

ORTHOPAEDIC IMPLANTS

ORS
ORTHOPAEDIC IMPLANTS
Orthopaedic Research Society
Quarterly Newsletter

JOR | JOR Spine | ORS Orthopaedic Implants Research Section |
ORS 2025 Annual Meeting

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On behalf of the ORS Orthopaedic Implants Research Section, welcome to our newsletter. In this issue, we are excited to announce programming for the ORS 2025 Annual meeting. We would also like to invite you to participate in a *Journal of Orthopaedic Research* special issue, "Current Topics in Orthopaedic Implant Technology." In the upcoming year, we will continue our "Beginner's Guide" virtual scientific seminar series. Finally, we would like to invite you to follow our new [LinkedIn](#) page.

We look forward to seeing you in Phoenix in February 2025!

Alexander Christ, MD
ORS Orthopaedic Implants Research Section Chair

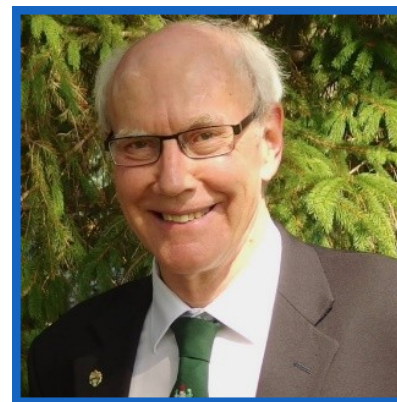
Call for Section Newsletter Contributions

If you have suggestions for Section Member Spotlight interviews, featured *JOR* publications, contributions to our conference reports section, or any other potential contribution to our newsletter, please contact Hannah Lundberg, Section Membership Chair at hannah@rush.edu.

In Memoriam

We regret to announce that our esteemed colleague Dr. John Medley passed away on October 16. Dr. Medley was a Professor in the Department of Mechanical and Mechatronics Engineering at the University of Waterloo for 35 years, author and co-author of over 130 peer-reviewed journal papers cited over 3300 times, and mentor to countless students.

Dr. Medley's research in biotribology was foundational and contributed to the understanding of the mechanics of the human body including the ankle, knee, hip, shoulder, spine and eyes. His career focused on evaluating and improving the performance of medical devices, particularly joint replacements, for the purpose of improving the lives of patients.



John Medley, PhD, PEng

Dr. Medley's curiosity to explore and understand was insatiable, his dedication to his students was legendary, his sense of humor was contagious, his energy was boundless, and he remained, until the very end, focused on both science and the love of his family and friends. He was the consummate engineer, a stickler for detail, honest to a fault, hardworking, an engaging and articulate teacher, and an avid, discerning student of the scientific literature. Not only did Dr. Medley spend his professional life advancing the field of orthopaedic biomechanics, he influenced many through his selfless, kind, and generous nature in sharing his time and knowledge with fellow scholars, students, patients, and the medical community both nationally and internationally.

Coming Up at the ORS 2025 Annual Meeting



For those of you joining us at the Annual Meeting in February, we would like to invite you to our Friday workshop ***From Concept to Product: Approaches to Orthopaedic Product Development***. This session is co-hosted by the Innovation Committee. The orthopaedic product development process is lengthy and challenging. Academic researchers are well-trained in scientific discovery for medical technologies, but knowing how to best position your technology for success takes expertise typically not found in a university. ORS members who are interested in commercializing technologies out of their academic lab need to understand the commercial landscape, the regulatory path, design controls, quality systems, and the verification/validation process necessary to get a product to market. The overall goal of this workshop is to provide practical and actionable guidance on the steps needed to bring a technology from concept to product. The workshop will consist of presentations, breakout sessions, and case studies to provide practical examples of how early-stage technologies moved through the processes covered in this workshop. The scheduled workshop speakers are:

Saylan Lukas
Executive Director
Global Center for Medical Innovation

Steve Charlebois, PhD
Vice President Engineering
Med Institute

Michelle Lott, RAC
leanRAQA

David Safranski, PhD
Georgia Tech

David Nuckley, PhD
Stryker Spine

Greg Jay, MD, PhD
Brown University

Lara Silverman, PhD
LIS Bioconsulting

Tannin Schmidt, PhD
University of Connecticut

We will also be hosting a closed session meeting, ***ML and AI in Joint Replacements: A Passing Fad or the New Standard?*** The session will feature the ORS Guest Nation, Sweden, a debate, and student blitz presentations. The debate will pit a team of adapters and supporters of ML and AI against those maintaining current approaches, sitting on the sideline awaiting more evidence. Blitz presentations will be short, 3-minute 1-slide presentations intended to drive interest in the poster and podium presentations and further discussions throughout the Annual Meeting. Blitz presentations will be on a variety of implant-related topics, invited from Annual Meeting abstract submissions.

