

# 2023 COPA SYMPOSIUM

*Engaging and Evolving*

Hosted By:

**UC DAVIS**  
UNIVERSITY OF CALIFORNIA



**NOVEMBER 2-3, 2023**  
UC Davis International Center  
463 California Ave. #3140 • Davis, CA



California Orthotic & Prosthetic Association

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# COPA ANNUAL SYMPOSIUM

ENGAGING AND EVOLVING

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## THURSDAY • NOVEMBER 2

- 8:00 - 8:45 AM EXHIBITS SETUP
- 8:30 - 9:00 AM REGISTRATION & BREAKFAST
- 9:00 - 9:15 AM **Welcoming Remarks/COPA Update**  
by Spencer Greene,  
Hanger Regional Director & COPA President
- 9:15 - 10:15 AM **Keynote Speakers -**  
**Drs. Andrew Li and Jonathon Schofield**  
*Working Towards Prosthesis Embodiment: A  
Multidisciplinary Approach*
- 10:15 - 10:30 AM BREAK & EXHIBIT
- 10:30 - 11:15 AM **Mark Muller, CPO, MS, FAAOP**  
**Chair of O&P Dept., CSUDH**  
*Digital Workflow, Additive Manufacturing, and  
Curriculum Enhancement in O&P Education*
- 11:15 - 12:15 PM **Panel Discussion: Engaging the Next  
Generation of O&P Professionals**  
**Riley Liddell, Gary Berke, Melissa Warden,  
and Linda Collins (Moderator)**
- 12:15 - 1:45 PM LUNCH & EXHIBIT
- 1:45 - 2:30 PM **Karl Lindborg, CPO/LP**  
**Clinical Practice Consultant/Upper  
Limb Specialist CPO/LP, Intersect OPS**  
*The International Transradial Adjustable Limb  
(ITAL) Used as a Single "TRANSFORMER"  
Trans-Radial Prosthesis: From  
Immediate/Preparatory Body Powered Through  
a Trial External Powered Prosthesis*
- 2:30 - 3:15 PM **Lucas DeLuca**  
**Director of Community Engagement  
at the Amputee Coalition**  
*The Power of Peer Support*
- 3:15 - 3:30 PM BREAK & EXHIBIT
- 3:30 - 4:15 PM **Kelly Grahovac**  
**General Manager, The van Halem Group**  
*O&P Audit Response Plan*
- 4:15 - 5:00 PM **Karl Lindborg, CPO/LP**  
*Fabrication with Silicone (HCR High  
Consistency Rubber/Milled Silicone)*
- 5:00 - 6:30 PM Group Photo & Happy Hour

## FRIDAY • NOVEMBER 3

- 7:30 - 8:00 AM BREAKFAST
- 8:00 - 9:00 AM **Julie Gross, PT**  
*The PT Role in Limb Loss Multi-Disciplinary  
Team Rehabilitation*
- 9:00 - 9:45 AM EXHIBIT
- 9:45 - 10:45 AM **Mark Clary, CPO, FAAOP**  
**Vice-Chair of NCOPE**  
*Current State of O&P Education*
- 10:45 - 11:00 AM BREAK & EXHIBIT
- 11:00 - 11:45 AM **Emily Seelenfreund**  
**Executive Director at Bay Area  
Outreach and Recreation Program  
(BORP)**  
*Beyond Rehab and PT: Healthy Living  
Through Adaptive Sports and Recreation*
- 11:45 - 12:00 PM **COPA Connect - Interactive & Fun Poll**
- Closing Remarks & Raffle Winner**  
by Spencer Greene, COPA President
- 12:00 PM CLASSES END

*Exhibits open all day.*

*Classes and schedule are subject to change without notice.*

*For most up-to-date information, please visit our website.*

*By completing both education days, you will earn 7.75 ABC CEUs and  
11 BOC CEUs.*

*Photography/Videography/Recording Release:*

*Your attendance or presence at our event, in-person or virtual,  
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media, news, and/or marketing materials.*



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### Keynote: Working Towards Prosthesis Embodiment: A Multidisciplinary Approach

Presented by:

**Drs. Andrew Li and Jonathon Schofield, University of California, Davis**

What is prosthesis embodiment? What are the mechanisms behind prosthesis embodiment? What can we do to work towards attaining prosthesis embodiment for the limb loss patient?

