



## **2018 Brain Health and Performance Summit**

The 2018 Global Brain Health and Performance Summit, hosted by The Ohio State University Wexner Medical Center and the Stanley D. and Joan H. Ross Center for Brain Health and Performance, took place April 4-6, 2018 in Columbus, OH.

We brought together leaders across all fields of brain health and performance to share, discover and challenge our colleagues for deeper, broader and better understandings related to the complex questions within the field of neuroscience.

### **Thursday April 5**

#### **Presentations/Topics**

- Neuroscience Gets Personal
- Wearable Technologies Performance, Research and Clinical Use
- Brain Performance in the Workplace
- Ohio State Lightning Talks
- Design Thinking
- Combat 24/7 Fitness System: Genesis, Status and Future
- Analysis of Wearables: From Validation to Athlete Performance Enhancement
- NRI Research Award Recipient: Spinal cord injury-induced immunodeficiency is mediated by a sympathetic-neuroendocrine adrenal reflex
- NRI Research Award Recipient: Modeling Phenogenetics of Neurological Diseases with patient-derived stem cells, the future is now
- Truly Human
- Thrive@Hilton
- Bioelectronic Medicine Tools to Create Closed-Loop Systems for Therapy
- Advances in Neural Bypass Technology to Restore Movement in People with Paralysis
- Digital Health

# Friday April 6

## Presentations/Topics

- Brain Food and Cooking Demo
- Lifestyles and Brain Health
- Tracking Neurocapacity with an Experiment and Modeling Ecosystem
- Schulte Session: Light at Night- Edison's Impact on Sleep and Human Performance
- Schulte Session: Remote Monitoring of Motor Recovery Using Game-Based Motion Capture
- Sport Science, Wearables and Analytics Applied to Some of the Best Athletes on Earth
- Meeting Brain-Computer Interface User Expectations Using Deep Neural Network Decoding Algorithms
- Big Data to Understand Brain Health and Performance
- Central Nervous System Models for Enhancing Performance
- Neuroplasticity in Musculoskeletal Rehabilitation and Performance
- The Neurological Foundations of Flotation-Restricted Environmental Stimulation Technique and Implications for Therapeutic Intervention
- Neuro Ethics
- Diversity in Neuroscience

## Speakers

### Jeremy Abbate

Publisher, Scientific American

Jeremy A. Abbate is the VP & Publisher of Scientific American, Scientific American MIND and SA Worldview. He is responsible for developing and executing new media programs, brand extensions and collaborative ventures serving the international opinion leadership that turns to Scientific American and its related titles for the best views of the future.

As the founder of Scientific American's Worldview enterprise, a global exploration of health and life science innovation produced in collaboration with the Biotechnology Innovation Organization, he leads the teams that create its content, distribution network and visibility platforms for its sponsors. He has made many appearances at conferences and events to facilitate high-level discussions on innovative science and technology. He has spearheaded co-branded partnerships with several international organizations including the TEDMED, the Bill & Melinda Gates Foundation, and The Carter Center. Working to bring important scientific ideas into a dynamic media environment, he has led projects serving some of the world's largest corporate organizations, including Colgate Palmolive, Procter & Gamble, Philips, Life Technologies and Amgen.

Additionally, he leads several content and product initiatives at Scientific American that serve the educational and STEM markets. Abbate was previously the Director of New Business for The Scientist magazine, a media entity servicing working scientists and industry leaders. He serves on the advisory board for The Global Wellness Institute. Last year Abbate penned an

Op-Ed piece in the Wall Street Journal expressing his frustration on the state of neurodegenerative disease research and sharing his family's multi-generational battle with Alzheimer's.

## **John Banja, PhD**

Medical Ethicist and Professor, Department of Rehabilitation Medicine  
Emory University

John Banja is a Professor in the Department of Rehabilitation Medicine and a medical ethicist at the Center for Ethics at Emory University. He also directs the Section on Ethics for the Atlanta Clinical and Translational Science Institute at Emory. Dr. Banja received a doctorate degree in philosophy from Fordham University in New York and has taught and lectured on topics in medical ethics throughout the United States. He has authored or coauthored over 200 publications and has delivered over 800 invited presentations at regional, national, and international conferences. He currently serves as the Editor of the American Journal of Bioethics-Neuroscience, the leading scholarly journal in the field of neuroethics.

