



December 2022



Volunteer with the Tendon Section!

These positions are available in the Tendon Section:

- Section Secretary-Treasurer
- Section Member-At-Large (2 positions)
- Section Education Chair
- Section Membership Chair

To [serve](#), Section members will be expected to:

- Be an ORS and ORS Section member in good standing with membership dues paid through for the current membership year.
- Participate in all Section Officer and/or Section committee meetings including teleconference calls, Section scientific meeting, ORS Annual Meeting or related satellite meetings/events/programs.
- Actively contribute as a member of the Section leadership, committee, or group.
- Agree as an ORS member to uphold the ORS Aspirational Ethics.
- Serve a 2-year term as a Section Officer or Section committee member (or term otherwise designated by the Section.)
- Must not be serving in any other volunteer position within ORS currently (unless otherwise determined by ORS Board of Directors and Section Council Chair).



Join us at ORS 2023!
February 10 – 14th
Dallas, Texas

Tendon Section Scientific Meeting
Sunday, February, 12th
12:45 PM – 3:30 PM

12:45-2:15pm

Tendon Section Members Only

Clinical and Research Challenges in Tendon Research

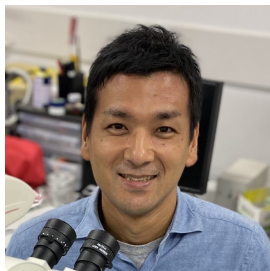
Speakers: **Scott Rodeo, M.D.**, **Benjamin Freedman, Ph.D.**, and **Kathleen Derwin, Ph.D.**

Followed by a Panel Discussion

2:30-3:30pm ***All meeting attendees welcome***

Elevator Pitch Competition

Research Section Member Spotlights



Prof Eijiro Maeda , (前田英次郎), Ph.D.
University of London

Current Title and Department:

Associate Professor, Graduate School of Engineering

University:

Nagoya University

Graduate Degree, University: BSc Mechanical engineering, Kyusyu University, Japan; MSc, Engineering Science, Osaka University, Ph.D., Medical Engineering, Queen Mary University of London

Post-doctoral experience: 2008-2010 in QMUL after Ph.D.

Who have been your mentors?

Kozaburo Hayashi in Osaka University who sadly passed away last April.

David Lee, Julia Shelton, and Dan Bader in QMUL

Prof Hayashi taught me everything about who a researcher should be like. He was really a tough boss in the lab, but actually warm-hearted. So sad to lose him from our community. David, Julia, and Dan, I cannot thank them more. They patiently guided me to finish my postgraduate work in London and truly opened my eyes to the world.

What are you currently working on?

I have been working on tendon biomechanics for more than 20 years both at tissue and cellular scales and now I study how collagen and elastin work together in tendon mechanics and tendon injuries. I mainly work on mice and rats, and recently started to work on amphibians as well. I am also started to be interested in medical devices and trying to harness my research in the medical device field.

What has been the biggest challenge for you lately in your research?

Currently, I try to develop a medical device in a bio-design platform, which helps expand my views and interests.

What project(s) are you looking forward to in the near future?

Since pandemics started, I got interested in the crosstalk between infectious disease and mechanical cues, and am thinking about how mechanics could strengthen protective functions in cells against bacteria and viruses.

What advice would you give young investigators who are just starting out in the field? When I started my research career I was worried about the future and my research and after 20 years I can say that thinking too much about the future won't help. Be optimistic, and don't be worried too much about the future, expand your views and your interests.

What do you like to do for fun when you're not in the lab?

When I am not in the lab I like hiking and mountain climbing.

What was the last book you read for fun and would you recommend it?

My son recommended to me a great book that calls " the rise and fall of the dinosaurs" It's a great book that tells

the story of the dinosaurs millions of years ago. I used to be a big fan of dinosaurs when I was a kid, but my interests did not last. But I become a big fan again!



