



All times listed in Tokyo/Japan time

Saturday, February 13, 2021

[ORS Global Networking Lounge](#)

(Open throughout the Annual Meeting)

ALL DAY

Exhibitor Spotlight Sessions

1:00 AM - 4:00 AM

[Meniscus Section Scientific Meeting](#)*

[ORS International Fracture Repair \(ISFR\) Section Scientific Meeting](#)*

4:30 AM - 5:30 PM

[Career Development:](#)

New ORS Member/First Time Attendee Social *

5:00 AM - 6:00 AM

[Career Development:](#)

Early Career Meet-Up: Speed Collaborating*

6:00 AM - 7:00 AM

[Research Interest Group \(RIG\):](#)

Foot and Ankle*

6:00 AM – Midnight

Poster Sessions *(all posters are available for viewing and chat 24/7)*

6:00 AM - 7:00 AM

Podium Sessions *(Podiums featured at this time are available on-demand, 24/7)*

Hip/Knee Arthroplasty-Clinical Outcomes

Bone-Injury and Healing

Intervertebral Disc-Degeneration

Biomaterials-Drug Delivery

Tendon and Ligament-Cellular and Molecular Regulation in Growth and Development

Clinical Research-Big Data

7:00 AM – 7:15 AM

Bioventus Presents: Preclinical Overview of MOTYS, a Novel Placental Tissue Biologic*

7:00 AM - 8:00 AM

[ORS Opening Session](#) featuring Keynote Speaker, Terry Virts

8:00 AM - 9:30 AM

[Clinical Research Forum:](#)

Session 1: Big Data, Risk Calculators, P-values, and Bayesian Analyses

8:15 AM - 8:45 AM

[Spotlight:](#)

Understanding the Genetic Regulation of Bone Mineral Density (Cheryl Ackert-Bicknell, PhD)

9:45 AM - 11:15 AM

[Career Development:](#)

The Art and Practice of Reviewing (*Journal of Orthopaedic Research*® Workshop)

[Workshops:](#)

Designing and Implementing Multi-centered Clinical Research Programs

Redefining Hip Dysplasia and Instability Mechanics Using Biomechanical Metrics

The Role of Portable Ultrasound in Musculoskeletal Disease

Machine Learning to Artificial Intelligence - Basic Concepts and Techniques for Orthopaedic Researchers, Clinicians and Surgeons

12:00 PM - 1:00 PM

Podium Sessions (*Podiums featured at this time are available on-demand, 24/7*)

NIRA-Biomaterials/Materials

NIRA-Bone/Perisoteum/Tendon

NIRA-Infection/Inflammation

NIRA-Intervertebral Disc/Spine

NIRA-Osteoarthritis/Arthritis

NIRA-Progenitor Cells/Regeneration/Repair

12:00 PM -12:30 PM

[Spotlights:](#)

Skeletal Metastatology Interactions Between Metastatic Cancers and Bone
(Francis Lee, MD, PhD)

Tendon Structure, Function Relationships: The Importance of the Interfascicular Matrix in
Tendon Health Disease & Aging (Hazel Screen, PhD)

1:30 PM - 3:00 PM

[Clinical Research Forum:](#)

Session 2: The Anatomy of An Info-epidemic: Lessons Learned from COVID-19

1:30 PM - 3:00 PM

[Symposium:](#)

The Unmet Clinical Need in Hip and Knee Reconstruction: From Bedside to Benchside (AAHKS)

6:00 PM - 7:00 PM

Podium Sessions (*Podiums featured at this time are available on-demand, 24/7*)

Hip-Growth and Dysplasia

Cartilage and Synovium-Structure, Function and Mechanics

Spine

Bone-Growth, Development and Aging

Clinical Research-Methods and Machine Learning

Resident/Fellow Research Competition

Sunday, February 14, 2021

ALL DAY

Exhibitor Spotlight Sessions

1:15 AM – 2:45 AM

[Tendon Section Scientific Meeting Part 1*](#)

1:15 AM - 4:15 AM

[Orthopaedic Implants Section Scientific Meeting*](#)

5:00 AM - 6:00 AM

[Career Development:](#)

Exploring Funding Mechanisms Part 1: Beyond NIH and Exploring Funding Sources*

6:00 AM – Midnight

Poster Sessions (*all posters are available for viewing and chat 24/7*)

6:00 AM - 7:00 AM

Podium Sessions (*Podiums featured at this time are available on-demand, 24/7*)

Knee-Gait and Kinematics

Shoulder and Elbow-Surgery and Arthroplasty

Biomaterials-Metal Implants

Clinical Research-Randomized Studies and Systematic Reviews

Cartilage and Synovium-Different Influences on the Chondrocytes

Imaging-Advanced Imaging and Analysis

6:30 AM - 7:30 AM

[Career Development:](#)

Exploring Funding Mechanisms Part 2: Meet the Program Officers*

6:30 AM - 8:00 AM

[Research Interest Group \(RIG\):](#)

