

NUPOC NEWS

*The official newsletter of the
Northwestern University Prosthetics-Orthotics Center*



IN THIS ISSUE

STUDENT SUCCESS

**FACULTY & STAFF
ACHIEVEMENTS**

PUBLICATIONS

VISIT NUPOC

**FEINBERG DAY OF
SERVICE**

GERMAN TRAVELERS

**SO EVERY BODY CAN
MOVE 28X28
CHALLENGE**

**GIVING
OPPORTUNITIES**

Student Success

Congratulations to **Courtney O'Connell** and **Clare Pitstick** on being selected as recipients of the John Daniel Shay Memorial Scholarship through the Hanger Foundation.

This scholarship supports students pursuing a master's degree in orthotics and prosthetics who embody John Shay's passion for the profession and commitment to academic excellence, personal growth, and service.

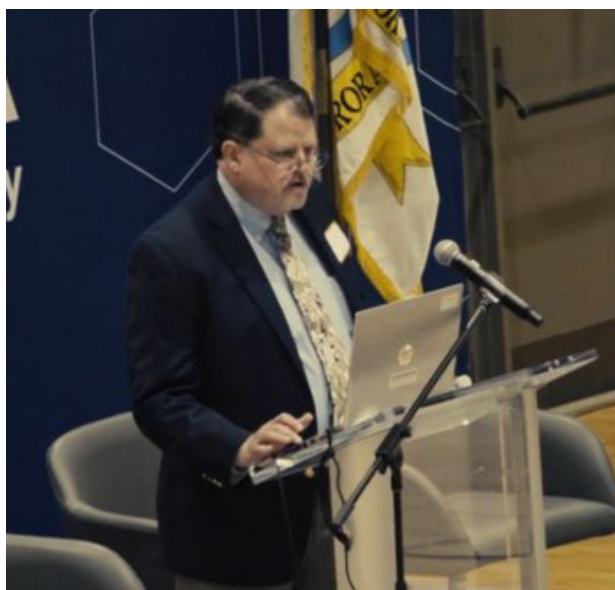
Faculty & Staff Achievements

NUPOC faculty and alumni continue to contribute to the advancement of orthotics and prosthetics through education, mentorship, and professional engagement.

At the 2026 IMSAloquium Opening Ceremony, **Steven A. Gard, PhD**, Executive Director of the Northwestern University Prosthetics-Orthotics Center, delivered the keynote address, “Why I Study Walking, and How It Changes Lives.” Speaking to students at the Illinois Mathematics and Science Academy’s annual showcase of research and innovation, Dr. Gard highlighted how biomechanics and mobility research can directly improve quality of life and inspire future scientific discovery.

In addition, NUPOC faculty members **David Speers**, **John Brinkmann**, and NUPOC alumna **Abbey Stepnitz** recorded a podcast episode of *O&P Rising* titled “[Building Clinical Confidence through Mentorship](#)” at the Academy Annual Meeting that was released today, July 15th. The episode offers valuable insights into the orthotics and prosthetics profession and highlights the expertise and leadership of NUPOC faculty and alumni.

Together, these engagements reflect NUPOC’s ongoing commitment to education, outreach, and thought leadership within the O&P community.



Pictured: Dr. Steve Gard delivering IMSAloquium keynote



Pictured: Abbey Stepnitz, John Brinkmann, and David Speers for episode 43 of O&P Rising

Publications

This quarter, NUPOC faculty and staff continued to advance the field through new peer-reviewed publications. Below is a selection of their latest scholarly work:

Vaca MA, Beestrum M, **Gard SA**, **Major MJ**. Effects of ankle-foot prosthesis design on gait and standing performance in transfemoral prosthesis users: A scoping review. *Wearable Technol.* 2026 Jan 21;7:e1.

Petelina NT, Arelekatti VNM, Shorter AL, Johnson WB, Kent JA, **Brinkmann JT**, **Major MJ**, Winter V AG. Estimation of Recommended Damping Coefficient Range to Achieve Target Peak Knee Flexion in a Passive Prosthetic Knee. *Ann Biomed Eng.* 2026; 54(6):1859-1873.

Neelen I, van der Wind B, **Major MJ**, Smit G. State of the art of lower limb prosthesis simulators: A literature review. *Wearable Technol.* 2026 Mar 3;7:e2.

Zavaleta JL, **Major MJ**, Pankaj P. A scoping review on bone mass status in individuals with transfemoral amputation. *Journal of Prosthetics and Orthotics.* 2026 May; EPub.

Monteiro A, Fey NP, **Major MJ**. Assessing the validity of whole-body and segmental angular momenta during walking in older individuals with and without transtibial limb loss. *Journal of Applied Biomechanics.* 2026; 11: 1-6.

