



State of the Science Symposia Series: **Telemedicine and Rehabilitation in the CoViD-19 Era**

Wednesday, December 16th, 2020
0830 – 1600

Microsoft Teams Live Event

<https://www.herl.pitt.edu/winter-2020-symposium>

Presented by

**The Center for Rehabilitation Science Research, Department of Physical Medicine
and Rehabilitation at the Uniformed Services University for the Health Sciences**

Department of Rehabilitation, Walter Reed National Military Medical Center

**The University of Pittsburgh, School of Health and Rehabilitation Sciences
Department of Rehabilitation Science and Technology
Human Engineering Research Laboratories**

The Department of Veterans Affairs

**University of Pittsburgh School of Medicine Center for Continuing Education in
the Health Sciences**

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PRESENTED BY THE CENTER FOR REHABILITATION SCIENCE RESEARCH, THE DEPARTMENT OF PHYSICAL MEDICINE AND REHABILITATION AT THE UNIFORMED SERVICES UNIVERSITY FOR THE HEALTH SCIENCES; THE DEPARTMENT OF REHABILITATION, WALTER REED NATIONAL MILITARY MEDICAL CENTER; THE HUMAN ENGINEERING RESEARCH LABORATORIES (A VA RR&D CENTER OF EXCELLENCE); AND THE UNIVERSITY OF PITTSBURGH SCHOOL OF HEALTH AND REHABILITATION SCIENCES, DEPARTMENT OF REHABILITATION SCIENCE AND TECHNOLOGY.

Course Directors:

Rory A. Cooper, PhD: *Director/CEO, Human Engineering Research Laboratories, VA Pittsburgh Healthcare System Associate Dean for Inclusion, School of Health and Rehabilitation Sciences, University of Pittsburgh*

Colonel (ret.) Paul F. Pasquina, MD, *Professor & Chair, Department of PM&R and Director, Center for Rehabilitation Sciences Research, USUHS; Chief, Department of Rehabilitation, Walter Reed National Military Medical Center*

Overview and Objectives

The overall objective of this symposium is to provide participants with an overview of how the novel coronavirus and CoViD-19 have impacted current techniques utilized and programs implemented in the areas of remote medicine and rehabilitation. The course will attain this objective by showcasing specialists from throughout the telehealth realm and discussing protocols, implementation, and lessons learned for future research and rehabilitation.

Who Should Attend

The content of the sessions will benefit civilians, veterans, and military service members, their families, care-givers, community-based organizations, government agency personnel, students, residents, and healthcare providers.

We gratefully acknowledge the support of The Paralyzed Veterans of America for this symposium.



**Paralyzed Veterans
of America**

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- 0830 – 0900** **Welcome – Opening Remarks**
Rory Cooper, PhD
Director/CEO, Human Engineering Research Laboratories
School of Health and Rehabilitation Sciences, University of Pittsburgh
- 0900 - 0945** **A Brief History of Telerehabilitation**
Ronald K. Poropatich, MD, MS
Director, Center for Military Medicine Research, Health Sciences
Department of Medicine, University of Pittsburgh
- 1000 – 1045** **UPMC CAT Standards for and Implementation of Telerehabilitation**
Joseph Straatmann, OT
Adjunct Clinical Instructor, Center for Assistive Technology
Department of Rehabilitation Science and Technology, University of Pittsburgh
- 1100 – 1145** **Telerehabilitation for Limb Loss**
Steven S. Scott, DO; Patty Young, PT
US Department of Veteran Affairs
- 1200 – 1300** **LUNCH BREAK**
- 1300 – 1345** **CoViD-19 Deployment Response: Lessons Learned**
MAJ Michelle Nordstrom
Uniformed Services University of the Health Sciences
- 1400 - 1445** **University of Pittsburgh Medical Center PM&R Telerehabilitation**
Betty Liu, MD
Associate Professor; Co-Director, PM&R Medical Student Education
University of Pittsburgh School of Medicine
- 1500 – 1545** **CoViD-19 Effects on In/Outpatient Care**
MAJ Michelle Luken
Uniformed Services University of the Health Sciences
- 1550 - 1600** **Closing Remarks; Symposium Adjournment**

COURSE DIRECTORS:



RORY A. COOPER, PHD

*Director/CEO, Human Engineering Research Laboratories, VA Pittsburgh Healthcare System
Associate Dean for Inclusion, School of Health and Rehabilitation Sciences, University of Pittsburgh*

FISA Foundation/Paralyzed Veterans of America Distinguished Professor, Department of Rehabilitation Science and Technology, University of Pittsburgh

Professor, Departments of Bioengineering, Physical Medicine and Rehabilitation, and Orthopaedic Surgery, University of Pittsburgh