Dr. Callan Luetkemeyer

Current Title and Department:

Assistant Professor, Mechanical Science and Engineering

Current Employer:

The Grainger College of Engineering

University:

The University of Illinois Urbana-Champaign

Graduate Degree, University:

Mechanical Engineering, The University of Michigan

Post-doctoral experience:

University of Boulder Colorado, Calve and Neu labs

Who have been your mentors?

Jessica Wagenseil (WashU), Ellen Arruda (UM), James Ashton-Miller (UM), Alan Wineman (UM), **Rhima Coleman** (UM), Sarah Calve (CU Boulder), and Corey Neu (CU Boulder)

What are you currently working on?

I am interested in the mechanical behavior of soft tissues; specifically, the mechanics of soft tissue injuries. My goal is to build image-based mechanics methods capable of detecting tissue microdamage and other microstructural abnormalities.

What has been the biggest challenge for you lately in your research?

For my post-doc, I wanted to model the relationship between deformation and damage in soft connective tissues, but the data I needed did not exist. The biggest challenge was developing the experimental methods to collect this data.

What project(s) are you looking forward to in the near future?

In the near future, I would like to use the image-based mechanics methods I developed as a grad student and post-doc to investigate the role of tissue composition (i.e., specific extracellular matrix proteins) in injury risk.

What advice would you give young investigators who are just starting out in the field? Be bold and creative.

Push yourself to develop and pursue your own ideas in new and unique directions.

What do you like to do for fun when you're not in the lab?

While I was in Colorado, I enjoyed skiing and hiking regularly. I also like to jog and play ice hockey for fun.

What was the last book you read for fun and would you recommend it?

The last book that I read for fun was Meatonomics. It's about the meat industry and the negative impacts of factory meat farming on our environment, economy, and health. Yet, we continue to eat more and more meat. It's an eye-opener!

How can we follow you?

- Twitter: [@CMLuetkemeyer](#)
- [LinkedIn](#)



Chad C. Carroll, PhD

2004, Ph.D., Physiology & Biophysics, University of Arkansas for Medical Sciences, Little Rock

2001, M. S., Exercise Physiology, Ball State University, Muncie, IN

1999, B. S., Exercise Science, Lake Superior State University, Sault Ste. Marie, MI

Current Title, Department, Employer:

Associate Professor

Director of Graduate Studies

Department of Health and Kinesiology
Purdue University, West Lafayette, IN

Brief Bio (Past Education, Research Positions, Etc.):

My interest in physical activity led me to the field of exercise physiology. I completed my Ph.D. work at the University of Arkansas for Medical Sciences Center on Aging. I returned to the Ball State University Human Performance Laboratory for a post-doctoral fellowship in 2004. We published novel work demonstrating the impact of aging, regular exercise, and analgesic medication on in vivo patellar tendon properties in humans. My first faculty position was at Midwestern University, a private osteopathic medical school in Glendale, AZ. After a few years, I received funding via the NIH R15 mechanism to

study the potential for dietary phytoestrogens to improve tendon health. In 2016, I started a faculty position at Purdue University and was recently promoted to Associate Professor.

Who have been your mentors?

One of my undergraduate professors at Lake State (the late R. Lee Gardiner) introduced me to the world of research. Drs. Scott and Todd Trappe were my graduate and post-doctoral mentors. They taught me the importance of "team" science. Todd, especially, taught me the importance of quality over quantity. I am also thankful for the support and mentorship of Dr. Peter Magnusson at the University of Copenhagen, who introduced me to tendons.

What are your specific research areas and expertise?

My training was primarily in conducting acute and chronic human clinical studies emphasizing skeletal muscle and tendon responses to exercise. The work in our laboratory spans the translational spectrum - from molecular biology experiments to test mechanisms of disease to human clinical trials to test treatment efficacy. We currently have projects focused on endogenous circulating mediators of tendon pathology, such as advanced glycation end-products (AGEs). Our work also focuses on nutritional interventions and how their combination with exercise can serve as a modifier for tendon health.

