed no conflict of interest.*

**Mousavi, Seyed Javad**..... *Disclosed no conflict of interest.*

**Moutzouros, Vasilios** ..... *Disclosed no conflict of interest.*

**Mowry, Katie C.** ..... 3A: NuTech a Division of Organogenesis.

**Mrkonjic, Filip**..... *Disclosed no conflict of interest.*

**Mthembu, Nonhlanhla**..... *Disclosed no conflict of interest.*

**Mu, Xiaodong** ..... *Disclosed no conflict of interest.*

**Muehleman, Carol**..... *Disclosed no conflict of interest.*

**Mueller, Karl** ..... *Disclosed no conflict of interest.*

**Muench, Timothy**..... 3A: Medical Device Business Services Inc,

**Muhlrad, Samantha I.**..... *Disclosed no conflict of interest.*

**Mui, Byron** ..... *Disclosed no conflict of interest.*

**Muirhead-Allwood, Sarah** ..... *Disclosed no conflict of interest.*

**Mukaihara, Kenta** ..... *Disclosed no conflict of interest.*

**Mukherjee, Shravani** ..... *Disclosed no conflict of interest.*

**Mulcahey, Mary** ..... *Disclosed no conflict of interest.*

**Muldoon, Michael P**..... *Disclosed no conflict of interest.*

**Müller, Lars** ..... *Disclosed no conflict of interest.*

**Mumford, Benjamin**..... 3A: EpiBone; 4: EpiBone.

**Mundada, Maya** ..... *Disclosed no conflict of interest.*

**Muneoka, Ken**..... *Disclosed no conflict of interest.*

**Muneta, Takeshi** ..... *Disclosed no conflict of interest.*

**Munroe, Brent A** ..... *Disclosed no conflict of interest.*

**Murakami, Hideki**..... *Disclosed no conflict of interest.*

**Murakami, Koji** ..... *Disclosed no conflict of interest.*

**Murakami, Masaaki** ..... *Disclosed no conflict of interest.*

**Murakami, Tomohiko** ..... *Disclosed no conflict of interest.*

**Murase, Atsunori**..... *Disclosed no conflict of interest.*

**Murata, Kenji** ..... *Disclosed no conflict of interest.*

**Muratoglu, Orhun**..... 1: Zimmer Biomet Inc., Stryker Corp., Corin Group, Renovis Surgical Inc., Aston Medical, ConforMIS Inc.; 3B: Zimmer Biomet Inc.; 4: Orthopaedic Technology Group; 5: Zimmer Biomet Inc., Stryker Corp., Depuy.

**Muratsu, Hirotsugu** ..... 3C: Zimmer-Biomet.

**Muriuki, Muturi G**..... 5: Zimmer Biomet Trauma.

**Murphy, Colin G** ..... *Disclosed no conflict of interest.*

**Murphy, Conor I**..... *Disclosed no conflict of interest.*

**Murphy, Dermot J**..... *Disclosed no conflict of interest.*

**Murphy, Jordan** ..... *Disclosed no conflict of interest.*

**Murphy, Lance A.** ..... *Disclosed no conflict of interest.*

**Murphy, Michael**..... *Disclosed no conflict of interest.*

**Murphy, Stephen B** ..... 3B: MicroPort Orthopedics; 5: MicroPort Orthopedics.

**Murphy, William**..... *Disclosed no conflict of interest.*

**Murray, Dylan J** ..... *Disclosed no conflict of interest.*

**Murray, Hallie B**..... 3A: Paid employee of Zimmer Biomet.

**Murray, Martha M.** ..... 4: MMM is an equity holder in MIACH Orthopaedics.; 7: MMM receive royalties from Springer Publishing,

**Murthi, Anand** ..... 3B: Globus Medical, Zimmer; 5: Smith Nephew.

**Muruges, Deepa** ..... *Disclosed no conflict of interest.*

**Musahl, Volker**..... *Disclosed no conflict of interest.*

**Muschler, George**..... 3C: NIH, FDA; 5: Medtronic, Harvest Technologies, Fortus.

**Musha, Yoshiro** ..... *Disclosed no conflict of interest.*

**Mustafa, Mohamad**..... *Disclosed no conflict of interest.*

**Musumeci, Giuseppe** ..... *Disclosed no conflict of interest.*

**Muto, Tomoyuki**..... *Disclosed no conflict of interest.*

**Mutsuzaki, Hirota** ..... *Disclosed no conflict of interest.*

**Mutsvangwa, Tinashe** ..... *Disclosed no conflict of interest.*

**Mwale, Fackson**..... 4: Trepso Therapeutics Inc,

**Myers, Casey A** ..... *Disclosed no conflict of interest.*

**Myers, Daniel**..... *Disclosed no conflict of interest.*

**Myerthall, Steven**..... 3B: Stryker.

**Myller, Katariina A.H.** ..... *Disclosed no conflict of interest.*

**Na, Annalisa** ..... *Disclosed no conflict of interest.*

**Nabeshima, Akira**..... *Disclosed no conflict of interest.*

**Naclerio, Emily** ..... *Disclosed no conflict of interest.*

**Nadesan, Puvindran**..... *Disclosed no conflict of interest.*

**Nadkarni, Nivedita**..... *Disclosed no conflict of interest.*

**Nadroo, Abrar A** ..... *Disclosed no conflict of interest.*

**Nagae, Masateru**..... *Disclosed no conflict of interest.*

**Nagai, Kanto** ..... *Disclosed no conflict of interest.*

**Nagaishi, Kanna** ..... *Disclosed no conflict of interest.*

**Nagamine, Ryuji** ..... *Disclosed no conflict of interest.*

**Nagano, Satoshi**..... *Disclosed no conflict of interest.*

**Nagano, Yusuke** ..... *Disclosed no conflict of interest.*

**Naganuma, Yasushi** ..... *Disclosed no conflict of interest.*

**Nagao, Nobuto** ..... *Disclosed no conflict of interest.*

**Nagaoki, Toshihide** ..... *Disclosed no conflict of interest.*

**Nagaraja, Srinidhi**..... *Disclosed no conflict of interest.*

**Nagata, Junpei** ..... *Disclosed no conflict of interest.*

**Nagata, Sanae** ..... *Disclosed no conflict of interest.*

**Nagaya, Yuko** ..... *Disclosed no conflict of interest.*

**Nagelli, Christopher V**..... *Disclosed no conflict of interest.*

**Nagle, Tara**..... *Disclosed no conflict of interest.*

**Nagoshi, Narihito** ..... *Disclosed no conflict of interest.*

**Nagura, Takeo** ..... *Disclosed no conflict of interest.*

**Naiki, Mitsuru** ..... *Disclosed no conflict of interest.*

**Nair, Lakshmi** ..... *Disclosed no conflict of interest.*

**Naito, Yohei** ..... *Disclosed no conflict of interest.*

**Najmabadi, Yassaman** ..... 3A: Exactech, Inc.; 4: Exactech, Inc,

**Nakagawa, Kosuke**..... *Disclosed no conflict of interest.*

**Nakagawa, Ryosuke**..... *Disclosed no conflict of interest.*

**Nakagawa, Shuji**..... *Disclosed no conflict of interest.*

**Nakagawa, Yusuke**..... *Disclosed no conflict of interest.*

**Nakahara, Ryuichi**..... *Disclosed no conflict of interest.*

**Nakahira, Yuko** ..... *Disclosed no conflict of interest.*

**Nakai, Tomoko** ..... 6: NIPPON ZOKI Pharmaceutical Co., LTD,

**Nakaji, Shigeyuki**..... *Disclosed no conflict of interest.*

**Nakajima, Taku**..... *Disclosed no conflict of interest.*

**Nakama, Gilberto**..... *Disclosed no conflict of interest.*

**Nakamura, Hiroaki**..... *Disclosed no conflict of interest.*

**Nakamura, Junichi** ..... *Disclosed no conflict of interest.*

**Nakamura, Kaori**..... *Disclosed no conflict of interest.*

**Nakamura, Koki**..... *Disclosed no conflict of interest.*

**Nakamura, Mary** ..... *Disclosed no conflict of interest.*

**Nakamura, Masaya**..... *Disclosed no conflict of interest.*

**Nakamura, Naoko**..... *Disclosed no conflict of interest.*

**Nakamura, Naoyuki**..... *Disclosed no conflict of interest.*

**Nakamura, Nobuo** ..... *Disclosed no conflict of interest.*

**Nakamura, Norimasa** ..... *Disclosed no conflict of interest.*

**Nakamura, Osamu**..... *Disclosed no conflict of interest.*

**NAKAMURA, SATOSHI** ..... *Disclosed no conflict of interest.*

**Nakamura, Shinichiro** ..... *Disclosed no conflict of interest.*

**Nakamura, Suguru** ..... *Disclosed no conflict of interest.*

**Nakamura, Tetsuro**..... *Disclosed no conflict of interest.*

**Nakamura, Tomoki**..... *Disclosed no conflict of interest.*

**Nakamura, Tomomasa**..... *Disclosed no conflict of interest.*

**Nakanishi, Anna** ..... *Disclosed no conflict of interest.*

**Nakanishi, Yoshitaka** ..... *Disclosed no conflict of interest.*

**Nakano, Tomonori**..... *Disclosed no conflict of interest.*

**Nakasa, Tomoyuki**..... *Disclosed no conflict of interest.*

**Nakase, Kazuma**..... *Disclosed no conflict of interest.*

**Nakase, Masashi** ..... *Disclosed no conflict of interest.*

**Nakashima, Daisuke** ..... *Disclosed no conflict of interest.*

**Nakashima, Yasuharu**..... *Disclosed no conflict of interest.*

**Nakashima, Yoshio** ..... 3A: TEIJIN NAKASHIMA MEDICAL CO., LTD.

**Nakata, Eiji**..... *Disclosed no conflict of interest.*

**Nakata, Ken** ..... *Disclosed no conflict of interest.*

**Nakatani, Toshiaki**..... *Disclosed no conflict of interest.*

**Nakaya, Ryota** ..... *Disclosed no conflict of interest.*

**Nakayama, Koichi** ..... *Disclosed no conflict of interest.*

**Nakayama, Masanori**..... *Disclosed no conflict of interest.*

**Nakayama, Naoki**..... 4: Amgen.

**Nakazawa, Takahiro** ..... 3A: Angen MG Inc.

**Nakshatri, Harikrishna**..... *Disclosed no conflict of interest.*

**Nam, Jinwoo** ..... *Disclosed no conflict of interest.*

**Nam, Ju-Suk** ..... *Disclosed no conflict of interest.*

**Nambu, Satya** ..... 3A: MicroPort Orthopedics Inc.

**Namdari, Surena**..... 1: DJ Orthopedics, Miami Device Solutions; 2: DJ Orthopedics; 3B: DJ Orthopedics, Integra Life Sciences, Miami Device Solutions; 5: Arthrex, Integra, Zimmer; 7: Saunders/Moby-Elsevier.

**Naoto, Endo** ..... *Disclosed no conflict of interest.*

**NaPier, Zachary** ..... *Disclosed no conflict of interest.*

**Napoli, Francesca** ..... *Disclosed no conflict of interest.*

**Naqvi, Manahil**..... *Disclosed no conflict of interest.*

**NARA, Hidetoshi** ..... *Disclosed no conflict of interest.*



**Naraghi, Ali** ..... *Disclosed no conflict of interest.*

**Narayan, Venkat** ..... 3A: DePuy Synthes.

**Narayanan, Karthik** ..... *Disclosed no conflict of interest.*

**Narayanan, Kathikeyan**..... *Disclosed no conflict of interest.*

**Narita, Atsushi**..... *Disclosed no conflict of interest.*

**Naritomi, Mana** ..... *Disclosed no conflict of interest.*

**Nasser, Philip** ..... *Disclosed no conflict of interest.*

**Nasu, Yoshihisa** ..... *Disclosed no conflict of interest.*

**Natarajan, Madhuri**..... *Disclosed no conflict of interest.*

**Natarajan, Raghu N**..... *Disclosed no conflict of interest.*

**Natelson, Devorah**..... *Disclosed no conflict of interest.*

**Nathan, Karthik** ..... *Disclosed no conflict of interest.*

**Natriello, Jessica R**..... *Disclosed no conflict of interest.*

**Naudie, Douglas D** ..... 1: Smith & Nephew; 2: Smith & Nephew; 3B: Smith & Nephew, Stryker; 3C: MEMFNA; 6: DePuy A Johnson & Johnson Company, Smith & Nephew, Stryker; 7: Smith & Nephew.

**Nauth, Aaron** ..... *Disclosed no conflict of interest.*

**Navacchia, Alessandro**..... *Disclosed no conflict of interest.*

**Navarro, Sergio M** ..... *Disclosed no conflict of interest.*

**Navarro-Ramirez, Rodrigo**..... *Disclosed no conflict of interest.*

**Navo, Paul**..... *Disclosed no conflict of interest.*

**Nawabi, Danyal**..... *Disclosed no conflict of interest.*

**Nawata, Kento** ..... *Disclosed no conflict of interest.*

**Nayak, Aniruddh**..... *Disclosed no conflict of interest.*

**Nayak, Krishna S**..... *Disclosed no conflict of interest.*

**Nazaran, Amin** ..... *Disclosed no conflict of interest.*

**Nazaria, Ara** ..... *Disclosed no conflict of interest.*

**Nazarian, Ara** ..... *Disclosed no conflict of interest.*

**Nazif, Mohammad A**..... *Disclosed no conflict of interest.*

**Neal, William H** ..... *Disclosed no conflict of interest.*

**Nechyporenko, Anatoliy** ..... *Disclosed no conflict of interest.*

**Nedopil, Alexander J**..... *Disclosed no conflict of interest.*

**Needham, David** ..... *Disclosed no conflict of interest.*

**Neff, Norma**..... *Disclosed no conflict of interest.*

**Negi, Hiroshi**..... *Disclosed no conflict of interest.*

**Nehrer, Stefan** ..... *Disclosed no conflict of interest.*

**Nelissen, Rob G** ..... *Disclosed no conflict of interest.*

**Nelitz, Manfred** ..... *Disclosed no conflict of interest.*

**Nelson, Andrew** ..... 3A: Stryker Orthopaedics.

**Nelson, Brad B** ..... *Disclosed no conflict of interest.*

**Nelson, Drew** ..... *Disclosed no conflict of interest.*

**Nelson, Scott D** ..... 3B: DePuy, Stryker.

**Nemes, Szilard** ..... *Disclosed no conflict of interest.*

**Nemirov, Daniel**..... *Disclosed no conflict of interest.*

**NEMOTO, Nobuhito**..... *Disclosed no conflict of interest.*

**Neo, Masashi** ..... *Disclosed no conflict of interest.*

**Neppl, Ronald L**..... *Disclosed no conflict of interest.*

**Nepple, Jeffrey** ..... 2: Ceterix Orthopaedics, Smith & Nephew; 3B: Smith & Nephew, Responsive Arthroscopy, Ceterix Orthopaedics; 5: Zimmer, Smith & Nephew.

**Nessler, Joseph** ..... 1: Stryker; 2: Stryker; 3B: Stryker; 4: Stryker, US Patent Innovations and Vomaris; 6: Stryker.

**Nesti, Leon**..... *Disclosed no conflict of interest.*

**Nesvijski, Edouard**..... *Disclosed no conflict of interest.*

**Nettles, Dana** ..... *Disclosed no conflict of interest.*

**Neu, Corey P**..... *Disclosed no conflict of interest.*

**Neubauer, Dustin** ..... *Disclosed no conflict of interest.*

**Neubert, Ales** ..... *Disclosed no conflict of interest.*

**Neumann, Jan** ..... *Disclosed no conflict of interest.*

**Neustein, Adam Z**..... *Disclosed no conflict of interest.*

**Neuwirth, Alexander L**..... *Disclosed no conflict of interest.*

**Nevelos, Jim** ..... 3A: Stryker Orthopaedics; 4: Stryker Orthopaedics.

**Newberry, Jake**..... *Disclosed no conflict of interest.*

**Newgard, Christopher**..... *Disclosed no conflict of interest.*

**Newhoff, Drew** ..... *Disclosed no conflict of interest.*

**Newman, Jared M**..... *Disclosed no conflict of interest.*

**Newton, Joseph B** ..... *Disclosed no conflict of interest.*

**Newton, Michael D** ..... *Disclosed no conflict of interest.*

**Newton, Peter** ..... 1: DePuy Synthes Spine, A Johnson & Johnson Company; 2: DePuy Synthes Spine, A Johnson & Johnson Company, K2M; 3B: DePuy Synthes Spine, A Johnson & Johnson Company, K2M; 4: ElectroCore; 5: DePuy Synthes via Setting Scoliosis Straight Foundation, EOS Imaging, K2M via Setting Scoliosis Straight Foundation, MAZOR Surgical Technologies, OrthoPediatrics, Zimmer; 7: Theime Publishing.

**Ng, K.C. Geoffrey** ..... *Disclosed no conflict of interest.*

**Ng, Yeong Huei** ..... *Disclosed no conflict of interest.*

**Ng, Zhi Yang** ..... *Disclosed no conflict of interest.*

**Ngan, Alex** ..... *Disclosed no conflict of interest.*

**Ngo, Chau** ..... 3A: Stryker; 4: Stryker.

**Ngo, Kevin** ..... *Disclosed no conflict of interest.*

**Ngo, Mindy**..... *Disclosed no conflict of interest.*

**Nguyen, Alan** ..... *Disclosed no conflict of interest.*

**Nguyen, Bao NT** ..... *Disclosed no conflict of interest.*

**Nguyen, Hieu** ..... *Disclosed no conflict of interest.*

**Nguyen, Huynh**..... *Disclosed no conflict of interest.*

**Nguyen, Matthew H**..... *Disclosed no conflict of interest.*

**Nguyen, Minh Nam**..... *Disclosed no conflict of interest.*

**Nguyen, Quynhhoa T**..... *Disclosed no conflict of interest.*

**Nho, Shane J** ..... 1: Ossur: IP royalties; 3B: Ossur: Paid consultant, Stryker: Paid consultant; 5: Arthrex, Inc: Research support, Athletico: Research support, DJ Orthopaedics: Research support, Linvatec: Research support, Miomed: Research support, Smith & Nephew: Research support, Stryker: Research support, Allosource: Research support; 7: Springer: Publishing royalties, financial or material support.

**Nicholls, Micah**..... 3A: Works for Ossur Inc, an Orthopaedic Device Manufacturer.

**Nichols, Jennifer A**..... *Disclosed no conflict of interest.*

**Nicholson, Luke** ..... *Disclosed no conflict of interest.*

**Nicolaou, Daemeon**..... *Disclosed no conflict of interest.*

**Nicoll, Steven B.**..... *Disclosed no conflict of interest.*

**Nicolosi, Alessandra**..... 4: M2TEST srl.

**Niculescu-Morzsa, Eugenia**..... *Disclosed no conflict of interest.*

**NIE, DAIBANG** ..... *Disclosed no conflict of interest.*

**Niedermair, Tanja**..... *Disclosed no conflict of interest.*

**Niedernhofer, Laura J**..... *Disclosed no conflict of interest.*

Nielsen, Mattias ..... *Disclosed no conflict of interest.*

Nieminen, Heikki J ..... *Disclosed no conflict of interest.*

Niikura, Takahiro ..... *Disclosed no conflict of interest.*

Niinimäki, Jaakko ..... *Disclosed no conflict of interest.*

Nikaido, Yoshikazu ..... *Disclosed no conflict of interest.*

Niki, Yasuo ..... *Disclosed no conflict of interest.*

Nikkhoo, Mohammad ..... *Disclosed no conflict of interest.*

Nikolaou, Athanasia ..... *Disclosed no conflict of interest.*

Nikolov, Hristo N ..... *Disclosed no conflict of interest.*

Nimura, Akimoto ..... *Disclosed no conflict of interest.*

Ning, Shanglong ..... *Disclosed no conflict of interest.*

Ninomiya, Hiroki ..... *Disclosed no conflict of interest.*

Ninomiya, James T ..... 4: Cimphoni Life Sciences, LLC.

Ninomya, Mark ..... *Disclosed no conflict of interest.*

Nip, Jonathan ..... *Disclosed no conflict of interest.*

Nishida, Atsushi ..... *Disclosed no conflict of interest.*

Nishida, Keiichiro ..... *Disclosed no conflict of interest.*

Nishida, Kotaro ..... *Disclosed no conflict of interest.*

Nishida, Kyohei ..... *Disclosed no conflict of interest.*

Nishida, Mutsumi ..... *Disclosed no conflict of interest.*

Nishida, Yasuhiro ..... *Disclosed no conflict of interest.*

Nishida, Yoshihiro ..... *Disclosed no conflict of interest.*

Nishiike, Naomichi ..... *Disclosed no conflict of interest.*

Nishimoto, Hanako ..... *Disclosed no conflict of interest.*

Nishimura, Akinobu ..... *Disclosed no conflict of interest.*

Nishimura, Nozomi ..... *Disclosed no conflict of interest.*

Nishio, Hirofumi ..... *Disclosed no conflict of interest.*

Nishio, Megumi ..... *Disclosed no conflict of interest.*

Nishioka, Hiroshi ..... *Disclosed no conflict of interest.*

Nishitani, Kohei ..... *Disclosed no conflict of interest.*

NISHIWAKI, TORU ..... *Disclosed no conflict of interest.*

**Nishiyama, Yuko** ..... *Disclosed no conflict of interest.*

**Nishizawa, Kohei**..... *Disclosed no conflict of interest.*

**Nitobe, Yohshiro** ..... *Disclosed no conflict of interest.*

**Niu, Chi-Chien** ..... *Disclosed no conflict of interest.*

**Niu, Yuting** ..... *Disclosed no conflict of interest.*

**Niwa, Satoshi**..... *Disclosed no conflict of interest.*

**Nixon, Ryan** ..... *Disclosed no conflict of interest.*

**Niyibizi, Christopher** ..... *Disclosed no conflict of interest.*

**Nkrumah, Gideon** ..... *Disclosed no conflict of interest.*

**Nnabue, Onyekachi E** ..... *Disclosed no conflict of interest.*

**Nnadi, Wilson O**..... *Disclosed no conflict of interest.*

**Noah, Andrew C** ..... *Disclosed no conflict of interest.*

**Noble, Philip C**..... 1: Stryker, Zimmer; 3B: Zimmer; 4: Joint View, LLC; 5: CeramTech, DJ Orthopaedics, Microport, Smith & Nephew, Zimmer; 6: Musculoskeletal Transplant Foundation; 7: Springer.