Dr. Banja has conducted research or educational projects with numerous federal and private organizations including the NIH, the American College of Surgeons, The Agency for Health Care Research and Quality, The National Institute for Disability and Rehabilitation Research, the American Society for Healthcare Risk Management, and the Georgia Hospital Association. He is a former board member of the Commission for Case Manager Certification as well as the American Society of Cataract and Refractive Surgery. His research interests include topics in patient safety, neuroethics and ethical dilemmas occurring in clinical and translational research. His most recent book, *Medical Errors and Medical Narcissism*, was published by Jones and Bartlett Publishers in 2005.

## **David Brooks**

Social Commentator

David Brooks has a gift for bringing audiences face to face with the spirit of our times with humor, insight and quiet passion. He is a keen observer of the American way of life and a savvy analyst of present-day politics and foreign affairs. He holds several prestigious positions as a commentator:

- Bi-weekly Op-Ed columnist for The New York Times
- Regular analyst on PBS NewsHour and NPR's All Things Considered

David's newest book, *The Road to Character*, "explains why selflessness leads to greater success. He tells the story of ten great lives that illustrate how character is developed, and how we can all strive to build rich inner lives, marked by humility and moral depth. In a society that emphasizes success and external achievement, *The Road to Character* is a book about inner worth." His previous book, *The Social Animal: The Hidden Sources of Love, Character and Achievement*, uses the story of a fictional American couple to explain the importance of neuroscience and sociology in understanding America's politics, culture, and future. His other books, *Bobos in Paradise* and *On Paradise Drive* are in a style he calls "comic sociology"—descriptions of how we live and "the water we swim in" that are as witty and entertaining as they are revealing and insightful. *Bobos in Paradise* was a New York Times bestseller.

David is currently teaching a course at Yale University. He holds honorary degrees from Williams College, New York University, Brandeis University, Occidental College, among others. In 2010, Brooks became a member of the American Academy of Arts and Sciences.

David Brooks has worked at The Weekly Standard, joining the magazine at its inception and serving as senior editor. He has been a contributing editor at Newsweek and the Atlantic Monthly. He worked at The Wall Street Journal for nine years in a range of positions, including op-ed editor.

### **Tami Cecil, Chef**

Owner, Woodhaven Farms

A graduate of the Culinary Institute of America in New York City and Napa Valley, Cecil left her high-pressure job as a stockbroker to pursue her passion. She has owned and operated several top-tier restaurants and is now owner of Woodhaven, which boasts an organic garden and greenhouse, along with a barn that houses a state-of-the-art kitchen.

### **J. Andrew Chacko, MD, MSE**

Founder of ChackoMD

Dr. J. Andrew Chacko is an internationally recognized leader in Healthcare Innovation, and a highly sought after public-speaker and consultant on a broad array of topics. As the only practicing clinician to have graduated from the Stanford program that developed Design Thinking, he expertly synthesizes years of expertise in Medicine as a Psychiatrist, work as a Designer and Innovator, and focus on Leadership and Teamwork as a Naval Officer. His unique perspective has allowed him to truly grasp the fundamental problems facing the healthcare industry. Dr. Chacko passionately shares that ability with others through his advising and consultation work, and happily cultivates that awareness in clinicians, engineers, designers and entrepreneurs through his courses and lectures on implementing Design Thinking and Leadership in Healthcare. He founded ChackoMD, a company that drives Healthcare Innovation by helping institutions and people understand and create the future of healthcare. As its principal, he has taught at universities and conferences and institutions around the world: such as Stanford University, UC Berkeley, Tokyo University, for the American Psychiatric Association and Google. He has also advised design consultancies and numerous healthcare technology start-ups, and is faculty at Project Zygote ( a Health 2.0 accelerator), and a Fellow at Jump Associates.

