

Paralyzed Veterans of America Gifts \$750,000 to HERL

Following HERL Director Dr. Rory Cooper's presentation on Wednesday, May 19 at the Paralyzed Veterans of America National Convention, the Paralyzed Veterans of America (PVA) donated \$750,000 to HERL in honor of PVA's 75th anniversary.

The Human Engineering Research Laboratories would like to thank the Paralyzed Veterans of America for their unwavering support. We would be unable to do what we do without the generosity of partners. Through the years, PVA has been one of HERL's staunchest advocates, and we of course remain theirs. We thank PVA for their consistent advovacy of our mission.

In the photo to the right: PVA President David Zurfluh, HERL Director Dr. Rory Cooper, PVA Executive Director Carl Blake. (Note: Everyone in attendance was fully immunized and had COVID screening to enter the hall.)



Racing SMARTWheel Helps Bring Home the Gold at 2020 Paralympics

For a better understanding of the physical demands on the upper extremities during wheelchair propulsion, in 1989 Dr. Cooper and colleagues invented the SMARTWheel, an instrumented handrim that enabled us to discover the mechanisms of repetitive strain injuries. The SMARTWheel measures push forces, frequency, length, smoothness, and speed.

Now, HERL has developed a Racing SMARTWheel that can be used to calculate the forces that a wheelchair racer applies to their pushrim when propelling. It provides the user's propulsion efficiency, how long the user maintains contact with the pushrims, and the user's speed. These details are important to racers, who want to use as efficient of a stroke as possible during a race. Providing a racer with these details allows them to adjust their technique to improve performance.

We were able to travel to the University of Illinois and their Training Center and worked with athletes like Tatyana Mc-Fadden, as well as coach Adam Bleakney, to perform an initial test of the Racing SMARTWheel. HERL researcher Hailee Kulich reports: "The experience was great, and everyone at the University of Illinois was wonderful to

HERL Receives Pitt Seed Project Grant

Dr. Rory Cooper and Dr. Jonathan Duvall received a \$50,000 Pitt Seed Project grant to focus on ways to allow students with disabilities to be more active participants in laboratory courses at Pitt. This project, conducted in partnership with Pitt's Disability Resources and Services Office, showcases Pitt's and HERL's commitment to initiatives surrounding Diversity, Equity, and Inclusion.

Generally, students with disabilities play passive roles in labora-

work with and seemed excited about HERL continuing to develop new technologies like the Racing SMARTWheel." And thanks to advanced racing technologies like the Racing SMARTWheel, Tatyana McFadden won the USA's first-ever gold medal in the mixed 4x100m universal relay this month at the 2020 Tokyo Paraympics.



Left: The Racing SMARTWheel, with its electronics exposed. Right: The Racing SMARTWheel from the pushrim side. The black marks on the Racing SMARTWheel are from Tatyana Mc-Fadden's gloves.

tory-based courses. which may lead to a subpar educational experience and could be why students with disabilities are less likely to pursue degrees in Science, Technology, Engineering, and Math (STEM) fields than the general population.

Funding will be used to evaluate current laboratory spaces and equipment for accessibility and to develop a process to provide students receiving disability-related accommodations a greater ability to participate actively in laboratory-based courses.

Current Research Abstracts

Quinby E, McKernan G, Eckstein S, Joseph J, Dicianno BE, Cooper RA, The voice of the consumer: a survey of consumer priorities to inform knowledge translation among Veterans who use mobility assistive technology, Journal of Military, Veteran and Family Health, pp. 26-39, Vol. 7, No. 2, May 2021. <u>https:// doi.org/10.3138/jmvfh-2019-0043</u>

Mobility is an important facilitator of community participation and independence. Over 23.9 million Americans use mobility assistive technology (AT) of some kind. Each year, the U.S. Department of Veterans Affairs (VA) provides over 85,000 wheelchairs, scooters, or mobility device components to Veterans. The purpose of this survey was to (1) identify gaps in skills training and knowledge of laws, standards, clinical practice guidelines, and emerging technologies among consumers of mobility AT; (2) identify consumers' preferred information sources; and (3) function as a pilot study to develop a framework for effective research dissemination and knowledge translation to be applied to future work in this area.