In addition, we will honor nine presenters at the 2025 Annual Meeting. As in previous years, awards will be given to the top three implant-related poster and podium presentations. New for 2025, there will be three awards for blitz presentations given by students during the closed session.

[Register Now](#)

The call for late-breaking abstracts is open for the ORS 2025 Annual Meeting. The Annual Meeting will bring the orthopaedic community together for five days of workshops, learning sessions, networking, advocacy, and much more. The theme for the 2025 meeting is "Science is Our Core." Attendees of all career levels and from many disciplines will gather to network and learn about the latest innovations in orthopaedics. Late-breaking abstracts must be submitted by November 11 at 11:59 PM Central.

[Submit an Abstract](#)

Webinars



Our *Beginner’s Guide* webinar series is designed to empower young ORS members with valuable insights into joint arthroplasty. The series continues on Wednesday, April 2, 2025 with *The Other Hinge Joints: A Beginner’s Guide to Elbow and Ankle Arthroplasty*. You can view the previous recordings at the links below.

[What You “Kneed” to Know: A Beginner’s Guide to Total Knee Arthroplasty](#)

[Ball & Socket Breakdown: A Beginner’s Guide to Hip and Shoulder Arthroplasty](#)
[An Interactive Q&A Session with Surgeons](#)

If you have an idea for a future virtual scientific session, please use this [link](#) to propose a topic.

Section Leadership for 2024-2025

Section Chair

Alexander Christ, MD
University of California, Los Angeles

Section Chair Elect

Cheryl Liu, PhD
Stryker

Section Past Chair

J.J. Trey Crisco, PhD
Brown University and Rhode Island Hospital

Section Treasurer

Rupak Dua, PhD
Materials Metric LLC

Section Secretary

Michael Hast, PhD
University of Delaware

Section Research & Education Chair

Joshua Roth, PhD
University of Wisconsin-Madison

Section Research & Education Chair Elect

TBD

Section Membership Chair

Hannah Lundberg, PhD
Rush University Medical Center

Section Members-at-Large

Jacob Elkins, MD, PhD, *University of Iowa*
Jeff Bischoff, PhD, *Zimmer Biomet*
TBD

If you volunteered to be part of section leadership in the upcoming year, notifications will be sent out in early December and your term will start after the ORS 2025 Annual Meeting.

Call for Article Submissions for *JOR* Special Issue on Implant Technology



The *Journal of Orthopaedic Research* (*JOR*) has announced a call for articles for a special issue on **Current Topics in Orthopaedic Implant Technology**. In this special issue of *JOR*, we will highlight a series of review articles on key topics of clinical needs and/or technologies in orthopaedic implants. These topics are expected to include: infection, additive manufacturing, intra-operative technologies, remote patient monitoring, AI/ML, and retrieval analysis. Additionally, we aim to provide review articles on each of the four primary types of evidence used to support advancements in arthroplasty: computational modeling and simulation, benchtop testing, animal studies, and clinical investigations. We are also soliciting original research articles in specific application areas including spine, hip, knee, shoulder, elbow, hand, ankle, foot, and trauma. The guest editors for this issue will be: Jeff Bischoff (Zimmer Biomet), Joshua Roth (University of Wisconsin), and Alex Christ (University of California). You can submit to the special issue via the link below. Be sure to answer “yes” to the question in Step 1 - “Is this submission for a special issue?” Then select “Current Topics in Orthopaedic Implant Technology” from the drop-down menu.

[Submit Your Article](#)

Upcoming Orthopaedic Implant Related Events

[AAHKS Annual Meeting](#)

November 7-10, 2024

Dallas, TX, USA



Clinical Biomechanics announces a special issue, “Improving Stability of Orthopedic Implants,” guest edited by Shuyang Han, PhD, and Maury L. Hull, PhD, Orthopaedic Implants Section Members, and Petra J.C. Heesterbeek, PhD, and Bin Yang, MD. The special issue aims to provide the current status and new findings on research related to fixation and stability of orthopaedic implants. **The last submission date is December 2, 2024.** Details can be found at the link below.

[Learn More](#)



Advancing
Research to
Keep the
World Moving

Orthopaedic Research Society

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