**Nobuhara, Katsuya** ..... *Disclosed no conflict of interest.*

**Nobuo, Adachi**..... *Disclosed no conflict of interest.*

**Nochi, Hitoshi**..... *Disclosed no conflict of interest.*

**Noel, Curtis** ..... 3B: Exactech Inc.

**Nogami, Makiko**..... *Disclosed no conflict of interest.*

**Noguchi, Hideo**..... *Disclosed no conflict of interest.*

**Noguchi, Takahiro**..... *Disclosed no conflict of interest.*

**Noguchi, Takashi** ..... *Disclosed no conflict of interest.*

**Noh, Moon** ..... 3A: TissueGene.

**Noh, Yeon Jeong**..... *Disclosed no conflict of interest.*

**Nohe, Anja** ..... *Disclosed no conflict of interest.*

**Noiseux, Nicolas O**..... 3B: MicroPort, Smith & Nephew, Link; 5: DePuy, Zimmer-Biomet.

**Nomura, Satoshi**..... *Disclosed no conflict of interest.*

**Nonoyama, Takayuki** ..... *Disclosed no conflict of interest.*

**Noonan, Kenneth J** ..... 1: Biomet; 3B: Biomet.

**Noonan, Megan** ..... *Disclosed no conflict of interest.*

**Norelli, Jolanta B**..... *Disclosed no conflict of interest.*

**Norimasa, Matsubara**..... *Disclosed no conflict of interest.*

**Norman, Berk** ..... *Disclosed no conflict of interest.*

**Norman, Carli** ..... *Disclosed no conflict of interest.*

**Norman, Timothy L** ..... *Disclosed no conflict of interest.*

**Norte, Grant E**..... *Disclosed no conflict of interest.*

**Noshchenko, Andriy** ..... *Disclosed no conflict of interest.*

**Nourie, Blake** ..... *Disclosed no conflict of interest.*

**Nourie, Olivia**..... *Disclosed no conflict of interest.*

**Novaretti, Joao** ..... *Disclosed no conflict of interest.*

**Novaretti, Joao V**..... *Disclosed no conflict of interest.*

**Nowak, Lauren L** ..... *Disclosed no conflict of interest.*

**Nowlan, Niamh C**..... *Disclosed no conflict of interest.*

**Nowotny, Jörg** ..... *Disclosed no conflict of interest.*

**Nozaki, Masahiro**..... *Disclosed no conflict of interest.*

**Nozaki, Taiki** ..... *Disclosed no conflict of interest.*

**NTOUMOU, ELENI**..... *Disclosed no conflict of interest.*

**Nukaga, Tadashi**..... *Disclosed no conflict of interest.*

**Nukala, Naga Sudha**..... *Disclosed no conflict of interest.*

**Nuss, Courtney A.**..... *Disclosed no conflict of interest.*

**Nutter, Genevieve P** ..... *Disclosed no conflict of interest.*

**Nuzzo, Marc** ..... *Disclosed no conflict of interest.*

**Nwawka, Ogonna K**..... 5: Funding provided by GE-NBA Co-Initiative for Tendinopathy,

**Nyambat, Batzaya** ..... *Disclosed no conflict of interest.*

**Nyland, John** ..... *Disclosed no conflict of interest.*

**Nyman, Jeffrey S**..... 3C-ActiveLife, Inc.; 6-Sanofi Genzyme.

**Nyon, Mun-Peak** ..... *Disclosed no conflict of interest.*

**Oakes, Daniel** ..... *Disclosed no conflict of interest.*

**Oba, Hiroyuki**..... *Disclosed no conflict of interest.*

**Oba, Tetsuro** ..... *Disclosed no conflict of interest.*

**Oberholzer, Linus**..... *Disclosed no conflict of interest.*

**Oberländer, Jan**..... *Disclosed no conflict of interest.*

**Obert, Richard** ..... 3A: FOCUS Medical Design & Development; 3B: MicroPort Orthopedics Inc.

**Obremsky, William** ..... *Disclosed no conflict of interest.*

**O'Brien, Fergal** ..... 1: SurgaColl Technologies; 3B: SurgaColl Technologies; 4: SurgaColl Technologies; 5: Integra LifeSciences; 6: SurgaColl Technologies, Integra LifeSciences; 7: Journal of the Mechanical Behavior of Biomedical Materials.

**O'Brien, Timothy** ..... 3C: Orbsen Therapeutics; 4: Orbsen Therapeutics.

**Obuchowski, Nancy** ..... *Disclosed no conflict of interest.*

**Ochi, Hiroki** ..... *Disclosed no conflict of interest.*

**Ochi, Miharu** ..... *Disclosed no conflict of interest.*

**Ochi, Mitsuo** ..... *Disclosed no conflict of interest.*

**Ochiai, Kiyohide** ..... 3A: Mizuho Corporation.

**Ochiai, Satoshi** ..... *Disclosed no conflict of interest.*

**Ochiya, Takahiro** ..... *Disclosed no conflict of interest.*

**O'Connell, Grace D** ..... *Disclosed no conflict of interest.*

**O'Connell, Robert S** ..... 6: Depuy Synthes.

**O'Connor, Shannon K.** ..... *Disclosed no conflict of interest.*

**O'Connor, Christopher J.** ..... *Disclosed no conflict of interest.*

**Oda, Hiroki** ..... *Disclosed no conflict of interest.*

**Oda, Takahiro** ..... *Disclosed no conflict of interest.*

**Odake, Kazuya** ..... *Disclosed no conflict of interest.*

**O'Donel, Carrie A.** ..... *Disclosed no conflict of interest.*

**O'Donnell, Christian** ..... *Disclosed no conflict of interest.*

**Oe, Keisuke** ..... *Disclosed no conflict of interest.*

**Oest, Megan E** ..... *Disclosed no conflict of interest.*

**Oest, Megan Elizabeth** ..... *Disclosed no conflict of interest.*

**Oetgen, Matthew** ..... *Disclosed no conflict of interest.*

**O'Gara, Tadhg J** ..... 4: First Line Meds, Inc,

**Ogasawara, Masanori** ..... *Disclosed no conflict of interest.*

**Ogawa, Masato** ..... *Disclosed no conflict of interest.*

**Ogawa, Munehiro** ..... *Disclosed no conflict of interest.*

**Ogawa, Tetsuya** ..... *Disclosed no conflict of interest.*

**Ogawa, Yuya** ..... *Disclosed no conflict of interest.*

**Ogaya, Shinya** ..... *Disclosed no conflict of interest.*

Ogi, Hiroshi..... *Disclosed no conflict of interest.*  
Ogilvie-Harris, Darrell ..... *Disclosed no conflict of interest.*  
OGON, IZAYA ..... *Disclosed no conflict of interest.*  
O'Gorman, David B ..... *Disclosed no conflict of interest.*  
Oh, Koo Hwan ..... *Disclosed no conflict of interest.*  
Oh, Luke S ..... *Disclosed no conflict of interest.*  
oh, se bong..... *Disclosed no conflict of interest.*  
Ohara, Toshiyuki ..... *Disclosed no conflict of interest.*  
Ohashi, Hideki ..... *Disclosed no conflict of interest.*  
Ohashi, Toshiro..... *Disclosed no conflict of interest.*  
Ohkoshi, Yasumitsu..... *Disclosed no conflict of interest.*  
Ohmi, Masato ..... *Disclosed no conflict of interest.*  
Ohmori, Keiji..... *Disclosed no conflict of interest.*  
Ohnishi, Takashi ..... *Disclosed no conflict of interest.*  
Ohno, Katsunori..... *Disclosed no conflict of interest.*  
Ohno, Kinji..... *Disclosed no conflict of interest.*  
Ohori, Tomoki..... *Disclosed no conflict of interest.*  
Ohshika, Shusa ..... *Disclosed no conflict of interest.*  
Ohsumi, Yuhei..... *Disclosed no conflict of interest.*  
Ohta, Akira..... *Disclosed no conflict of interest.*  
Ohta, Souichi..... *Disclosed no conflict of interest.*  
Ohta, Yoichi ..... *Disclosed no conflict of interest.*  
Ohtori, Seiji..... *Disclosed no conflict of interest.*  
Ohtsuka, Naruhito ..... *Disclosed no conflict of interest.*  
Oikawa, Ryosuke..... *Disclosed no conflict of interest.*  
Oikawa, Ryouke ..... *Disclosed no conflict of interest.*  
Oikawa, Ryunosuke ..... *Disclosed no conflict of interest.*  
Oishi, Takayuki..... *Disclosed no conflict of interest.*  
Ojanen, Simo P..... *Disclosed no conflict of interest.*  
Ok, Jina ..... *Disclosed no conflict of interest.*  
Oka, Yoshinobu..... *Disclosed no conflict of interest.*



**Oka, Yuichiro** ..... *Disclosed no conflict of interest.*

**Okada, Eijiro** ..... *Disclosed no conflict of interest.*

**Okada, Eri** ..... *Disclosed no conflict of interest.*

**Okada, Rintaro** ..... *Disclosed no conflict of interest.*

**Okada, Takamitsu** ..... *Disclosed no conflict of interest.*

**Okada, Tomoyuki** ..... *Disclosed no conflict of interest.*

**Okada, Yasuaki** ..... *Disclosed no conflict of interest.*

**Okada, Yohei** ..... *Disclosed no conflict of interest.*

**Okahata, Akinori** ..... *Disclosed no conflict of interest.*

**Okajima, Stephen M** ..... *Disclosed no conflict of interest.*

**Okamoto, Yoshihiro** ..... *Disclosed no conflict of interest.*

**Okamoto, Yoshinori** ..... *Disclosed no conflict of interest.*

**Okamura, Koichi** ..... *Disclosed no conflict of interest.*

**Okano, Hideyuki** ..... *Disclosed no conflict of interest.*

**Okanoue, Yusuke** ..... *Disclosed no conflict of interest.*

**Okawa, Atsushi** ..... *Disclosed no conflict of interest.*

**Okazaki, Ken** ..... *Disclosed no conflict of interest.*

**Okazaki, Shunichiro** ..... *Disclosed no conflict of interest.*

**Okazaki, Yoshiki** ..... *Disclosed no conflict of interest.*

**Okazaki, Yuki** ..... *Disclosed no conflict of interest.*

**O'Keefe, Regis** ..... *Disclosed no conflict of interest.*

**O'Keefe, Regis J** ..... *Disclosed no conflict of interest.*

**Oki, Hiroharu** ..... *Disclosed no conflict of interest.*

**Oki, Satoshi** ..... *Disclosed no conflict of interest.*

**Okimoto, Nobukazu** ..... *Disclosed no conflict of interest.*

**Okimura, Shinichiro** ..... *Disclosed no conflict of interest.*

**Okita, Yuriko** ..... *Disclosed no conflict of interest.*

**Okubo, Toshiki** ..... *Disclosed no conflict of interest.*

**Okuda, Akinori** ..... *Disclosed no conflict of interest.*

**Okuno, Nobuhiro** ..... *Disclosed no conflict of interest.*

**Okuzu, Yaichiro** ..... *Disclosed no conflict of interest.*

**Oladeji, Lasun** ..... *Disclosed no conflict of interest.*

**Oláh, Tamás** ..... *Disclosed no conflict of interest.*

**Oldakowska, Intan C** ..... 4: REX Ortho Pty Ltd.

**Oldakowski, Matthew P** ..... 4: REX Ortho Pty Ltd.

**Oldweiler, Alexander B** ..... *Disclosed no conflict of interest.*

**O'Leary, Robert M** ..... *Disclosed no conflict of interest.*

**Oliver, Rema** ..... *Disclosed no conflict of interest.*

**Oliver, Rema A** ..... *Disclosed no conflict of interest.*

**OLIVOS-MEZA, ANELL** ..... *Disclosed no conflict of interest.*

**Ollivier, Matthieu** ..... *Disclosed no conflict of interest.*

**Olmedo, Margaret** ..... *Disclosed no conflict of interest.*

**Olmer, Merissa** ..... *Disclosed no conflict of interest.*

**Olmsted-Davis, Elizabeth A** ..... *Disclosed no conflict of interest.*

**Olson, Jay F** ..... *Disclosed no conflict of interest.*

**Olson, Lucas** ..... *Disclosed no conflict of interest.*

**Olson, Steven A** ..... *Disclosed no conflict of interest.*

**O'Malley, James** ..... *Disclosed no conflict of interest.*

**Omid, Reza** ..... 1: Integra Life Sciences and Medacta; 3B: Integra Life Sciences and Medacta.

**Omid, Reza** ..... 3B: Medacta, Integra, Wright/Tornier; 7: Medacta, Integra.

**Omori, Go** ..... *Disclosed no conflict of interest.*

**Omori, Keita** ..... *Disclosed no conflict of interest.*

**Omori, Toshinori** ..... *Disclosed no conflict of interest.*

**O'Neill, Terence W** ..... *Disclosed no conflict of interest.*

**Ong, Kevin** ..... 1: Sanofi US; 3B: Stryker Orthopaedics, Zimmer Biomet, Ethicon, Ferring Pharmaceuticals, Paradigm Spine, Medtronic, Pacira Pharmaceuticals, DJO, Ossur.

**Onishi, Okihito** ..... *Disclosed no conflict of interest.*

**Onishi, Tadanobu** ..... *Disclosed no conflict of interest.*

**Onishi, Tetsuro** ..... *Disclosed no conflict of interest.*

**Önnerfjord, Patrik** ..... *Disclosed no conflict of interest.*

**Ono, Kosuke** ..... *Disclosed no conflict of interest.*

**Onodera, Jun** ..... *Disclosed no conflict of interest.*

**Onodera, Tomohiro** ..... *Disclosed no conflict of interest.*

**Onuma, Hiroaki** ..... *Disclosed no conflict of interest.*

**Onyeukwu, Chukwudi**..... *Disclosed no conflict of interest.*

**Oral, Ebru**..... *Disclosed no conflict of interest.*

**Oravec, Daniel** ..... *Disclosed no conflict of interest.*

**Orbay, Hakan**..... *Disclosed no conflict of interest.*

**Orbay, Jorge L**..... *Disclosed no conflict of interest.*

**Ordway, Nathaniel R** ..... 5: Premier Orthopedic Solutions.

**O'Reilly, Oliver**..... 4: Bioniks.

**Orman, Sebastian**..... *Disclosed no conflict of interest.*

**Ornitz, David M**..... 3B: TherAchon, Cardiovascular Biotherapeutics, Gold biotech; 3C: Trefoil Therapeutics, Incyte Corp; 5: TherAchon.

**Orozco Villasenor, Diego**..... *Disclosed no conflict of interest.*

**Orozco, Fabio R**..... 3B: Stryker.

**Orozco, Gustavo A**..... *Disclosed no conflict of interest.*

**Orr, Caley M**..... *Disclosed no conflict of interest.*

**Orr, Sara**..... *Disclosed no conflict of interest.*

**Ortega, Brandon**..... *Disclosed no conflict of interest.*

**Orth, Marcel** ..... *Disclosed no conflict of interest.*

**Orth, Patrick** ..... *Disclosed no conflict of interest.*

**Ortines, Roger V**..... *Disclosed no conflict of interest.*

**Osaheni, Allen O** ..... *Disclosed no conflict of interest.*

**Osaka, Yuta** ..... 3A: Teijin Nakashima Medical.

**Osaki, Syuhei** ..... *Disclosed no conflict of interest.*

**Osako, Chika** ..... *Disclosed no conflict of interest.*

**Osamu, Tanifuji** ..... *Disclosed no conflict of interest.*

**Osano, Kei** ..... *Disclosed no conflict of interest.*

**Osawa, Kyoko** ..... *Disclosed no conflict of interest.*

**Osawa, Yusuke**..... *Disclosed no conflict of interest.*

**Osbourne, Alyssa A**..... *Disclosed no conflict of interest.*

**Oseki, Nobutake**..... *Disclosed no conflict of interest.*

**Oshikawa, Tomoki**..... *Disclosed no conflict of interest.*

**Oshima, Yasushi** ..... *Disclosed no conflict of interest.*

Oshiro, Rachel..... *Disclosed no conflict of interest.*  
Osman, Gizem ..... *Disclosed no conflict of interest.*  
Ostrom, Rennolds ..... *Disclosed no conflict of interest.*  
Osuka, Satoshi ..... *Disclosed no conflict of interest.*  
O'Sullivan, Laura M ..... *Disclosed no conflict of interest.*  
Osuna, Carlos A ..... *Disclosed no conflict of interest.*  
Oswald, Jack ..... *Disclosed no conflict of interest.*  
Oswald, Sara ..... *Disclosed no conflict of interest.*  
Ota, Masahiro ..... *Disclosed no conflict of interest.*  
Ota, Masahiro ..... *Disclosed no conflict of interest.*  
Ota, Mitsutoshi ..... *Disclosed no conflict of interest.*  
Ota, Seiya ..... *Disclosed no conflict of interest.*  
Ota, Takehiro ..... *Disclosed no conflict of interest.*  
Ota, Yuki ..... *Disclosed no conflict of interest.*  
Otabe, Koji ..... *Disclosed no conflict of interest.*  
Otake, Yoshito ..... *Disclosed no conflict of interest.*  
Otani, Toshiro ..... *Disclosed no conflict of interest.*  
Otero, Jesse ..... *Disclosed no conflict of interest.*  
Otero, Miguel ..... *Disclosed no conflict of interest.*  
Otsuka, Takanobu ..... *Disclosed no conflict of interest.*  
Otsuki, Shuhei ..... *Disclosed no conflict of interest.*  
Otsuru, Satoru ..... *Disclosed no conflict of interest.*  
Otto, Iris A ..... *Disclosed no conflict of interest.*  
Ouchi, Koki ..... *Disclosed no conflict of interest.*  
Ouellet, Jean A ..... *Disclosed no conflict of interest.*  
Ouilllette, Ryan ..... *Disclosed no conflict of interest.*  
Oursler, Merry Jo ..... *Disclosed no conflict of interest.*  
Ou-Yang, David ..... 2: Globus; 3B: Globus 5: Globus.  
Overbergh, Thomas ..... *Disclosed no conflict of interest.*  
Owen, John R ..... *Disclosed no conflict of interest.*  
Owen, Thomas ..... *Disclosed no conflict of interest.*

Owens, Brett ..... *Disclosed no conflict of interest.*

Owens, Brett D ..... *Disclosed no conflict of interest.*

Owens, Jessel ..... *Disclosed no conflict of interest.*

Owens, Jessel M ..... *Disclosed no conflict of interest.*

Owens, Virgenal ..... *Disclosed no conflict of interest.*

Owusu-Akyaw, Kwadwo A ..... *Disclosed no conflict of interest.*

Oxblom, Alexander ..... *Disclosed no conflict of interest.*

OYA, AKIHITO ..... *Disclosed no conflict of interest.*

ozaki, masahiro ..... *Disclosed no conflict of interest.*

Ozaki, Toshifumi ..... *Disclosed no conflict of interest.*

Ozaki, Toshihumi ..... *Disclosed no conflict of interest.*

Ozeki, Nobutake ..... 7: Sony Imaging Products & Solutions Inc,

Ozeki, Satoru ..... *Disclosed no conflict of interest.*

Ozone, Kaichi ..... *Disclosed no conflict of interest.*

Ozturk, Sarah..... *Disclosed no conflict of interest.*

Pękala, Przemysław A..... *Disclosed no conflict of interest.*

Pace, Leslie R..... 6: OsteoRemedies.

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Pacheco, Christopher S..... *Disclosed no conflict of interest.*

Pacifici, Maurizio ..... *Disclosed no conflict of interest.*

Padalkar, Mugdha ..... *Disclosed no conflict of interest.*

Padayatil, Alexander ..... *Disclosed no conflict of interest.*

Padgett, Douglas..... 1: DJO Global; 3B: DJO Global, Mako, Stryker; 4: PixarBio.

Padgett, Douglas E ..... 1: DJ Orthopaedics; 2: DJ Orthopaedics; 3B: DJ Orthopaedics, PixarBio; 4: PixarBio.

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Padmore, Clare E ..... *Disclosed no conflict of interest.*

Padwal, Jennifer ..... *Disclosed no conflict of interest.*

Pagan, Nicholas ..... *Disclosed no conflict of interest.*

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Paglia, David N ..... *Disclosed no conflict of interest.*

Pagnano, Mark W. .... 3B: DePuy Synthes.

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**Paish, Adam DM** ..... *Disclosed no conflict of interest.*

**Pajarinen, Jukka** ..... *Disclosed no conflict of interest.*

**Pak, Theresa** ..... *Disclosed no conflict of interest.*

**Pal, Deepanwita** ..... *Disclosed no conflict of interest.*

**Palispis, Winnie A** ..... *Disclosed no conflict of interest.*

**Palmer, Glyn D** ..... *Disclosed no conflict of interest.*

**Palmer, Greg** ..... *Disclosed no conflict of interest.*

**Palmer, Martin R** ..... *Disclosed no conflict of interest.*

**Pan, Chi-Chun** ..... *Disclosed no conflict of interest.*

**Pan, Ding** ..... *Disclosed no conflict of interest.*

**Pan, Haiying** ..... *Disclosed no conflict of interest.*

**Pan, Tianghong** ..... *Disclosed no conflict of interest.*

**Pan, Xiaoyu** ..... *Disclosed no conflict of interest.*

**Pan, Xuan** ..... *Disclosed no conflict of interest.*

**Pan, Xueliang** ..... *Disclosed no conflict of interest.*

**Panagopoulos, Georgios N** ..... *Disclosed no conflict of interest.*

**Panchbhavi, Vinod** ..... *Disclosed no conflict of interest.*

**Pandy, Marcus** ..... *Disclosed no conflict of interest.*

**Pandy, Marcus G** ..... 5: Medacta International.

**Pang, Shen** ..... *Disclosed no conflict of interest.*

**Pannell, William** ..... *Disclosed no conflict of interest.*

**Panos, Joseph A.** ..... *Disclosed no conflict of interest.*

**Panoutsopoulou, Kalliope** ..... *Disclosed no conflict of interest.*

**Papageorgiou, Andreas** ..... *Disclosed no conflict of interest.*

**Papalia, Rocco** ..... *Disclosed no conflict of interest.*

**Papantonakis, Georgios** ..... 3A: Materialise NV.

**Pape, Alexander** ..... *Disclosed no conflict of interest.*

**Pape, Dietrich** ..... *Disclosed no conflict of interest.*

**Pappert, Kevin** ..... *Disclosed no conflict of interest.*

**Paprosky, Wayne** ..... 1: Zimmer; 2: Zimmer; 3B: Zimmer; 5: Zimmer.

**Parac-Vogt, Tatjana N**..... *Disclosed no conflict of interest.*

**Parajuli, Ashutosh**..... *Disclosed no conflict of interest.*

**Parajuli, Dikshya** ..... *Disclosed no conflict of interest.*

**Parambath, Anilkumar**..... *Disclosed no conflict of interest.*

**Parikh, Amit**..... 3A: Smith & Nephew, Inc.; 4: Smith & Nephew, Inc,

**Paris, Nicole D**..... *Disclosed no conflict of interest.*

**Parisi, Cristian**..... *Disclosed no conflict of interest.*

**Park, Daniel K**..... 3B: K2M, Stryker Spine; 4: Johnson & Johnson.

**Park, Dongsu**..... *Disclosed no conflict of interest.*

**Park, Hee Jung**..... *Disclosed no conflict of interest.*

**Park, Howard**..... *Disclosed no conflict of interest.*

**Park, Ik Kyu**..... *Disclosed no conflict of interest.*

**Park, Jae-Young**..... *Disclosed no conflict of interest.*

**Park, Jiwon**..... *Disclosed no conflict of interest.*

**Park, Ki Dong**..... *Disclosed no conflict of interest.*

**Park, Kwang Hwan**..... *Disclosed no conflict of interest.*

**Park, Sang-Hyun**..... 5: Depuy Synthes.

**Parker, Ashley C**..... 3A: MicroPort Orthopedics.

**Parkes, Maria**..... *Disclosed no conflict of interest.*

**Parks, Brent**..... *Disclosed no conflict of interest.*

**Parle, Eoin**..... *Disclosed no conflict of interest.*

**Parle, Eoin E**..... *Disclosed no conflict of interest.*

**Parra, Callan**..... *Disclosed no conflict of interest.*

**Parrish, Robin**..... *Disclosed no conflict of interest.*

**Parrish, Todd B**..... *Disclosed no conflict of interest.*

**Parrish, William R**..... 3A: DePuy Synthes Mitek Sports Medicine.

**Parsley, Brian**..... 5: Stryker; 6: Stryker.

**Parthasarathy, Sucharitha**..... *Disclosed no conflict of interest.*

**Parvizi, Javad**..... 3B: Zimmer; Smith & Nephew; ConvaTec; TissueGene; CeramTec; Medtronic; 4: CD Diagnostics; Hip Innovation Technology; MicroGenDx, PRN; 7: Elsevier; Wolters Kluwer; SLACK; Datatrace; Jaypee Publishers.

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**PascualGarrido, Cecilia** ..... 5: Biomet.