What are you currently working on?

We are currently finishing a clinical trial in older women in which we are determining the impact of chronic resistance training combined with a high protein diet on skeletal muscle mass, quality, and patellar tendon biomechanical properties. We are also evaluating the potential role of serum AGEs and the activation of their receptor (RAGE) on tendon healing and degradation, particularly in persons with diabetes.

What has been the biggest challenge for you in your research?

My biggest challenge is the continual effort to balance family responsibilities, teaching, and research. It is always a juggling act. COVID caused many issues, delaying all of our human studies, disrupting access to certain supplies, and creating extra work in the classroom. I imagine it will be another year or two before we fully catch up.

What project(s) are you looking forward to in the near future?

I am very excited about our planned studies with serum AGEs and their potential to alter tendon properties in

persons with diabetes. I have also been developing a business plan to start a small company.

What do you want to do next in your career?

Hopefully, my first sabbatical

What advice would you give young investigators in the field?

Do not be afraid to fail, be persistent, and build a strong mentoring team.

When you're not in the lab, what do you like to do for fun?

I am an avid and competitive trailer runner. I hope to run an ultramarathon each month next year. In addition, I enjoy gardening and growing "unique" vegetables. I also coach middle school wrestling and track.

What resources would you like to see available from the ORS Tendon Section?

I have enjoyed being a member of ORS. Developing mentoring programs and encouraging collaboration among members should continue to be a focus.

How can we follow you?

- [Lab Website](#)
- Twitter: [@PurdueTendon](#)
- [LinkedIn](#)



Joanna Smeeton, PhD

Current Title, Department, Employer:

H.K. Corning Assistant Professor of Rehabilitation Research

Columbia University Departments of Rehabilitation & Regenerative Medicine, Genetics & Development, and Columbia Stem Cell Initiative

Brief Bio (Past Education, Research Positions, Etc.):

BSc: McGill University

PhD: University of Toronto, SickKids Research Institute

Postdoc: University of Southern California, USC Stem Cell

Who have been your mentors?

I started my research journey under the stellar mentorship of Clinician-Scientist, Norm Rosenblum at SickKids in Toronto. Norm taught me to think like a scientist and always kept our basic developmental biology studies in mouse kidney development grounded in their

clinical importance for his young patients. During my postdoc working with Gage Crump at USC, I expanded my developmental biologist's toolkit and made the leap into zebrafish work to study joint development, disease, and regeneration. Learning from Gage was a transformational time for me as a scientist. Gage challenged me and gave me the latitude and intellectual freedom to try out new ideas and techniques which led me to my current research focus on cartilage and ligament regeneration. Finally, I can't stress enough the importance of my peer mentors – from my graduate school lab mates to my postdoc lunch crew to my 3 musketeers in the Columbia Stem Cell Initiative. They bring joy and camaraderie to my lab experience – it's important to have someone with whom to share your milestones!

What are you currently working on?

My research uses zebrafish and their incredible regenerative capacities to understand the stem cell populations and molecular regulation underlying regeneration of craniofacial joint tissues following injury. We are investigating the gene regulatory networks activated in endogenous progenitor cell populations during ligament regeneration using single cell sequencing techniques, live imaging, and mutant analyses.

What has been the biggest challenge for you in your research?

Starting a new lab as junior faculty was always going to be a challenge but opening our doors in January 2020 presented extra unexpected roadblocks. It is difficult to build a lab culture and train new students when you are only interacting virtually or in person for a couple of hours each week. Fast-forward to 2022 and now my research team has grown and is beginning to pick up steam. I'm excited for the projects we have currently in the works!

What project(s) are you looking forward to in the near future?

Comparative biology projects to translate our findings from zebrafish into mammalian models and clinically translational studies to improve ligament healing.

What do you want to do next in your career?