Pogharian AC, **Armstrong KL**, Kent JA, **Stine RL**, **Major MJ**. The role of walking speed and leg proprioception in foot clearance for older transtibial prosthesis users. *Prosthetics and Orthotics International.* 2026 April; EPub.

Paulus P, Moore B, **Hammond II P**, **Stine RL**, Rosenblatt N, **Major MJ**. Dynamic Balance Adaptations in Response to Bound Arm Walking. *Journal of Biomechanics.* 2026 May; Epub.

Paige Paulus will be presenting the following work at the 10th World Congress of Biomechanics:

Paulus PF, Moore B, **Hammond II P**, **Stine RL**, Rosenblatt N, **Major MJ**. Unilateral Arm Restriction Affects Dynamic Balance Recovery in Response to Unanticipated External Treadmill Perturbations. 10th World Congress of Biomechanics, Vancouver, Canada, July 11-15, 2026.

Plan your visit to NUPOC!

Crane Medical Prep High School students recently visited NUPOC for an immersive look into the field of prosthetics and orthotics. The visit began with a hands-on presentation led by NUPOC faculty and staff, during which students learned about prosthetic and orthotic care and participated in a team-based “Escape Room” challenge that used patient measurements to assemble a prosthesis. Students then toured the Shirley Ryan AbilityLab with Dr. Tseng, Dr. Valignota, and Dr. Sekoni, gaining firsthand insight into innovative rehabilitation care and research. The day concluded with lunch and a student panel featuring MPO students, who shared their educational journeys and advice for pursuing healthcare careers. **NUPOC welcomes student tours and group visits. For more information, contact Rachel Lyons at rachel.lyons@northwestern.edu**



Pictured: Crane Prep Medical High School students, MPO 2027 student Hillary Chatterton, and NUPOC Instructor Gloria Lee

Feinberg Day of Service

On Sunday, May 3, **MPO-R Class of 2026 and MPO Class of 2027 students** participated in the inaugural Feinberg Day of Service, joining peers from across Northwestern University Feinberg School of Medicine in a day dedicated to volunteerism, community engagement, and interprofessional collaboration. Organized by Feinberg class presidents in partnership with student senate representatives, the student-led initiative brought together learners from the MD, Physician Assistant, Physical Therapy, and Prosthetics and Orthotics programs. Participants volunteered with community organizations throughout Chicago, strengthening connections both within the Feinberg community and with the neighborhoods they serve while demonstrating a shared commitment to service and compassionate care.



Pictured: MPO-R 2026 and MPO 2027 students alongside Feinberg students, volunteering at the Feinberg Day of Service

German Travelers at NUPOC

On May 1, NUPOC welcomed the 2026 Biennial Symposium German Traveling Fellows for a day of international collaboration, education, and knowledge exchange in orthotics and prosthetics. The symposium brought together visiting clinicians and researchers from Germany alongside NUPOC faculty, staff, and students to share innovative clinical approaches, emerging research, and best practices in patient care. Presentations covered topics ranging from microprocessor-controlled knee-ankle-foot orthoses and post-stroke intervention strategies to exoprosthetic treatments, clubfoot management, and the journey from amputation to sport. NUPOC presenters highlighted advances in competency-based assessment in O&P education, research on educator biases toward people with disabilities, and prosthetic foot-ankle biomechanics. The event fostered meaningful discussion and reinforced the importance of global partnerships in advancing education, research, and patient-centered care across the orthotics and prosthetics profession.



Pictured: The German Travelers alongside NUPOC faculty and staff

NUPOC Joins SEBCM 28x28 Challenge

This July, NUPOC students and faculty are participating in the third annual So Every BODY Can Move (SEBCM) 28x28 Challenge, committing to 28 minutes of physical activity each day for the first 28 days of the month to raise awareness and support equitable access to orthotic and prosthetic care. The challenge supports SEBCM's mission to expand insurance coverage for prosthetic and orthotic devices that enable individuals with disabilities to move, exercise, work, and maintain healthy, active lifestyles. Since 2022, advocacy efforts through the initiative have helped advance legislation in 14 states, increasing access to life-changing mobility care. NUPOC encourages alumni, friends, family members, and supporters to join the movement by registering for the challenge, getting active, or supporting the NUPOC team through a donation. Together, we can help raise awareness, promote advocacy, and advance the belief that movement is a fundamental right for all.



To learn more or support the NUPOC team, visit:

<https://charity.pledgeit.org/28x28MobilityChallenge/teams/nupoc>

Giving Opportunities

Donor support is essential to our continued success. Your gift can help support emerging researchers, P&O clinicians, and programs that will improve the lives of people who live with amputation or other physical impairments.

Contribute [online](#). Or contact FSM Development (T: 312-503-2706)

NUPOC appreciates your generosity!

Alumni Form

Scan the QR code to update your alumni contact information and stay connected with NUPOC



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