**Pashuck, Troy** ..... *Disclosed no conflict of interest.*

**Pasini, Damiano** ..... *Disclosed no conflict of interest.*

**Passarelli, Ben** ..... *Disclosed no conflict of interest.*

**Passini, Fabian S**..... *Disclosed no conflict of interest.*

**Patel, Biren** ..... *Disclosed no conflict of interest.*

**Patel, Chetan K**..... 3B: Medtronic.

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**Patel, Ravi**..... *Disclosed no conflict of interest.*

**Patel, Rikin**..... *Disclosed no conflict of interest.*

**Patel, Shivam H** ..... *Disclosed no conflict of interest.*

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**Paterno, Mark V** ..... *Disclosed no conflict of interest.*

**Pathak, Varun** ..... *Disclosed no conflict of interest.*

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**Pearce, Andrea R** ..... *Disclosed no conflict of interest.*

**Pearle, Andrew D**..... 3B: Stryker - Mako Surgical Corp; Biomet, Inc, Zimmer – Biomet.



**Peault, Bruno**..... *Disclosed no conflict of interest.*

**Pechanec, Monica Y**..... *Disclosed no conflict of interest.*

**Pechero, Guillermo Pechero** ..... *Disclosed no conflict of interest.*

**Peck, Sun H** ..... *Disclosed no conflict of interest.*

**Pedersen, Else-Marie** ..... *Disclosed no conflict of interest.*

**Pedoia, Valentina** ..... *Disclosed no conflict of interest.*

**Pei, Fuxing**..... *Disclosed no conflict of interest.*

**Pei, Jasmine J** ..... *Disclosed no conflict of interest.*

**Pei, Ming** ..... *Disclosed no conflict of interest.*

**Pei, Shaopeng** ..... *Disclosed no conflict of interest.*

**Pelham, James S**..... *Disclosed no conflict of interest.*

**Pellegrino, George** ..... *Disclosed no conflict of interest.*

**Pelletier, Matthew H** ..... *Disclosed no conflict of interest.*

**Pellikaan, Pim**..... *Disclosed no conflict of interest.*

**Peloquin, John M** ..... *Disclosed no conflict of interest.*

**Pena Diaz, Ana Maria** ..... *Disclosed no conflict of interest.*

**Pendleton, Megan M** ..... *Disclosed no conflict of interest.*

**Peng, Hang** ..... *Disclosed no conflict of interest.*

**Peng, Matthew** ..... *Disclosed no conflict of interest.*

**Peng, Songlin** ..... *Disclosed no conflict of interest.*

**Peng, Yan**..... *Disclosed no conflict of interest.*

**Peng, Yun** ..... *Disclosed no conflict of interest.*

**Penna, James** ..... *Disclosed no conflict of interest.*

**Pennell, Michael L**..... *Disclosed no conflict of interest.*

**Pennock, Andrew T**..... 5: Arthrex.

**Peralta, Laura** ..... *Disclosed no conflict of interest.*

**Perdikouri, Christina**..... 3A: Bone Support AB.

**Pereira, Gavin C** ..... *Disclosed no conflict of interest.*

**Peresada, Dmitriy**..... *Disclosed no conflict of interest.*

**Perez Silos, Vanessa** ..... *Disclosed no conflict of interest.*

**Perez, Michael** ..... *Disclosed no conflict of interest.*

**Perez-Viloria, Miguel** ..... *Disclosed no conflict of interest.*

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**Perkins, Meredith R.** ..... *Disclosed no conflict of interest.*

**Perkins, Sidney J** ..... *Disclosed no conflict of interest.*

**Peroglio, Marianna** ..... *Disclosed no conflict of interest.*

**Perry, Tiffany** ..... *Disclosed no conflict of interest.*

**Peter, Alexander** ..... *Disclosed no conflict of interest.*

**Peters, James R** ..... *Disclosed no conflict of interest.*

**Petersen, Kristian K** ..... *Disclosed no conflict of interest.*

**Petersik, Andreas** ..... 3A: Stryker.

**Peterson, Charlotte A** ..... *Disclosed no conflict of interest.*

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**Peterson, Mark** ..... *Disclosed no conflict of interest.*

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**Peterson, Mitchell D.** ..... *Disclosed no conflict of interest.*

**Peterson, Ryan** ..... *Disclosed no conflict of interest.*

**Petrigliano, Frank** ..... *Disclosed no conflict of interest.*

**Pettit, Rowland W** ..... *Disclosed no conflict of interest.*

**Petzold, Cathleen** ..... *Disclosed no conflict of interest.*

**Pezzotti, Giuseppe** ..... 3B: Amedica Corporation.

**Pfefferle, Kiel J** ..... *Disclosed no conflict of interest.*

**Pfeiffer, Ferris M** ..... 1: Arthrex.

**Pferdehirt, Lara G** ..... *Disclosed no conflict of interest.*

**Pfirrman, Christian** ..... *Disclosed no conflict of interest.*

**Pham, Christine** ..... *Disclosed no conflict of interest.*

**Pham, Hien** ..... *Disclosed no conflict of interest.*

**Phan, Cong-Bo** ..... *Disclosed no conflict of interest.*

**Philippart, Anahí** ..... *Disclosed no conflict of interest.*

**Philippine, Thibault** ..... *Disclosed no conflict of interest.*

**Philippon, Marc J** ..... 1: Bledsoe, ConMed Linvatec, DonJoy, SLACK Inc., Elsevier; 3B: Smith and Nephew Endoscopy, Ossur, Arthrex, Siemens, ArthroSurface, MJP Innovations LLC, MIS, Bledsoe, DonJoy, ConMed

Linvatec, Slack, Vail Health; 5: National Institute of Health, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institute of Aging, Smith and Nephew Endoscopy, Ossur, Arthrex, Siemens; 7: Elsevier.

**Phillips, Andrew TM** ..... *Disclosed no conflict of interest.*

**Phillips, Evan**..... *Disclosed no conflict of interest.*

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**Pickering, George AE** ..... *Disclosed no conflict of interest.*

**Pickett, Michael S**..... *Disclosed no conflict of interest.*

**Piedrahita, Jorge A.** ..... *Disclosed no conflict of interest.*

**Pierre, David** ..... *Disclosed no conflict of interest.*

**Pietrzak, Jurek RT** ..... *Disclosed no conflict of interest.*

**Pilachowski, Rachael**..... *Disclosed no conflict of interest.*

**Pinnamaneni, Sridhar** ..... *Disclosed no conflict of interest.*

**Pinnamaraju, Sriharsha V**..... *Disclosed no conflict of interest.*

**Pinsker, Bret L**..... *Disclosed no conflict of interest.*

**Pipkin, William C** ..... *Disclosed no conflict of interest.*

**Piscioneri, Andrew**..... *Disclosed no conflict of interest.*

**Pitcairn, Samuel W**..... *Disclosed no conflict of interest.*

**Pitt, Geoffery S.** ..... *Disclosed no conflict of interest.*

**Piuzzi, Nicolas S**..... *Disclosed no conflict of interest.*

**Pizzimenti, Natalie M**..... *Disclosed no conflict of interest.*

**Plaas, Anna**..... 3C: Ferring Pharmaceuticals; 5: Ferring Pharmaceuticals.

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**Plant, Daniel J** ..... 4: Armourgel.

**Plaskos, Chris** ..... 3A: Omnilife Science.

**Platt, Manu**..... *Disclosed no conflict of interest.*

**Plaza, Dawid P**..... *Disclosed no conflict of interest.*

**Pleshko, Nancy** ..... *Disclosed no conflict of interest.*

**Ploeg, Heidi-Lynn**..... 5: Theravance Biopharma.

**Plowman, Brad**..... *Disclosed no conflict of interest.*

**Pluemvitayaporn, Tinnakorn**..... *Disclosed no conflict of interest.*

**Png, Meng Ai** ..... *Disclosed no conflict of interest.*

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**Podgorny, Stephanie** ..... *Disclosed no conflict of interest.*

**Poggie, Robert A**..... *3B: Consultant to Bodycad Inc,*

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**Poh, Chueh Loo**..... *Disclosed no conflict of interest.*

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**Poitras, Stephane**..... *Disclosed no conflict of interest.*

**Polak, Anna** ..... *Disclosed no conflict of interest.*

**Polak-Krasna, Katarzyna** ..... *Disclosed no conflict of interest.*

**Polamalu, Sene K**..... *Disclosed no conflict of interest.*

**Polgreen, Linnea** ..... *Disclosed no conflict of interest.*

**Polgreen, Phil** ..... *Disclosed no conflict of interest.*

**Polirsztok, Eva** ..... *Disclosed no conflict of interest.*

**Polk, John**..... *Disclosed no conflict of interest.*

**Polkowski, Phillip M**..... *Disclosed no conflict of interest.*

**Pollard, Tom** ..... *Disclosed no conflict of interest.*

**Polly, David W** ..... *Disclosed no conflict of interest.*

**Pongkitwitoon, Suphannee** ..... *Disclosed no conflict of interest.*

**Ponzio, Danielle** ..... *Disclosed no conflict of interest.*

**Poon, Raymond**..... *Disclosed no conflict of interest.*

**Popchak, Adam** ..... *Disclosed no conflict of interest.*

**Pope, David** ..... *Disclosed no conflict of interest.*

**Popoff, Steve N** ..... *Disclosed no conflict of interest.*

**Popov, Cvetan** ..... *Disclosed no conflict of interest.*

**Popovic, Tijana**..... *Disclosed no conflict of interest.*

**Portocarrero Huang, Gloria** ..... *Disclosed no conflict of interest.*

**Posey, Samuel L** ..... *Disclosed no conflict of interest.*

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**Potter, Hollis G** ..... *5: Hospital for Special Surgery Maintains an Institutional Research Agreement with GE Healthcare.*

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**Pouran, Behdad**..... *Disclosed no conflict of interest.*

**Pourdeyhimi, Behnam** ..... *Disclosed no conflict of interest.*

**Pourzal, Robin** ..... 5: Zimmer.

**Powell, Katherine** ..... *Disclosed no conflict of interest.*

**Powell, Kimberly** ..... *Disclosed no conflict of interest.*

**Pozo, Jose M.** ..... *Disclosed no conflict of interest.*

**Pozzi, Ambra** ..... *Disclosed no conflict of interest.*

**Prakash, Kavita** ..... *Disclosed no conflict of interest.*

**Pratte, Eli** ..... *Disclosed no conflict of interest.*

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**Preece, Madeline**..... *Disclosed no conflict of interest.*

**Pregizer, Steven** ..... *Disclosed no conflict of interest.*

**Price, Christopher**..... *Disclosed no conflict of interest.*

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**Pruitt, Lisa A**..... *Disclosed no conflict of interest.*

**Pryce, Brian A** ..... *Disclosed no conflict of interest.*

**Pryce, Gregory** ..... 6: DePuy Synthes.

**Prystaz, Katja** ..... *Disclosed no conflict of interest.*

**Puetzer, Jennifer L**..... *Disclosed no conflict of interest.*

**Pugely, Andrew** ..... *Disclosed no conflict of interest.*

**Pulliam, Alexis**..... *Disclosed no conflict of interest.*

**Pulliam, Sarah** ..... *Disclosed no conflict of interest.*

**Puppulin, Leonardo** ..... *Disclosed no conflict of interest.*

**Pura, JennyAnn**..... *Disclosed no conflict of interest.*

**Purevsuren, Tserenchimed** ..... *Disclosed no conflict of interest.*

**Purmessur, Devina**..... *Disclosed no conflict of interest.*

**Purtill, Caroline** ..... *Disclosed no conflict of interest.*

Purviance, Connor ..... *Disclosed no conflict of interest.*

Putnam, David ..... *Disclosed no conflict of interest.*

Putra, Vina ..... *Disclosed no conflict of interest.*

Puttlitz, Christian..... *Disclosed no conflict of interest.*

Puviindran, Vijitha..... *Disclosed no conflict of interest.*

Puzas, J Edward..... *Disclosed no conflict of interest.*

Qadri, Marwa ..... *Disclosed no conflict of interest.*

Qayyum, Usama ..... *Disclosed no conflict of interest.*

Qian, Baoli ..... *Disclosed no conflict of interest.*

Qin, Ling ..... *Disclosed no conflict of interest.*

Qin, Yi-Xian ..... *Disclosed no conflict of interest.*

Qing, Dong..... *Disclosed no conflict of interest.*

Qiu, Yusheng ..... *Disclosed no conflict of interest.*

Qiu, Yuyou ..... *Disclosed no conflict of interest.*

Qu, Ruize ..... *Disclosed no conflict of interest.*

Quack, Valentin ..... *Disclosed no conflict of interest.*

Quade, Mandy ..... *Disclosed no conflict of interest.*

Quake, Stephen..... *Disclosed no conflict of interest.*

Quasnichka, Helen..... *Disclosed no conflict of interest.*

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Quinn, Brian ..... *Disclosed no conflict of interest.*

Quinnan, Stepen..... *Disclosed no conflict of interest.*

Quintard, Michel..... *Disclosed no conflict of interest.*

Quinzi, David ..... *Disclosed no conflict of interest.*

Quoss, Madeline J..... *Disclosed no conflict of interest.*

Quoss, Stephanie E ..... *Disclosed no conflict of interest.*

Qureshi, Osama ..... *Disclosed no conflict of interest.*

Qureshi, Shahar ..... *Disclosed no conflict of interest.*

Racine, Jennifer R..... *Disclosed no conflict of interest.*

Radzik, Bartlomiej Lukasz..... *Disclosed no conflict of interest.*

Raftery, Rosanne M..... *Disclosed no conflict of interest.*

Raggio, Cathleen L..... 2: Alexion, Biomarin.

Raghu, Harini..... *Disclosed no conflict of interest.*

Rahbar, Nima..... 5: Merck, Sharp & Dohme Corp.

Rahman, Proton ..... *Disclosed no conflict of interest.*

Rahmi, Hithem..... *Disclosed no conflict of interest.*

Rai, Muhammad F ..... *Disclosed no conflict of interest.*

Raina, Deepak Bushan ..... *Disclosed no conflict of interest.*

Rainbow, Michael J..... *Disclosed no conflict of interest.*

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Rajapakse, Chamith S..... *Disclosed no conflict of interest.*

Rajaravivarma, Raga..... 3A: Stryker; 4: Stryker.

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Rajcoomar, Shahil..... *Disclosed no conflict of interest.*

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Rakshit, Tatini ..... *Disclosed no conflict of interest.*

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Ramkumar, Prem N..... *Disclosed no conflict of interest.*

Ramos, Yolande F..... *Disclosed no conflict of interest.*

Ramu, Eyal..... *Disclosed no conflict of interest.*

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Rao, Karan ..... *Disclosed no conflict of interest.*

Rao, Raj..... *Disclosed no conflict of interest.*

Rao, Sudhaker ..... *Disclosed no conflict of interest.*

Raole, Deep A ..... *Disclosed no conflict of interest.*

Raoof, Amir ..... *Disclosed no conflict of interest.*

Rashid, Aymen ..... *Disclosed no conflict of interest.*

Rashid, Mashaba..... *Disclosed no conflict of interest.*

Raslan, Adnan ..... *Disclosed no conflict of interest.*

Rastall, David P ..... *Disclosed no conflict of interest.*

Rath, Björn..... *Disclosed no conflict of interest.*

Rathore, Jai ..... *Disclosed no conflict of interest.*

Ravanfar, Mohammadreza..... *Disclosed no conflict of interest.*

Ravishankar, Naveen ..... *Disclosed no conflict of interest.*

Ravuri, Sudheer K..... *Disclosed no conflict of interest.*

Rawle, Rachel..... *Disclosed no conflict of interest.*

Rawlinson, Simon C.F. .... *Disclosed no conflict of interest.*

Read, Andrew ..... *Disclosed no conflict of interest.*

Reader, Diana S..... *Disclosed no conflict of interest.*

Real, Alexander ..... *Disclosed no conflict of interest.*

Rebollo, Natalia ..... *Disclosed no conflict of interest.*

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Reckziegel, Diane..... *Disclosed no conflict of interest.*

Reddy, Akhil ..... *Disclosed no conflict of interest.*

Redlich, Nathan ..... *Disclosed no conflict of interest.*

Reed, Timothy ..... *Disclosed no conflict of interest.*

Rees, Holly A. .... *Disclosed no conflict of interest.*

Reeves, Bradley ..... *Disclosed no conflict of interest.*

Reeves, Jacob ..... *Disclosed no conflict of interest.*

Regan, Daniel ..... *Disclosed no conflict of interest.*

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Reimer, Raylene A..... *Disclosed no conflict of interest.*

Reiners, Daniel ..... *Disclosed no conflict of interest.*

Reiners, Daniel J ..... *Disclosed no conflict of interest.*

Reinhard, Jan ..... *Disclosed no conflict of interest.*

Reinke, Simon ..... *Disclosed no conflict of interest.*

Reinsvold, Michael..... *Disclosed no conflict of interest.*

Reiter, Alex ..... *Disclosed no conflict of interest.*

Rempei, Matsumoto ..... *Disclosed no conflict of interest.*

Ren, Weiping ..... *Disclosed no conflict of interest.*

Ren, Xiafei..... *Disclosed no conflict of interest.*

Ren, Zhe ..... *Disclosed no conflict of interest.*

Rendahl, Aaron ..... *Disclosed no conflict of interest.*

Resutek, Lauren ..... *Disclosed no conflict of interest.*

Reunamo, Aino..... *Disclosed no conflict of interest.*

Reuther, Katherine E..... *Disclosed no conflict of interest.*

Rey Rico, Ana ..... *Disclosed no conflict of interest.*

Reyes-Fondeur, Lisbeth ..... *Disclosed no conflict of interest.*

Reznikov, Natalie..... *Disclosed no conflict of interest.*

Rezvani, Sabah N ..... *Disclosed no conflict of interest.*

Rezvanifar, Sayed C..... *Disclosed no conflict of interest.*

Rhodes, Jason ..... 3B: Orthopediatrics.

Ribeiro, Alexandre ..... *Disclosed no conflict of interest.*

Ribitsch, Iris ..... *Disclosed no conflict of interest.*

Riboh, Jonathan ..... 3B: Ceterix

Ricchetti, Eric T ..... *Disclosed no conflict of interest.*

Richardson, Damien ..... *Disclosed no conflict of interest.*

Richardson, Spencer ..... *Disclosed no conflict of interest.*

Richter, Dustin J..... *Disclosed no conflict of interest.*

Rickels, Tracy ..... 3A: Stryker.

Rickert, Kathleen..... *Disclosed no conflict of interest.*

**Ricketts, Alyssa A.**..... *Disclosed no conflict of interest.*

**Riemenschneider, Paul**..... *Disclosed no conflict of interest.*

**Ries, Michael** ..... 1: Smith and Nephew, Stryker; 3B: Smith and Nephew, Stryker.

**Riff, Andrew J**..... *Disclosed no conflict of interest.*

**Riffault, Mathieu** ..... *Disclosed no conflict of interest.*

**Riggin, Corinne N**..... *Disclosed no conflict of interest.*

**Rigo, Isaura** ..... *Disclosed no conflict of interest.*

**Riley, Jeremy A.** ..... *Disclosed no conflict of interest.*

**Rimnac, Clare M** ..... 5: DePuy Synthes, Exponent Inc.; 7: Clinical Orthopaedics and Related Research.

**Riofrio, Alexie D** ..... *Disclosed no conflict of interest.*

**Riordan, John** ..... *Disclosed no conflict of interest.*

**Rios, Jaqueline L**..... *Disclosed no conflict of interest.*

**Risbud, Makarand V**..... *Disclosed no conflict of interest.*

**Ritchie, Brodie L**..... *Disclosed no conflict of interest.*

**Ritchlin, Christopher**..... *Disclosed no conflict of interest.*

**Riveaux, Alex**..... *Disclosed no conflict of interest.*

**Rivera, Jessica C** ..... *Disclosed no conflict of interest.*

**Rivet-Sabourin, Geoffroy**..... 3A: Bodycad employee.

**Riviere, Charles** ..... *Disclosed no conflict of interest.*

**Rizio, Louis** ..... *Disclosed no conflict of interest.*

**Rizk, Abanoub A**..... *Disclosed no conflict of interest.*

**Ro, Du hyun**..... *Disclosed no conflict of interest.*

**Ro, Du Hyun Ro**..... *Disclosed no conflict of interest.*

**Roa, Veronica** ..... 3A: Intrexon; 4: Intrexon.

**Roach, Neil T** ..... *Disclosed no conflict of interest.*

**Roadarmel, Benjamin R**..... *Disclosed no conflict of interest.*

**Robbins, Christopher B**..... *Disclosed no conflict of interest.*

**Robbins, Paul D**..... *Disclosed no conflict of interest.*

**Roberson, Charles Malcolm**..... *Disclosed no conflict of interest.*

**Roberts, Craig** ..... *Disclosed no conflict of interest.*

**Roberts, Jared T**..... *Disclosed no conflict of interest.*

**Robichaud, Hugo** ..... 3A: Bodycad employee.

**Robinovitch, Stephen** ..... *Disclosed no conflict of interest.*

**Robinson, Jennifer**..... *Disclosed no conflict of interest.*

**Robinson, Kelsey A** ..... *Disclosed no conflict of interest.*

**Robinson, Kristin L**..... 3A: Stryker; 4: Stryker.

**Robinson, Lily** ..... *Disclosed no conflict of interest.*

**Robinson, Raymond** ..... 3B: Exactech, Inc.; 5: Exactech, Inc,

**Robinson, Samuel T**..... *Disclosed no conflict of interest.*

**Robinson, William H** ..... *Disclosed no conflict of interest.*

**Robling, Alexander G**..... *Disclosed no conflict of interest.*

**Roche, Chris** ..... 3A: Exactech Inc.

**Roche, Christopher P** ..... 3A: Exactech, Inc; 4: Exactech, Inc.

**Roche, Martin** ..... 3B: Stryker, Orthosensor.

**Roche, Stephen**..... *Disclosed no conflict of interest.*

**Rochette, Alice** ..... *Disclosed no conflict of interest.*

**Rodeo, Scott A** ..... 3B: Joint Restoration Foundation, Rotation Medical; 3C: Joint Restoration Foundation; 4: Mitogen, Inc. Rotation Medical; 5: Angiocrine Bioscience, Inc.

**Rodkey, William G**..... *Disclosed no conflict of interest.*

**Rodriguez Fontan, Francisco**..... *Disclosed no conflict of interest.*

**Rodriguez y Baena, Fernando** .. 6: Received implants from Mathys to conduct this study but company had no input on design, conduct, or analysis of this study,

**Rodriguez, Alexander R**..... *Disclosed no conflict of interest.*

**Rodriguez, Ashley**..... *Disclosed no conflict of interest.*

**Rodriguez, Ashley B.** ..... *Disclosed no conflict of interest.*

**Rodriguez, Brittany L**..... *Disclosed no conflict of interest.*

**Rodriguez, Eduardo D** ..... *Disclosed no conflict of interest.*

**Rodriguez, Edward K.** ..... *Disclosed no conflict of interest.*

**Rodriguez, Susan**..... *Disclosed no conflict of interest.*

**Rodriquez, David**..... 5: Stryker; 6: Stryker.

**Roebuck, Margaret M**..... *Disclosed no conflict of interest.*

**Roffey, Darren** ..... *Disclosed no conflict of interest.*

**Rogers, Sheila** ..... *Disclosed no conflict of interest.*

**Rogozinski, Joshua** ..... *Disclosed no conflict of interest.*

**Roh, Si-Gyun** ..... *Disclosed no conflict of interest.*

**Rohner, Marco** ..... *Disclosed no conflict of interest.*

**Roi, Matt** ..... *Disclosed no conflict of interest.*

**Roides, Breana** ..... 3A: DePuy Synthes Mitek Sports Medicine.

**Rok, Tomasz** ..... *Disclosed no conflict of interest.*

**Rolfson, Ola** ..... *Disclosed no conflict of interest.*

**Roller, Brandon L** ..... 3B: Bone Solutions; 5: Bone Solutions.

**Rollmann, Mika** ..... *Disclosed no conflict of interest.*

**Roman, Max** ..... *Disclosed no conflict of interest.*

**Romani, Sarah M** ..... *Disclosed no conflict of interest.*

**Romeo, Anthony** ..... 1: Arthrex, Inc., Atreon Orthopaedics; 2: Arthrex, Inc; 3B: Arthrex, Inc, Atreon Orthopaedics; 4: ParaGen.