He is a Board-Certified Psychiatrist for the VA, having worked as a Medical Director, and an attending Psychiatrist for Stanford and UCSF. He completed his residency at Tripler Army Medical Center, where he was honored as the only civilian to date selected for a military psychiatry residency, gaining special expertise in PTSD and Traumatic Brain Injury. He earned his MD from Tufts University School of Medicine. He is a graduate of the U. S. Naval Academy, and served 12 years in the Navy, developing his leadership acumen, before completing his post-baccalaureate studies through Harvard. He earned his graduate degree at Stanford, studying both Mechanical Engineering and Art in the Joint Program in Design, taking an extra year for an in-depth study of Robotics, while working as a designer, both independently and at IDEO.

His lectures, notes, and sources of inspiration can be found on his website:  
[www.ChackoMD.com](http://www.ChackoMD.com).

He actively cultivates his creative and athletic side. He is an accomplished artist in multiple media, and enjoys making things from robots to furniture. His work has been galleried and sold. He loves dancing and is a certified Zumba Instructor. He is a certified military parachutist, rescue swimmer and rescue diver. He loves travel and has spoken ten languages over the course of his life. His biggest passions, however, are teaching and

drawing out human potential. His audiences have called him inspiring to life-changing. One of his favorite compliments came from a security guard at a lecture he gave on the Difficulties of Innovating in Healthcare, who later said that he "loved it so much [he] took notes the whole time!"

**John D. Corrigan, PhD**

Professor in the Department of Physical Medicine and Rehabilitation  
Interim Director of the Ross Center for Brain Health and Performance  
The Ohio State University

Corrigan is the Editor-in-Chief of the Journal of Head Trauma Rehabilitation and Director of the Ohio Brain Injury Program, which is the designated lead agency in the state of Ohio for TBI policy and planning. Dr. Corrigan is a member of the Board of Directors of the Brain Injury Association of America. He is a member of the Neurological & Behavioral Health Subcommittee of the Defense Health Board.

Dr. Corrigan has received many awards for his service and research in brain injury rehabilitation, including the Brain Injury Association of America's William Fields Caveness Award, the 2007 Robert L. Moody Prize and the Gold Key Award from the American Congress of Rehabilitation Medicine.

**Nick Domicone, BS**

US Air Force

Nick Domicone is a government contractor working with the US Air Force Research Labs. He graduated with a Bachelor's Degree from The Ohio State University in Biomedical Engineering. He is currently leading the AFRL's sports science efforts at The Ohio State University and the University of Cincinnati.

**David Friedenber, PhD**

Senior Research Statistician  
Battelle Advanced Analytics

**Patrick Ganzer, PhD**

Neurotechnology Research Scientist Affiliation  
Battelle Medical Devices and Neuromodulation

**Lynne Gauthier, PhD**

Assistant Professor, Department of Physical Medicine and Rehabilitation  
Director, Neurorecovery and Brain Imaging Laboratory  
The Ohio State University

**James Giordano, PhD**

Professor, Departments of Neurology and Biochemistry  
Chief, Neuroethics Studies Program, Pellegrino Center for Clinical Bioethics  
Georgetown University Medical Center

James Giordano PhD, is Professor in the Departments of Neurology and Biochemistry, and Chief of the Neuroethics Studies Program of the Pellegrino Center for Clinical Bioethics at the

Georgetown University Medical Center, Washington DC. Dr. Giordano is also Executive Director of the Center for Policy on Emerging Technologies (C-PET), a Washington DC-based think tank focusing upon novel developments in science and engineering on the global stage; and is Visiting Professor at the Coburg University of Applied Sciences, Coburg, Germany.