*Speakers' bio:*

Dr. Andrew Li is a board-certified Hand and Upper Extremity Microvascular Reconstructive Surgeon. His clinical practice includes peripheral nerve surgery including endoscopic carpal tunnel release, brachial plexus reconstruction, forearm, wrist, and hand trauma, rheumatoid hand deformities, tetraplegia hand function optimization, free tissue transfer, limb salvage, as well as limb loss optimization procedures such as targeted muscle reinnervation, and osseointegration in conjunction with Orthopedic surgery. He founded PETIT (Prosthesis Embodiment Through Intuitive Technology) at UC Davis, a multidisciplinary consortium here at UC Davis whose goal is to help our limb loss patients attain prosthesis embodiment: the consideration of a prosthesis not simply as an assistive device, but instead as a part of the patient's self and identity.



Dr. Schofield works to improve user acceptance and promote the seamless integration of humans and cooperative mechatronic systems, leveraging techniques in bio-robotic control and feedback, nerve-machine interfaces, and cognitive-perceptual neurosciences. The Schofield lab performs interdisciplinary research at the interface of mechanical and electrical engineering, neurosciences and rehabilitation medicine to address unmet clinical needs and understand how humans engage with intelligent technologies such as robotic prostheses. Dr. Jonathon Schofield completed a postdoctoral fellowship at Cleveland Clinic. Prior to this, he completed his PhD in Biomedical-Mechanical Engineering and an MSc. in Biomedical-Structural Engineering at The University of Alberta in Canada. For more information, please visit [www.bearlaboratory.com](http://www.bearlaboratory.com).



### Digital Workflow, Additive Manufacturing, and Curriculum Enhancement in O&P Education

Presented by:

**Mark Muller, CPO, MS, FAAOP, Chair of O&P Dept., CSUDH**



Digital workflow and additive manufacturing in O&P education. Most O&P education programs have been introducing digital workflow and demonstrating some form of additive manufacturing training for years now. So, what is different now? Employers and students have been asked what skills they would like new practitioners to possess, and digital skills are just as important as communication skills, assessment skills, and practice management skills. Current NCOPE O&P curriculum guidelines have little to no requirements on teaching digital image capture, CAD rectification, and do not address additive manufacturing or any other digital fabrication techniques, so where will these students learn these skills? The CSUDH MSOP program has rapidly enhanced their curriculum to include hundreds of hours of digital education and clinical application of digital workflow to address this need.

Objectives for this talk:

1. Awareness of the need to teach digital workflow skills to new practitioners.
2. Awareness of how to incorporate digital workflows and new digital fabrication methods in O&P Practice
3. Understanding of how O&P curriculum is evolving to meet market demands.

*Speaker's bio:*

Mark is an ABC Certified Prosthetist and Orthotist since 1995 and holds degrees in Engineering & Material Science and Instructional Design. He started his educational career as an instructor for Orthotics at Northwestern University in 1996. After 10 years of clinical practice and some time with Ossur's Clinical Services team, Mark went back to teaching for California State University Dominguez Hills (CSUDH). Mark has been teaching in the CSUDH O&P Program for 13 years and currently holds the position of Chair of the Orthotics and Prosthetics department. Mark recently authored the chapter on Transfemoral Prosthetic Management for the fourth edition of the Atlas of Prosthetics, is a Past President of the American Academy of Orthotist and Prosthetists, is currently a member of the Board of Directors for the Orthotic and Prosthetic Education and Research Foundation (OPERF), and a Programmatic Panel Member for the Orthotic and Prosthetic Outcomes Research Program (OPORP) from the Department of Defense Congressionally Directed Medical Research Programs (CDMRP).