Methods: An online survey assessed participant priorities, awareness of mobility AT, and awareness of mobility AT knowledge sources. Open-ended comments were also collected. Gaps in consumer knowledge and awareness were identified. A k-means clustering algorithm was used to categorize

participants according to their responses and characteristics.

Results: A total of 100 participants, including 82 Veterans living in the United States, completed this survey. The average age of participants was 50.99 (SD 13.89) years, and the majority had been using their mobility AT device for six or more years. The largest knowledge and awareness gaps were identified in the areas of new technologies, AT assessment tools, and clinical practice guidelines. Word-of-mouth and Internet sources were selected as the most important sources of AT information by the largest number of participants. Consumers of mobility AT were classified into four groups, based on how they obtain information on new technologies, what types of information they would like to receive, what type of device they used, and what type of impairment they had.

Discussion: This survey demonstrated gaps in consumer knowledge with respect to new mobility AT and identified new opportunities for knowledge translation, particularly in Veteran populations. Results suggest the importance of updating dissemination and knowledge translation practices to reflect consumer preferences.

SUMMARY: Veterans most often learned about AT through other users and/or the Internet, and some people wish to receive information in other ways. Researchers can use these findings to reach those who could benefit from the new mobility AT they are creating.

Sivaknthan S, Blaauw E, Greenhalgh M, Koontz AM, Vegter R, Cooper RA, Person Transfer Assist Systems: A Literature Review, pp. 270-279, Vol. 16, No. 3, 2021. <u>https://doi.org/10.1080/174831</u> 07.2019.1673833

Objective: Novel developments in the robotics field have produced systems that can support person wheelchair transfers, maximize safety and reduce caregiver burden. The purpose of this study was to identify and describe these systems, their usability (or satisfaction), the context for which they have been or can be used and how they have been evaluated to determine evidence for their effectiveness. Method: Available research on Person Transfer Assist Systems (PTAS) was systematically gathered using similar standards to the PRISMA guidelines. The search terms were derived from common terms and via exploring similar review articles. Initial search terms displayed 1330 articles and by using the inclusion/exclusion criteria 96 articles were selected for abstract review. After full- text reviewing 48 articles were included. Results:29 articles concerned research in robotic transfer systems, 10 articles used both ceiling and floor-mounted lifts and 9 articles used only floor-mounted lifts as an intervention/ control group. The results of this analysis identified a few usability evaluations for robotic transfer prototypes, especially ones comparing prototypes to existing marketed devices. Conclusion: Robotic device research is a recent development within assistive technology. Whilst usability evaluations provided evidence that a robotic device will provide better service to the user, the sample number of subjects used are minimal in comparison to any of the intervention/control group articles. Experimental studies between PTASs are required to support technological advancements. Caregiver injury risk has been the focus for most of the comparison articles; however, few articles focus on the implications to the person.

SUMMARY: Ceiling lifts are preferred over floor assist systems, and training is necessary to lower the risk of injuries. Robotics may provide better outcomes in the future. Duvall JA, Satpute SA, Cooper RM, Cooper RA, A review of adaptive sport opportunities for power wheelchair users, Disability and Rehabilitation: Assistive Technology, Epp. 407-413, Vol. 16, No. 4, 2021. <u>https://doi.org/10.1080/17483107.2020.1767220</u>

Purpose: То identify adaptive sports opportunities for individuals who use powered wheelchairs for their primary means of mobility, and to determine barand facilitators for new sporting opportunities. riers Materials and methods: A structured literature review of the peer-reviewed scientific literature and analysis of major adaptive sport competitions information. Pubmed and Scopus were searched for the phrases "Power wheelchair sports" and "complex disability sport" to identify articles discussing competitive sport opportunities for power wheelchair users. Also, the websites and instructional materials were searched to identify what sports exist for power wheelchair users in the Paralympics, the National Veteran Wheelchair Games, the Invictus Games and the Warrior Games. Results: Eleven articles were found from Pubmed and Scopus which met the criteria, most of which were focused on power soccer. The search for sport opportunities from the four major competitions found few events where someone using a power wheelchair could participate, most of which involve a stationary chair during competition (e.g., archery, billiards). Conclusions: This literature review identified few programs for sports for people who use power wheelchairs. Many challenges such as lack of appropriate technology, lack of programs, and challenging classification categories all interact to contribute to this problem. Opportunities exist for better and more appropriate technology to be developed and for new and innovative sports and rules to be adopted for these athletes to benefit more from sport and recreation.