I'd like to keep doing what I'm doing – nurturing and supporting my growing lab as we tackle outstanding questions in gene regulation of joint regeneration. Outside my own lab's sphere, I would also like to expand my efforts to support diversity and inclusion in orthopedic research and STEM.

What advice would you give other young investigators in the field?

To other young investigators in the field, find a community that will support you in your goals and development and, more importantly, find a mentor who will advocate for and support you. I have benefitted from exceptional mentorship and collegial scientific communities during my training and even now as junior faculty here in the Columbia Stem Cell Initiative.

When you're not in the lab, what do you like to do for fun?

Being a Mom to 5 year old twins keeps me pretty busy outside the lab. For fun I like to visit local museums, go camping and hiking, and eat my way across the NYC food scene.

What resources would you like to see available from the ORS Tendon Section for encouraging young investigators?

As a young investigator, I'd like to see continued community support from ORS for the Young Investigator Network – a great initiative working to encourage young investigators and build a community within our generation of scientists. I'd like to also see continued opportunities to highlight young investigators' work at section meetings.

How can we follow you?

- Twitter: [@smeetonlab](#)
- [ResearchGate](#)
- [LinkedIn](#)



Stephanie Cone, PhD

Current Title, Department, Employer:

Postdoctoral Fellow, Mechanical Engineering, University of Wisconsin (Incoming Assistant Professor, Biomedical Engineering, University of Delaware)

Brief Bio (Past Education, Research Positions, Etc.):

I received my BS in Biomedical Engineering from the University of Arkansas and my PhD from the joint department of Biomedical Engineering at North Carolina State University and the University of North Carolina where my research focused on changes in the porcine ACL during post-natal growth. I'm currently wrapping up my post-doctoral research in Mechanical Engineering at the University of Wisconsin where I'm developing non-invasive measures of tendon mechanics, and soon I'll be moving to the University of Delaware to start my lab as an Assistant Professor in Biomedical Engineering!

Who have been your mentors?

Matt Fisher (North Carolina State University) was my PhD advisor and Darryl Thelen (University of Wisconsin) is my postdoc advisor, and both of them have had huge impacts on my career development in research. Outside of my formal advisors I've received a lot of mentorship in the orthopaedics and biomechanics worlds from Kate Saul, **Mariana Kersh**, **Megan Killian** and many others!

What are you currently working on?

I'm currently wrapping up a study using high-field MRI to look at Achilles tendon morphometry while also working with surgeons at Wisconsin to quantify mechanical differences between surgical techniques for treating partial ACL injuries in kids and teenagers.

What project(s) are you looking forward to in the near future?

I'm really excited to get projects started up in my lab at Delaware that will bridge the ex vivo work I did in my PhD and the in vivo studies I'm doing during my postdoc. I'm planning to start out with some growth and development work in the Achilles, mechanical analysis of surgical techniques, and wearable sensing of tendon loading in post-op rehabilitation. Before any of that starts, I'll need to unbox a lot of equipment though!

When you're not in the lab, what do you like to do for fun?

I love getting outside to take my dog hiking, go for long bike rides, or spend the summer out on the lakes. I've also gotten into crossfit during my postdoc – that's been really fun especially since Madison hosts the Crossfit Games every year and all of the biggest athletes come into town for a few weeks during the summer.

What resources would you like to see available from the ORS Tendon Section for encouraging young investigators?

I've really valued the networking and support for young investigators through the ORS Tendon Section, and hope to see more pilot grant opportunities for collaborations between early stage investigators in the future!

How can we follow you?

- Twitter: [@stephaniegcone](https://twitter.com/stephaniegcone)
- [ResearchGate](https://www.researchgate.net/profile/Stephanie-Gcone)
- [LinkedIn](https://www.linkedin.com/in/stephaniegcone/)

ORS Career Center



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Career Learning Center

Video and written presentations designed to instruct and entertain, from creating powerful resumes to developing an effective personal network for career success.

careers.ors.org

Check out the latest opportunities available via the [ORS Career Center](https://careers.ors.org).



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