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Rory A. Cooper, PhD earned B.S. and M.Eng degrees in electrical engineering from California Polytechnic State University, San Luis Obispo in 1985 and 1986, respectively. He earned a Ph.D. degree in electrical & computer engineering with a concentration in bioengineering from University of California at Santa Barbara in 1989. He is *Associate Dean for Inclusion* in the School of Health and Rehabilitation Sciences, *FISA & Paralyzed Veterans of America (PVA) Professor* and *Distinguished Professor* of the Department of Rehabilitation Science & Technology, and professor of Bioengineering, Physical Medicine & Rehabilitation, and Orthopaedic Surgery at the *University of Pittsburgh (Pitt)*. Cooper is *Founding Director* and *VA Senior Research Career Scientist* of the *Human Engineering Research Laboratories*, a VA Rehabilitation R&D Center of Excellence in partnership with Pitt. Cooper is an adjunct professor in the Robotics Institute of *Carnegie Mellon University* and the Department of Physical Medicine & Rehabilitation of the *Uniformed Services University of Health Sciences*, and he was awarded Honorary Professor at *Hong Kong Polytechnic University* and *Xi'an Jiatong University* where he was awarded an *Honorary Doctorate*. Cooper has authored or co-authored over 350 *peer-reviewed journal publications*. He has over 25 patents awarded or pending. Cooper is the author of two books: “*Rehabilitation Engineering Applied to Mobility and Manipulation*” and “*Wheelchair Selection and Configuration*,” and co-editor of “*An Introduction to Rehabilitation Engineering*,” “*Warrior Transition Leader: Medical Rehabilitation Handbook*,” “*Promoting Successful Integration*,” and the award winning book “*Care of the Combat Amputee*.”

Dr. Cooper is a former President of RESNA, and a member of the IEEE-EMBS Medical Device Standards Committee. In 1988, he was a bronze medalist in the *Paralympic Games*, Seoul Republic of Korea. He was on the steering committee for the 1996 *Paralympic Scientific Congress* held in Atlanta, GA, and the Sports Scientist for the 2008 U.S. *Paralympic Team* in Beijing, China. In 2013, Cooper was awarded the *International Paralympic Scientific Achievement Award*. He has been a member of the U.S. Centers for Medicare and Medicaid Services – Medicare Advisory Committee, U.S. Secretary of Veterans Affairs Prosthetics & Special Disability Programs Advisory Committee, Chair of the National Advisory Board on Medical Rehabilitation Research, National Institute of Child Health & Human Development, U.S. Department of Defense Health Board Subcommittee on Amputation and Orthopedics, Board of Directors of Easter Seals, National Academy of Medicine Committee on Assistive Products and Devices, and National Academy of Sciences Keck Foundation Initiative on Human Health Span Steering Committee.

Dr. Cooper is a *U.S. Army veteran* with a spinal cord injury (SCI) and a Director of the Paralyzed Veterans of America Research Foundation. He is a *Civilian Aide to the Secretary of the Army*. He currently serves as a member of the *Honorary Board of Advisors Student Veterans of America*, Chair Honorary Board of Advisors Disabled Veterans National Foundation, *NSF Advisory Committee for Education and Human Resources*, *Command Council, Staff Sergeant Donnie D. Dixon Center for Military and Veterans Community Services*, and member of the *World Health Organization GATE Committee*. In 2009, Cooper was featured on a *Cheerios* cereal box for his achievements, and in August 2010, he with one of his robots was the centerfold in *Popular Science* for his work in robotics to aid PwD and older adults. In 2014, *PN Magazine* included Cooper

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as one of the people who have transformed the lives of people with SCI; while USO *On Point* featured Cooper as one of the veterans who have most influenced the lives of veterans through technology. In 2015, TIME magazine produced a video on Cooper's work for their on-line magazine (<http://time.com/3975280/robotics-disabled/>). Drs. Cooper and his work have received coverage by NY Times, Washington Post, TIME, CNN, Forbes, ESPN, NBC, BMJ, Reuters, NPR, and other national and international media outlets. Cooper also shared his story and provided insights to best-selling author, Mary Ann McFadden, during the writing of her novel "*The Book Lover*." Dr. Cooper was selected by the Gen. James Amos, Commandant of the United States Marine Corps as the *Guest of Honor* for the "*Evening Parade*" hosted on 3 August 2012 by Michael P. Barrett, the 17th Sergeant Major of the Marine Corp. On 28 June 2016, Dr. Cooper was the *Guest of Honor* for the "*Sunset Parade*" hosted by Ronald E. Green, 18th Sergeant Major of the Marine Corps. He was recognized in the *Congressional Record of the United States Congress on Monday, July 27, 2009* and with a *Proclamation of Rory A. Cooper, PhD Day by the City of Pittsburgh on June 17, 2014* for his contributions to engineering and science on behalf of PwD and personal example. Further, Dr. Cooper's students have been the recipients of over 50 national and international awards. Dr. Cooper's highest awards include the *Samuel E. Heyman Service to America Service Medal*, *Secretary of Defense Meritorious Civilian Service Medal*, *National Guard Bureau "Minute Man Award"*; *AAAS Mentor Award*, *Joseph F. Engelberger Award*, *AIMBE Advocacy Award*, *Herny Viscardi Achievement Award*, *U.S. Army Distinguished Civilian Service Medal*, *U.S. Department of Veterans Affairs Diversity & Inclusion Excellence Award*, *Olin E. Teague Award*, *Pennsylvania Military & Veteran Hall of Fame*, *Order of Military Medical Merit*, *Order of Mercury*, *Order of Saint Maurice*, *Chapel of Four Chaplains Legion of Honor*, *DaVinci Lifetime Achievement Award*, and a member of the inaugural class of the *Spinal Cord Injury Hall of Fame*.