Musculoskeletal Infection Research*

6:30 AM – 7:15 AM

[Plenary Session:](#)

ORS Presidential Address & State of the Association

7:00 AM - 8:00 AM

[Plenary Session](#)

Presentation of the following Outstanding Achievement Awards: Women's Leadership Forum, Boskey, Mentoring, Distinguished Investigator, Urist and Shands

7:45 AM - 8:45 AM

[Career Development:](#)

Future Faculty Poster Session*

8:00 AM – 10:00 AM

[ORS Virtual Reception*](#)

8:15 AM - 8:45 AM

[Spotlight:](#)

Big Data for Mobility Research (Scott Delp, PhD)

8:15 AM - 9:45 AM

[Symposium:](#)

3D Models for Regenerative Medicine in Orthopaedics

9:45 AM - 11:15 AM

[Workshops:](#)

Biomechanics of Forearm Instability

Measuring Skeletal and Implant Arthrokinematics In-Vivo

12:00 PM - 1:00 PM

Podium Sessions (*Podiums featured at this time are available on-demand, 24/7*)

Foot-Kinematics/Kinetics

Bone-Disease and Disorders

Clinical Research-Observational Studies

Hip-Clinical

(Podium Sessions continued)

Tendon and Ligament-Injury and Therapeutics
Infection-Therapeutic Treatments and Diagnosis

12:00 PM - 12:30 PM

[Spotlights:](#)

Novel Treatment for Intervertebral Disc Degeneration (Fackson Mwale, PhD)

How Close Are We to an Ideal Cartilage Repair? (Byoung Hyun Min, MD, PhD)

12:00 PM - 1:00 PM

[Bench to Bedside:](#)

New Insights into Molecular and Functional Pathways Reveal Novel Mechanism-based Approaches for Targeting Osteoarthritis Pain

1:30 PM - 3:00 PM

[Workshop:](#)

Clinical Applications of Stem Cells (Guest Nation)

6:00 PM - 7:00 PM

Podium Sessions *(Podiums featured at this time are available on-demand, 24/7)*

Cartilage and Synovium-Mechanobiology

Hand and Wrist

Hip/Knee Arthroplasty-Complications/Infections

Tendon and Ligament-Mechanics

Skeletal Muscle

A Focus on Translational Research

Monday, February 15, 2021

ALL DAY

Exhibitor Spotlight Sessions

1:15 AM - 2:15 AM

[Innovation & Commercialization:](#)

Managing Intellectual Property in Research Collaborations*

1:15 AM - 4:15 AM

[Spine Section/Pre-Clinical Models Section Scientific Meeting*](#)

2:45 AM - 3:45 AM

[Innovation & Commercialization:](#)

Clinical Trials 101: Cultivating the Next Generation of Young Investigators*

5:00 AM - 6:00 AM

[Innovation & Commercialization:](#)

Industry Connect - An Ongoing Discourse with the FDA: Changes to the HCT/P Regulatory Environment that Impact the Orthopaedics Industry *

6:00 AM – Midnight

Poster Sessions (all posters are available for viewing and chat 24/7)

6:00 AM - 7:00 AM

Podium Sessions (*Podiums featured at this time are available on-demand, 24/7*)

Shoulder and Elbow-Biology and Biologics

Bone-Treatment and Therapeutics

Intervertebral Disc-Homeostasis and Development

Hip/Knee Arthroplasty-Implants

Tendon and Ligament-Tissue Engineering and Mechanobiology

Cartilage and Synovium-Different Pathways for the Development of Osteoarthritis

6:30 AM - 7:30 AM

[Innovation & Commercialization:](#)

Manufacturing Orthopaedic Products for Clinical Evaluation: A Practical Guide*

7:00 AM - 8:00 AM

[Plenary Session:](#)

Collaborations featuring ORS Fellows, Harris Award, Stryker/ORS Women's Research Fellowship, JOR and JOR Spine Awards and ON Foundation Keynote Speaker William Taylor

2:45 PM - 3:45 PM

[Innovation & Commercialization:](#)

Uncovering Meaningful Unmet Clinical Needs in Orthopedics: A Discussion with Physician and Business Experts*

8:15 AM -8:45 AM

[Spotlights:](#)

Application of the Imaging Techniques to the Study of In vivo Knee Function
(Louis DeFrate, PhD)

Circadian Clocks and Musculoskeletal Tissues (Karyn Esser, PhD)

8:15 AM - 9:45 AM

[Symposium:](#)

Cellular Senescence as a Driver of Osteoarthritis: The Roles of Aging, Obesity and the Immune System

9:45 AM - 11:15 AM

[Workshops:](#)

Intersection of Fracture Healing and Infection

Applications of Machine Learning from Diagnostics to Prognostics

Additively Manufactured Implants - Cool Parts, but How Far Have We Advanced on Material Safety and Characterization?