SUMMARY: Athletes with complex disabilities and high support needs experience a lack of sports opportunities. Therefore, better technology and rule changes should be adopted. Alqahtani S, Joseph J, Dicianno B, Layton NA, Toro ML, Ferretti E, Tuakli-Wosornu YA, Chhabra H, Neyedli H, Lopes CR, Alqahtani MM, Van de Vliet P, Kumagaya S, Kim J, McKinney V, Yang Y, Goldberg M, Cooper RA, Stakeholder perspectives on research and development priorities for mobility assistive-technology: a literature review, Disability and Rehabilitation: Assistive Technology, pp. 362-376, Vol. 16, No. 4, 2021. <u>https://doi.org/10.1080/174</u> 83107.2019.1650300

Purpose: Over one billion people with disabilities (PWDs) and older adults with mobility impairment are currently in need of assistive technology devices (ATDs) and only 10% of those population have ordinarily access to them. The need for advancement in mobility-assistive technology is growing to address the gap in ATDs provision globally. The purpose of this review is to identify potential future areas of development and research in mobility-assistive technology. **Method:** Publications were identified using scientific and medical electronic databases. Also, a limited grey literature search was conducted to muster a variety of sources.

A combination of keyword search terms was used, corresponding to the medical subject heading (MeSH) terms. **Results:** A total of 392 articles were identified, of which 75 were selected for detailed review. Twenty-eight articles were identified that met the review's inclusion criteria. Future areas of research for mobility-assistive technology were identified by

grouping the publications into four main categories. The findings of this review identified several areas of research and development in ATDs in general and mobility-assistive technology, in particular, with special attention to the importance of engaging users and stakeholders in the process of research and design. **Conclusions:** It is apparent that users' needs and priorities vary between regions within countries. The majority of studies were noted to mainly identify consumers' perspectives on a national basis. The authors, therefore, suggest that further research should be conducted on a global level to determine the knowledge and perspectives concerning future research and development needs and priorities in mobility-assistive technologies.

SUMMARY: Increasing access, quality, and affordable ATDs is a global demand. Identifying mobility consumers' needs and priorities would help to enhance their quality of life. Users' involvement in the research and design process is a crucial approach to re-shape the future research agenda.

On June 14 – which is both Flag Day and the birthday of the U.S. Army – Dr. Cooper and HERL were proud to host eminent Army and Army Veteran notables such as BG Duane R. Miller, MAJ Nicolas O'Brien, Dr. Douglas Matty, CASA Dr. Paul M. Urban, BG(ret) Bob Pleczkowski, and others for a tour of the HERL facilities and projects. Later at the University of Pittsburgh, a Flag Ceremony took place that was attended by Dr. Cooper, BG Miller, MAJ O'Brien, Dr. Matty, CASA Urban, BG Pleczkowski, Pitt Chancellor Patrick Gallagher, Pitt Vice Chancellors Anantha Shekhar and Rob Rutenbar, and others.

HERL provided tours of our labs and demonstrations of our projects in August to the University of Pittsburgh's Dr. Anantha Shekhar, Senior Vice Chancellor for the Health Sciences, and Brigadier General Maureen Weigl, Deputy Adjutant General of PA Veterans Affairs and CASA Paul Urban.



(Left to right) HERL Medical Director Dr. Brad Dicianno, HERL Director Rory Cooper, HERL Clinical Coordinator Nikitha Deepak, and Dr. Anatha Shekhar



(Left to right) BG Maureen Weigl, HERL researcher Hailee Kulich, HERL faculty Dr. Dan Ding, CASA Dr. Paul Urban



CASA Dr. Paul Urban with BG Duane Miller and staff



Flag Ceremony with Dr. Shekhar, Dr. Rob Rutenbar, Rosemarie Cooper, Pitt Emergency Coordinator Robert Chamberlain, Dr. Cooper, BG Miller, Chancellor Patrick Gallagher



Presentation of the flag by University of Pittsburgh Police Commandant Shawn Ellies to BG (ret) Bob Pleczkowski

