

# Spinal Cord Research Advisory Committee



**JACOB CHALFIN**

**Chair** – *“Member who has a spinal cord injury”*

Jake was an advocate who proposed and lobbied for the bill that eventually created the SCRAC. Jake has a Bachelor of Science degree from Colorado State University, is a Supervisor with West Marlborough Township and a Sales Manager at Laurel Valley Soils, Inc. While competing as an amateur steeplechase jockey, Jake sustained a spinal cord injury in 2010 while racing in Virginia. He has a C-7 lesion ASIA B, and is paralyzed from the chest down. He had his stabilization surgery at Johns Hopkins University Hospital and underwent his rehabilitation therapy at Magee Rehabilitation Hospital. Post injury Jake has been fortunate enough to continue in his role as Sales Manager at Laurel Valley Soils, a company in Southeastern Pennsylvania that specializes in the wholesale manufacturing of compost, topsoil and engineered soils for the horticultural and construction industries. Jake married in 2015, and he and his wife have a one-year old son. Jake leads an active life and is engaged in many civic endeavors. He is also a member of Unite to Fight Paralysis, an organization dedicated to the development of curative treatments for spinal cord injuries. Jake believes there will most certainly be a cure for paralysis, and it is only matter of time before that cure is discovered. He hopes the research funded by SCRAC can help to shorten that timeline for the many Pennsylvanians living with spinal cord injuries.



**BENJAMIN ABRAMOFF, MD, MS**

**Member** – *“Member who is a physician who specializes in the treatment of spinal cord injuries”*

Dr. Benjamin Abramoff is an Assistant Professor of Physical Medicine and Rehabilitation at the University of Pennsylvania and Director of Spinal Cord Injury Services at the Penn Institute for Rehabilitation Medicine. He is a graduate of Cornell University (Life Science Communication) in Ithaca, NY and The Ohio State University College of Medicine in Columbus, OH where he received a concurrent master’s degree in Health and Rehabilitation Sciences, specializing in Health Education. Dr. Abramoff completed a residency in Physical Medicine and Rehabilitation at Emory University in Atlanta, GA and subspecialty training in Spinal Cord Injury Medicine at the Shirley Ryan AbilityLab of the Feinberg School of Medicine at Northwestern University. His ongoing research interests include team functioning, peer mentorship among individuals with disabilities, and rehabilitation needs of cancer patients.



**MICHAEL BONINGER, MD**

**Member** – *“Member who is a physician who specializes in physical medicine and rehabilitation”*

Dr. Michael Boninger is a Professor and UPMC Endowed Vice Chair for Research in the Department of Physical Medicine & Rehabilitation at the University of Pittsburgh, School of Medicine. He has joint appointments in the Departments of Bioengineering, Rehabilitation Science and Technology and the McGowan Institute of Regenerative Medicine. He is Senior Medical Director for Post-Acute Care for the Health Services Division of UPMC. He is also a physician researcher for the United States Department of Veterans Affairs. Dr. Boninger has an extensive publication record of well over 270 papers. His central research focus is on enabling increased function and participation for individuals with disabilities through development and application of assistive, rehabilitative and regenerative technologies. Dr. Boninger also has extensive experience and publications related to training researchers. Dr. Boninger holds 4 United States patents and has received numerous honors, including being inducted into the National Academy of Medicine (formerly the Institute of Medicine) of the National Academy of Science.



**FRANKLIN CALDERA, D.O., M.B.A.**

**Member** – *“Member who is a physician who specializes in physical medicine and rehabilitation”*

Dr. Franklin Caldera received a Bachelor of Science in Biology, and was the recipient of an Army Health Professional Scholarship Program for his medication education. He also earned a master’s degree in Business Administration. After graduation he completed a one-year Medical Internship at Saint Clare’s Hospital in New York in 2003. He then entered a residency in Physical Medicine and Rehabilitation Medicine at Metropolitan Hospital in New York, NY where he rose to the rank of Chief Resident, graduating in July of 2005.

Dr. Caldera entered active duty in the United States Army Medical Corps. Initially he was assigned as a staff Physiatrist from September 2006 to July 2007. In 2007 he was promoted to Chief of Physical Medicine and Rehabilitation Services, achieving the rank of Major, U.S. Army Medical Corps.

Dr. Caldera began working at the Hospital at the University of Pennsylvania in August 2010. He is the Director of the Musculoskeletal Ultrasound course which is given annually to all the PM&R residents in Philadelphia. Dr. Caldera serves as the Associate Director of the Residency Training program.

Dr. Franklin Caldera was appointed the Chief Medical Officer at Penn Rehab in 2016 and the Department of PM&R, Vice Chair for Clinical Services. His presence and leadership extends across Penn rehab’s downtown operations through management of the consultative services, the Pennsylvania Institute for Rehabilitation Medicine (PIRM) inpatient services, and the PIRM outpatient clinics. He was promoted to the rank of Associate Professor of Clinical Physical Medicine and Rehabilitation in 2016. He was also recognized as “Best Doctors in America” from 2015-2018.