COL (Ret.) PAUL F. PASQUINA, MD

Professor & Chair, Department of PM&R

Director, Center for Rehabilitation Sciences Research, USUHS

Chief, Department of Rehabilitation, Walter Reed National Military Medical Center

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Paul F. Pasquina, MD is the Department Chief and Chair of the Physical Medicine & Rehabilitation and Director of the Center for Rehabilitation Sciences Research at Uniformed Services University of the Health Sciences, Walter Reed National Military Medical Center. Dr. Pasquina retired from the United States Army Medical Corps in 2012 as Chief of the Department of Orthopaedics and Rehabilitation at Walter Reed National Military Medical Center and the Director of the Center for Rehabilitation Sciences Research (CRSR) at the Uniformed Services University of the Health Sciences (USUHS). He is a graduate of the United States Military Academy at West Point and USUHS. In addition to being board certified in Physical Medicine & Rehabilitation (PM&R), he is also board certified in Electrodiagnostic Medicine and Pain Medicine. He completed a fellowship in sports medicine and remains interested in all aspects of musculoskeletal medicine especially as it applies to individuals with disabilities.

He is the specialty consultant to the Army Surgeon General for Physical Medicine & Rehabilitation and a Secretarial appointee on the Department of Veterans Affairs (VA) Advisory Committee for Prosthetics and Special Disabilities Programs. Dr. Pasquina has authored multiple book chapters, journal articles and policy papers. He has served as the PM&R Residency Program Director and Medical Advisor to the North Atlantic Regional Medical Command for quality healthcare. He has received multiple military awards, as well as awards for teaching and mentorship, including the U.S. Army's "A" Proficiency Designation for academic excellence, the Order of Military Medical Merit, and Honorary Fellow of the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA).

GUEST FACULTY AND PRESENTERS

Ronald K. Poropatich, MD, MS

Pulmonary, Allergy, & Critical Care Medicine
Professor of Medicine, University of Pittsburgh
Director, Center for Military Medicine Research, Health Sciences
Colonel (RET), US Army

Joseph Straatmann, OT

Adjunct Clinical Instructor, University of Pittsburgh
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UPMC Center for Assistive Technology

Steven S. Scott, DO

Center of Innovation on Disability & Rehab Research (CINDRR)
Chief, Physical Medicine & Rehabilitation
Medical Director, Polytrauma Rehabilitation Center
Medical Director, Inpatient Pain Program
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Patty Young, PT

Amputee Coordination of Care
Hunter Holmes McGuire VA Medical Center
US Department of Veterans Affairs

Michelle J. Nordstrom, OTR/L

Clinical Research Occupational Therapy
Walter Reed NMMC

Betty Liu, MD

Associate Professor, School of Medicine
Co-Director, PM&R Medical Student Education
Director, Alumni Relations
University of Pittsburgh

Michelle Luken, OT

Co-Chair, Army OT Human Performance Optimization Cabinet
Walter Reed NMMC

Faculty Disclosure

All individuals in a position to control the content of this education activity including members of the planning committee, speakers, presenters, authors, and/or content reviewers have disclosed all relevant financial relationships with any entity producing, marketing, re-selling, or distributing health care goods or services, used on, or consumed by, patients.

The following relevant financial relationships were disclosed:

- Ronald Poropatich, MD is a consultant for Triton Systems and is on the board of directors for Noveome Biotherapeutics, Inc.

No other planners, members of the planning committee, speakers, presenters, authors, content reviewers and/or anyone else in a position to control the content of this education activity have relevant financial relationships to disclose.

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CME Accreditation and Designation Statement

In support of improving patient care, this activity has been planned and implemented by the University of Pittsburgh and Center for Rehabilitation Sciences Research, Uniformed Service University of Health Sciences. The University of Pittsburgh is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

Physician (CME)

The University of Pittsburgh School of Medicine designates this live activity for a maximum of 5.0 *AMA PRA Category 1 Credits*TM. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Other Healthcare Professionals: Other health care professionals will receive a certificate of attendance confirming the number of contact hours commensurate with the extent of participation in this activity.

Disclaimer Statement

The information presented at this CME program represents the views and opinions of the individual presenters, and does not constitute the opinion or endorsement of, or promotion by, the UPMC Center for Continuing Education in the Health Sciences, UPMC / University of Pittsburgh Medical Center or Affiliates and University of Pittsburgh School of Medicine. Reasonable efforts have been taken intending for educational subject matter to be presented in a balanced, unbiased fashion and in compliance with regulatory requirements. However, each program attendee must always use his/her own personal and professional judgment when considering further application of this information, particularly as it may relate to patient diagnostic or treatment decisions including, without limitation, FDA-approved uses and any off-label uses.

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