Exosomes in Musculoskeletal Applications

12:00 PM - 1:00 PM

Podium Sessions (*Podiums featured at this time are available on-demand, 24/7*)

Hip/Knee Arthroplasty-Kinematics and Computational Modeling

Meniscus

Spine-Disease

Hip-Function and Mechanics

Tumors-Treatment

Knee-Ligament Reconstruction and Mechanics

12:00 PM - 12:30 PM

[Spotlights:](#)

Interactions of Bone and Blood in Health and Disease (Joy Wu, MD, PhD)

Hydrogel Implants for Orthopaedics: The Softer Side of Joints (Michele Marcolongo, PhD)

1:30 PM - 2:30 PM

[Back to Basics:](#)

Gait and Joint Mechanics: The Next Steps Towards Understanding Musculoskeletal Pathology (Thomas Andriacchi)

[AAOS Kappa Delta & OREF Paper Presentations](#)

6:00 PM - 7:00 PM

Podium Sessions (*Podiums featured at this time are available on-demand, 24/7*)

Clinical Research-Omics, Biomarkers Genetics

Hip/Knee Arthroplasty-Materials, Fixation and Wear

Cartilage and Synovium- Treatment and Therapeutics

Bone-Mechanics

Knee-Biomarkers and Diagnostics

Biomaterials--Bone Tissue Repair

Tuesday, February 16, 2021

ALL DAY

Exhibitor Spotlight Sessions

1:15 AM - 2:15 AM

[Innovation & Commercialization:](#)

Ready, Set, Pitch: Learn How to Effectively Communicate a Great Idea*

2:30 AM - 4:00 AM

[Tendon Section Scientific Meeting Part 2*](#)

2:45 AM - 4:15 AM

[Career Development:](#)

Inclusion of Gender and Ethnic Diversity Promotes Scientific Progress: The Rosalind Franklin Paradox*

5:00 AM - 6:30 AM

[Career Development:](#)

Mastering Research Finances for Career Advancement in Academia

6:00 AM - 7:00 AM

Poster Sessions (*all posters are available for viewing and chat 24/7*)

6:00 AM - 7:00 AM

Podium Sessions (*Podiums featured at this time are available on-demand, 24/7*)

Imaging-Soft Tissue Imaging

Shoulder and Elbow-Biomechanics and Experimental Considerations

Hip/Knee Arthroplasty-Robotics and AI

Foot and Ankle-Diagnosis, Imaging and Disorders

Intervertebral Disc-Degeneration and Regeneration

Late Breaking - Biological and Physical Mechanisms

6:00 AM - 7:00 AM

[Career Development:](#)

Imposter Syndrome: It's Not Just You!!!*

6:45 AM - 7:45 AM

[Career Development:](#)

Building Your Research Portfolio*

8:00 AM - 9:30 AM

[Research Interest Group](#) (RIG):

Clinical Translation of Physics-Based Models in Orthopaedics: Promises and Pitfalls*

8:00 AM - 9:30 AM

[Research Interest Group](#) (RIG):

Bridging Disciplines to find Solutions for Osteoarthritis

8:15 AM - 9:45 AM

[Symposia:](#)

Challenges and Opportunities in Musculoskeletal Infections

Translational Tendinopathy – from Bench to Bedside and Back Again

8:15 AM - 8:45 AM

[Spotlights:](#)

Precision Medicine in Cartilage Tissue Regeneration (Rhima Coleman, PhD)

Accelerating Translation of Bone Tissue Engineering Strategies (Robert Guldberg, PhD)

10:00 AM - 11:00 AM

[Back to Basics:](#)

Cartilage Biomechanics and Mechanobiology (Alan Grodzinsky)

[Meet & Greet: Junior Faculty Investigators/PostDocs*](#)

12:00 PM - 1:00 PM

Podium Sessions (Podiums featured at this time are available on-demand, 24/7)

Biomaterials-Soft Tissue Engineering and Repair

Bone-Mechanobiology

Cartilage and Synovium-Diseases and Disorders

Knee-Osteoarthritis and Therapeutics

Late Breaking - Biologic Therapies

Wednesday, February 17, 2021

ALL DAY

Exhibitor Spotlight Sessions

12:00 AM - 1:00 AM

[ORS Debate:](#)

Artificial Intelligence will Lead to the Obsolescence of Orthopaedic Radiologists*

1:15 AM - 2:15 AM

[Career Development:](#)

How to Craft a High Impact NIH Biosketch*

2:30 AM - 4:00 AM

[Research Interest Group \(RIG\):](#)

The Cellular Orchestration of Muscle Regeneration*

6:00 AM - 7:00 AM

[Plenary Session:](#)

Closing Session featuring Inauguration of Incoming ORS President, presentation of ON Orthoregeneration Award, NIRA Awards and Research Section Awards*

****Programs marked with a " *" will be held LIVE via ZOOM (Pacific Time). If you are not able to join us LIVE, these sessions will be recorded and available for viewing the following day. Schedule subject to change.***