**RORY A COOPER, Ph.D.**

**Member** – *“Veteran who has a spinal cord injury”*

*FISA/PVA Distinguished Professor of the Department of Rehabilitation Science and Technology*

*University of Pittsburgh, Pittsburgh PA*

*Associate Dean for Inclusion, School of Health and Rehabilitation Sciences, University of Pittsburgh*

*Founding Director of the Human Engineering Research Laboratories, VA Pittsburgh Healthcare System, Pittsburgh PA*

Dr. Rory A. Cooper holds several prestigious positions including Associate Dean for Inclusion and FISA & Paralyzed Veterans of America Distinguished Professor of Rehabilitation Science and Technology and Orthopedic Surgery at the University of Pittsburgh. He is also the Founding Director and the VA Senior Research Career Scientist at the Human Engineering Research Laboratories. He holds an adjunct professorship at the Robotics Institute of Carnegie Mellon University and is also a Professor of Physical Medicine and Rehabilitation at the Uniformed Services University of the Health Sciences in Bethesda, Maryland.

Dr. Cooper has served on federal advisory committees in the Departments of Defense, Veterans Affairs, and Health and Human Services. Currently a member of the National Academy of Medicine’s Committee on Assistive Products and Devices, Dr. Cooper has improved the lives of Veterans through technology. An Army Veteran with a spinal cord injury, he won a bronze medal in Paralympic Games in Seoul, South Korea in 1988.

Dr. Cooper holds B.S. and M.Eng degrees in electrical engineering, a PhD in electrical and computer engineering with a concentration in bioengineering, and an Honorary Doctorate from Xi’an Jiatong University in China.



#### ALEX CHARLTON

**Member** – *“Member who is a family member of a person with a spinal cord injury”*

Alex Charlton is the Director of Public Policy and Political Affairs for the Pennsylvania Association of Realtors. In this capacity he serves and the chief lobbyist and public policy expert for the Association. Prior to this position, Alex was the State Representative in Pennsylvania’s 165<sup>th</sup> Legislative District. As a member of the legislature Alex was strong advocate for Disability Rights and pushed for the passage of SB 31 legislation which created the Spinal Cord Disability Research Grant Program. Alex became a legislator and advocate for those with disabilities after one of his daughters suffered a spinal cord injury at birth. He has served on numerous boards including currently serving on the board for Values Into Action, a non-profit that provides services and support for people with disabilities. Today, Alex lives in Springfield, Delaware County with his wife and three daughters.



#### ITZHAK FISCHER, Ph.D.

**Member** – *“Member representing a PA medical college or University”*

Itzhak Fischer is Professor and Chair of the Department of Neurobiology and Anatomy at Drexel University College of Medicine and co-director of the Spinal Cord Center. He completed his PhD in Cell and Molecular Biology at the University of California Irvine and served on the scientific committees of the NIH, Neilsen Foundation, NJ Commission of spinal cord injury and TIRR Foundation. His research applies strategies of gene therapy and stem cell biology to promote regeneration and repair in spinal cord injury. Recently, the transplantation studies have been focused on the role of glial progenitors in producing permissive astrocytes, and of neuronal progenitors in forming relays to reestablish connectivity across the injured spinal cord. This approach provides a stem cell strategy for the reconnection of disrupted sensory and motor system and a framework for neuronal cell replacement in the CNS.



#### JOEL WINER, M.D.

**Member** – *“Member who is a neurosurgeon”*

Born Schenectady New York  
College BS University of Maryland Honors in Nuclear Chemistry and Computer Science  
Medical School Tulane University New Orleans Louisiana  
Public Health Service Dillingham Kanakanak Alaska  
Neurosurgical Residency Temple University Hospital / St. Christopher’s Hospital for Children Philadelphia Pennsylvania  
Neurology Queen’s Square Hospital for Nervous Disease London England  
Fellowship Epilepsy Surgery Montreal Neurological Institute Montreal Quebec Canada  
Board Certified Neurosurgery  
Practice of neurosurgery WellSpan Health York Hospital Level one trauma center over 25 years



**Elizabeth C. Tyler-Kabara, M.D., Ph.D.**

**Member** – *“Member who is a neurosurgeon”*

Elizabeth C. Tyler-Kabara, MD, PhD completed her bachelor’s degree at Duke University, double majoring in biomedical and electrical engineering, in 1989. After leaving Duke, she worked at the National Institutes of Health as a biomedical engineer. She left the NIH to attend Vanderbilt University, earning her MD and PhD in 1997.

Dr. Tyler-Kabara joined the Department of Neurological Surgery, University of Pittsburgh, in 2005. She had secondary appointments in the Departments of Physical Medicine and Rehabilitation, and Bioengineering where she served on the graduate school faculty. She is also a faculty member of the McGowan Institute for Regenerative Medicine and has served on the Executive committee since 2008. She was a member of the medical staff of Children’s Hospital of Pittsburgh of UPMC, UPMC Shadyside and UPMC Presbyterian and a consultant at Magee-Women’s Hospital of UPMC. She directed the Neural Enhancement Laboratory in the Department of Neurological Surgery. The focus of her research is improving function following injury to the central nervous system. She is a member of the Rehab Neural Engineering Laboratory.

She joined the faculty at Dell Medical School at the University of Texas in 2020. She is the Co-Chief of Pediatric Neuroscience and Chief of Pediatric Neurosurgery at Dell Children’s Medical Center. In addition, she is the Director of Restorative Neurosurgery. She is helping to build the new Neuroscience program, including a Comprehensive Epilepsy Program, Neuro-oncology, Physical Medicine and Rehabilitation, and other multidiscipline programs.