Virtual State of the Science Symposium May 26, 2021 Social Determinants of Health Disparities in Rehabilitation and Reintegration

The State of the Science Symposium entitled "Social Determinants of Health Disparities in Rehabilitation and Reintegration" met online on May 26, 2021 via a Zoom seminar. The symposium was 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); and the University of Pittsburgh School of Health and Rehabilitation Sciences, Department of Rehabilitation Science and Technology. Course Directors were Rory A. Cooper, PhD and COL (Ret) Paul F. Pasquina, MD. Speakers included:

- Jody Mills, World Health Organizaton
- Dr. Eliana Ferretti, Federal University of São Paulo

• Dr. Markus Besemann, Canadian Armed Forces

- Dr.Urs Schneider, Fraunhofer IPA
- Dr. Lynda Davis, Veterans Affairs
- Dr. Allen Lewis, SUNY Downstate

Videos, presentations, and photos from archived symposia are available on the HERL website at <u>https://herl.pitt.edu/education-outreach/</u> symposia

<u>symposia</u>.

To be added to the mailing list, email michael.lain@pitt. edu.

Meet Your Army Podcast

Meet Your Army is a monthly series of interviews by HERL Director Dr. Rory Cooper with notable people serving in the United States Army, Veterans of the U.S. Army, or otherwise attached to the Army. The interviews can be attended syncronously online via Microsoft Teams, or watched or listened to asyncronously from the HERL website at <u>https://herl.pitt.edu/meet-yourarmy</u>. Each interview is presented in downloadable video and audio formats.

• May 2021: COL Amy Roy

COL Roy has served 25 years as an Army Active Duty Nurse. Currently she's stationed at Fort Knox as Deputy Commander and Chief Nurse of USAREC, and is the the Army Surgeon General Perioperative Nursing Consultant. She has 3 degrees: a BSN from Texas Christian University, an MSN from the Uniformed Services University of the Health Sciences, and a Masters in Strategic Studies from the US Army War College.

• June 2021: BG(Ret) Bob Pleczkowski

Army Reserve Ambassador Bob Pleczkowski retired as a Brigadier General with 28+ years of service in the United States Army Reserve. He served as the Deputy Chief of Chaplains, Reserve Component at the Office of the Chief of Chaplains (Pentagon) and as the Director of the US Army Institute for Religious Leadership at Fort Jackson, SC.

• July 2021: Carl Blake

Carl Blake is the Executive Director for Paralyzed Veterans

of America (PVA) at PVA's National Office in Washington, D.C. He was appointed Executive Director of PVA in January 2018. As Executive Director, he serves as the Chief Executive/Operating Officer of the organization. He is responsible for exercising administrative control, as directed by the President, of all offices and functions of PVA.

August 2021: COL Tracy Michael

COL Michael is currently Commander (CEO) Kimbrough Ambulatory Care Center at the Fort Meade Medical Department in Fort Meade, Maryland. Before this, he most recently served as the Director of Public Affairs and principal advisor to The Surgeon General and Commanding General, U.S. Army Medical Command on all public affairs matters including: internal and external communications, crisis communications strategies, media relations, community relations and effective utilization of all public and social media messaging platforms.

• September 2021: LTG Laura A. Potter

LTG Potter serves as the Deputy Chief of Staff, G2 - the Army's lead intelligence officer. She has served in the U.S. Army for over 32 years. Some of her previous assignments were Commanding General/Commandant, United States Army Intelligence Center of Excellence; Director, J-2, United States European Command, Germany; Deputy Chief of Staff for Intelligence, G-2, United States Army Europe, Germany; and Commander, Theater Intelligence Group, Combined Joint Interagency Task Force-435, OEF, Afghanistan.

Student Success ... with ASPIRE and ELeVATE

HERL celebrated the research efforts of our American Student Placements and Internships in Rehabilitation ASPIRE: Engineering (ASPIRE) and Experiential Learning for Riley Toll – U. of Tennessee Veterans in Assistive Technology and Engineering Design Analysis of the Multi Terrain Wheelchair (ELeVATE) summer interns during the Final Sym- Keshav Mukherjee - U. of Pittsburgh presented a series of faculty workshops covering an tional Applications array of topics (Intro to Careers in Academia, Using ELeVATE: Google Scholar, etc.) designed to provide a thorough Keona Banks - U. of Alabama/Huntsville dation-sponsored ASPIRE program is founded on the principal of sparking interest in a new generation of rehabilitation engineering researchers to transform the ASPIRE: lives of older adults and individuals with disabilities. Jordan Houseworth – Duquesne University ELeVATE is a holistic research experience designed to Freeze the Keys accommodate and augment the education of transition- ELeVATE: ing student Veterans, as well military family members Keona Banks - U. of Alabama/Huntsville and those serving in the Reserve and National Guard.