### **The International Transradial Adjustable Limb (ITAL) Used as a Single “TRANSFORMER” Trans-Radial Prosthesis: From Immediate/Preparatory Body Powered Through a Trial External Powered Prosthesis**

Upper limb prosthetic fittings can be challenging for prosthetists whose skill set is in providing lower limb prosthetic devices. This is due in part to the higher incidence of lower limb prosthetic fittings compared to upper limb prosthetic fittings. Providing an easier pathway for fitting upper limb prosthetic fittings could simplify this challenge. The normal pathway for fitting an upper limb prosthesis is to begin with a body-powered prosthesis and then as the residual limb stabilizes and basic training is achieved, advancing to a more intimate fitting external powered prosthesis can be trialed. It is well known that early fitting of an upper limb prosthesis reduces the probability of the user rejecting the prosthesis. Specific to transradial fittings, starting an early fitting process with a modular preparatory body-powered prosthesis like the ITAL could provide immediate fitting results and the user’s limb matures and stabilizes, the ITAL device could be transformed to a trial external powered system by upcycling the preparatory prosthesis. Creation of a custom interface that can be placed in the ITAL would allow for easier myo-control testing and trialing of various external powered terminal devices. This in turn could allow occupational therapists and prosthetists the opportunity to clinically justify advancement to an externally powered system.

### **Fabrication with Silicone (HCR High Consistency Rubber/Milled Silicone)**

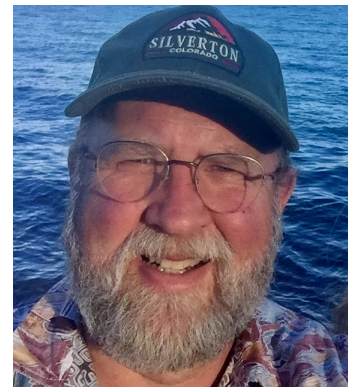
HCR silicone, also known as milled or rolled silicone, is emerging as a new interface material used primarily in upper limb prosthetics. There are applications for lower limb prosthetics and the HCR silicone can be also used in some orthotic applications. There is a range of stiffness categorized as shore or durometer that can be blended together to create softer spots for sensitive areas as well as stiffer areas for a more robust interface. Zippers, bladders, anchor screws and even ribbon wire passages can be built into the interface to create seamless transitions in the prosthetic or orthotic device. Clear dx interface designs as well as an array of finished colors can be built into the final silicone design.

*Both Topics Presented by:*

**Karl Lindborg, CPO/LP, Clinical Practice Consultant/  
Upper Limb Specialist CPO/LP, Intersect OPS**

*Speaker’s bio:*

Karl Lindborg, Consultant with Intersect Orthotic and Prosthetic Solutions (Intersect OPS), is a Certified Prosthetist and Orthotist (CPO), and an Upper Limb Clinical Specialist. He graduated from the University of Washington School of Rehabilitative Medicine’s Prosthetic and Orthotic Program, and has worked in the private, institutional, and manufacturer sectors of the O&P industry. Karl has 16 years concentrated experience in upper limb advanced prosthetics technology, with an additional 24 years of experience as an upper and lower limb O&P Clinician/Technician. He has presented at state, regional, national, and international conferences and provides technical, clinical, and educational support to clinicians, manufacturers, and academic institutions. He is published in industry periodicals. Karl’s passion for his work, his industry, technological innovation, and the people who benefit from all three continues to drive him.



### The Power of Peer Support

*Presented by:*

**Lucas DeLuca, Director of Community Engagement,  
The Amputee Coalition**



By attending this session participants will learn what peer support programs the Amputee Coalition runs and how these programs address individual, community, and system-wide aide. Furthermore, we will review the ways participants can find and access these programs highlighting the importance of multimodalities. Lastly, once participants know what is offered and where it can be accessed, those in attendance will learn how they can become more involved to help facilitate and/or foster peer support programs in their local community.

*Speaker's bio:*

Lucas DeLuca has worked in higher education and healthcare to advance disability inclusion and accessibility outcomes. He currently serves as the Director for Community Engagement at the Amputee Coalition and manages their Certified Peer Visitor Program, Support Group Network, and Healthcare Partnership Program. From 2020-2022 Lucas served as the Director of Disability Support Services at Columbia Basin College. While there he developed ways to reduce barriers to access by implementing universal design practices and spotlighting exciting assistive technology solutions. Lucas has a Masters in Critical Disability Studies from York University where his research focused on improving security and safeguards for people with disabilities online.