He has served as a Research Fellow of the European Union Human Brain Project, and as a consultant in brain science and neurotechnology to the Organisation for Economic Cooperation and Development (OECD). He was Senior Science Advisory Fellow of the Strategic Multilayer Assessment Group of the Joint Staff, Pentagon; an appointed member of the Neuroethics, Legal and Social Issues Advisory Panel of the Defense Advanced Research Projects Agency (DARPA); an appointed member of the US Department of Health and Human Services Secretary's Advisory Council for Human Research Protection, and a consultant to the Lawrence Livermore National Laboratory.

Prof. Giordano is the author of over 270 publications, 7 books, and 15 governmental whitepapers on brain science and ethics. He was awarded a PhD in biological psychology from the City University of NY, was NIEHS post-doctoral fellow in neurotoxicology and pathology at the Johns Hopkins University, and completed post-graduate training in ethics and health policy at the Neiswanger Institute of Loyola University, IL.

In recognition of his ongoing work and achievements, he has been elected to the European Academy of Science and Arts (EC) and the Dana Alliance of Brain Initiatives (DABI); is a Fellow of the Royal Society of Medicine (UK); and has been named a Distinguished Lecturer of the Institute for Electrical and Electronics Engineers (IEEE).

### **Josh Hagen, PhD**

Director, Human Performance Innovation Center

Rockefeller Neuroscience Institute, West Virginia University

Josh Hagen received his B.S. in Chemical Engineering in 2000, M.S./Ph.D in Materials Science and Engineering in 2004/2006 all from the University of Cincinnati. Josh executed his graduate research in bioelectronics at the Materials and Manufacturing Directorate at Air Force Research Labs, and shortly after joined the 711th Human Performance Wing where he began his current research thrust in Human Performance Monitoring and Augmentation. At the 711th, Josh started and led the STRONG Team and focused on measuring physiology utilizing wearable sensors and blood biomarkers, developed novel analytics for correlating and modeling the data, and beginning to understand how to take that data to optimize performance in elite military and athletics populations.

In 2018, Josh became the Director of the Human Performance Innovation Center at the Rockefeller Neuroscience Institute at West Virginia University, as well as Assistant Professor in the Department of Physiology, Pharmacology, and Neuroscience. Here he leads a multidisciplinary team focused on optimizing the performance of military, athletics, and clinical patient populations.

### **Gail Hogan**

Founder, GMH Media. Ltd.

Gail Hogan is an Emmy award winning broadcast journalist who has worked in TV and radio for over 30 years in Columbus, Ohio. Gail retired from TV news in September 2014. Gail has worked as a TV news reporter, news anchor, news magazine co-host, radio morning show personality, media trainer and most recently the founder of her own business, GMH Media, Ltd. A few years ago, Gail founded, produced and hosted her own weekly TV talk show, Showcase Columbus. That weekly show was the foundation for the daily live program, Daytime Columbus, where she acted as host and executive producer for 7 years until retirement. Gail also has a career as freelance talent. Her expertise includes on camera and voice over talent work. She spent most of her TV and radio years in Columbus, Ohio, working at WSYX-TV, WCMH-TV, 610/TVN Radio and WLWQ-FM.

Currently, Gail is partnering with the Ohio State University Ross Heart Hospital on wellness and community health projects promoting heart health. Gail is a heart disease survivor and has spent more than 25 years working for the Central Ohio Chapter of the American Heart Association. Her work with the organization is extensive. Gail was part of the Columbus Women's Heart Health initiative, to bring attention to women's heart issues. That local project, in part, led to the national Go Red for Women campaign, now a nationwide American Heart Association program.

### **Jaime Imitola, MD**

Director, Progressive Multiple Sclerosis Multidisciplinary Clinic and Translational Research Program

Assistant Professor, Department of Neuroscience and Neurology

The Ohio State University

NRI Research Award Recipient

### **Amishi P. Jha, PhD**

Associate Professor of Psychology

University of Miami

Dr. Amishi Jha is neuroscientist and Associate Professor in the Department of Psychology at the University of Miami, and Director of Contemplative Neuroscience for the UMindfulness Initiative, prior to which she was an Assistant Professor at the Center for Cognitive Neuroscience, University of Pennsylvania. She received her PhD from the University of California-Davis in 1998, and received her post-doctoral training at the Brain Imaging and Analysis Center at Duke University in functional neuroimaging. She studies the neural bases of attention and the effects of mindfulness-based training programs on cognition, emotion, and resilience. With grants from the Department of Defense, and several private foundations, she has been systematically investigating the potential applications of mindfulness training in education, sports, business, and the military.

