



August 2023

Did you know?

The ORS Preclinical Models Research Section has an online community group which you can access upon logging into the ORS Member Center. [Learn more](#) and connect with the section community!

2023 Annual Meeting Highlights

At this year's Annual Meeting, the ORS Preclinical Models Section meeting set the bar high for years to come. **Dr. Megan Michalski** "knocked our socks off" showing that CRISPR can be done in the oviduct of a fertilized female mouse opening a range of possibilities for gene editing in larger animal species. **Dr. Ferenc Toth** demonstrated the importance of patterns of vascularization of growth cartilage and how it varies between species, with pigs, not goats, translating better to people. **Dr. Chunfeng Zhao**, showed many ways in which our Thanksgiving superstar, the turkey, can be a versatile and cost-effective gobbling model for musculoskeletal research.

The FASEB ambassador of science policy and communication **Naomi Charalambakis** dove into the many and important aspects of clear and effective communication of research using animals. As much as we strive to apply reductionism and replacement for the use of animals in research, there is only so much that cell culture system or even traditional murine models can offer in translational research. Therefore, clarity and precision in communicating research using animals is a never-ending need for the advancement of bench work to bedside.

Trend Topics

The content of several talks at the 2023 Annual Meeting made evident the increasing need for collective efforts in the field of orthopedic immunology. Chronic inflammation mediated by the innate immune system is a key component of many degenerative orthopedic conditions. In addition, chronic inflammation is the main reason of failure of many costly regenerative and bioengineered therapies. *In vivo* pre-clinical models are paramount for the advancement of orthopedic immunology, as phenotypes of immune cells in vitro poorly translate to living tissues. With that said, in the era of omics, the emerging use of functional genomic, proteomic/phospho-proteomic, and lipidomic profiling is providing much needed foundational knowledge to move orthopedic immunology research forward in pre-clinical models.

Preclinical Models Virtual Scientific Sessions (VSS)



Our spring Virtual Scientific Session series is in the books! In case you missed them, summaries and recordings are available [HERE](#).

April – Dr. Chunfeng Zhao
“Novel Turkey Model for Musculoskeletal Research”

May – Dr. Megan Michalski
“Using i-GONAD and Other Novel Techniques to Rapidly Generate Mouse Models of Human Skeletal Disease”

June – Dr. Doug Harrison
“Spatial Transcriptomics – Beyond Human and Mice”.

Mark Your Calendars for the Upcoming VSS:

September 6, 2023 – Orthobiologics

October 4, 2023 – Lipidomics

November 1, 2023 – Proteomics

More information coming soon.



Important Dates for the 2024 ORS Annual Meeting

Be a part of history when ORS celebrates **70 Years of Advancing Research to Keep the World Moving**, February 2-6 in Long Beach, CA. Mark your calendars and start preparing your abstract submissions and award applications. Some of these will be due within the coming weeks. You can find more information in the following links.

Abstract submissions are open for the 2024 ORS Annual Meeting. This is your opportunity to be a part of history when ORS celebrates 70 Years of musculoskeletal research, February 2-6 in Long

Beach, CA. For more information, guidelines on submission, and a list of topics, click the link below. Abstract submissions will be open until Monday, August 28.

[Submit Your Abstracts](#)



Business Innovation Competition

The ORS Business Innovation Competition will take place at the Annual Meeting. The event provides the opportunity for early-stage companies, clinicians, researchers, and students who have a great idea or technology to present their concepts to benefit the field of musculoskeletal research. The winner will participate in a program with mentors who will help them bring their idea "from bench to market" by validating the market potential of their idea, and then developing a commercialization plan. For more information or to submit your application, please see the link below. **The summary deadline is October 6.**

Awards and Grants

Awards and Grant Submissions are now being accepted for the 2024 Annual Meeting. Unless otherwise noted, **all of the following application submissions are due August 28.**

[New Investigator Recognition Awards](#)

Award recipients will be selected upon the quality and presentation of material in the abstract during the podium presentation at the ORS Annual Meeting.

[ORS Research Section Awards](#)

Awarded by each ORS Research Section, these awards are presented during the ORS Annual Meeting.

[ORS/RJOS Young Female Investigator Grant](#)

The Ruth Jackson Orthopaedic Society (RJOS) and the ORS Women's Leadership Forum (WLF) collaborate to promote and support young female investigators in the field of orthopaedic research.

[ORS/ON Foundation Orthoregeneration Award](#)

The ON Foundation and the ORS are collaborating to advance orthopaedic tissue regeneration.

[Annual Meeting Travel Awards](#)

[ORS/OREF Travel Grants in Orthopaedic Research Translation](#)

(Deadline for submissions: August 29)

These grants recognize clinician scientists and clinical investigators in the early stages of their career who have played a key or leading role in an original research project in clinical or translational medicine, and who have demonstrated excellence in training and a commitment to orthopaedic research.

[ORS Early Career Outreach Travel Award](#)



The purpose of the award is to help offset travel expenses to the ORS Annual Meeting, as participants will need to arrive one day early to volunteer for the ORS Open Door event.

William H. Harris, MD Award (Deadline for submissions: August 31)

Other Annual Meeting awards are available with later submission dates. For a full list, click the link below.

The collage consists of six images arranged in a 2x3 grid. The top-left image shows a group of students and a faculty member in a celebratory group hug. The top-middle image shows a student in a white lab coat using a microscope. The top-right image shows a student in a white lab coat working on a project. The bottom-left image shows a student in a white lab coat using a microscope. The bottom-middle image shows a student in a white lab coat using a microscope. The bottom-right image shows a student in a white lab coat using a microscope.

Get Involved with Open Door

Event registration will open on October 2, but **hotel registration is open now.**

WILEY
DISCOVER SOMETHING GREAT

This article shows *in vitro* and *in vivo* data of the effects of blocking HMGB1 on the profile of tendon resident macrophages and reductions and senescence of tendon progenitor cell populations.

Find or Post Events on the Orthopaedic Events Calendar



A new orthopaedic events calendar has been added to the ORS website. The events listed are of potential interest to those in the orthopaedic community. ORS Members are welcome to submit applicable events at no charge through the Submit Event button at the top of the calendar on the site. Institutions or sponsors interested in posting an event are welcome to do so in exchange for a donation to ORS. For information, please email ors@ors.org.

[Find or Post Events](#)

LearnORS



[LearnORS](#), the online education platform from the ORS, offers a complete learning experience in a format designed to meet learners' educational needs. Each LearnORS course delivers eLearning training materials from one online location. ORS Members receive a discounted rate for all courses.

Users can now purchase multiple licenses without immediately identifying courses. This is a great new option for lab purchases.

Residency programs and newly matched medical students are encouraged to take advantage of our special **LearnORS Residency Bundle**. This is a bulk option for a residency program to purchase discount access to all LearnORS courses for as many residents as they have in their program. Individuals can also purchase the courses offered in the Residency Bundle, or create a custom bundle to fit their specific educational needs at a discounted price.

[Learn More](#)



Growing the PCM Membership

In 2023, the Preclinical Models section is growing with 32 new members! Over 80% of our members are US based and are mostly established investigators. We are seeking early-career individuals interested in advancing preclinical models research and related sciences to improve patient care through basic, translational and clinical research.

If you know someone who might be interested in representing the voice of preclinical models research within the ORS community and beyond, spread the word! Your personal endorsement and enthusiasm can inspire potential members to be part of this community. Let's expand our network!



Preclinical Model Section Membership

**View the latest job openings available
via the [ORS Career Center](#)**



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