**Romero-Lopez, Monica** ..... *Disclosed no conflict of interest.*

**Romness, David** ..... 3B: TissueGene; 4: Tenex; 5: TissueGene.

**Rondinella, Alfredo** ..... *Disclosed no conflict of interest.*

**Rondon, Alexander J** ..... *Disclosed no conflict of interest.*

**Ronkainen, Ari P** ..... *Disclosed no conflict of interest.*

**Ronsky, Janet L** ..... *Disclosed no conflict of interest.*

**Rood, Christopher** ..... *Disclosed no conflict of interest.*

**Rooney, Amanda M** ..... *Disclosed no conflict of interest.*

**Rooney, Sarah I** ..... *Disclosed no conflict of interest.*

**Roper, Philip M** ..... *Disclosed no conflict of interest.*

**Rosario, Santano L** ..... *Disclosed no conflict of interest.*

**Rose, Jessica** ..... *Disclosed no conflict of interest.*

**Rose, Warren** ..... 5: Theravance Biopharma.

**Rose-John, Stefan** ..... 3A: CONARIS Research Institute AG; 4: CONARIS Research Institute AG.

**Rosen, Vicki** ..... *Disclosed no conflict of interest.*

**Rosenberg, Antoine J.W.P.** ..... *Disclosed no conflict of interest.*

**Rosenberg, Jarrett** ..... *Disclosed no conflict of interest.*

**Rosenzweig, Derek H** ..... *Disclosed no conflict of interest.*

**Ross, Alison K** ..... *Disclosed no conflict of interest.*

**Ross, F. Patrick** ..... *Disclosed no conflict of interest.*

**Ross, Ryan D** ..... *Disclosed no conflict of interest.*

**Rosser, Julie** ..... *Disclosed no conflict of interest.*

**Rossi, Mario** ..... *Disclosed no conflict of interest.*

**Rossi-Devries, Jasmine** ..... *Disclosed no conflict of interest.*

**Rossitto, Christina P** ..... *Disclosed no conflict of interest.*

**Roskopf, Andrea B** ..... *Disclosed no conflict of interest.*

**Ross-Trevor, Lyndsi** ..... *Disclosed no conflict of interest.*

**Rostami, Niloufar** ..... *Disclosed no conflict of interest.*

**Rostek, Alexander** ..... *Disclosed no conflict of interest.*

**Roth, Joshua D** ..... 1: THINK Surgical.

**Rothenberger, Sean** ..... *Disclosed no conflict of interest.*

**Rothrauff, Benjamin B** ..... *Disclosed no conflict of interest.*

**Roubert, Sebastian** ..... *Disclosed no conflict of interest.*

**Roughley, Peter** ..... *Disclosed no conflict of interest.*

**Rouhi, Gholamreza** ..... *Disclosed no conflict of interest.*

**Rounds, Alexis D** ..... *Disclosed no conflict of interest.*

**Rourke, Brennan J** ..... *Disclosed no conflict of interest.*

**Roush, Evan P** ..... *Disclosed no conflict of interest.*

**Rousie, Dominique L** ..... *Disclosed no conflict of interest.*

**Rowan, Fiachra E** ..... *Disclosed no conflict of interest.*

**Roy, Anuradha** ..... *Disclosed no conflict of interest.*

**Roy, Krishnendu** ..... *Disclosed no conflict of interest.*

**Rozbruch, S Robert** ..... *Disclosed no conflict of interest.*

**Rozell, Joshua C.** ..... *Disclosed no conflict of interest.*

**Ru, Hongyu** ..... *Disclosed no conflict of interest.*

**Rubattu, Edoardo L** ..... *Disclosed no conflict of interest.*

**Rubery, Paul T** ..... *Disclosed no conflict of interest.*

**Rubin, Janet** ..... *Disclosed no conflict of interest.*

**Rudan, John F** ..... 1: DePuy, Zimmer; 2: DePuy; 3B: DePuy, Zimmer; 4: DePuy, Zimmer; 5: DePuy, Zimmer; 6: DePuy, Zimmer.

**Rudert, M J** ..... *Disclosed no conflict of interest.*

Rudolph, Nicholas L ..... *Disclosed no conflict of interest.*

Ruehle, Marissa A. .... *Disclosed no conflict of interest.*

Rullkoetter, Paul J..... 3B: DepuySynthes, Inc; 5: DepuySynthes, Inc., Stryker Orthopaedics.

Rummler, Maximilian ..... *Disclosed no conflict of interest.*

Rumpf, Emily ..... *Disclosed no conflict of interest.*

Runa, Maria..... 1: Sanofi US.

Ruoss, Severin ..... *Disclosed no conflict of interest.*

Ruprecht, Jacob C ..... *Disclosed no conflict of interest.*

Rushton, Steven P ..... *Disclosed no conflict of interest.*

Russell, Taylor A..... *Disclosed no conflict of interest.*

Russell, Tobias..... *Disclosed no conflict of interest.*

Russo, Arcangelo..... 2: Lipogems.

Rutherford, Mary A..... *Disclosed no conflict of interest.*

Rutkove, Seward ..... 3B: Skulpt/Myolex Inc.; 4: Skulpt/Myolex Inc.; 5: Skulpt/Myolex Inc,

Ryaby, James T ..... 3A: Orthofix, Inc.; 4: Orthofix, Inc,

Ryan, Alan J ..... *Disclosed no conflict of interest.*

Ryan, Christina..... *Disclosed no conflict of interest.*

Ryan, Emily..... *Disclosed no conflict of interest.*

Rylander, Jonathan..... *Disclosed no conflict of interest.*

Rynearson, Bryan ..... *Disclosed no conflict of interest.*

Ryosuke, Matsushita ..... *Disclosed no conflict of interest.*

Ryu, Keinosuke ..... *Disclosed no conflict of interest.*

Ryu, Seung Bae..... *Disclosed no conflict of interest.*

Ryu, Yang Hwan..... 3C: Biosolution Co., Ltd,

S, Assari..... *Disclosed no conflict of interest.*

Saab, Aiman S ..... *Disclosed no conflict of interest.*

Saad, Maarouf A..... *Disclosed no conflict of interest.*

Saarakkala, Simo ..... *Disclosed no conflict of interest.*

Saarela, Kiira ..... *Disclosed no conflict of interest.*

Sabanai, Ken ..... *Disclosed no conflict of interest.*

Sabbagh, Mohamed Diya..... *Disclosed no conflict of interest.*

**Sabbaghi, Arman**..... *Disclosed no conflict of interest.*

**Sabesan, Vani J.**..... *Disclosed no conflict of interest.*

**Sabin, Arick** ..... *Disclosed no conflict of interest.*

**Sabour, Andrew**..... *Disclosed no conflict of interest.*

**Sabu, Bismaya** ..... *Disclosed no conflict of interest.*

**Sabuhi, Wali A** ..... *Disclosed no conflict of interest.*

**Sacks, Justin** ..... *Disclosed no conflict of interest.*

**Sadakiyo, Masashi** ..... *Disclosed no conflict of interest.*

**Sadamasu, Aya** ..... *Disclosed no conflict of interest.*

**Sadamatsu, Toshihiro**..... *Disclosed no conflict of interest.*

**Sadeghi, Seyedali**..... *Disclosed no conflict of interest.*

**Sadoughi, Saghi**..... *Disclosed no conflict of interest.*

**Saeki, Eri**..... *Disclosed no conflict of interest.*

**Saeki, Kazuhiko**..... *Disclosed no conflict of interest.*

**Saeki, Masaomi** ..... *Disclosed no conflict of interest.*

**Safa, Babak N** ..... *Disclosed no conflict of interest.*

**Safadi, Fayez F.**..... *Disclosed no conflict of interest.*

**Saferding, Victoria** ..... *Disclosed no conflict of interest.*

**Safran, Marc** ..... *Disclosed no conflict of interest.*

**Safranski, David L**..... 3A: MedShape, Inc.; 3B: Vertera, Inc., NuVasive Inc.; 4: Vertera, Inc., NuVasive Inc, Medshape.

**Sah, Robert L**..... *Disclosed no conflict of interest.*

**Sahadeo, Vashaana** ..... *Disclosed no conflict of interest.*

**Sahar, David E**..... *Disclosed no conflict of interest.*

**Sahara, Kagayaki** ..... *Disclosed no conflict of interest.*

**Saharkhiz, Niloufar**..... *Disclosed no conflict of interest.*

**Sahgal, Arjun**..... *Disclosed no conflict of interest.*

**Sahlstrom, Adam**..... *Disclosed no conflict of interest.*

**Sahul, Raffi** ..... *Disclosed no conflict of interest.*

**Sairyo, Koichi** ..... *Disclosed no conflict of interest.*

**Saita, Yoshitomo** ..... *Disclosed no conflict of interest.*

**Saito, Akira** ..... *Disclosed no conflict of interest.*

**Saito, Guilherme Honda** ..... *Disclosed no conflict of interest.*

**Saito, Hiroshi** ..... *Disclosed no conflict of interest.*

**Saito, Masanori** ..... *Disclosed no conflict of interest.*

**Saito, Masazumi** ..... *Disclosed no conflict of interest.*

**Saito, Taku** ..... *Disclosed no conflict of interest.*

**Saito, Tomoyuki** ..... *Disclosed no conflict of interest.*

**Saito, Tsuyoshi** ..... *Disclosed no conflict of interest.*

**Saito, Yuki** ..... *Disclosed no conflict of interest.*

**Saitoh, Yoshinobu** ..... *Disclosed no conflict of interest.*

**Saitou, Tomoyuki** ..... *Disclosed no conflict of interest.*

**Saitta, Biagio** ..... *Disclosed no conflict of interest.*

**Sakabe, Kou** ..... *Disclosed no conflict of interest.*

**Sakaguchi, Makoto** ..... 3A: AnGes MG inc.

**Sakai, Akinori** ..... *Disclosed no conflict of interest.*

**Sakai, Daisuke** ..... 6: NIPPON ZOKI Pharmaceutical Co., LTD,

**Sakai, Takashi** ..... *Disclosed no conflict of interest.*

**Sakai, Tomohisa** ..... *Disclosed no conflict of interest.*

**Sakai, Toshinori** ..... *Disclosed no conflict of interest.*

**Sakai, Yoshitada** ..... 4: CO2BE Medical Engineering Inc,

**Sakakibara, Yuzuru** ..... *Disclosed no conflict of interest.*

**Sakata, Munehiro** ..... *Disclosed no conflict of interest.*

**Sakata, Ryosuke** ..... *Disclosed no conflict of interest.*

**Sakiyama-Elbert, Shelly** ..... 7: Kuros Therapeutics.

**Sakoda, Hideyuki** ..... *Disclosed no conflict of interest.*

**Sakuda, Tomohiko** ..... *Disclosed no conflict of interest.*

**Sakuma, Daisuke** ..... *Disclosed no conflict of interest.*

**Sakuma, Yu** ..... *Disclosed no conflict of interest.*

**Sakurai, Aiko** ..... *Disclosed no conflict of interest.*

**Sakurai, Shigeyuki** ..... *Disclosed no conflict of interest.*

**Salai, Moshe** ..... *Disclosed no conflict of interest.*

**Salas, Christina** ..... *Disclosed no conflict of interest.*



**Salas, Rodrigo** ..... *Disclosed no conflict of interest.*

**Salas, Zachary** ..... *Disclosed no conflict of interest.*

**Saleh, Maleck** ..... *Disclosed no conflict of interest.*

**Salehi, Abraham** ..... 3A: Smith & Nephew.

**Salehi, Khosrowdad** ..... *Disclosed no conflict of interest.*

**Salem, Rayeheh** ..... *Disclosed no conflict of interest.*

**Salem, Usama** ..... *Disclosed no conflict of interest.*

**Sales de Gauzy, Jérôme** ..... *Disclosed no conflict of interest.*

**Salim, Muhammad** ..... *Disclosed no conflict of interest.*

**Salinas, Daniel** ..... 1: License fees.

**Salisbury, Elizabeth** ..... *Disclosed no conflict of interest.*

**Salisbury, Meagan** ..... *Disclosed no conflict of interest.*

**Salka, MSE, Nabeel** ..... *Disclosed no conflict of interest.*

**Sallent, Ignacio** ..... *Disclosed no conflict of interest.*

**Salminen, Alec T** ..... *Disclosed no conflict of interest.*

**Salo, Paul** ..... *Disclosed no conflict of interest.*

**Saloky, Kaitlin L** ..... *Disclosed no conflict of interest.*

**Saltzman, Charles L** ..... 1: Biomet-Zimmer, Bio2.

**Saltzman, Matthew D** ..... 1: Wright Medical/Tornier, Medacta; 3B: Medacta, CareFusion.

**Salunkhe, Shruti** ..... *Disclosed no conflict of interest.*

**Samaan, Michael A.** ..... *Disclosed no conflict of interest.*

**Samelko, Lauryn** ..... *Disclosed no conflict of interest.*

**Samizadeh, Sorousheh** ..... *Disclosed no conflict of interest.*

**Sampson, Barry** ..... *Disclosed no conflict of interest.*

**Samsa, William** ..... *Disclosed no conflict of interest.*

**Samukawa, Mina** ..... *Disclosed no conflict of interest.*

**Sanami, Sho** ..... 3A: Paid employee.

**Sandell, Linda J** ..... 1: L.J.S. owns stock or stock options in ISTO Technologies and receives royalties from Merck/Millipore for a type IIA collagen N-propeptide enzyme-linked immunosorbent assay.

**Sanders, Glenn P** ..... 4: ReVivo Medical; 6: ReVivo Medical.

**Sandoval, Aaron Gabriel W.** ..... *Disclosed no conflict of interest.*

**Sandoval, Taylor N** ..... *Disclosed no conflict of interest.*

**Sandoval-Rodriguez, Enrique** ..... *Disclosed no conflict of interest.*

**Sandy, John D** ..... *Disclosed no conflict of interest.*

**Sangeorzan, Bruce J** ..... *Disclosed no conflict of interest.*

**Sangiorgio, Sophia N** ..... 5: Spinal Kinetics, Depuy Synthes, Arthrex Inc, Wright Medical, Amgen, Extremity Medical, NuVasive.

**Sanjay, Archana** ..... 5: unrestricted grant from the Merck investigator initiated program.

**Sankar, Uma** ..... *Disclosed no conflict of interest.*

**Sanki, Tomoaki** ..... *Disclosed no conflict of interest.*

**Sannki, Tomoaki** ..... *Disclosed no conflict of interest.*

**Sano, Tomohiko** ..... *Disclosed no conflict of interest.*

**Sanon, Saahil** ..... *Disclosed no conflict of interest.*

**Santana, Daniel** ..... *Disclosed no conflict of interest.*

**Santore, Richard F** ..... 3B: Medacta, Omni; 4: Abbott, GlaxoSmithKline, Johnson & Johnson, Merck, Pfizer, Stryker, Zimmer; 5: Smith & Nephew; 7: Clinical Orthopaedics and Related Research, Hip International, Journal of Arthroplasty, Journal of the American Academy of Orthopaedic Surgeons.

**Sanville, Jennifer** ..... *Disclosed no conflict of interest.*

**Sanz-Nogues, Clara** ..... *Disclosed no conflict of interest.*

**Saran, Neil** ..... *Disclosed no conflict of interest.*

**Säris, Daniel** ..... 5: Smith&Nephew, Ivy Sports and Arthrex.

**Saris, Daniel B** ..... 5: Smith & Nephew, Arthrex, Stryker; 6: Smith & Nephew, Arthrex, Exactech, Stryker.

**Saruga, Tatsuro** ..... *Disclosed no conflict of interest.*

**Sas, Amelie** ..... *Disclosed no conflict of interest.*

**Sasaki, Akari** ..... *Disclosed no conflict of interest.*

**Sasaki, Ayako** ..... *Disclosed no conflict of interest.*

**Sasaki, Eiji** ..... *Disclosed no conflict of interest.*

**Sasaki, Hiroshi** ..... *Disclosed no conflict of interest.*

**Sasaki, Kan** ..... *Disclosed no conflict of interest.*

**Sasaki, Kazuhiro** ..... *Disclosed no conflict of interest.*

**Sasaki, Shizuka** ..... *Disclosed no conflict of interest.*

**Sasaki, Shota** ..... *Disclosed no conflict of interest.*

**Sasaki, Yusuke** ..... *Disclosed no conflict of interest.*

**Sasanuma, Hideyuki** ..... *Disclosed no conflict of interest.*

**Sasho, Takahisa** ..... *Disclosed no conflict of interest.*

**Satake, Hiroshi** ..... *Disclosed no conflict of interest.*

**Satapathy, Mantosh Kumar** ..... *Disclosed no conflict of interest.*

**Satcher, Robert L** ..... *Disclosed no conflict of interest.*

**Sato, Dai** ..... *Disclosed no conflict of interest.*

**Sato, Go** ..... *Disclosed no conflict of interest.*

**Sato, Junko** ..... *Disclosed no conflict of interest.*

**Sato, Kaoru** ..... *Disclosed no conflict of interest.*

**Sato, Katsuaki** ..... *Disclosed no conflict of interest.*

**Sato, Kazuki** ..... *Disclosed no conflict of interest.*

**Sato, Kei** ..... *Disclosed no conflict of interest.*

**Sato, Masato** ..... 1: CellSeed Inc,

**Sato, Masato** ..... 5: CellSeed Inc,

**Sato, Nobutaka** ..... *Disclosed no conflict of interest.*

**Sato, Ryuichi** ..... *Disclosed no conflict of interest.*

**Sato, Shingo** ..... *Disclosed no conflict of interest.*

**Sato, Taishi** ..... *Disclosed no conflict of interest.*

**Sato, Takahisa** ..... *Disclosed no conflict of interest.*

**Sato, Takashi** ..... *Disclosed no conflict of interest.*

**Sato, Tatsuya** ..... *Disclosed no conflict of interest.*

**Sato, Yoshinobu** ..... *Disclosed no conflict of interest.*

**Sato, Yusuke** ..... *Disclosed no conflict of interest.*

**Satoru, Egawa** ..... *Disclosed no conflict of interest.*

**Satoshi, Watanabe** ..... *Disclosed no conflict of interest.*

**Satpathy, Jibanananda** ..... 6: Depuy Synthes.

**Saul, Katherine** ..... *Disclosed no conflict of interest.*

**Savatey, Hak** ..... *Disclosed no conflict of interest.*

**Sawada, Kazuyoshi** ..... *Disclosed no conflict of interest.*

**SAWADA, Noriyoshi** ..... *Disclosed no conflict of interest.*

**Sawyer, Stephen W** ..... *Disclosed no conflict of interest.*

**Sayers, Adrian** ..... *Disclosed no conflict of interest.*

**Scammell, Brigitte E** ..... *Disclosed no conflict of interest.*

**Scarallo, Anthony**..... *Disclosed no conflict of interest.*

**Scarborough, Donna M**..... 3A: Figur8 Inc.

**Schache, Anthony G** ..... *Disclosed no conflict of interest.*

**Schachtner, Jaclyn T** ..... *Disclosed no conflict of interest.*

**Schaer, Thomas P**..... *Disclosed no conflict of interest.*

**Schaffler, Mitchell B**..... *Disclosed no conflict of interest.*

**Schanes, Paula**..... *Disclosed no conflict of interest.*

**Scheerlinck, Thierry**..... *Disclosed no conflict of interest.*

**Scheiber, Amanda L**..... *Disclosed no conflict of interest.*

**Scheidt, Karl B Scheidt**..... *Disclosed no conflict of interest.*

**Schell, Ryan**..... *Disclosed no conflict of interest.*

**Schemitsch, Emil H**..... *Disclosed no conflict of interest.*

**Schexnayder, Lyndsey** ..... *Disclosed no conflict of interest.*

**Schexnayder, Stuart** ..... *Disclosed no conflict of interest.*

**Scheys, Lennart** ..... 6: Smith&Nephew Knee consultancy.

**Schiavi, Jessica** ..... *Disclosed no conflict of interest.*

**Schickendantz, Mark S** ..... *Disclosed no conflict of interest.*

**Schilaty, Nathan D**..... *Disclosed no conflict of interest.*

**Schildhauer, Thomas A.** ..... *Disclosed no conflict of interest.*

**Schilling Jr., Kevin J**..... *Disclosed no conflict of interest.*

**Schimoler, Patrick J**..... *Disclosed no conflict of interest.*

**Schirner, Stephan** ..... *Disclosed no conflict of interest.*

**Schlecht, Stephen H** ..... *Disclosed no conflict of interest.*

**Schlegel, Theodore**..... 3B: Rotation Medical; 4: Avenu, kaleo, NASH, PrivIT, Rotation Medical; 5: Arthrex, Inc,

**Schlitter, Krista A**..... *Disclosed no conflict of interest.*

**Schlossberg, Brian** ..... 3A: OsteoNovus.

**Schmanke, Ken E**..... *Disclosed no conflict of interest.*

**Schmid, Thomas** ..... *Disclosed no conflict of interest.*

**Schmidig, Gregg** ..... 3A: Stryker; 4: Stryker.

**Schmidt, Andrew H** ..... 1: Smith and Nephew; 3B: Acumed, Conventus Orthopaedics; 4: Conventus Orthopaedics, Twin Star Medical, Epic Orthopaedics, EPIEN; 5: Bone Support; 7: Thieme.