Her work has been featured in the Journal of Cognitive Neuroscience, Emotion, and PLoSOne and she serves on the editorial boards of Journal of Experimental Psychology: General, Frontiers in Cognitive Science, and Frontiers in Cognition. She has received several awards for teaching and innovation in science, including selection as a Poptech Science and Public Leadership Fellow in 2010. She is an internationally recognized speaker who has lectured at the World Economic Forum, Aspen Institute, Pentagon, and NY Academy of Sciences as well as many other forums on topics such as optimizing attention, building brain fitness, mindfulness and other forms of contemplative training, and how to protect the brain from

stress and aging. She has been interviewed on NPR, CBS, and NBC, as well as in the NY Times, New Yorker, Washington Post, LA Times, Time Magazine, GQ, Newsweek, and Scientific American.

### **Janice Kiecolt-Glaser, PhD**

Director, Institute of Behavioral Medicine Research  
The Ohio State University

Janice Kiecolt-Glaser also holds the title of Distinguished University Professor as well as the S. Robert Davis Endowed Chair in the Ohio State College of Medicine. A clinical psychologist who works in the area of psychoneuroimmunology, she has more than 250 articles, chapters, and books. Her studies have demonstrated important health consequences of stress, including slower wound healing and impaired vaccine responses; they have also shown that chronic stress substantially accelerates inflammation which has been linked with many age-related diseases.

In addition, her programmatic work has focused on how personal relationships influence immune and endocrine function, and health. A newer segment of her research focuses on the intersection of nutritional neuroscience and psychoneuroimmunology; her recent work has shown that stress and depression can dysregulate energy metabolism following high-fat meals. Most notable among her honors is her elected membership in the National Academy of Medicine. A Fellow in the American Association for the Advancement of Science, as well as the American Psychological Association, she received the Award for Outstanding Contributions to Health Psychology twice. She has served on the editorial boards of 11 journals. Her research has been supported by a series of NIH grants, including a MERIT award.

### **Eran Klein, MD, PhD**

Neurologist and Ethicist, Department of Neurology  
Oregon Health and Science University  
Department of Philosophy  
University of Washington

Eran Klein is a practicing neurologist with a specialty in dementia and PhD in philosophy. He splits his time between the Portland VA Health Care System and Oregon Health and Sciences University in Oregon and the University of Washington's Center for Sensorimotor Neural Engineering (CSNE) in Seattle. His research includes designing and conducting qualitative studies of potential end users of brain implant technologies, such as brain-computer interfaces (BCI) for spinal cord injury and stroke and deep brain stimulation (DBS) for depression and obsessive compulsive disorder (OCD). He helps lead the Ethics Thrust at the CSNE which focuses, among other things, on integration of ethicists with neuroscientists.

Dr. Klein's work has explored how BCI and related technologies may challenge established notions of responsibility, identity, and privacy. As a clinician, he has been particularly interested in how different forms of brain modulating technologies (e.g., closed-loop DBS) might change traditional notions of the patient-clinician relationship. As a researcher, he has also focused on specific challenges that neurotechnologies may present for achieving meaningful research informed consent.

Dr. Klein will talk about his experience as an ethicist within a neural engineering center. He will highlight the importance of gathering input from users and potential users of neural



devices in order to guide neurotechnology development in ethically and socially responsible ways.

### **William Kraemer, PhD**

Director, Neuroscience/Neuromuscular Lab  
The Ohio State University

Dr. Kraemer is a full professor at The Ohio State University in the Department of Human Sciences, heading up the Neuroscience/Neuromuscular Laboratory for the study of human performance since September 2014. In 2016 he received an honorary doctorate from the University of Jyväskylä in Finland for the impact of his research worldwide.