As with previous cohorts, the make-up of the 2021 interns was diverse and was aligned with HERL's vi- ASPIRE: sion of creating meaningful research opportunities for Riley Toll - U. of Tennessee all individuals. Participants came from a variety of Design Analysis of the Multi Terrain Wheelchair schools and majors. All interns were required to pre- ELeVATE: pare a paper, a poster, and an elevator pitch that high- Owen Grabowski - West Virginia University those submitted.

Winning Papers:

posium held on Thursday, July 22nd. Interns were Design Study of an Omni-Directional Wheelchair for Voca-

educational experience. The National Science Foun- A Lateral Support for the AgileLife Patient Transfer System

Winning Posters:

A Lateral Support for the AgileLife Patient Transfer System

Winning Elevator Pitch:

lighted their research, with winners selected from all Design and Development of Omni-Directional and Footprint Variable Chair

HERL Walks and Rolls for EasterSeals of Western and Central Pennsylvania

On Saturday May 15th, 2021 individuals from the Human Engineering Research Laboratories (HERL) including HERL Director Dr. Rory Cooper, Medical Director and COO Dr. Brad Dicianno, Associate Director for Stakeholder Engagement Rosemarie Cooper, and Research Assistant Nicholas Gatto put on their walking shoes, and participated in the 19th Annual Walk with Me fundraiser, which raises money to support the life-changing programs and services provided by EasterSeals to individuals with disabilities and their families living in our own communities. Altogether, Team HERL was able to raise \$785 for EasterSeals with Nicholas Gatto earning the overall top individual fundraiser award, HERL Research Assistant Libby Powers coming in second with the most funds raised individually, and Team HERL placing third as the team who raised the most money overall. It was a wonderful day and we look forward to participating in the Easter Seals Walk with Me fundraiser again in 2022.



HERL News & Notes

• HERL Medical Director Dr. Brad Dicianno was a guest on The Lucky Exile podcast discussing the treatment of adult Spina Bifida through multidisciplinary clinics. Check it out! https://theluckyexile.podbean.com/e/treating-adult-spina-bifida-through-multidisciplinary-clinics-with-brad-dicianno-md/

• University of Pittsburgh engineers, including HERL Director Dr. Rory Cooper, teamed up with Department of Veterans Affairs social workers to develop a prototype of a key-locking device that may one day prevent Veterans who are at risk of suicide from accessing a gun during a moment of crisis. Read more at https://academictimes.com/freeze-the-keys-key-locking-mechanism-aims-to-prevent-suicide-among-veterans/. The Academic Times also reported on this innovation at https://academictimes.com/freeze-the-keys-key-locking-mechanism-aims-to-prevent-suicide-among-veterans/.

• VAntage Point, the official blog of the U.S. Department of Veterans Affairs, posted a story about the HERL-created anti-suicide devices used at VAPHS. Read it at https://blogs. va.gov/VAntage/88070/va-hospital-improvises-new-device-prevent-patient-suicides/.

• VAntage Point also reported on HERL's prosthetic hook computer mouse:

https://blogs.va.gov/VAntage/87936/va-engineering-research-newest-invention-prosthetic-hook-mouse/

• HERL was visited by the University of Pittsburgh football

team in April as part of a series on community service. View highlights of their visit at https://vimeo.com/539362534.

• Dr. Rory Cooper joined Medal of Honor recipient David Bellavia on his podcast to share his story and detail his work in the field of Bioengineering. See omnystudio.com/listener for privacy information.