**Schmidt, Christopher C** ..... 3B: Consultant relationship with Arthrex; 3C: Arthrex, Inc.

**Schmidt, Elaine** ..... *Disclosed no conflict of interest.*

**Schmidt, Eric J** ..... *Disclosed no conflict of interest.*

**Schmidt, Walter** ..... 3A: Stryker Orthopaedics.

**Schmit, Matthew** ..... 3A: Paid Employee.

**Schmitt, Daniel R** ..... *Disclosed no conflict of interest.*

**Schmitt, Gertrud** ..... *Disclosed no conflict of interest.*

**Schmitt, Laura C** ..... *Disclosed no conflict of interest.*

**Schmitt, Sabine** ..... *Disclosed no conflict of interest.*

**Schmock, Aysha** ..... *Disclosed no conflict of interest.*

**Schneider, Andrew** ..... *Disclosed no conflict of interest.*

**Schneider, Jennifer** ..... 3A: Titan Spine, LLC.

**Schneider, Prism** ..... *Disclosed no conflict of interest.*

**Schoch, Christian** ..... *Disclosed no conflict of interest.*

**Schoenecker, Jonathan** ..... 3B: Orthopediatrics; 5: IONIS Pharmaceuticals, PXE International.

**Schoenecker, Jonathan Gregory** .. *Disclosed no conflict of interest.*

**Schol, Ilse M** ..... *Disclosed no conflict of interest.*

**Schol, Jordy** ..... *Disclosed no conflict of interest.*

**Scholl, Laura** ..... 3A: Stryker; 4: Stryker.

**Schöneberg, Lisa-Marie** ..... *Disclosed no conflict of interest.*

**Schoon, Janosch** ..... *Disclosed no conflict of interest.*

**Schott, Eric M** ..... *Disclosed no conflict of interest.*

**Schrader, Tim** ..... 3B: OrthoPediatrics; 4: MAZOR Surgical Technologies.

**Schröder, Kai-Uwe** ..... *Disclosed no conflict of interest.*

**Schroder, Lisa K** ..... *Disclosed no conflict of interest.*

**Schroeder, Dustin** ..... *Disclosed no conflict of interest.*

**Schroeder, Gregory** ..... 5: Medtronic; 6: Medtronic, AOSpine.

**Schubert, Manuel F** ..... *Disclosed no conflict of interest.*

**Schuetz, Michael** ..... *Disclosed no conflict of interest.*

**Schultz, Susan M** ..... *Disclosed no conflict of interest.*

**Schultzel, Mark**..... *Disclosed no conflict of interest.*

**Schulz, Jacob F.**..... *Disclosed no conflict of interest.*

**Schulze, Amber** ..... *Disclosed no conflict of interest.*

**Schumacher, Barbara L**..... *Disclosed no conflict of interest.*

**Schurko, Brian** ..... *Disclosed no conflict of interest.*

**Schwab, Joseph H.** ..... *Disclosed no conflict of interest.*

**Schwartz, Andrea G** ..... *Disclosed no conflict of interest.*

**Schwartz, Herbert S** ..... *Disclosed no conflict of interest.*

**Schwartz, John**..... *Disclosed no conflict of interest.*

**Schwartz, Zvi** ..... 2: AB Dental; 3B: AB Dental; 5: AB Dental.

**Schwarz, Edward**..... 1: Silicon nitride implant that we used in this study.

**Schwarz, Edward M**..... *Disclosed no conflict of interest.*

**Schwarzkopf, Ran** ..... 3B: Smith&Nephew, Stryker, Intelijoint.

**Schweitzer, Ronen** ..... *Disclosed no conflict of interest.*

**Sciacca, Stefanie**..... *Disclosed no conflict of interest.*

**Scibetta, Alex C** ..... *Disclosed no conflict of interest.*

**Scinto, Kayla I** ..... *Disclosed no conflict of interest.*

**Sciortino, Robert**..... 3B: MicroPort Orthopedics.

**Scollan, Joseph**..... *Disclosed no conflict of interest.*

**Scott, Kayla M** ..... *Disclosed no conflict of interest.*

**Scotto, Rebecca** ..... *Disclosed no conflict of interest.*

**Scuderi, Matthew G**..... *Disclosed no conflict of interest.*

**Sculco, Peter K**..... *Disclosed no conflict of interest.*

**Sculco, Thomas** ..... 1: Exactech; 3C: Lima.

**Seaman, Melissa** ..... *Disclosed no conflict of interest.*

**Sebastian, Aimy** ..... *Disclosed no conflict of interest.*

**Secchieri, Cynthia**..... 3A: Fidia Pharma Group.

**Seebröker, Raphael**..... *Disclosed no conflict of interest.*

**Seeman, Ego** ..... 5: Allergan, Amgen, Asahi, Eli Lilly, Genzyme, MSD.

**Seerattan, Ruth A**..... *Disclosed no conflict of interest.*

**Segami, Kazuyuki**..... *Disclosed no conflict of interest.*

**Segu, Abhijith Bhaskar**..... *Disclosed no conflict of interest.*

**Segura, Tatiana** ..... *Disclosed no conflict of interest.*

**Sehgal, Chandra M**..... *Disclosed no conflict of interest.*

**Seiber, Breanna N**..... *Disclosed no conflict of interest.*

**Seim, Howard** ..... *Disclosed no conflict of interest.*

**Seitz, Ameer L**..... *Disclosed no conflict of interest.*

**Seitz, Andreas M** ..... *Disclosed no conflict of interest.*

**Seitz, William H** ..... *Disclosed no conflict of interest.*

**Seki, Shoji**..... *Disclosed no conflict of interest.*

**Seki, Taisuke** ..... *Disclosed no conflict of interest.*

**Sekiguchi, Hiroyuki**..... *Disclosed no conflict of interest.*

**Sekine, Chie**..... *Disclosed no conflict of interest.*

**Sekiya, Ichiro** ..... *Disclosed no conflict of interest.*

**Sekiya, Tatsuhiro** ..... *Disclosed no conflict of interest.*

**Seko, Sarah** ..... 5: Bioniks.

**Sela, Yaron** ..... *Disclosed no conflict of interest.*

**Seliger, Anne** ..... *Disclosed no conflict of interest.*

**Selles, Ruud** ..... *Disclosed no conflict of interest.*

**Selman, Mohammed** ..... *Disclosed no conflict of interest.*

**Selvaggio, Elizabeth R**..... *Disclosed no conflict of interest.*

**Selvaraj, Narenraj**..... *Disclosed no conflict of interest.*

**Sengstock, Christina** ..... *Disclosed no conflict of interest.*

**Senju, Takahiro** ..... *Disclosed no conflict of interest.*

**Sennett, Mackenzie L**..... *Disclosed no conflict of interest.*

**Senos, Rafael** ..... *Disclosed no conflict of interest.*

**Seo, Hansol** ..... *Disclosed no conflict of interest.*

**Seo, John**..... 3A: Australian Biotechnologies.

**Seo, Timothy** ..... 3A: Samumed LLC; 4: Samumed LLC.

**Seo, Yo-Seob**..... *Disclosed no conflict of interest.*

**Sera, Yasushi** ..... *Disclosed no conflict of interest.*

**Seref-Ferlengez, Zeynep**..... *Disclosed no conflict of interest.*

**Serhan, Hassan** ..... 4: J&J; 6: DePuy SYNTHES Spine.

**Serino, Joseph** ..... *Disclosed no conflict of interest.*

**Servadio, Nicholas** ..... *Disclosed no conflict of interest.*

**Sessions, Garrett A.** ..... *Disclosed no conflict of interest.*

**Sethi, Khalid** ..... *Disclosed no conflict of interest.*

**Sethuraman, Arvinth** ..... *Disclosed no conflict of interest.*

**Setoguchi, Daisuke** ..... *Disclosed no conflict of interest.*

**Setoguchi, Takao** ..... *Disclosed no conflict of interest.*

**Setter, Kevin J** ..... 3B: Anthrex, Inc.; 5: Anthrex, Inc,

**Setti, Stefania** ..... 3A: Igea Clinical Biophysics.

**Setton, Lori A.** ..... *Disclosed no conflict of interest.*

**Severijns, Pieter** ..... *Disclosed no conflict of interest.*

**Sevick, Johnathan L** ..... *Disclosed no conflict of interest.*

**Sewell, Daniel** ..... *Disclosed no conflict of interest.*

**Seyed Vosoughi, Ardalan** ..... *Disclosed no conflict of interest.*

**Seymour, Joseph D.** ..... *Disclosed no conflict of interest.*

**Shafiei, Neda** ..... *Disclosed no conflict of interest.*

**Shafiq, Babar** ..... *Disclosed no conflict of interest.*

**Shah, Aalok** ..... *Disclosed no conflict of interest.*

**Shah, Akash A.** ..... *Disclosed no conflict of interest.*

**Shah, Anoli** ..... *Disclosed no conflict of interest.*

**Shah, Anuj** ..... *Disclosed no conflict of interest.*

**Shah, Bhranti** ..... *Disclosed no conflict of interest.*

**Shah, Divya** ..... *Disclosed no conflict of interest.*

**Shah, Karan M** ..... *Disclosed no conflict of interest.*

**Shah, Neel** ..... *Disclosed no conflict of interest.*

**Shah, Paras** ..... *Disclosed no conflict of interest.*

**Shah, Parina H.** ..... *Disclosed no conflict of interest.*

**Shah, Ramille** ..... *Disclosed no conflict of interest.*

**Shah, Roshan P** ..... 5: Stryker; 6: Stryker.

**Shah, Sameer B.** ..... *Disclosed no conflict of interest.*



**Shah, Sarav** ..... *Disclosed no conflict of interest.*

**Shah, Sejal** ..... *Disclosed no conflict of interest.*

**Shahidi, Bahar** ..... *Disclosed no conflict of interest.*

**Shakesheff, Kevin M** ..... 3A: Locate Therapeutics; 4: Locate Therapeutics; 6: Locate Therapeutics.

**Shalhoub, Sami** ..... 3A: Omnilife Science.

**Shalvoy, Robert M** ..... *Disclosed no conflict of interest.*

**Shang, Guowei** ..... *Disclosed no conflict of interest.*

**shang, xianwen** ..... *Disclosed no conflict of interest.*

**Shanjani, Yaser** ..... *Disclosed no conflict of interest.*

**Shao, Zhili** ..... *Disclosed no conflict of interest.*

**Shapiro, Irving M** ..... *Disclosed no conflict of interest.*

**Shapland, John** ..... 3A: Depuy Synthes.

**Sharifi Kia, Danial** ..... *Disclosed no conflict of interest.*

**Sharifi, Masoud** ..... *Disclosed no conflict of interest.*

**Sharma, Abhinav** ..... *Disclosed no conflict of interest.*

**Sharma, Aman** ..... *Disclosed no conflict of interest.*

**SHARMA, AMAR C** ..... *Disclosed no conflict of interest.*

**Sharma, Ashish R** ..... *Disclosed no conflict of interest.*

**Sharma, Blanka** ..... *Disclosed no conflict of interest.*

**Sharma, Deepika** ..... *Disclosed no conflict of interest.*

**Sharma, Garima** ..... *Disclosed no conflict of interest.*

**Sharma, Gulshan B.** ..... *Disclosed no conflict of interest.*

**Sharma, Karan** ..... *Disclosed no conflict of interest.*

**Sharma, Karun** ..... *Disclosed no conflict of interest.*

**Sharma, Rashmi** ..... *Disclosed no conflict of interest.*

**Sharpe, Kipling P** ..... 3B: RECRO Pharmaceutical; 4: Pacira; 5: RECRO Pharmaceutical, Stryker.

**Sharpless, Norman E** ..... 3B: Unity Biotechnology, G1 Therapeutics; 3C: Healthspan Diagnostics.

**Shaul, Jonathan** ..... 3A: AgNovos Healthcare; 4: AgNovos Healthcare.

**Shaw, Calvin B.** ..... *Disclosed no conflict of interest.*

**Shay, Barbara L** ..... *Disclosed no conflict of interest.*

**Shea, Beverley** ..... *Disclosed no conflict of interest.*

**Shea, Kevin**..... *Disclosed no conflict of interest.*

**Shearing, Paul**..... *Disclosed no conflict of interest.*

**Sheehan, Eoin**..... *Disclosed no conflict of interest.*

**Shekarforoush, Mehdi**..... *Disclosed no conflict of interest.*

**Shelburne, Kevin**..... 5: DepuySynthes.

**Shelburne, Kevin B**..... 5: Stryker Orthopaedics.

**Shelmerdine, Susan C**..... *Disclosed no conflict of interest.*

**Shelton, Trevor**..... *Disclosed no conflict of interest.*

**Shen, He**..... *Disclosed no conflict of interest.*

**Shen, Hsin-Hsin**..... *Disclosed no conflict of interest.*

**Shen, Hua**..... *Disclosed no conflict of interest.*

**Shen, Jie**..... *Disclosed no conflict of interest.*

**Shen, Leyao**..... *Disclosed no conflict of interest.*

**Shen, Ying**..... *Disclosed no conflict of interest.*

**Shendure, Jay**..... *Disclosed no conflict of interest.*

**Shenoy, Aarti A**..... *Disclosed no conflict of interest.*

**Shenoy, Vivek B**..... *Disclosed no conflict of interest.*

**Sheppard, Kristin**..... *Disclosed no conflict of interest.*

**Sheridan, Brian**..... *Disclosed no conflict of interest.*

**Sherlock, Benjamin E.**..... *Disclosed no conflict of interest.*

**Sherwood, Richard J**..... *Disclosed no conflict of interest.*

**Shetler, Samantha**..... *Disclosed no conflict of interest.*

**Shetye, Snehal S**..... *Disclosed no conflict of interest.*

**Shetye, Snehal S.**..... *Disclosed no conflict of interest.*

**Sheyn, Dmitriy**..... *Disclosed no conflict of interest.*

**Shi, Pujiang**..... *Disclosed no conflict of interest.*

**Shi, Xiaojun**..... *Disclosed no conflict of interest.*

**Shiba, Naoto**..... *Disclosed no conflict of interest.*

**Shiels, Stefanie M.**..... *Disclosed no conflict of interest.*

**Shigematsu, Hideki**..... *Disclosed no conflict of interest.*

**Shigematsu, Koki**..... *Disclosed no conflict of interest.*

**Shih, Che-Jen** ..... *Disclosed no conflict of interest.*

**Shih, Cheng-Ting** ..... *Disclosed no conflict of interest.*

**Shih, Kuo-Cheng** ..... 5: United Orthopedic Corp,

**Shih, Yu-Tang** ..... *Disclosed no conflict of interest.*

**Shillingford-Cole, Ventrice** ..... *Disclosed no conflict of interest.*

**Shima, Hiroaki** ..... *Disclosed no conflict of interest.*

**Shimizu, Kouki** ..... *Disclosed no conflict of interest.*

**Shimizu, Rieko** ..... *Disclosed no conflict of interest.*

**Shimizu, Takamasa** ..... *Disclosed no conflict of interest.*

**Shimizu, Tomohiro** ..... *Disclosed no conflict of interest.*

**Shimizu, Yoshitaka** ..... *Disclosed no conflict of interest.*

**Shimomura, Kazunori** ..... *Disclosed no conflict of interest.*

**Shimomura, Seiji** ..... *Disclosed no conflict of interest.*

**Shimoto, Takeshi** ..... *Disclosed no conflict of interest.*

**Shimozaki, Yuri** ..... 3A: Paid employee.

**Shin, Choongsoo** ..... *Disclosed no conflict of interest.*

**Shin, Hang-Cheol** ..... *Disclosed no conflict of interest.*

**Shin, HyuckSoo** ..... *Disclosed no conflict of interest.*

**Shin, Hyuk Soo** ..... *Disclosed no conflict of interest.*

**Shin, Satoshi** ..... *Disclosed no conflict of interest.*

**Shin, Steven S** ..... 3B: Arthex; 7: Hely Weber.

**Shin, Tae Jin** ..... *Disclosed no conflict of interest.*

**Shiniti, Sotome** ..... *Disclosed no conflict of interest.*

**Shinkai, Hiroki** ..... *Disclosed no conflict of interest.*

**Shino, Konsei** ..... *Disclosed no conflict of interest.*

**Shinomura, Tamayuki** ..... *Disclosed no conflict of interest.*

**Shintani, Kazuhiro** ..... *Disclosed no conflict of interest.*

**Shiozaki, Yasuyuki** ..... *Disclosed no conflict of interest.*

**Shirai, Kento** ..... *Disclosed no conflict of interest.*

**Shirakawa, Yoshiko** ..... *Disclosed no conflict of interest.*

**Shirasawa, Hideyuki** ..... *Disclosed no conflict of interest.*

**Shiratsuchi, Hideaki**..... *Disclosed no conflict of interest.*

**Shirazi-Adl, Saeed**..... *Disclosed no conflict of interest.*

**Shirley, Matthew B** ..... *Disclosed no conflict of interest.*

**Shoga, Janty**..... *Disclosed no conflict of interest.*

**Shohat, Noam**..... *Disclosed no conflict of interest.*

**Shoji, Hiroaki**..... *Disclosed no conflict of interest.*

**Shokufhar, Tolou**..... *Disclosed no conflict of interest.*

**Shono, Hitomi**..... *Disclosed no conflict of interest.*

**Short, Riley L**..... *Disclosed no conflict of interest.*

**Shortkroff, Sonya** ..... 3A: Histogenics; 4: Histogenics.

**Shortt, Claire** ..... *Disclosed no conflict of interest.*

**Shoshan, Dor**..... *Disclosed no conflict of interest.*

**Shridhar, Shivkumar V**..... *Disclosed no conflict of interest.*

**Shrive, Nigel G** ..... *Disclosed no conflict of interest.*

**Shu, Rui** ..... *Disclosed no conflict of interest.*

**Shumbusho, Emile**..... *Disclosed no conflict of interest.*

**Shymon, Stephen**..... *Disclosed no conflict of interest.*

**Sidhu, Rana** ..... *Disclosed no conflict of interest.*

**Sidibe, David** ..... *Disclosed no conflict of interest.*

**Siegal, Daniel S** ..... *Disclosed no conflict of interest.*

**Sieker, Jakob T**..... *Disclosed no conflict of interest.*

**Sierra, Stephen J**..... *Disclosed no conflict of interest.*

**Signorelli, Joseph** ..... *Disclosed no conflict of interest.*

**Sikerwar, Sandeep** ..... *Disclosed no conflict of interest.*

**Sikora-Klak, Jakub**..... *Disclosed no conflict of interest.*

**Silberman, Giovanna C**..... *Disclosed no conflict of interest.*

**Siljander, Matthew**..... *Disclosed no conflict of interest.*

**Silva, Matthew J** ..... 5: Merck; 7: Springer.

**Silvan, Unai**..... *Disclosed no conflict of interest.*

**Silverman, Lara I** ..... 3A: DiscGenics, Inc; 4: DiscGenics, Inc,

**Silverstein, Amy M.**..... *Disclosed no conflict of interest.*

**Simfia, Irene**..... *Disclosed no conflict of interest.*

**Simmering, Jacob** ..... *Disclosed no conflict of interest.*

**Simon, Jacqueline**..... *Disclosed no conflict of interest.*

**Simonik, Melissa M** ..... *Disclosed no conflict of interest.*

**Simovitch, Ryan** ..... 1: Exactech, Inc; 3B: Exactech, Inc.

**Simpson, Hamish**..... 5: Stryker, DePuy Synthes.

**Simpson, Jeremy** ..... *Disclosed no conflict of interest.*

**Simpson, Jonathan P**..... *Disclosed no conflict of interest.*

**Sims, Matthew** ..... *Disclosed no conflict of interest.*

**Sincavage, Joseph**..... *Disclosed no conflict of interest.*

**Sinden, Kathryn**..... *Disclosed no conflict of interest.*

**Singh, Alka** ..... *Disclosed no conflict of interest.*

**Singh, Ankur**..... *Disclosed no conflict of interest.*

**Singh, Anshu**..... *Disclosed no conflict of interest.*

**Singh, Gurmit** ..... *Disclosed no conflict of interest.*

**Singh, Supriya** ..... *Disclosed no conflict of interest.*

**Sinha, Krishna**..... *Disclosed no conflict of interest.*

**Sinha, Krishna M**..... *Disclosed no conflict of interest.*

**Sinkemani, Arjun**..... *Disclosed no conflict of interest.*

**Sins, Lauranne** ..... *Disclosed no conflict of interest.*

**Sintini, Irene** ..... *Disclosed no conflict of interest.*

**Sions, Jacklyn M.**..... *Disclosed no conflict of interest.*

**Sirka, Aurimas**..... *Disclosed no conflict of interest.*

**Siskey, Ryan**..... 2: Exponent; 3B: Exponent.

**Sismondo, Ronald**..... *Disclosed no conflict of interest.*

**Siston, Robert A.**..... *Disclosed no conflict of interest.*

**Sivakamasundari, V** ..... *Disclosed no conflict of interest.*

**Sivarasu, Sudesh** ..... *Disclosed no conflict of interest.*

**Sivasundaram, Lakshmanan**..... *Disclosed no conflict of interest.*

**Skaer, Nick**..... 3A: Orthox Ltd,

**Skala, Melissa C.**..... *Disclosed no conflict of interest.*

**Skedros, John G**..... *Disclosed no conflict of interest.*

**Skinner, John** ..... 3B: Medacta.

**Skodras, Angelos**..... *Disclosed no conflict of interest.*

**Skrade, Anna E**..... *Disclosed no conflict of interest.*

**Slaughter, Tiffani**..... *Disclosed no conflict of interest.*

**Sloan, Jr., Stephen R**..... *Disclosed no conflict of interest.*

**Slocum, Jonathon**..... *Disclosed no conflict of interest.*

**Slotkin, Steve** ..... *Disclosed no conflict of interest.*

**Smailys, Alfredas** ..... *Disclosed no conflict of interest.*

**Smeltzer, Mark**..... *Disclosed no conflict of interest.*

**Smeriglio, Piera**..... *Disclosed no conflict of interest.*

**Smith, Alison** ..... *Disclosed no conflict of interest.*

**Smith, Barbara D.**..... *Disclosed no conflict of interest.*

**Smith, Brian** ..... *Disclosed no conflict of interest.*

**Smith, Catherine**..... *Disclosed no conflict of interest.*

**Smith, Chase** ..... *Disclosed no conflict of interest.*

**Smith, Clair** ..... *Disclosed no conflict of interest.*

**Smith, Colin R.** ..... *Disclosed no conflict of interest.*

**Smith, Craig**..... *Disclosed no conflict of interest.*

**Smith, Dollie** ..... *Disclosed no conflict of interest.*

**Smith, Harvey E**..... *Disclosed no conflict of interest.*

**Smith, James S.** ..... *Disclosed no conflict of interest.*

**Smith, Kevin M** ..... *Disclosed no conflict of interest.*

**Smith, Lachlan J**..... *Disclosed no conflict of interest.*

**Smith, Madeline**..... *Disclosed no conflict of interest.*

**Smith, Melanie K** ..... *Disclosed no conflict of interest.*

**Smith, Nicholas** ..... *Disclosed no conflict of interest.*

**Smith, Richard**..... *Disclosed no conflict of interest.*

**Smith, Richard A**..... *Disclosed no conflict of interest.*

**Smith, Stephanie M**..... *Disclosed no conflict of interest.*

**Smith, Thomas L**..... 5: NuTech; 7: Journal of Surgical Orthopaedic Advances.

**Smith, Wyatt A.R.** ..... *Disclosed no conflict of interest.*

**Smolinski, Anne** ..... *Disclosed no conflict of interest.*

**Smolinski, Michael P** ..... *Disclosed no conflict of interest.*

**Smolinski, Patrick** ..... *Disclosed no conflict of interest.*

**Snedeker, Jess** ..... *Disclosed no conflict of interest.*

**Snedeker, Jess G** ..... *Disclosed no conflict of interest.*

**Snethen, Kyle** ..... *Disclosed no conflict of interest.*

**Snyder, Brian D** ..... *Disclosed no conflict of interest.*

**Snyder-Mackler, Lynn** ..... *Disclosed no conflict of interest.*

**So, Kazutaka** ..... *Disclosed no conflict of interest.*

**Sobue, Yasumori** ..... *Disclosed no conflict of interest.*

**Sochol, Kristen** ..... *Disclosed no conflict of interest.*

**Sochol, Kristen M** ..... *Disclosed no conflict of interest.*

**Sodhi, Nipun** ..... *Disclosed no conflict of interest.*

**Sogo, Yasuyuki** ..... *Disclosed no conflict of interest.*

**Soher, Brian J** ..... *Disclosed no conflict of interest.*

**Sohn, Jihee** ..... *Disclosed no conflict of interest.*

**Solitto, Giovanni F** ..... *Disclosed no conflict of interest.*

**Sollaccio, David R** ..... *Disclosed no conflict of interest.*

**Solomon, Ruth** ..... *Disclosed no conflict of interest.*

**Soman, Pranav** ..... *Disclosed no conflict of interest.*

**Somarelli, Jason A** ..... *Disclosed no conflict of interest.*

**Somers, Sarah** ..... *Disclosed no conflict of interest.*

**Somerson, Jeremy** ..... *Disclosed no conflict of interest.*

**son, Hwan Hee** ..... *Disclosed no conflict of interest.