He has published over 450 peer reviewed papers in the scientific literature and has published 12 books and with over 60,000 citations on Harzing's Publish or Perish lists, his scholarly impact is impressive. Dr Kraemer is also a Fellow in several organizations including the American College of Sports Medicine.

### **Art Kramer, PhD**

Senior Vice Provost, Research and Graduate Education  
Professor, Psychology & Engineering  
Northeastern University

Arthur Kramer is Senior Vice Provost for Research and Graduate Education and a Professor of Psychology & Engineering at Northeastern University. He previously served as the Director of the Beckman Institute for Advanced Science & Technology and the Swanlund Chair and Professor of Psychology and Neuroscience at the University of Illinois. He received his Ph.D. in Cognitive/Experimental Psychology from the University of Illinois in 1984. Professor Kramer's research projects include topics in Cognitive Psychology, Cognitive Neuroscience, Aging, and Human Factors. A major focus of his labs recent research is the understanding and enhancement of cognitive and neural plasticity across the lifespan. He is a former Associate Editor of Perception and Psychophysics and is currently a member of six editorial boards. Professor Kramer is also a fellow of the American Psychological Association, American Psychological Society, a former member of the executive committee of the International Society of Attention and Performance, and a recipient of a NIH Ten Year MERIT Award. Professor Kramer's research has been featured in a long list of print, radio and electronic media including the New York Times, Wall Street Journal, Washington Post, Chicago Tribune, CBS Evening News, Today Show, NPR and Saturday Night Live.

### **Ted Lambrinides**

Sports Science Consultant  
NFL Player Tracking Program

Ted is a graduate of The Ohio State University where he did his undergraduate studies in Business Marketing and his graduate and post-graduate studies in Physical Education and Exercise Physiology, respectively. He currently serves as the Sport Science Consultant for the NFL-Zebra Player Tracking Program, providing services for all NFL teams. He also owns and operates Sports Performance Consulting providing consulting advice on such topics as sports science technology and its implementation, sports nutrition, as well as ergogenic aids/PED use and abuse. Ted's clients have included numerous NFL, NBA, MLB, and major college programs.

Ted coordinated the Exercise Science program at Thomas More College from 1991 to 2011. He has served as an assistant strength and conditioning coach at The Ohio State University and the University of Kentucky. During this time, Ted trained 23 NBA Draft Picks of which 13 were 1st Round Draft picks and 41 NFL draft picks of which 4 were 1st Round Draft picks.

### **Ulysses J. Magalang, MD**

Director, Sleep Disorders Center

The Ohio State University

Dr. Magalang is head of an interdisciplinary program dedicated to clinical service, research and education in sleep medicine. His research focuses on sleep apnea and other sleep disorders. His laboratory utilizes a variety of models including cellular systems, animal models, and clinical research involving human subjects to examine the metabolic and cardiovascular consequences of sleep apnea, as well as to streamline the diagnosis and treatment of individuals with this condition. He is a key member of an international consortium of sleep researchers- the Sleep Apnea Global Interdisciplinary Consortium (SAGIC), a collaborative group comprised of international experts in the field of sleep research.

Dr. Magalang has contributed to the fields of sleep and pulmonary medicine through publication of over fifty original research manuscripts in major peer-reviewed journals including the New England Journal of Medicine, American Journal of Respiratory and Critical Care Medicine, Journal of Applied Physiology, and Sleep. He has served as a grant reviewer for NIH, the Department of Defense and Diabetes, UK.

### **Amanta Mazumdar**

Senior Director, Strategy and Analytics

Hilton Worldwide

Amanta Mazumdar is the Senior Director of Talent and Rewards Strategy at Hilton. In his role, he helps define strategy related to talent, leadership, recognition, and performance management for Team Members globally. As part of his work, he helps lead Thrive@Hilton, an effort launched in Summer 2017 to help Team Members thrive in all aspects of life, across Body, Mind and Spirit.