Listen at: https://www.audacy.com/wben/podcasts/david-bellavia-41494/david-bellavia-6-29-hour-3-with-dr-rory-cooper-505052177

• HERL Director Dr. Rory Cooper was featured in the Winter/Spring 2021 National Science Foundation Education and Human Resources Newsletter: https://content.govdelivery. com/accounts/USNSF/bulletins/2b33497

• Dr. Cooper as member on the International Paralympic Committee (IPC) Science and Research Working Group is now serving on the VISTA 2021 Scientific Committee and the Sports Advisory Council of the Wu Tsai Human Performance Alliance.

• UPMC's latest edition of its video Physician Journal series showcases HERL Medical Director Dr. Brad Dicianno's great influence on HERL innovation. See Chapter 2 on this page: https://www.upmcphysicianresources.com/physician-journal-episode-103

• HERL Director Dr. Rory Cooper took part in the 40th annual National Veterans Wheelchair Games held in New York, NY, and earned seven medals in all, receiving the gold in Ta-

HERL Directors Honored with Multiple Awards

HERL Director Dr. Rory Cooper has been awarded the extremely prestigious 2022 IEEE Technical Field Medal for Biomedical Engineering for his "extensive contributions to wheelchair technology that have expanded mobility and reduced secondary injuries for millions of people with disabilities." The Field Awards are IEEE's most prestigious honors, awarded to the men and women whose exceptional achievements and outstanding contributions have made a lasting impact on technology, society, and the engineering profession. (Learn more at https://corporate-awards.ieee.org/recipients/current-recipients/.)

Dr. Cooper also received the 2021 Sigma Xi John P. Mc-Govern Science and Society Award, which recognizes achievements by a scientist or engineer that transcend their career as a researcher. Recipients of this award represent a broad spectrum of individuals whose varied activities supported research, the communication of science, and the impact of science on society. (Learn more at https://www.sigmaxi.org/programs/prizes-awards/ john-mcgovern/award-winner/rory-a.-cooper.)

Rosemarie Cooper, HERL's Associate Director for Stakeholder Engagement, received the 2021 Therapy Clinical Excellence Award presented by Paralyzed Veterans of America. This award recognizes clinicians who have achieved national recognition and leadership, and demonstrated exceptional professional achievement, contributions, and advocacy for Spinal Cord Injury/Disease, Amyotrophic Lateral Sclerosis and Multiple Sclerosis healthcare.

On May 6, leaders of the Pennsylvania National Guard awarded Dr. Rory Cooper and Dr. Garrett Grindle the Pennsylvania Veterans Service Award for their work protecting Veterans and their caregivers during the pandemic by manufacturing PPE while the

nation's supply chain was disrupted.

> Right: Dr. Cooper, Dr. Grindle with their awards from the PA National Guard.



HERL News & Notes

ble Tennis, Slalom, and Handcycling. HERL was represented by Dr. Cooper and Rosemarie Cooper, as well as Veterans Nick Gatto and Jim Joseph.

• HERL was profiled in this article in the magazine INSIGHT Into Diversity: https://www.insightintodiversity.com/evolution-of-assistive-technology-presents-a-world-of-possibilities-for-people-with-disabilities/

• Pittsburgh's WESA reported on a robotic arm developed by a team of Pitt bioengineers led by HERL's Dr. Jennifer Collinger can now generate the sensation of touch, making it easier for the person to manipulate a robotic arm. Listen here: https://www.wesa.fm/show/the-confluence/2021-05-27/inperson-visits-resumed-this-week-at-five-state-prison-facilities (Scroll down for the article; the report begins at 6:48)

• On November 29, 2021 from 7am to 10am U.S. Eastern Time, HERL Director Dr. Rory Cooper will head the International Paralympic Committee's virtual session entitled "Technology in Parasport," which will be one of six VISTA Conference sessions covering the themes at the heart of the Paralympic movement. Learn more at https://vista2021.com/ technology-in-parasport/

• An op-ed by HERL Director Dr. Rory Cooper: "More [athletes with disabilities] could compete at every level, from community leagues to the Paralympics, but adaptive sports technology is expensive. There's much that local governments could do to improve access." Read now at https://www.gov-

Welcome to Sara Peterson

HERL welcomes Dr. Sara Peterson as the newest staff member to join the team. Sara will serve as a Research Prosthetist and clinician with the US Department of Veterans Affairs of Pittsburgh. She will split her time between HERL and the VA Heinz campus. Sara is the first female Certified Prosthetist / Orthotist who has earned a PhD recruited to the VA as a Research Prosthetist.