*

**Son, Jongsang** ..... *Disclosed no conflict of interest.*

**Son, Juhyun** ..... *Disclosed no conflict of interest.*

**Son, Michelle M** ..... *Disclosed no conflict of interest.*

**Son, Yang** ..... *3A: Zimmer Biomet; 4: Zimmer Biomet.*

**Sone, Takefumi** ..... *Disclosed no conflict of interest.*

**Sonekatsu, Mayumi** ..... *Disclosed no conflict of interest.*

**Song, Chao** ..... *Disclosed no conflict of interest.*

**Song, Jian** ..... *Disclosed no conflict of interest.*

**Song, Juquan** ..... *Disclosed no conflict of interest.*

**Song, Kwang Hoon** ..... *Disclosed no conflict of interest.*

**Song, Lee** ..... *Disclosed no conflict of interest.*

**Song, Lin** ..... 3A: Stryker; 4: Stryker.

**Song, Wei** ..... *Disclosed no conflict of interest.*

**Song, Wenhao** ..... *Disclosed no conflict of interest.*

**Song, Yongnam** ..... *Disclosed no conflict of interest.*

**Song, Yu** ..... *Disclosed no conflict of interest.*

**Song, Yueming** ..... *Disclosed no conflict of interest.*

**Soniwala, Sarah** ..... *Disclosed no conflict of interest.*

**Sonnenfelt, Michael A.** ..... *Disclosed no conflict of interest.*

**Sonnet, Corinne** ..... *Disclosed no conflict of interest.*

**Sonoda, Kazuhiko** ..... *Disclosed no conflict of interest.*

**Sonohata, Motoki** ..... *Disclosed no conflict of interest.*

**Sonoo, Meaka** ..... *Disclosed no conflict of interest.*

**Soo, Chia** ..... 1: Bone biologics; 4: Bone Biologics.

**Sori, Andrew** ..... *Disclosed no conflict of interest.*

**Sorial, Antony K** ..... *Disclosed no conflict of interest.*

**Soslowsky, Louis J** ..... 5: Bonti, Marine Polymer, OrthoFix, DJO.

**Soto Martinez, Miriam** ..... *Disclosed no conflict of interest.*

**Sotome, Shinichi** ..... *Disclosed no conflict of interest.*

**Sousounis, Konstantinos** ..... *Disclosed no conflict of interest.*

**Southam, Lorraine** ..... *Disclosed no conflict of interest.*

**Souza, Richard B.** ..... *Disclosed no conflict of interest.*

**Sov, Jessica V.** ..... *Disclosed no conflict of interest.*

**Sowa, Gwendolyn** ..... *Disclosed no conflict of interest.*

**Spagnoli, Anna** ..... *Disclosed no conflict of interest.*

**Spang, Jeffrey T** ..... *Disclosed no conflict of interest.*

**Spang, Robert** ..... *Disclosed no conflict of interest.*



**Spangenburg, Espen E**..... *Disclosed no conflict of interest.*

**Spangler, Travis** ..... *Disclosed no conflict of interest.*

**Spanoudes, Kyriakos**..... *Disclosed no conflict of interest.*

**Sparrey, Carolyn J** ..... 5: Received research grant support from Medtronic.

**Spasojevic, Ivan** ..... *Disclosed no conflict of interest.*

**Spece, Hannah** ..... *Disclosed no conflict of interest.*

**Speicher, Sarah B** ..... *Disclosed no conflict of interest.*

**Speirs, Andrew D** ..... *Disclosed no conflict of interest.*

**Spenciner, David** ..... 3A: DePuy Synthes Mitek Sports Medicine.

**Sperling, John** ..... 1: Exactech, Inc; 3B: Exactech, Inc.

**Spevak, Lyudmila**..... *Disclosed no conflict of interest.*

**Spiker, Andrea M**..... *Disclosed no conflict of interest.*

**Spiro, Robert C**..... 3A: Aesculap Biologics, LLC.

**Spray, David C**..... *Disclosed no conflict of interest.*

**Springer, Nora** ..... *Disclosed no conflict of interest.*

**Spritzer, Charles E** ..... *Disclosed no conflict of interest.*

**Squire, Matthew**..... *Disclosed no conflict of interest.*

**Srbely, John** ..... *Disclosed no conflict of interest.*

**Sridhar, Elizabeth**..... *Disclosed no conflict of interest.*

**Srinivasan, Divya** ..... *Disclosed no conflict of interest.*

**Srinivasan, Priyanka** ..... *Disclosed no conflict of interest.*

**Srivastava, Rajeshwar N**..... *Disclosed no conflict of interest.*

**Srivastava, Sudeepti R.** ..... *Disclosed no conflict of interest.*

**Stahl, Alexander M**..... *Disclosed no conflict of interest.*

**Stal, Drew**..... *Disclosed no conflict of interest.*

**Stange, Richard**..... *Disclosed no conflict of interest.*

**Stanley, Richard**..... *Disclosed no conflict of interest.*

**Stannard, James P** ..... 3B: Acelity, Arthrex, DePuy, A Johnson & Johnson Company, Nuvasive, Smith & Nephew; 5: Arthrex, Coulter Foundation, U.S. Department of Defense; 7: Thieme.

**Stannard, James T** ..... *Disclosed no conflict of interest.*

**Starostina, Mariya** ..... *Disclosed no conflict of interest.*

**Staruch, Robert M** ..... 6: Philips.

**Statz, Stephen** ..... *Disclosed no conflict of interest.*

**Stauch, Christopher M**..... *Disclosed no conflict of interest.*

**Stavenschi, Elena**..... *Disclosed no conflict of interest.*

**Stavrakis, Alexandra**..... *Disclosed no conflict of interest.*

**Steckler, Andrew** ..... *Disclosed no conflict of interest.*

**Stefani, Robert M**..... *Disclosed no conflict of interest.*

**Stefanou, Nikolaos**..... *Disclosed no conflict of interest.*

**Steffen, Thomas** ..... *Disclosed no conflict of interest.*

**Stefl, Michael** ..... *Disclosed no conflict of interest.*

**Stein, Adam** ..... *Disclosed no conflict of interest.*

**Steinberg, David R** ..... 4: Johnson & Johnson.

**Steiner, Jennifer** ..... *Disclosed no conflict of interest.*

**Stence, Nicholas** ..... *Disclosed no conflict of interest.*

**Stender, Christina J** ..... *Disclosed no conflict of interest.*

**Stephan, Chris**..... *Disclosed no conflict of interest.*

**Stephenson, Regan E.** ..... *Disclosed no conflict of interest.*

**Steplewski, Andrzej** ..... *Disclosed no conflict of interest.*

**Sterling, Robert S**..... *Disclosed no conflict of interest.*

**Sternberg, Hal** ..... 3A: BioTime Inc.

**Sternheim, Amir** ..... *Disclosed no conflict of interest.*

**Stevanovic, Milan**..... *Disclosed no conflict of interest.*

**Stevens, Molly M** ..... *Disclosed no conflict of interest.*

**Stevenson, Harriet** ..... *Disclosed no conflict of interest.*

**Steward, Andrew J**..... *Disclosed no conflict of interest.*

**Steward, Nancy** ..... *Disclosed no conflict of interest.*

**Stiehler, Maik**..... *Disclosed no conflict of interest.*

**Stock, Stuart R**..... *Disclosed no conflict of interest.*

**Stoddard, Olivia** ..... *Disclosed no conflict of interest.*

**Stoddart, Martin J**..... *Disclosed no conflict of interest.*

**Stoeckl, Brendan D** ..... *Disclosed no conflict of interest.*

**Stoermann, Sophie** ..... *Disclosed no conflict of interest.*

**Stoesser, Helen** ..... *Disclosed no conflict of interest.*

**Stoker, Aaron M.**..... 1: Arthrex, Musculoskeletal Transplant Foundation.

**Stolarczyk, Ania M** ..... *Disclosed no conflict of interest.*

**Stone, Austin V** ..... 5: Smith & Nephew: Research support.

**Stone, Laura S** ..... *Disclosed no conflict of interest.*

**Stone, Michael A** ..... *Disclosed no conflict of interest.*

**Stoppato, Matteo** ..... *Disclosed no conflict of interest.*

**Stover, Joshua D**..... *Disclosed no conflict of interest.*

**Stranks, Geoff J** ..... 5: Zimmer Biomet.

**Straub, Rainer H** ..... *Disclosed no conflict of interest.*

**Strauss, Eric J** ..... *Disclosed no conflict of interest.*

**Strickland, Sabrina M**..... *Disclosed no conflict of interest.*

**Strohhofer, Carla J**..... *Disclosed no conflict of interest.*

**Struve, Janine** ..... 3A: Cimphoni Life Sciences, LLC.

**Strzelczak, Marta** ..... *Disclosed no conflict of interest.*

**Stubblefield, Seth**..... *Disclosed no conflict of interest.*

**Studentsova, Valentina**..... *Disclosed no conflict of interest.*

**Stulberg, Bernard**..... 1: Exactech, Inc.; 2: THINK Surgical, Inc,

**Stupp, Samuel I** ..... *Disclosed no conflict of interest.*

**Sturnick, Daniel R** ..... *Disclosed no conflict of interest.*

**Su, Andrew** ..... *Disclosed no conflict of interest.*

**Su, Edwin** ..... *Disclosed no conflict of interest.*

**Su, Samantha** ..... *Disclosed no conflict of interest.*

**Suarez, Sebastian** ..... *Disclosed no conflict of interest.*

**Subedar, Omar D**..... *Disclosed no conflict of interest.*

**Sudo, Akihiro**..... *Disclosed no conflict of interest.*

**Sudo, Hideki** ..... 5: PC42150011, 16H03176, 161m0103004j005 B49.

**Sudo, Takao**..... *Disclosed no conflict of interest.*

**Suehara, Yoshiyuki**..... *Disclosed no conflict of interest.*

**Suga, Norifumi** ..... *Disclosed no conflict of interest.*

**Sugai, Namiko** ..... *Disclosed no conflict of interest.*

**Sugama, Ryo** ..... *Disclosed no conflict of interest.*

**Sugamoto, Kazuomi**..... *Disclosed no conflict of interest.*

**Sugano, Masahiko**..... *Disclosed no conflict of interest.*

**Sugano, Nobuhiko** ..... *Disclosed no conflict of interest.*

**Sugarman, Barrie** ..... *Disclosed no conflict of interest.*

**Sugawara, Masato**..... *Disclosed no conflict of interest.*

**Sugaya, Hiroyuki**..... *Disclosed no conflict of interest.*

**Sugaya, Hisashi** ..... *Disclosed no conflict of interest.*

**Sugaya, Takehiro** ..... *Disclosed no conflict of interest.*

**Sugden, Kate** ..... *Disclosed no conflict of interest.*

**Sugihara, Yu** ..... *Disclosed no conflict of interest.*

**Sugihara, Yuu**..... *Disclosed no conflict of interest.*

**Sugimoto, Katsumasa** ..... *Disclosed no conflict of interest.*

**Sugiu, Kazuhisa** ..... *Disclosed no conflict of interest.*

**Sugiyama, Osamu**..... *Disclosed no conflict of interest.*

**Suguro, Toru** ..... *Disclosed no conflict of interest.*

**Suh, Nina** ..... *Disclosed no conflict of interest.*

**Sukenari, Tsuyoshi** ..... *Disclosed no conflict of interest.*

**Suleiman, Yusuf**..... *Disclosed no conflict of interest.*

**Suliman, Yasmine** ..... *Disclosed no conflict of interest.*

**Sullivan, Connor**..... *Disclosed no conflict of interest.*

**Sullivan, Joseph**..... *Disclosed no conflict of interest.*

**Sullivan, Kate** ..... *Disclosed no conflict of interest.*

**Sullivan, Katherine**..... *Disclosed no conflict of interest.*

**Sullivan, T. Barrett** ..... *Disclosed no conflict of interest.*

**Sultan, Assem A.**..... *Disclosed no conflict of interest.*

**Sumida, Yoshikazu** ..... *Disclosed no conflict of interest.*

**Sumner, D. Rick**..... *Disclosed no conflict of interest.*

**Sun, Aaron X** ..... *Disclosed no conflict of interest.*

**Sun, Hui B**..... *4: New York R&D Center for Translational Medicine and Therapeutics, Inc,*

**Sun, Jui-Sheng**..... *Disclosed no conflict of interest.*

**Sun, Junkui**..... *Disclosed no conflict of interest.*  
**Sun, Mei** ..... *Disclosed no conflict of interest.*  
**Sun, Mengge**..... *Disclosed no conflict of interest.*  
**Sun, Renyi** ..... *Disclosed no conflict of interest.*  
**Sun, Xuying** ..... *Disclosed no conflict of interest.*  
**Sun, Yang** ..... *Disclosed no conflict of interest.*  
**Sun, Yi**..... *Disclosed no conflict of interest.*  
**Sun, Yu**..... *Disclosed no conflict of interest.*  
**Sun, Yuan-Hui** ..... *Disclosed no conflict of interest.*  
**Sun, Yubo** ..... *Disclosed no conflict of interest.*  
**Sun, Zhexun** ..... *Disclosed no conflict of interest.*  
**Sun, Zhibo** ..... *Disclosed no conflict of interest.*  
**Sunaga, Junko** ..... *Disclosed no conflict of interest.*  
**Sunakawa, Takahide** ..... *Disclosed no conflict of interest.*  
**Sunamura, Satoko**..... *Disclosed no conflict of interest.*  
**Sundberg, Martin**..... *Disclosed no conflict of interest.*  
**Sung Hsieh, Hsiao Hsin**..... *Disclosed no conflict of interest.*  
**Suntaxi, Felipe**..... *Disclosed no conflict of interest.*  
**Suriani, Robert J** ..... *Disclosed no conflict of interest.*  
**Surma, Tyler** ..... *Disclosed no conflict of interest.*  
**Surowiec, Rachel K**..... *Disclosed no conflict of interest.*  
**Suruga, Makoto** ..... *Disclosed no conflict of interest.*  
**Sutter, E. Grant**..... *Disclosed no conflict of interest.*  
**Sutter, Reto**..... *Disclosed no conflict of interest.*  
**Suyama, Kaori** ..... *Disclosed no conflict of interest.*  
**Suzuki, Akemi**..... *Disclosed no conflict of interest.*  
**Suzuki, Daisuke**..... *Disclosed no conflict of interest.*  
**Suzuki, Kayo**..... *Disclosed no conflict of interest.*  
**SUZUKI, Ko** ..... *Disclosed no conflict of interest.*  
**Suzuki, Kosuke** ..... *Disclosed no conflict of interest.*  
**Suzuki, Mochihito**..... *Disclosed no conflict of interest.*

Suzuki, Satoshi ..... *Disclosed no conflict of interest.*  
SUZUKI, Sho'ji ..... *Disclosed no conflict of interest.*  
Suzuki, So ..... *Disclosed no conflict of interest.*  
Suzuki, Takashi ..... 3A: Shimadzu corporation.  
Suzuki, Tomoto ..... *Disclosed no conflict of interest.*  
Suzuki, Tomoyuki ..... *Disclosed no conflict of interest.*  
Suzuki, Yuki ..... *Disclosed no conflict of interest.*  
Swami, Pooja N ..... *Disclosed no conflict of interest.*  
Swamy, Ganesh ..... 3B: Stryker; 4: Torus Biomedical.  
Swanson, Jakoby ..... *Disclosed no conflict of interest.*  
Sweeney, Ashley R ..... *Disclosed no conflict of interest.*  
Sweeney, Margaret ..... *Disclosed no conflict of interest.*  
Swenson, Samuel A ..... *Disclosed no conflict of interest.*  
Swiatkowska, Ilona ..... *Disclosed no conflict of interest.*  
Swider, Pascal ..... *Disclosed no conflict of interest.*  
Swink, Isaac ..... *Disclosed no conflict of interest.*  
Swiontkowski, Marc ..... *Disclosed no conflict of interest.*  
Swope, Stephen ..... 3A: Paid Employee.  
Syed, Khalid ..... 2: Sanofi.  
Sykes, Alexis C ..... *Disclosed no conflict of interest.*  
Sylvia, Meghan ..... *Disclosed no conflict of interest.*  
Syverud, Brian ..... *Disclosed no conflict of interest.*  
Szabo, Nicole E ..... *Disclosed no conflict of interest.*  
Szabo, Robert M. .... *Disclosed no conflict of interest.*  
Szabo, Thomas L. .... *Disclosed no conflict of interest.*  
Szczepanski, Debra ..... *Disclosed no conflict of interest.*  
Szczesny, Spencer ..... *Disclosed no conflict of interest.*  
Szmit, Jakub ..... *Disclosed no conflict of interest.*  
Szostek, Adrianna K. .... *Disclosed no conflict of interest.*  
Szychlinska, Marta A ..... *Disclosed no conflict of interest.*  
Tabata, Yasuhiko ..... *Disclosed no conflict of interest.*

Tabb, Loni..... *Disclosed no conflict of interest.*

Taboas, Juan ..... *Disclosed no conflict of interest.*

Tachibana, Yuta ..... *Disclosed no conflict of interest.*

Tachmazidou, Ioanna..... *Disclosed no conflict of interest.*

Tagawa, Alex ..... *Disclosed no conflict of interest.*

Tägil, Magnus ..... *1: Integra Lifescience; 3C: Surgacoll; 7: Acta Orthopedica.*

Taha, Mariam ..... *Disclosed no conflict of interest.*

Tahmassebi, Jenni..... *Disclosed no conflict of interest.*

TAI, I CHUN ..... *Disclosed no conflict of interest.*

Tajima, Takafumi ..... *Disclosed no conflict of interest.*

Tajino, Junichi..... *Disclosed no conflict of interest.*

Takada, Ryohei..... *Disclosed no conflict of interest.*

Takada, Toru..... *Disclosed no conflict of interest.*

Takagi, Michiaki ..... *Disclosed no conflict of interest.*

Takagi, Takehiko ..... *Disclosed no conflict of interest.*

Takagi, Tetsuya ..... *Disclosed no conflict of interest.*

Takahara, Shunsuke ..... *Disclosed no conflict of interest.*

Takahashi, Atushi ..... *Disclosed no conflict of interest.*

Takahashi, Daisuke..... *Disclosed no conflict of interest.*

Takahashi, Masatoshi..... *3A: Shimadzu corporation.*

Takahashi, Mirai ..... *Disclosed no conflict of interest.*

Takahashi, Nobunori..... *Disclosed no conflict of interest.*

Takahashi, Norimasa ..... *Disclosed no conflict of interest.*

Takahashi, Takumi..... *Disclosed no conflict of interest.*

Takahashi, Tsuneari..... *Disclosed no conflict of interest.*

Takahata, Masahiko ..... *Disclosed no conflict of interest.*

Takai, Shinro ..... *Disclosed no conflict of interest.*

TAKAKUBO, Yuuya..... *Disclosed no conflict of interest.*

Takakubo, Yuya..... *Disclosed no conflict of interest.*

Takamasa, Miyake..... *Disclosed no conflict of interest.*

Takao, Kaneko..... *Disclosed no conflict of interest.*

Takao, Masaki..... *Disclosed no conflict of interest.*

Takao, Shoichiro ..... *Disclosed no conflict of interest.*

Takao-Kawabata, Ryoko ..... 3A: Asahi Kasei Pharma Corporation; 5: Asahi Kasei Pharma Corporation.

Takashima, Hiroyuki ..... *Disclosed no conflict of interest.*

Takashima, Kazuma..... *Disclosed no conflict of interest.*

Takata, Yoichiro ..... *Disclosed no conflict of interest.*

Takatori, Ryota ..... *Disclosed no conflict of interest.*

Takaya, Shogo..... *Disclosed no conflict of interest.*

Takayama, Koji..... *Disclosed no conflict of interest.*

Takayama, Yoshihiro ..... *Disclosed no conflict of interest.*

Takayanagi, Kiyomi..... *Disclosed no conflict of interest.*

Take, Yasuhiro ..... *Disclosed no conflict of interest.*

Takebayashi, Tsuneo..... *Disclosed no conflict of interest.*

Takebe, Ken ..... *Disclosed no conflict of interest.*

Takeda, On..... *Disclosed no conflict of interest.*

Takeda, Shu ..... *Disclosed no conflict of interest.*

TAKEDA, Yuji ..... *Disclosed no conflict of interest.*

Takeda, Yuki ..... *Disclosed no conflict of interest.*

Takefuji, Yusuke..... *Disclosed no conflict of interest.*

Takegami, Norihiko..... *Disclosed no conflict of interest.*

Takei, Kohtaro ..... *Disclosed no conflict of interest.*

Takemori, Toshiyuki ..... *Disclosed no conflict of interest.*

Takemura, Susumu..... *Disclosed no conflict of interest.*

Takenaga, Tetsuya..... *Disclosed no conflict of interest.*

Takenaka, Shota..... *Disclosed no conflict of interest.*

Takeoka, Yoshiki..... *Disclosed no conflict of interest.*

Takeshita, Ayumu ..... *Disclosed no conflict of interest.*

Takeshita, Katsushi ..... *Disclosed no conflict of interest.*

Taketomi, Shuji ..... *Disclosed no conflict of interest.*

Takeuchi, Hirokazu ..... *Disclosed no conflict of interest.*

Takeuchi, Hisataka..... *Disclosed no conflict of interest.*



Takeuchi, Kazuhiro ..... *Disclosed no conflict of interest.*

Takeuchi, Naohide ..... *Disclosed no conflict of interest.*

Takeuchi, Satoshi..... *Disclosed no conflict of interest.*

Taki, Makoto ..... *Disclosed no conflict of interest.*

Taki, Naoya ..... *Disclosed no conflict of interest.*

Takigawa, Tomoyuki ..... *Disclosed no conflict of interest.*

Takizawa, Daichi ..... *Disclosed no conflict of interest.*

Takubo, Akihito ..... *Disclosed no conflict of interest.*

TAM, Lai-Shan ..... *Disclosed no conflict of interest.*

Tam, Wai-Kit ..... *Disclosed no conflict of interest.*

Tamura, Kazunori..... *Disclosed no conflict of interest.*

Tan, Andrea ..... *Disclosed no conflict of interest.*

Tan, Andrea R..... *Disclosed no conflict of interest.*

Tan, Dean D ..... *Disclosed no conflict of interest.*

Tan, Guak-Kim..... *Disclosed no conflict of interest.*

Tan, Li ..... *Disclosed no conflict of interest.*

Tan, Lili ..... *Disclosed no conflict of interest.*

Tan, Matthew ..... 3A: Zimmer Biomet.

Tan, Sik Loo..... *Disclosed no conflict of interest.*

Tan, Timothy L ..... *Disclosed no conflict of interest.*

Tanabe, Hironori..... *Disclosed no conflict of interest.*

Tanabe, Yu..... *Disclosed no conflict of interest.*

Tanaka, Hiroshi ..... *Disclosed no conflict of interest.*

Tanaka, Kazunori ..... *Disclosed no conflict of interest.*

Tanaka, Mai..... *Disclosed no conflict of interest.*

Tanaka, Masaki..... *Disclosed no conflict of interest.*

Tanaka, Masato ..... *Disclosed no conflict of interest.*

Tanaka, Matthew S..... *Disclosed no conflict of interest.*

Tanaka, Riki ..... *Disclosed no conflict of interest.*

Tanaka, Ryuji..... *Disclosed no conflict of interest.*

Tanaka, Sakae ..... *Disclosed no conflict of interest.*

Tanaka, Satoshi..... *Disclosed no conflict of interest.*

Tanaka, Sunao..... *Disclosed no conflict of interest.*

Tanaka, Takaaki ..... 3C: material supply.

tanaka, toshikazu ..... *Disclosed no conflict of interest.*

Tanaka, Yasuhito..... *Disclosed no conflict of interest.*

Tanaka, Yoshihisa..... *Disclosed no conflict of interest.*

Tanaka, Yuki ..... *Disclosed no conflict of interest.*

Tandeski, Terry ..... 3A: DiscGenics, Inc; 4: DiscGenics, Inc,

Tandikul, Napat ..... 3A: EpiBone; 4: EpiBone.

Tang, Amy..... *Disclosed no conflict of interest.*

Tang, Chih-Hsin..... *Disclosed no conflict of interest.*

Tang, Peter ..... 5: Axogen.

Tang, Simon Y ..... *Disclosed no conflict of interest.*

Tang, Xiaoyan..... *Disclosed no conflict of interest.*

Tang, Xin..... *Disclosed no conflict of interest.*

Tang, Ying..... *Disclosed no conflict of interest.*

Tang, Yuning J ..... *Disclosed no conflict of interest.*

Tanifuji, Osamu ..... *Disclosed no conflict of interest.*

Taniguchi, Noboru ..... *Disclosed no conflict of interest.*

Taniguchi, Shohei..... *Disclosed no conflict of interest.*

Taniguchi, Wataru..... *Disclosed no conflict of interest.*

Taniguchi, Yu ..... *Disclosed no conflict of interest.*

Tanino, Hiromasa..... 5: AsahiKasei.

Tanjaya, Justine ..... *Disclosed no conflict of interest.*

Tanner, Elizabeth ..... *Disclosed no conflict of interest.*

Tanska, Petri K..... *Disclosed no conflict of interest.*

Tanzer, Michael ..... 3B: Stryker, Zimmer-Biomet.