Amanta holds an MBA from the J.L. Kellogg School of Management at Northwestern University, and worked at McKinsey and Co in their Washington DC office for six years prior to joining Hilton. In his free time, he enjoys spending time with his wife and his young daughter.

### **Bernadette Melnyk, PhD, RN**

Chief Wellness Officer

The Ohio State University

Bernadette Mazurek Melnyk - recognized nationally and globally for both her clinical knowledge and her innovative approaches to a wide range of health care challenges - serves as Vice President for Health Promotion, University Chief Wellness Officer, and Professor and Dean of the College of Nursing at The Ohio State University. She also is a professor of pediatrics and psychiatry at Ohio State's College of Medicine. Dr. Melnyk's groundbreaking work spans evidence-based practice, intervention research, child and adolescent mental health, and health and wellness. A frequent keynote speaker at national and international conferences, she has consulted with hundreds of healthcare systems and colleges worldwide.

on improving quality of care and patient outcomes by implementing and sustaining evidence-based practice. Among many personal accomplishments in the profession, Dr. Melnyk has secured more than \$19 million in sponsored funding from federal agencies as principal investigator and her findings have appeared in more than 280 publications. In 2002, she received the Jessie Scott Award from the American Nurses Association, recognizing her work to improve health care quality through the integration of research, education and practice. And Dr. Melnyk has been named one of the most 30 influential nursing deans by The Mometrix Blog, which based its selections on data including awards, Top 10 rankings, NIH funding, and NCLEX passing percentage.

Dr. Melnyk is co-editor of four books, including Evidence-based Practice in Nursing & Healthcare: A Guide to Best Practice, Implementing EBP: Real World Success Stories, A Practical Guide to Child and Adolescent Mental Health Screening, Early Intervention, and Health Promotion (2nd Ed), and Intervention Research: Designing, Conducting, Analyzing and Funding, an American Journal of Nursing Book of the Year Award winner.

Dr. Melnyk is a member of the National Quality Forum's (NQF) Behavioral Health Standing Committee and the National Institutes of Health's National Advisory Council for Nursing Research. She serves as editor of the journal, Worldviews on Evidence-based Nursing, and is a board member of U.S. Healthiest, the National Guideline Clearinghouse and the National Quality Measures Clearinghouse (NGC/NQMC). Dr. Melnyk earned her Bachelor of Science in Nursing degree from West Virginia University, her Master of Science degree with a specialization in nursing care of children and pediatric nurse practitioner from the University of Pittsburgh, and her PhD in clinical research from the University of Rochester - where she also completed her post-master's certificate as a psychiatric mental health nurse practitioner. She is an elected fellow of the National Academy of Medicine, the American Academy of Nursing, the National Academies of Practice and the American Association of Nurse Practitioners.

### **Martha Clare Morris, ScD**

Director, Section of Nutrition and Nutritional Epidemiology, Dept. of Internal Medicine  
Asst. Provost of Community Research  
Rush University Medical Center

Dr. Martha Clare Morris is Professor of Epidemiology, Director of the Rush Institute for Healthy Aging and the MIND Center for Brain Health, and Assistant Provost of Community Research at Rush University in Chicago. She received her doctoral degree in Epidemiology from the Harvard School of Public Health.

Dr. Martha Clare Morris has over 20 years experience studying risk factors in the development of Alzheimer's disease and other health problems of older persons, and in particular, how nutrition relates to these conditions. She is the lead creator of the MIND diet for healthy brain aging. She has a long history of NIH and other funding to examine dietary risk factors of Alzheimer's disease. She is also the Principal Investigator of a multi-center randomized trial of the MIND diet to prevent Alzheimer's disease and the author of the book, "Diet for the MIND".

### **Don Moxley, MA**

Sport Scientist, Athletics

## The Ohio State University

Don Moxley is the owner of Lemonade Neighborhood Fitness, and Founder of ViA Performance Systems. A 1985 alum of the Ohio State University Wrestling team, he began working with the team in February 2015. That team went on to win the 2015 National Championship, the first in school history.