L to R: Dr. Sara Peterson, Michael Shulock, Katie Sears, Beth Benton

erning.com/now/the-equipment-our-disabled-athletes-need • At the 17th Annual Rehabilitation Institute Research Day 2021 co-sponsored by the Department of Physical Medicine & Rehabilitation and School for Health and Rehabilitation Sciences, Hailee Kulich was selected as recipient of Best Rehabilitation Research in the Pre-Doc/Master's category.

• Congratulations to Sara Izzo, peer counselor and research associate here at HERL and the Department of Physical Medicine and Rehabilitation, for for receiving the Chancellor's Award for Staff - the University's highest staff honor! Sara was honored for her research on spina bifida with the Centers for Disease Control and now the National Institutes of Health. This research is poised to have a significant impact on people with spina bifida and their families.

• Congratulations to HERL Medical Director Dr. Brad Dicianno on his promotion and elevated title of "Professor and Endowed Research Chair" in the Department of Physical Medicine & Rehabilitation at the University of Pittsburgh!

Welcome to Michael Shulock

HERL researcher Michael Shulock has been promoted to VA Research Biomedical Engineer. Michael Shulock graduated from the bio-engineering program at the University of Pittsburgh in May 2021. He began working at HERL through the cooperative education (Co-Op) program at Pitt in January 2019. After two semesters of Co-Op rotations, he continued to work at HERL part time while finishing his junior and senior years. As a bioengineer, Michael participates in the design and fabrication of medical devices, ensuring they meet ergonomic and biomechanical needs of patients. Michael is also a newly enlisted soldier in the Army National Guard, serving as a combat engineer.

Welcome to Katie Sears

Katie joined us in May and is serving as the executive assistant to the director of HERL, Dr. Rory Cooper. Her duties include scheduling appointments, planning travel, and generally helping in the office where need be. She previously worked at Lyft and Hertz Rental Car and graduated with her bachelor's degree in business from Point Park University.

Welcome to Beth Benton

HERL would like to welcome Beth Benton, MS, to our Directorship team as the Assistant Director of Finance and Research Administration. She received her BS in Chemistry from Clarion University of Pennsylvania and her MS in Inorganic Chemistry from the University of Illinois Urbana-Champaign. She joined HERL in 2021, and prior to joining the University of Pittsburgh, Beth was the Clinic Manager at the UPMC Center for Assistive Technology.





VA Center for Wheelchairs and Assistive Robotics Engineering

University of Pittsburgh School of Health & Rehabilitation Sciences School of Medicine

University of Pittsburgh NIDILRR Model Center on Spinal Cord Injury

National Science Foundation Advanced Technology Education Center

Automated vehicle Services for People with disabilities – Involved Responsive Engineering (ASPIRE) Center

Rory A. Cooper, PhD Director

Brad Dicianno, MD Medical Director

Michael L. Boninger, MD Senior Associate Medical Director

Alicia Koontz, PhD, RET Senior Associate Director for Research

Rosemarie Cooper, MPT Associate Director for Stakeholder Engagement

> Garrett Grindle, PhD Associate Director for Engineering

Andrea Bagay, BS, CRA Administrative Officer and Assistant Director for VA Finance & Research Administration

Beth Benton, MS Assistant Director for Finance & Research Administration

Stacy Eckstein, BS, MT (ASCP) Assistant Director for Clinical & Regulatory Affairs

> Gina McKernan, PhD Assistant Director for Data Science

Randy Williams, BA, MBA Assistant Director for Education & Outreach

STUDY RECRUITMENT

If you're interested in participating in HERL research studies, please be sure to regularly check <u>https://www.herl.pitt.edu/participate</u>

We're currently recruiting for the following studies:

- Activity Monitoring in Individuals with Spinal Cord Injury
- Development and Evaluation of Powered Personal Transfer System (PPTS)

• Evaluation of a Group 3 PPTS Focus Group Please also sign up for our Registry if you'd like to be notified about research studies in the future: <u>https://sbs.ucsur.pitt.edu/herl/</u>

WOULD YOU LIKE TO GET INVOLVED?



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And check out open jobs at <u>https://www.herl.pitt.edu/jobs</u>

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