Tao, Guo ..... *Disclosed no conflict of interest.*

Tao, Ke ..... *Disclosed no conflict of interest.*

Tarabichi, Majd..... *Disclosed no conflict of interest.*

Tarafder, Solaiman..... *Disclosed no conflict of interest.*

**Tarasevičius, Sarūnas** ..... *Disclosed no conflict of interest.*

**Tarke, Franklin D** ..... *Disclosed no conflict of interest.*

**Tashiro, Yasutaka** ..... *Disclosed no conflict of interest.*

**Tashiro, Yatsutaka** ..... *Disclosed no conflict of interest.*

**Tashjian, Robert Z** ..... 1: IMASCAP, Shoulder Innovations, Zimmer; 3B: Cayenne Medical, Mitek; 4: Conexions, INTRAFUSE, KATOR.

**Tashkandi, Mustafa M** ..... *Disclosed no conflict of interest.*

**Tashman, Scott** ..... *Disclosed no conflict of interest.*

**Tatro, Joscelyn M** ..... *Disclosed no conflict of interest.*

**Taunt Jr., Charles J** ..... *Disclosed no conflict of interest.*

**Taunton, Michael J** ..... 3B: DJO Global; 5: Depuy, Stryker.

**Tavakoli, Javad** ..... *Disclosed no conflict of interest.*

**Tawackoli, Wafa** ..... *Disclosed no conflict of interest.*

**Tawfik, Amany** ..... *Disclosed no conflict of interest.*

**Taxier, Daniel** ..... 3A: Smith & Nephew; 4: Smith & Nephew.

**Tay, Kae Sian** ..... *Disclosed no conflict of interest.*

**Taylor, Ben** ..... *Disclosed no conflict of interest.*

**Taylor, Brittany L** ..... *Disclosed no conflict of interest.*

**Taylor, Marc** ..... 3A: Smith & Nephew, Inc.; 4: Smith & Nephew, Inc,

**Taylor, Samuel** ..... 3B: DJ Orthopaedics, Mitek.

**Taylor, Sarah** ..... *Disclosed no conflict of interest.*

**Tazawa, Hiroshi** ..... *Disclosed no conflict of interest.*

**Tchkonia, Tamar** ..... *Disclosed no conflict of interest.*

**Teeter, Matthew G** ..... 4: IdealFit Spacer Technologies, PersaFix Revision Technologies.

**Teh, Thomas K** ..... *Disclosed no conflict of interest.*

**Tellier, Liane E** ..... *Disclosed no conflict of interest.*

**Temenoff, Johnna S** ..... *Disclosed no conflict of interest.*

**Tempelaire, Christine** ..... *Disclosed no conflict of interest.*

**Temple, H. Thomas** ..... *Disclosed no conflict of interest.*

**Temple, Joseph D** ..... *Disclosed no conflict of interest.*

**Templeton, Kate E** ..... *Disclosed no conflict of interest.*

**Tepic, Slobodan** ..... 3A: Kyon AG; 4: Kyon AG.

Teramoto, Atsushi..... *Disclosed no conflict of interest.*

Terek, Richard ..... *Disclosed no conflict of interest.*

Terkawi, Alaa ..... *Disclosed no conflict of interest.*

Terkawi, Mohamad Alaa ..... *Disclosed no conflict of interest.*

Tetsunaga, Tomonori..... *Disclosed no conflict of interest.*

Tetsworth, Kevin ..... 2: Smith and Nephew and Stryker; 3B: Smith and Nephew and Stryker.

Tevenan, Julie ..... *Disclosed no conflict of interest.*

Tezuka, Fumitake ..... *Disclosed no conflict of interest.*

Thakore, Mayur ..... 3A: Stryker; 4: Stryker.

THanos, Panayotis..... *Disclosed no conflict of interest.*

Thelen, Darryl ..... *Disclosed no conflict of interest.*

Thelen, Darryl G. .... 5: THINK Surgical.

Thevenot, Jérôme ..... *Disclosed no conflict of interest.*

Thiagarajan, Kavitha ..... *Disclosed no conflict of interest.*

Thiagarajan, Lalitha ..... *Disclosed no conflict of interest.*

Thienpont, Emmanuel..... 1: Zimmer Biomet, Medacta; 3B: Zimmer Biomet, Medacta, Lima.

Thirukumaran, Caroline P ..... *Disclosed no conflict of interest.*

Thistlethwaite, Paul..... 3A: Zimmer Biomet.

Thomas Freeberg, Margaret A ..... *Disclosed no conflict of interest.*

Thomas, Holly D ..... *Disclosed no conflict of interest.*

Thomas, Kaytlyn ..... 3A: Smith & Nephew.

Thomas, Rachael..... *Disclosed no conflict of interest.*

Thomas, Staci..... *Disclosed no conflict of interest.*

Thomeer, Lucas T ..... *Disclosed no conflict of interest.*

Thomopoulos, Stavros ..... *Disclosed no conflict of interest.*

Thompson, Courtney ..... *Disclosed no conflict of interest.*

Thompson, John M ..... *Disclosed no conflict of interest.*

Thompson, Jonathan ..... 3A: DePuy Synthes.

Thompson, Keith..... *Disclosed no conflict of interest.*

Thompson, William R..... *Disclosed no conflict of interest.*

Thoppil Mathew, Mathew ..... *Disclosed no conflict of interest.*

Thorhauer, Eric ..... *Disclosed no conflict of interest.*

Thornhill, Rebecca ..... *Disclosed no conflict of interest.*

Thudium, Christian S ..... 5: Neo-epitope ELISA for aggrecan fragments is performed by Nordic Bioscience.

Thurner, Philipp J..... *Disclosed no conflict of interest.*

Tian, Yuan..... *Disclosed no conflict of interest.*

Tibone, James ..... *Disclosed no conflict of interest.*

Tichy, Elisia ..... *Disclosed no conflict of interest.*

Tidwell, Lucas ..... *Disclosed no conflict of interest.*

Tikly, Mohammed..... *Disclosed no conflict of interest.*

Tillinghast, Kyle ..... *Disclosed no conflict of interest.*

Timmen, Melanie ..... *Disclosed no conflict of interest.*

Timmerman, Irina ..... 3A: MicroPort Orthopedics Inc.

Timur, Selin ..... *Disclosed no conflict of interest.*

Ting, Kang ..... 1: Bone biologics; 4: Bone Biologics.

Tips, Natalie L..... *Disclosed no conflict of interest.*

Titchenal, Matthew R ..... *Disclosed no conflict of interest.*

Tiulpin, Aleksei..... *Disclosed no conflict of interest.*

To, Michael ..... *Disclosed no conflict of interest.*

Tobias, John..... *Disclosed no conflict of interest.*

Tobiume, Sachiko ..... *Disclosed no conflict of interest.*

Toburen, Bryce..... *Disclosed no conflict of interest.*

Tochigi, Yuki..... *Disclosed no conflict of interest.*

Toda, Mitsunori ..... *Disclosed no conflict of interest.*

Todo, Mitsugu ..... *Disclosed no conflict of interest.*

Todoh, Masahiro ..... *Disclosed no conflict of interest.*

Togawa, Daisuke ..... *Disclosed no conflict of interest.*

Toguchida, Junya..... 5: Junya Toguchida.

Tohyama, Harukazu ..... *Disclosed no conflict of interest.*

Toigo, Marco..... *Disclosed no conflict of interest.*

Tokuhashi, Yasuaki..... *Disclosed no conflict of interest.*

Tomari, Kazuhide ..... 2: Zimmer Biomet Inc,

Tomasetig, Florence ..... *Disclosed no conflict of interest.*

Tomaszewski, Krzysztof A ..... *Disclosed no conflict of interest.*

Tomblyn, Seth ..... 3A: Employee.

Tombran-Tink, Joyce ..... *Disclosed no conflict of interest.*

Tomescu, Sebastian ..... *Disclosed no conflict of interest.*

Tomescu, Stefan S ..... *Disclosed no conflict of interest.*

Tominaga, Ayako ..... *Disclosed no conflict of interest.*

Tomita, Naohide ..... 6: Teijin Nakashima Medical Co., Ltd.

Tomita, Tetsuya ..... *Disclosed no conflict of interest.*

Tomizawa, Takuya ..... *Disclosed no conflict of interest.*

Tomlinson, Ryan ..... *Disclosed no conflict of interest.*

Tommasini, Steven M ..... *Disclosed no conflict of interest.*

Tomohiko, Sano ..... *Disclosed no conflict of interest.*

Tomoto, Suzuki ..... *Disclosed no conflict of interest.*

Tomoyama, Akito ..... *Disclosed no conflict of interest.*

Tompkins, Marc ..... *Disclosed no conflict of interest.*

Tone, Shine ..... *Disclosed no conflict of interest.*

Tong, Chi ..... *Disclosed no conflict of interest.*

Tong, Shi ..... *Disclosed no conflict of interest.*

Tonogai, Ichihiro ..... *Disclosed no conflict of interest.*

Tonomura, Hitoshi ..... *Disclosed no conflict of interest.*

Toossi, Nader ..... *Disclosed no conflict of interest.*

Topar, Chris ..... *Disclosed no conflict of interest.*

Torchia, Michael T ..... *Disclosed no conflict of interest.*

Torre, Olivia M ..... *Disclosed no conflict of interest.*

Torres, Andrea ..... *Disclosed no conflict of interest.*

Torres, Daniel ..... *Disclosed no conflict of interest.*

Torstrick, F Brennan ..... 3B: Vertera, Inc., NuVasive Inc.; 4: Vertera, Inc., NuVasive Inc,

Torzilli, Peter A ..... *Disclosed no conflict of interest.*

Tosi, Laura L ..... *Disclosed no conflict of interest.*

Toth, Ferenc ..... *Disclosed no conflict of interest.*

Toth, Ivana ..... *Disclosed no conflict of interest.*

Toth, Jeffrey M ..... 3B: Cytophil; 5: Medtronic.

Toth, Zacharie ..... *Disclosed no conflict of interest.*

Totoribe, Koji ..... *Disclosed no conflict of interest.*

Tovar, Nick ..... *Disclosed no conflict of interest.*

Tovmasyan, Artak ..... *Disclosed no conflict of interest.*

Tower, Robert J ..... *Disclosed no conflict of interest.*

Toyoda, Eriko ..... *Disclosed no conflict of interest.*

Toyoda, Kenichi ..... 3A: Shimadzu corporation.

Töyräs, Juha ..... *Disclosed no conflict of interest.*

Trabelsi, Nir ..... 3A: Persimio Ltd; 4: Persimio Ltd.

Tracey, Kevin ..... *Disclosed no conflict of interest.*

Tracy, Kaitlyn M ..... *Disclosed no conflict of interest.*

Trada, Piergiovanni ..... *Disclosed no conflict of interest.*

Tran, Victoria ..... *Disclosed no conflict of interest.*

Trasolini, Nicholas A ..... *Disclosed no conflict of interest.*

Travascio, Francesco ..... 5: Arthrex.

Trela-Larsen, Lea ..... *Disclosed no conflict of interest.*

Trella, Katie J ..... *Disclosed no conflict of interest.*

Trent, Jesse J ..... *Disclosed no conflict of interest.*

Trevino, Elda A ..... *Disclosed no conflict of interest.*

Trik, Sina ..... 3A: EOS GmbH.

Troche, Harrison ..... *Disclosed no conflict of interest.*

Trombetta, Ryan P ..... *Disclosed no conflict of interest.*

Tromp, Rebecca ..... *Disclosed no conflict of interest.*

Trousdale, Robert T ..... *Disclosed no conflict of interest.*

Trovato, Francesca M ..... *Disclosed no conflict of interest.*

Troy, Karen L ..... 5: Merck, Sharp & Dohme Corp.

Trunfio-Sfarghiu, Ana Maria ..... *Disclosed no conflict of interest.*

Tsai, Chun-Hao ..... *Disclosed no conflict of interest.*

Tsai, Pei-Hua ..... *Disclosed no conflict of interest.*

Tsai, Pei-I ..... *Disclosed no conflict of interest.*

Tsai, Tsung-Yuan ..... *Disclosed no conflict of interest.*

Tsang Min Ching, Jean-Marc ..... *Disclosed no conflict of interest.*

Tsang, Jovian ..... *Disclosed no conflict of interest.*

Tsang, Parker ..... *Disclosed no conflict of interest.*

Tsang, Shao-Ting Jerry ..... *Disclosed no conflict of interest.*

Tseng, Chieh ..... *Disclosed no conflict of interest.*

Tseng, Tzu-Ting..... *Disclosed no conflict of interest.*

Tseng, Wei-Ju..... *Disclosed no conflict of interest.*

Tseng, Wo Jan..... *Disclosed no conflict of interest.*

Tsezou, Aspasia..... *Disclosed no conflict of interest.*

Tsiapalis, Dimitrios ..... *Disclosed no conflict of interest.*

Tsinman, Tonia K..... *Disclosed no conflict of interest.*

Tsitsilonis, Serafim ..... *Disclosed no conflict of interest.*

Tsuang, Yang-Hwei..... *Disclosed no conflict of interest.*

Tsubone, Tetsu ..... *Disclosed no conflict of interest.*

Tsubosaka, Masanori..... *Disclosed no conflict of interest.*

Tsuboyama, Tadao..... *Disclosed no conflict of interest.*

Tsuchida, Shinji ..... *Disclosed no conflict of interest.*

Tsuchiya, Atsushi ..... *Disclosed no conflict of interest.*

Tsuchiya, Naoto ..... *Disclosed no conflict of interest.*

Tsuchiya, Takashi ..... *Disclosed no conflict of interest.*

Tsuda, Eiichi ..... *Disclosed no conflict of interest.*

Tsuji, Kunikazu..... *Disclosed no conflict of interest.*

Tsuji, Masaki..... *Disclosed no conflict of interest.*

tsuji, osahiko ..... *Disclosed no conflict of interest.*

Tsuji, Takashi ..... *Disclosed no conflict of interest.*

Tsuji, Tetsuya ..... *Disclosed no conflict of interest.*

Tsujii, Masaya..... *Disclosed no conflict of interest.*

Tsujimoto, Takeru ..... *Disclosed no conflict of interest.*

Tsujinaka, Seiya ..... *Disclosed no conflict of interest.*



**Tsukada, Harehiko** ..... *Disclosed no conflict of interest.*

**Tsukahara, Tomotaka** ..... *Disclosed no conflict of interest.*

**Tsukamoto, Manabu** ..... *Disclosed no conflict of interest.*

**Tsukamoto, Tadashi** ..... *Disclosed no conflict of interest.*

**Tsukayama, Dean T**..... 3B: Polypid.

**Tsukeoka, Tadashi**..... *Disclosed no conflict of interest.*

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**Walsh, David P** ..... *Disclosed no conflict of interest.*

**Walsh, Edward** ..... *Disclosed no conflict of interest.*

**Walsh, Emma R** ..... *Disclosed no conflict of interest.*

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**Westrick, Edward** ..... *Disclosed no conflict of interest.*

**Whaley, James** ..... *Disclosed no conflict of interest.*

**Whatling, Gemma M**..... *Disclosed no conflict of interest.*

**Whealy, Gunnar**..... *Disclosed no conflict of interest.*

**Wheeler, Tibra** ..... *Disclosed no conflict of interest.*

**Whitaker, John** ..... *Disclosed no conflict of interest.*

**White, Andrew H. A.** ..... *Disclosed no conflict of interest.*

**White, Joshua B.** ..... 3B: Exponent Inc.; 5: Arthrex Inc., DePuy, A Johnson & Johnson Company, Johnson & Johnson, Wright Medical Technology Inc., Zimmer.