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### O&P Audit Response Plan

*Presented by:*

**Kelly Grahovac, General Manager,  
The van Halem Group**



Since the end of the PHE, O&P providers have experienced a barrage of audits from Federal, State, and private payors. In this session, Kelly will explain which contractors are auditing orthotics and prosthetics, what these contractors are reviewing in the audits, and how to respond to these audits to ensure providers can pass audits successfully. This presentation will identify key areas that auditors are focusing their efforts on currently, help understand potential audit risks, and identify tools and processes to help mitigate audit risk.

*Speaker's bio:*

Kelly Grahovac serves as the General Manager for The van Halem Group where she focuses on audits, appeals, compliance, and education across multiple lines of business and various specialties. Kelly uses her 20 years' experience in Medicare regulations to assist providers as they navigate the ever changing healthcare payor landscape. Kelly is a known lecturer in the post-acute care industry, speaking at national conferences, state associations, and for private events. In addition, Kelly is a common contributor to a variety of industry publications.

### The PT Role in Limb Loss Multi-Disciplinary Team Rehabilitation

Presented by:

**Julie Gross, PT**



Presentation objectives:

1. Participants will be able to identify Multi-disciplinary Team Members
2. Participants will learn specifics of the PT role in Pre-op Rehabilitation
3. Participants will learn specifics of the PT role in Post- op Rehabilitation
4. Participants will be able to list 3 learning goals of the PT in Pre-prosthetic rehabilitation
5. Participants will be able to identify the PT role in Post-prosthetic rehabilitation
6. Participants will be able to list 2 techniques to develop positive relationships between PT and Prosthetist
7. Participants will understand the benefits and development of Amputee Clinics

This presentation is adaptable to the wishes of the participants. It can vary in length from 30 minutes to 60 min. If participants are more interested in specific gait training techniques that can be added. I am very willing to meet the needs of the clinicians and emphasize the development of PT and Prosthetist relationships.

*Speaker's bio:*

Julie Gross, PT is a graduate from the University of Missouri, Bachelor of Biological Arts in 1981 and Bachelors Health Science-Physical Therapy, 1983. She has worked in a variety of physical therapy settings, with specialties including orthopedics, rehabilitation, spine, and prosthetics.

Ms. Gross has served as clinical faculty for University of Missouri Physical Therapy Program and UCD Health, providing clinical education for physical therapy interns, volunteer interns, and PM&R/Family Practice Residents.

During her tenure at UCD Health, Ms. Gross initiated the UCD Health Wellness Program: UC Living Fit Forever. This employee base program expanded and Ms. Gross actively developed the wellness initiatives of the University of California campus wide Healthy Campus Network, WorkStrong, and continued her leadership in prosthetic clinical practice. After 35 years of clinical practice, and the past 17 years as a PT Clinical Specialist at the University Of California Davis Health, Ms. Gross retired from clinical practice in 2018.

Ms. Gross has been a presenter for 6 years with the Women's Heart Healthy Forum. She has presented at the University of California Risk Management Conference and has been a speaker at several O&P Conferences. Post retirement Ms. Gross continues her speaking engagements in both Wellness and Prosthetic Education.



### Current State of O&P Education

Presented by:

**Mark Clary, CPO, FAAOP, Vice-Chair of NCOPE**

Brief history of the O&P Education system Current structure and challenges of the O&P education system. What the future may hold in O&P Education.

*Speaker's bio:*

Mark has over 27 years of experience working in the O&P industry, including two years as a technician before completing his clinical training at Northwestern University and the University of Michigan, where he stayed on board as part of their clinical staff for eight years. More recently, he worked as a CPO at Yanke Bionics in Cleveland, Ohio for over 10 years prior to his decision to be a clinical educator for the new start-up company Xtremity in June of 2022. Mark is a Fellow of the American Academy of Orthotists and Prosthetists, and Immediate Past President of the Ohio Chapter, and currently serves as the Vice-Chair of the National Commission on O&P Education.



