Message from the Section Chair

On behalf of the ORS Orthopaedic Implants Research Section, I hope you were able to join us at the 2024 ORS Annual Meeting in Long Beach, CA. The program was one of the best attended to date, and the Implant Section would like to highlight those sessions and the podium and poster award winners. The Implants Section is gearing up for a great 2024, with multiple virtual offerings prior to the 2025 ORS Annual Meeting. We look forward to seeing you in Phoenix in February 2025!

*Alexander Christ, MD*
*Section Chair*

Section Leadership

**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, American Dental Association

**Section Secretary**
Michael Hast, PhD, University of Pennsylvania

**Section Research and Education Chair**
Welcome New Members

We would like to welcome to new members of the Section. We encourage you to participate in Section events and share your feedback.

B. MacDonald
B. Stolze
C. Gerhold
C. Almeida
D. Okonkwo
E. Hookasian
E. Conrad
K. Lefferts
K. Geary
M. Taylor
R. Bader
R. Helbock
S. Moshage
S. Davis

2024 ORS Annual Meeting Highlights

The 2024 ORS Annual Meeting was held from February 2-6 at the Long Beach Convention Center in Long Beach, California. The Implant Section hosted two events at the Annual Meeting: a workshop and our scientific meeting.

Translating Machine Learning and Artificial Intelligence Technologies to Enhance Orthopaedic Patient Care Workshop

Organized by:
Josh Roth, PhD, University of Wisconsin-Madison
Cheryl Liu, PhD, Stryker

Four speakers provided their insights for translating ML/AI technologies to enhance clinical care. Speakers were from academia, industry, regulatory, and clinical care. Attendees and speakers participated in a panel discussion after the four talks. Our goal is to establish a collaborative community within the ORS to share and learn how to ensure that impactful ML/AI technologies are successfully translated into clinical practice. We would love to hear from you about other topics you’d be interested in. Please provide feedback at the survey link below.

Workshop Survey Link

Perspectives on Unique Implant Challenges and Designs Scientific Meeting
Four speakers provided their clinical, scientific, and industry perspectives on the challenges associated with unique pathologies and implant designs. Topics included limb salvage, osteointegration concepts, specialized spinal implants, and knee revision implant design. Following the speaker presentations, the meeting featured a great discussion with attendees. We appreciate all speakers for contributing to the meeting. Please provide feedback at the survey link below.

The Orthopaedic Implants Research Section congratulates the 2024 podium and poster award recipients announced during the Closing Session of the 2024 Annual Meeting on Tuesday, February 6.

**Podium Winners**

- **Daniel MacDonald**
  - **Drexel University**
  - *Rim Damage in Retrieved 1st and 2nd Generation Annealed HXLPE Hip Liners*

- **Fernando Quevedo**
  - **Hospital for Special Surgery**
  - *Extreme Varus Alignment of the Tibial Baseplate in Total Knee Arthroplasty Increases the Mechanical Burden on the Implant Fixation*

- **John Kyle Mueller**
  - **Zimmer Biomet**
  - *Tibial Baseplate Geometry Impacts Component Stability in Cementless Total Knee Arthroplasty*

**Poster Winners**

- **Songyun Liu**
  - **Rush University Medical Center**
  - *In Vivo Chemical Alterations of Tibial Liners Made From Contemporary Crosslinked UHMWPE*

- **Jennifer Polus**
  - **Western University**
  - *Wearable Sensors and Machine Learning to Set Functional Expectations for Total Knee Arthroplasty*

- **Quianna Vaughan**
  - **Brown University**
  - *The Yucatan Minipig as a Potential Preclinical Animal Model for Carpal Bone Arthroplasty*

Pictured L-R: Fernando Quevedo, Songyun Liu, Melanie Haffner-Luntzer
Volunteers Needed

In an effort to promote relevant research around orthopaedic implants within the Journal of Orthopaedic Research, and ensure high quality and timely review of implant-related research submitted to the journal, the journal has designated Jeffrey Bischoff as the new Associate Editor (AE) to specifically support content around orthopaedic implant technology. This is an excellent opportunity for our section to promote the impactful research of our members. Associated with this, we need volunteers from within the Orthopaedic Implant Section to support this cause by serving as reviewers. This is a critical service to the society in general, and to our section in particular. To help with this effort, here are a few things each section member can do:

1. Ensure your information in the Journal of Orthopaedic Research (Wiley), including contact information, Web of Science account and/or ORCID, keywords, and areas of expertise are current.
2. When you receive a request to review a manuscript, either from the section AE (Jeffrey Bischoff) or other AEs, please respond promptly. If the reviewer assignment cannot be accepted for whatever reason, a prompt decline is far more impactful to the overall process than ignoring the request altogether.
3. The journal is specifically looking for Editorial Review Board (ERB) members, which is a two-year commitment to the journal to review up to five manuscripts per year. Each ERB member is recognized in the journal heading, and will be invited to the annual ORS leadership reception. If you are interested in serving in this role, please write to the editorial office at JOReditorial@wiley.com, and include information relevant to your experience (e.g., CV, list of publications, etc).

Upcoming Orthopaedic Implant Related Events

Implant Polymers: UHMWPE & PEEK Conference 2024
June 20-21, 2024
Barcelona, Spain

ISTA 35th Annual Congress
August 28-31, 2024
Nashville, Tennessee, USA

MSTS Annual Meeting
September 11-13, 2024
Chicago, Illinois, USA

Webinars
We will continue with our Beginner’s Guide series designed to empower young ORS members with invaluable insights into joint arthroplasty. Stay tuned for information on the next session focused on the knee!

In case you missed it, you can view our previous recording: *Ball & Socket Breakdown: A Beginner’s Guide to Hip and Shoulder Arthroplasty – An Interactive Q&A Session with Surgeons* at the link below.

Clinical Biomechanics announces a special issue, “Improving Stability of Orthopedic Implants,” guest edited by Orthopaedic Implants Section Members Shuyang Han, PhD, and Maury L. Hull, PhD, as well as 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. Details can be found at the link below.

**Submissions due December 2, 2024**

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.

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**Orthopaedic Research Society**

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