**White, Mellissa** ..... *Disclosed no conflict of interest.*

**White, Nathan** ..... *Disclosed no conflict of interest.*

**Whited, Jessica** ..... *Disclosed no conflict of interest.*

**Whitehead, James**..... *Disclosed no conflict of interest.*

**Whitehouse, Michael R**..... 5: Stryker, DePuy, Heraeus.

**Whitlock, Patrick W**..... *Disclosed no conflict of interest.*

**Whitney, Daniel G**..... *Disclosed no conflict of interest.*

**Whitney, Kaitlyn E**..... *Disclosed no conflict of interest.*

**Whittaker, Eric C** ..... *Disclosed no conflict of interest.*

**Whitten, Andy** ..... 3A: Smith & Nephew; 4: Smith & Nephew.

**Whyne, Cari** ..... *Disclosed no conflict of interest.*

**Wickiewicz, Thomas L** ..... 1: Stryker - MAKO Surgical Corp,

**Widmyer, Margaret R** ..... *Disclosed no conflict of interest.*

**Wiegand, Michael J**..... *Disclosed no conflict of interest.*

**Wieser, Karl** ..... *Disclosed no conflict of interest.*

**Wilcox, Ruth** ..... 5: DePuy Synthes.

**Wilczek, Jessica**..... *Disclosed no conflict of interest.*

**Wildemann, Britt**..... *Disclosed no conflict of interest.*

**Wilding, Gregory** ..... *Disclosed no conflict of interest.*

**Wilkinson, J Mark**..... *Disclosed no conflict of interest.*

**Wilkinson, Jeremy M**..... *Disclosed no conflict of interest.*

**Willard, Vincent P**..... 3A: Cytex Therapeutics.

**Willett, Nick J**..... *Disclosed no conflict of interest.*

**Willett, Thomas** ..... *Disclosed no conflict of interest.*

**Willey, Jeffrey S** ..... *Disclosed no conflict of interest.*

**Willey, Michael C** ..... *Disclosed no conflict of interest.*

**William, Anderst** ..... *Disclosed no conflict of interest.*

**Williams III, D.S. Blaise** ..... *Disclosed no conflict of interest.*

**Williams, Ashley A** ..... *Disclosed no conflict of interest.*

**Williams, Benjamin** ..... *Disclosed no conflict of interest.*

**Williams, Brady T** ..... *Disclosed no conflict of interest.*

**Williams, David E** ..... *Disclosed no conflict of interest.*

**Williams, Devin M** ..... *Disclosed no conflict of interest.*

**Williams, Dustin** ..... *Disclosed no conflict of interest.*

**Williams, Gregory M** ..... 3A: NuVasive; 4: NuVasive.

**Williams, Horace** ..... *Disclosed no conflict of interest.*

**Williams, Jack R** ..... *Disclosed no conflict of interest.*

**Williams, Jamie R** ..... *Disclosed no conflict of interest.*

**Williams, John Leicester** ..... *Disclosed no conflict of interest.*

**Williams, Justin** ..... *Disclosed no conflict of interest.*

**Williams, Katrina** ..... *Disclosed no conflict of interest.*

**Williams, Lance R** ..... *Disclosed no conflict of interest.*

**Williams, Sean** ..... *Disclosed no conflict of interest.*

**Williams, Sophie** ..... 3B: DePuy Synthes; 5: DePuy Synthes.

**Williams, Tokoya** ..... *Disclosed no conflict of interest.*

**Williamson, Patrick** ..... *Disclosed no conflict of interest.*

**Willie, Bettina** ..... *Disclosed no conflict of interest.*

**Willie, Bettina M** ..... *Disclosed no conflict of interest.*

**Willing, Ryan** ..... 3C: Lima Corp; 5: Advanced Mechanical Technology, Inc., Zimmer-Biomet, Inc,

**Wilson, Brittany M** ..... *Disclosed no conflict of interest.*

**Wilson, Chris** ..... *Disclosed no conflict of interest.*

**Wilson, Christopher** ..... *Disclosed no conflict of interest.*

**Wilson, Hayden** ..... *Disclosed no conflict of interest.*

**Wilson, Katharine J** ..... *Disclosed no conflict of interest.*

**Wilson, William K** ..... *Disclosed no conflict of interest.*

**Wimmer, Markus A** ..... 5: Zimmer Biomet.

**Windhagen, Henning** ..... *Disclosed no conflict of interest.*

**Windsor, Eric** ..... *Disclosed no conflict of interest.*

**Winkelstein, Beth A.** ..... 5: SJM/Abbott; 7: CRC book royalties.

**Winters, Joshua D.** ..... *Disclosed no conflict of interest.*

**Wiplinger, Christoph** ..... *Disclosed no conflict of interest.*

**Wise, Casey** ..... 3A: DePuy Synthes Joint Reconstruction; 4: DePuy Synthes Joint Reconstruction.

**Witek, Lukasz** ..... *Disclosed no conflict of interest.*

**Witte, Frank** ..... *Disclosed no conflict of interest.*

**Wittman, Emma** ..... *Disclosed no conflict of interest.*

**Wojciechowski, Wadim** ..... *Disclosed no conflict of interest.*

**Wojtys, Edward M** ..... *Disclosed no conflict of interest.*

**Wolchok, Jeffrey** ..... *Disclosed no conflict of interest.*

**Wolf, Jennifer** ..... *Disclosed no conflict of interest.*

**Wolf, Steven** ..... *Disclosed no conflict of interest.*

**Wolfe, Marissa** ..... *Disclosed no conflict of interest.*

**Wolfram, Uwe** ..... *Disclosed no conflict of interest.*

**Woloszyk, Anna** ..... *Disclosed no conflict of interest.*

**Wong, Alan Y.** ..... *Disclosed no conflict of interest.*

**Wong, Chin-Chean** ..... *Disclosed no conflict of interest.*

**Wong, Jonathan** ..... *Disclosed no conflict of interest.*

**Wong, Murray T** ..... *Disclosed no conflict of interest.*

**Wong, Pei-Chun** ..... *Disclosed no conflict of interest.*

**Wong, Ronald Man Yeung** ..... *Disclosed no conflict of interest.*

**Wong, Van W** ..... *Disclosed no conflict of interest.*

**Wong, Yoke Rung** ..... *Disclosed no conflict of interest.*

**Woo, Jonathon** ..... *Disclosed no conflict of interest.*

**Woodard, Erik** ..... 3A: Smith & Nephew; 3B: Vallum Corp

**Woodell-May, Jennifer** ..... 3A: Zimmer Biomet.

**Woods, Shane** ..... *Disclosed no conflict of interest.*

**Wordeman, Samuel** ..... *Disclosed no conflict of interest.*

**Worley, John** ..... *Disclosed no conflict of interest.*



**Worthy-Tio, Sherdya** ..... *Disclosed no conflict of interest.*

**Wright, Abraham** ..... 3A: DepuySynthes; 4: DepuySynthes.

**Wright, Casey** ..... *Disclosed no conflict of interest.*

**Wright, Casey L** ..... *Disclosed no conflict of interest.*

**Wright, Jamie** ..... *Disclosed no conflict of interest.*

**Wright, Jennifer L** ..... *Disclosed no conflict of interest.*

**Wright, Jonathan** ..... *Disclosed no conflict of interest.*

**Wright, Rick W** ..... *Disclosed no conflict of interest.*

**Wright, Timothy** ..... 1: Exactech, INC; Lima; Mathys; 4: Exactech, INC; Orthobond; 5: Stryker - Mako Surgical Corp,

**Wroblewski, Olga** ..... *Disclosed no conflict of interest.*

**Wu, Bin** ..... *Disclosed no conflict of interest.*

**Wu, Cheng-Yu** ..... *Disclosed no conflict of interest.*

**Wu, Che-Wei** ..... *Disclosed no conflict of interest.*

**Wu, Chia-Lung** ..... *Disclosed no conflict of interest.*

**Wu, Emily** ..... *Disclosed no conflict of interest.*

**Wu, Jianbo** ..... *Disclosed no conflict of interest.*

**Wu, Jun** ..... *Disclosed no conflict of interest.*

**Wu, Katherine** ..... *Disclosed no conflict of interest.*

**Wu, Lee-Yu** ..... *Disclosed no conflict of interest.*

**Wu, Natalie** ..... *Disclosed no conflict of interest.*

**Wu, Ping-Shi** ..... *Disclosed no conflict of interest.*

**Wu, Shu** ..... *Disclosed no conflict of interest.*

**Wu, Shun-Cheng** ..... *Disclosed no conflict of interest.*

**Wu, Tzu-Hsuan** ..... *Disclosed no conflict of interest.*

**Wu, Xiao-Tao** ..... *Disclosed no conflict of interest.*

**Wu, Yongren** ..... *Disclosed no conflict of interest.*

**Wu, Yuanqiao** ..... *Disclosed no conflict of interest.*

**Wu, Yu-Fu** ..... *Disclosed no conflict of interest.*

**Wuestemann, Thies** ..... 3A: Stryker; 4: Stryker.

**Wunder, Jay** ..... *Disclosed no conflict of interest.*

**Wunderli, Stefania L** ..... *Disclosed no conflict of interest.*

**Wurm, Katharine** ..... 3A: Medical Metrics Inc.

**Wyles, Cody** ..... *Disclosed no conflict of interest.*

**Wynne, Kieran** ..... *Disclosed no conflict of interest.*

**Wyss, Sabine** ..... *Disclosed no conflict of interest.*

**Xi, Weixian** ..... *Disclosed no conflict of interest.*

**Xia, Yang** ..... *Disclosed no conflict of interest.*

**Xia, Younan** ..... *Disclosed no conflict of interest.*

**Xiao, Jun** ..... *Disclosed no conflict of interest.*

**Xiao, Li** ..... *Disclosed no conflict of interest.*

**Xiao, Michelle** ..... *Disclosed no conflict of interest.*

**Xie, Chao** ..... 1: Silicon nitride that we used in this study.

**Xie, Zhi-Yang** ..... *Disclosed no conflict of interest.*

**Xing, Lianping** ..... *Disclosed no conflict of interest.*

**Xu, Handong** ..... *Disclosed no conflict of interest.*

**Xu, Hao** ..... *Disclosed no conflict of interest.*

**XU, Jerry Jiankun** ..... *Disclosed no conflict of interest.*

**Xu, Jiajia** ..... *Disclosed no conflict of interest.*

**XU, Jiankun** ..... *Disclosed no conflict of interest.*

**Xu, Jun** ..... *Disclosed no conflict of interest.*

**Xu, Liang** ..... *Disclosed no conflict of interest.*

**Xu, Steven** ..... *Disclosed no conflict of interest.*

**Xu, Xin** ..... *Disclosed no conflict of interest.*

**Xu, Zheng** ..... *Disclosed no conflict of interest.*

**Xue, Pu** ..... *Disclosed no conflict of interest.*

**Yabuno, Kohei** ..... *Disclosed no conflict of interest.*

**Yabuuchi, Koji** ..... *Disclosed no conflict of interest.*

**Yagi, Mitsuru** ..... *Disclosed no conflict of interest.*

**Yagi, Tomonori** ..... *Disclosed no conflict of interest.*

**Yagnatovsky, Michelle** ..... *Disclosed no conflict of interest.*

**Yahagi, Yoshiyuki** ..... *Disclosed no conflict of interest.*

**Yakacki, Christopher M.** ..... 4: MedShape, Inc,

**Yakubek, George**..... *Disclosed no conflict of interest.*

**Yamabe, Daisuke**..... *Disclosed no conflict of interest.*

**Yamada, Hiroshi**..... *Disclosed no conflict of interest.*

**Yamada, Junichi**..... *Disclosed no conflict of interest.*

**Yamada, Katsuhisa**..... *Disclosed no conflict of interest.*

**Yamada, Katsutaka**..... *Disclosed no conflict of interest.*

**Yamada, Kazuki**..... *Disclosed no conflict of interest.*

**Yamada, Shunsuke**..... *Disclosed no conflict of interest.*

**Yamada, Yasuhiro**..... *Disclosed no conflict of interest.*

**Yamada, Yuichiro**..... *Disclosed no conflict of interest.*

**Yamaguchi, Kent T**..... *Disclosed no conflict of interest.*

**Yamaguchi, Kounosuke**..... *Disclosed no conflict of interest.*

**Yamaguchi, Satoshi**..... *Disclosed no conflict of interest.*

**Yamaguchi, Yasuteru**..... *Disclosed no conflict of interest.*

**Yamakawa, Satoshi**..... *Disclosed no conflict of interest.*

**Yamakawa, Yasuaki**..... *Disclosed no conflict of interest.*

**Yamako, Go**..... *Disclosed no conflict of interest.*

**Yamamoto, Hiroki**..... *Disclosed no conflict of interest.*

**Yamamoto, Keitaro**..... *Disclosed no conflict of interest.*

**Yamamoto, Kengo**..... *Disclosed no conflict of interest.*

**Yamamoto, Koji**..... *Disclosed no conflict of interest.*

**Yamamoto, Takao**..... *Disclosed no conflict of interest.*

**Yamamoto, Takuaki**..... *Disclosed no conflict of interest.*

**Yamamoto, Tetsuji**..... *Disclosed no conflict of interest.*

**Yamamoto, Yuji**..... *Disclosed no conflict of interest.*

**Yamamoto, Yusuke**..... *Disclosed no conflict of interest.*

**Yamamura, Kazumasa**..... *Disclosed no conflict of interest.*

**Yamanaka, Masanori**..... *Disclosed no conflict of interest.*

**Yamanaka, Yoshiaki**..... *Disclosed no conflict of interest.*

**Yamasaki, Koji**..... *Disclosed no conflict of interest.*

**Yamashita, Takahiro**..... *Disclosed no conflict of interest.*

Yamashita, Toshihiko ..... *Disclosed no conflict of interest.*

Yamaura, Kohei ..... *Disclosed no conflict of interest.*

Yamazaki, Etsuko ..... *Disclosed no conflict of interest.*

Yamazaki, Masashi ..... *Disclosed no conflict of interest.*

Yamazaki, Takaharu ..... *Disclosed no conflict of interest.*

Yammani, Raghunatha ..... *Disclosed no conflict of interest.*

Yan, Noah ..... *Disclosed no conflict of interest.*

Yan, Yu ..... *Disclosed no conflict of interest.*

Yanada, Shinobu ..... *Disclosed no conflict of interest.*

Yang, Cao ..... *Disclosed no conflict of interest.*

Yang, Chen ..... *Disclosed no conflict of interest.*

Yang, Chyun-Yu ..... *Disclosed no conflict of interest.*

Yang, Feng ..... *Disclosed no conflict of interest.*

Yang, Huan ..... *Disclosed no conflict of interest.*

Yang, Huiliang ..... *Disclosed no conflict of interest.*

Yang, Hui-Lin ..... *Disclosed no conflict of interest.*

Yang, Kai-Chiang ..... *Disclosed no conflict of interest.*

Yang, Ke ..... *Disclosed no conflict of interest.*

Yang, Kun ..... *Disclosed no conflict of interest.*

Yang, Kuo-Yi ..... *Disclosed no conflict of interest.*

Yang, Qing ..... *Disclosed no conflict of interest.*

Yang, Qingbo ..... *Disclosed no conflict of interest.*

Yang, Rong S ..... *Disclosed no conflict of interest.*

Yang, Rong-Sen ..... *Disclosed no conflict of interest.*

Yang, Shang-You ..... *Disclosed no conflict of interest.*

Yang, Shu-Hua ..... *Disclosed no conflict of interest.*

Yang, Shumeng ..... *Disclosed no conflict of interest.*

Yang, Simmon ..... 3A: Trauson Medical (China).

Yang, Wenyun ..... *Disclosed no conflict of interest.*

Yang, Xinlin ..... *Disclosed no conflict of interest.*

Yang, Xu ..... *Disclosed no conflict of interest.*

Yang, Yang ..... *Disclosed no conflict of interest.*

Yang, Yijian..... *Disclosed no conflict of interest.*

Yang, Yuanheng ..... *Disclosed no conflict of interest.*

Yang, Yunzhi Peter..... *Disclosed no conflict of interest.*

Yang, Zhuolin (Allen) ..... 3A: DePuy Synthes.

Yang, Zibo..... *Disclosed no conflict of interest.*

Yanik, Elizabeth..... *Disclosed no conflict of interest.*

Yanik, John M..... *Disclosed no conflict of interest.*

Yano, Fumiko ..... *Disclosed no conflict of interest.*

Yano, Koichro..... *Disclosed no conflict of interest.*

Yao, Gang ..... *Disclosed no conflict of interest.*

Yao, Hai..... *Disclosed no conflict of interest.*

Yao, Hao..... *Disclosed no conflict of interest.*

Yao, Yifei..... *Disclosed no conflict of interest.*

Yao, Zhenyu..... *Disclosed no conflict of interest.*

Yaotang, Wu ..... *Disclosed no conflict of interest.*

Yarimitsu, Seido..... *Disclosed no conflict of interest.*

Yarmand, Rozita..... *Disclosed no conflict of interest.*

Yarmolenko, Pavel S..... *Disclosed no conflict of interest.*

Yasuda, Kazunori..... *Disclosed no conflict of interest.*

Yasuda, Tadashi..... *Disclosed no conflict of interest.*

Yasuda, Taketoshi..... *Disclosed no conflict of interest.*

Yasuda, Tomohiro..... *Disclosed no conflict of interest.*

Yasuda, Toshito ..... *Disclosed no conflict of interest.*

Yasuhira, Shinji ..... *Disclosed no conflict of interest.*

Yasuma, Sanshiro..... *Disclosed no conflict of interest.*

Yaszay, Burt ..... 1: OrthoPediatics, K2M; 2: DePuy Synthes Spine, A Johnson & Johnson Company, Globus Medical, K2M, NuVasive, Stryker; 3B: DePuy Synthes Spine, A Johnson & Johnson Company, Globus Medical, K2M, NuVasive; 5: DePuy Synthes Spine, A Johnson & Johnson Company, Harms Study Group, K2M.

Yawman, Jon ..... *Disclosed no conflict of interest.*

Yazici, Yusuf..... 3A: Samumed LLC; 4: Samumed LLC.

Yeater, Taylor ..... *Disclosed no conflict of interest.*

Yee, Albert ..... *Disclosed no conflict of interest.*

Yegres, Jose D ..... 3A: Exactech Inc.

Yeh, Ming-Long ..... *Disclosed no conflict of interest.*

Yeh, Shu-Ting ..... *Disclosed no conflict of interest.*

Yelick, Pamela ..... *Disclosed no conflict of interest.*

Yeni, Yener ..... *Disclosed no conflict of interest.*

Yeni, Yener N ..... *Disclosed no conflict of interest.*

Yeoh, Kian-Hua ..... *Disclosed no conflict of interest.*

Yeramaneni, Samrat ..... *Disclosed no conflict of interest.*

Yeung, Kelvin W.K. .... *Disclosed no conflict of interest.*

Yew, Andy ..... *Disclosed no conflict of interest.*

Yew, Andy Khye Soon ..... *Disclosed no conflict of interest.*

Yew, Khye Soon Andy ..... *Disclosed no conflict of interest.*

Yi, Rosemary ..... *Disclosed no conflict of interest.*

Yi, Xin ..... *Disclosed no conflict of interest.*

Yi, Young-su ..... *Disclosed no conflict of interest.*

Yik, Jasper H.N. .... *Disclosed no conflict of interest.*

Yildirim, Gokce ..... 3A: Stryker Orthopaedics; 4: Stryker, Smith & Nephew, Conformis, Abbvie.

Yin, Xue ..... *Disclosed no conflict of interest.*

Ying, Liang ..... *Disclosed no conflict of interest.*

Yiu, Karen ..... *Disclosed no conflict of interest.*

Yngve, David ..... *Disclosed no conflict of interest.*

Yokogawa, Noriaki ..... *Disclosed no conflict of interest.*

Yokoi, Hiroyuki ..... *Disclosed no conflict of interest.*

Yokoo, Suguru ..... *Disclosed no conflict of interest.*

Yokota, Atsushi ..... *Disclosed no conflict of interest.*

Yokota, Hiroki ..... *Disclosed no conflict of interest.*

Yoneda, Hidemasa ..... *Disclosed no conflict of interest.*

Yoneda, Katsuro ..... *Disclosed no conflict of interest.*

Yoneda, Susumu ..... *Disclosed no conflict of interest.*

Yonemoto, Keigo..... *Disclosed no conflict of interest.*

Yonezawa, Katsutaka..... *Disclosed no conflict of interest.*

Yong, Yang ..... *Disclosed no conflict of interest.*

YOO, JEONG JOON ..... 3B: Corentec company.

Yoon, Dong Suk ..... *Disclosed no conflict of interest.*

Yoshida, Aki ..... *Disclosed no conflict of interest.*

Yoshida, Akihiko ..... *Disclosed no conflict of interest.*

Yoshida, Brandon ..... *Disclosed no conflict of interest.*

Yoshida, Masahito..... *Disclosed no conflict of interest.*

YOSHIDA, Misato ..... *Disclosed no conflict of interest.*

Yoshida, Toshimichi ..... *Disclosed no conflict of interest.*

YOSHIDA, Toshinori ..... *Disclosed no conflict of interest.*

Yoshihisa, Kushida..... *Disclosed no conflict of interest.*

Yoshii, Toshitaka..... *Disclosed no conflict of interest.*

Yoshii, Yuichi ..... *Disclosed no conflict of interest.*

Yoshikawa, Hideki..... *Disclosed no conflict of interest.*

Yoshino, Kensuke ..... *Disclosed no conflict of interest.*

Yoshioka, Hiroshi..... *Disclosed no conflict of interest.*

Yoshioka, Tomokazu ..... *Disclosed no conflict of interest.*

Yoshioka, Toru ..... *Disclosed no conflict of interest.*

Yoshioka, Yusuke ..... *Disclosed no conflict of interest.*

Yoshitake, Shingo..... 7: Asahi Kasei Pharma Corporation,

Yoshitomi, Hiroyuki ..... *Disclosed no conflict of interest.*

Yoshiya, Shinichi ..... *Disclosed no conflict of interest.*

Yosibash, Zohar ..... 3A: Persimio Ltd; 4: Persimio Ltd.

Young, Jeffrey L..... *Disclosed no conflict of interest.*

Young, Kathryn L ..... *Disclosed no conflict of interest.*

Young, Kim Woo ..... *Disclosed no conflict of interest.*

Young, Mariel ..... *Disclosed no conflict of interest.*

Young, Nathan M..... *Disclosed no conflict of interest.*

Young, Tony ..... 5: Medacta International.

**Youngstrom, Daniel W**..... *Disclosed no conflict of interest.*

**Yousefi, Farzad** ..... *Disclosed no conflict of interest.*

**Yu, Cheolhwan** ..... *Disclosed no conflict of interest.*

**Yu, Elizabeth**..... *Disclosed no conflict of interest.*

**Yu, Gary** ..... *Disclosed no conflict of interest.*

**Yu, Hon Jung** ..... *Disclosed no conflict of interest.*

**Yu, Hongchuan**..... *Disclosed no conflict of interest.*

**Yu, Kanglun** ..... *Disclosed no conflict of interest.*

**Yu, Mengqi**..... *Disclosed no conflict of interest.*

**Yu, Rebecca J**..... *Disclosed no conflict of interest.*

**Yu, S Michael**..... 3A: 3-Helix, Inc; 4: 3-Helix, Inc; 5: 3-Helix, Inc.

**Yu, Tony**..... *Disclosed no conflict of interest.*

**Yu, William T**..... *Disclosed no conflict of interest.*

**Yu, Xiaoming** ..... *Disclosed no conflict of interest.*

**Yu, Y. Eric** ..... *Disclosed no conflict of interest.*

**Yu, Yan**..... *Disclosed no conflict of interest.*

**Yu, Yangyi**..... *Disclosed no conflict of interest.*

**Yu, Yilin**..... *Disclosed no conflict of interest.*

**Yu, Yinxian**..... *Disclosed no conflict of interest.*

**Yuan, Huipin** ..... 3A: Kuros Biosciences BV.

**Yuan, Muzhaozi** ..... *Disclosed no conflict of interest.*

**Yuasa, Masato** ..... *Disclosed no conflict of interest.*

**Yue, Bing** ..... *Disclosed no conflict of interest.*

**Yue, Jiang**..... *Disclosed no conflict of interest.*

**Yue, Weimin**..... 3A: Exactech Inc; 4: Exactech Inc.

**Yuh, Catherine S** ..... *Disclosed no conflict of interest.*

**Yuine, Hiroshi**..... *Disclosed no conflict of interest.*

**Yun, Chawon** ..... *Disclosed no conflict of interest.*

**Yun, Jonghwa**..... *Disclosed no conflict of interest.*

**Yung, Shu Hang Patrick** ..... *Disclosed no conflict of interest.*

**Yung, Shuhang**..... *Disclosed no conflict of interest.*



Yurie, Hirofumi ..... *Disclosed no conflict of interest.*

Yurube, Takashi ..... *Disclosed no conflict of interest.*

Yusuke, Tsuyuguchi ..... *Disclosed no conflict of interest.*

Yutani, Tomoyo ..... 3A: Teijin Nakashima Medical Co., Ltd,

Zabarsky, Zachary K ..... *Disclosed no conflict of interest.*

Zachmann, Kaden L ..... *Disclosed no conflict of interest.*

Zackula, Rosey ..... *Disclosed no conflict of interest.*

Zadpoor, Amir A ..... 5: IMPLANT CAST, 3D SYSTEM-LAYERWISE NV.

Zager, Patrick ..... *Disclosed no conflict of interest.*

Zakaria, Khaled ..... *Disclosed no conflict of interest.*

Zalc, Antoine ..... *Disclosed no conflict of interest.*

Zamora, Rodolfo ..... *Disclosed no conflict of interest.*

Zandiyeh, Payam ..... *Disclosed no conflict of interest.*

Zani, Brett ..... 3B: DePuy Synthes Mitek Sports Medicine.

Zannit, Heather M ..... *Disclosed no conflict of interest.*

Zarei, Milad ..... *Disclosed no conflict of interest.*

Zarir, Atheer ..... *Disclosed no conflict of interest.*

Zauel, Roger ..... *Disclosed no conflict of interest.*

Zavatsky, Joseph ..... 5: Zimmer Biomet, DePuy Synthes Spine, Stryker, Vivex, Sentio.

Zaylor, William ..... *Disclosed no conflict of interest.*

Zbojniewicz, Andrew M ..... *Disclosed no conflict of interest.*

Zebala, Lukas P ..... *Disclosed no conflict of interest.*

Zebaze, Roger ..... *Disclosed no conflict of interest.*

Zega, Alexandra ..... *Disclosed no conflict of interest.*

Zeggini, Eleftheria ..... *Disclosed no conflict of interest.*

Zeiter, Stephan ..... *Disclosed no conflict of interest.*

Zelinka, Alena ..... *Disclosed no conflict of interest.*

Zeller, Zachary ..... *Disclosed no conflict of interest.*

Zellers, Jennifer A ..... *Disclosed no conflict of interest.*

Zemp, Raphaela ..... *Disclosed no conflict of interest.*

Zeng, Anne Y ..... *Disclosed no conflict of interest.*

Zenke, Yukichi ..... *Disclosed no conflict of interest.*

Zeugolis, Dimitrios ..... *Disclosed no conflict of interest.*

Zeynep, Bal ..... *Disclosed no conflict of interest.*

Zgonis, Miltiadis H ..... *Disclosed no conflict of interest.*

zha, zhengang ..... *Disclosed no conflict of interest.*

Zhai, Guangju ..... *Disclosed no conflict of interest.*

Zhai, Yuankun ..... *Disclosed no conflict of interest.*

Zhang, Alan L ..... *Disclosed no conflict of interest.*

Zhang, Bin ..... *Disclosed no conflict of interest.*

Zhang, Bo ..... *Disclosed no conflict of interest.*

Zhang, Ce ..... *Disclosed no conflict of interest.*

Zhang, ChangQing ..... *Disclosed no conflict of interest.*

Zhang, Chunbin ..... *Disclosed no conflict of interest.*

Zhang, Cong ..... *Disclosed no conflict of interest.*

Zhang, Dan ..... *Disclosed no conflict of interest.*

Zhang, Dekun ..... *Disclosed no conflict of interest.*

Zhang, Emily ..... *Disclosed no conflict of interest.*

Zhang, Fuming ..... *Disclosed no conflict of interest.*

Zhang, Ge ..... *Disclosed no conflict of interest.*

Zhang, Hongyuan ..... *Disclosed no conflict of interest.*

Zhang, Hui ..... *Disclosed no conflict of interest.*

Zhang, Jianying ..... *Disclosed no conflict of interest.*

Zhang, Jingwei ..... 3A: Stryker; 4: Stryker.

Zhang, Kairui ..... *Disclosed no conflict of interest.*

Zhang, Lei ..... *Disclosed no conflict of interest.*

Zhang, Liang ..... *Disclosed no conflict of interest.*

Zhang, Ling ..... *Disclosed no conflict of interest.*

Zhang, Liying ..... *Disclosed no conflict of interest.*

Zhang, Mei ..... *Disclosed no conflict of interest.*

zhang, min ..... *Disclosed no conflict of interest.*

Zhang, Nianli ..... 3A: Orthofix, Inc.

ZHANG, Ning ..... *Disclosed no conflict of interest.*  
Zhang, Qida ..... *Disclosed no conflict of interest.*  
Zhang, Tao ..... *Disclosed no conflict of interest.*  
Zhang, Tiange ..... *Disclosed no conflict of interest.*  
Zhang, Wan ..... *Disclosed no conflict of interest.*  
Zhang, Xianlong ..... *Disclosed no conflict of interest.*  
Zhang, Xiaoming ..... *Disclosed no conflict of interest.*  
Zhang, Xinli ..... *1: Bone biologics.*  
Zhang, Xinping ..... *Disclosed no conflict of interest.*  
Zhang, Yang ..... *Disclosed no conflict of interest.*  
Zhang, Yanxiang ..... *Disclosed no conflict of interest.*  
Zhang, Yejia ..... *Disclosed no conflict of interest.*  
Zhang, Ying ..... *Disclosed no conflict of interest.*  
Zhang, Yue ..... *Disclosed no conflict of interest.*  
Zhang, Yulong ..... *Disclosed no conflict of interest.*  
Zhang, Zhiqi ..... *Disclosed no conflict of interest.*  
Zhao, Chunfeng ..... *Disclosed no conflict of interest.*  
Zhao, Crystal Z ..... *Disclosed no conflict of interest.*  
Zhao, Hongbo ..... *Disclosed no conflict of interest.*  
Zhao, Jlnmin ..... *Disclosed no conflict of interest.*  
Zhao, Kristin D. .... *Disclosed no conflict of interest.*  
Zhao, Liming ..... *Disclosed no conflict of interest.*  
Zhao, Wei ..... *Disclosed no conflict of interest.*  
Zhao, Xin ..... *Disclosed no conflict of interest.*  
Zhao, Yunpeng ..... *Disclosed no conflict of interest.*  
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Zheng, Jesse ..... *Disclosed no conflict of interest.*  
Zheng, Jinxuan ..... *Disclosed no conflict of interest.*  
Zheng, Li ..... *Disclosed no conflict of interest.*  
Zheng, Mingxin ..... *Disclosed no conflict of interest.*  
Zheng, Nianye ..... *Disclosed no conflict of interest.*

Zheng, Nigel ..... Disclosed no conflict of interest.  
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Zheng, Zhaomin ..... Disclosed no conflict of interest.  
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Zhou, Benjamin Yamin ..... Disclosed no conflict of interest.  
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Zhou, Chaochao ..... Disclosed no conflict of interest.  
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Zhou, George K ..... Disclosed no conflict of interest.  
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Zhou, Jie ..... Disclosed no conflict of interest.  
Zhou, Joanne Y ..... Disclosed no conflict of interest.  
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Zhou, Minhao ..... Disclosed no conflict of interest.  
Zhou, Shuanhu ..... Disclosed no conflict of interest.  
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Zhu, Shan ..... Disclosed no conflict of interest.  
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Ziegler, Nadine ..... Disclosed no conflict of interest.

Ziegler, Teresa..... *Disclosed no conflict of interest.*  
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