### Beyond Rehab and PT: Healthy Living Through Adaptive Sports and Recreation

Presented by:

**Emily Seelenfreund, Executive Director  
Bay Area Outreach and Recreation Program (BORP)**

At BORP Adaptive Sports and Recreation we offer people with all types of mobility and vision disabilities the ability to push their physical limits through consistent opportunities to participate in recreational activities: whether that's adaptive cycling, kayaking, team sports (wheelchair basketball, quad rugby, etc.), fitness classes, and more. Sometimes it is an activity they never thought possible for themselves. Sometimes it is a path back to something familiar and beloved, that helps a person rebuild their sense of self after a life-altering event or injury. No matter how someone finds their way to BORP, though, the activity itself is just one aspect of the benefits our participants derive from accessible fitness.

Attendees will learn about the therapeutic and psychological value of adaptive recreation and how BORP designs its programs to maximize healthy living for those with physical disabilities. As a disability-led organization, we make the case that members of the disability community are especially effective at engaging and promoting healthy living to the community we serve.

*Speaker's bio:*

Emily Seelenfreund joined BORP Adaptive Sports and Recreation as its Executive Director in 2023. Previously Emily worked for the City of Oakland as their Programmatic Access Coordinator and for Disability Rights Advocates (DRA) as an attorney litigating cases protecting the rights of people with disabilities nationwide. In 2019 she co-founded ParaCliffHangers, a nonprofit focused on indoor and outdoor adaptive climbing opportunities. Emily played collegiate wheelchair basketball and is a competitive rock climber, having won 2 silver medals at Paraclimbing world cups.



### Panel Discussion: Engaging the Next Generation of O&P Professionals

#### Riley Liddell

##### Director of Orthotics and Prosthetics at Pacific Medical

Riley Liddell is an ABC Certified Prosthetist Orthotist with a Washington State Licensure as well. He is the Director of Orthotics and Prosthetics for Pacific Medical and graduated from California State University Dominguez Hills with a Master of Science in Orthotics and Prosthetics with his undergraduate background in Kinesiology from Washington State University. Riley has pushed the O&P field to incorporate Evidence Based Practice to drive clinical outcomes and is always pushing for better education and better O&P Reimbursement. He has served as a COPA Board member for 3 years and enjoys giving back to the O&P community.



#### Gary Berke

##### Adjunct Clinical Associate Professor at Stanford University Chief Clinical Officer, Xtremity Prosthetics

Gary is currently serving as an Adjunct Clinical Associate Professor in the Department of Orthopaedic Surgery at Stanford University. He is also the Chief Clinical Officer, at Xtremity Prosthetics in Denver, Colorado. He is a past president of the American Academy of Orthotists and Prosthetists and is currently serving on the AOPA socket strength workgroup and on the International Standards Organization (ISO) committee defining socket strength and testing standards.



#### Mellisa Warden

Mellisa Warden is a lifelong athlete and advocate. While obtaining her BA in Political Science at Western Washington University, she volunteered at a therapeutic riding program where she was introduced to adaptive sports. Despite not pursuing a law degree as planned, Mellisa has spent her life advocating for a fair playing field in sports as an international equestrian and licensed official. When not competing, officiating, or working as a large animal vet tech, she spent weekends pacing marathons, sweeping ultras, and crewing at 100-mile races. After an accident in 2019 and failed salvage resulting in amputation, Mellisa found the skills she had acquired over a lifetime brought her to a new career in orthotics and prosthetics with a desire to help others realize that life is not over after limb loss.



*Moderated By:*

#### Linda Collins

##### Director of Compliance and Reimbursement at Pacific Medical

Linda Collins is a nationally acclaimed expert in the O&P profession. With over 20 years of experience with payers, manufacturers, and clinics, Linda has obtained numerous PDAC approvals and codes for new devices, and worked with hundreds of clinicians to win appeals and create processes for successful claim approval. Linda is currently the Director of Compliance and Reimbursement for PacMed.





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