The cornerstone of his practice is the ability to integrate technology that gives humans of all types the ability to track their performance in strength, cardiovascular and technical training programs on a workout-by-workout basis. Using the feedback of the central nervous system to plan and periodize practice, training and recovery, we continue to learn what it takes to perform athletically at the highest levels.

His previous work includes Asst. Professor and Exercise Science program coordinator at Urbana University. He currently works as a consultant for sports/fitness facilities, individual athletes and sport organizations, and a lot of his time is spent supporting my wife, and his daughter, a member of the OSU lacrosse team.

If you would like to learn more or work together, check out [trainrecoverwin.com](http://trainrecoverwin.com).

## Craig Murdock, PhD

Technical Lead, Airman Systems Directorate  
711th Human Performance Wing  
Wright Patterson AFB

Dr. Murdock is the Signature Tracking for Optimized Nutrition and Training (STRONG) team and leads development of wearable, wireless human performance and physiological monitoring devices for personalized health and performance. Dr. Murdock has years of experience in a wide range of human physiological and biosignature sensing modalities, including nanomaterial, biochemical, and electronic methods, and has worked to design, test, optimize, and package these sensing systems for field use.

Dr. Murdock also has led the development of inexpensive, disposable bioassays that can be performed outside of laboratory environments, with measurements performed by smartphones. He obtained his Ph.D. in Electrical Engineering from the University of Cincinnati, and has a M.S. and B.S. degrees in Biomedical Engineering.

## Moheet Nagrath

Founder Principal, Leadership Architecture Worldwide LLC  
Former Chief Human Resources Officer, Procter & Gamble

Moheet Nagrath is an executive with global leadership experience in a broad range of roles as a business focused Human Resources professional. He has deep expertise in a wide set of skills in developing leaders and talent, and improving organization performance. Moheet has a successful track record as an experienced leader, expert & practitioner of large scale, systemic change in organization capabilities. Moheet had a 30 years career with P&G and served as the Chief Human Resources Officer. He held senior executive positions in several different businesses in P&G for over a decade. Moheet was a management representative on the Board.

Moheet has breadth and diversity of global experience. He held global responsibilities for 12 years: across North America, South America, Europe, Africa and Asia. His international

working experience includes living and working in 4 countries: 16+ years in the US, 4 years in Japan, 7 years in Greater China / Hong Kong, and 7 years in India.

Moheet is a Senior Advisor with the Boston Consulting Group. He is a Director on the Board of SmashFly Technologies, and a member of the Board of Advisors for worxogo, a start up technology firm. Moheet has consulting experience for about 5 years across a broad range of industries in several different countries. He has advised clients on developing leaders, managing talent, transforming organizations and HR operating models. In addition, Moheet is a strategic advisor and coach to senior executives. He speaks at public forums, teaches graduate students and writes in his areas of experience and expertise.

### **James Oñate, PhD, ATC, FNATA**

Chair of Graduate Studies, Health and Rehabilitation Sciences

Director of the PhD program, Health and Rehabilitation Sciences

The Ohio State University

Dr. James Oñate joined The Ohio State University in January 2010. He earned his PhD in Human Movement Science from the University of North Carolina at Chapel Hill in 2002 with a focus in motor learning and biomechanics. He has been an academic research faculty member interested in all aspects of human movement relative to injury prevention and performance optimization since 2003.

He currently serves as the Chair of Graduate Studies in Health and Rehabilitation Sciences, Director of the PhD program in Health and Rehabilitation Sciences, a Co-Director of OSU Sports Medicine's Movement Analysis & Performance (MAP) research program, Director of the MOVES research laboratory, a member of the Ohio High School Sports Medicine Advisory Committee, a Research Consultant to Naval Special Warfare groups, and Director of Sports Performance at Bo Jackson Elite Sports. His main research focus lies in developing functional movement based research that bridges the gap across research to clinical systems to allow for evidence-based approaches for aiding individuals to sustain optimal health and performance throughout their careers and lives.

He is an active member of the youth sports community in central OH as the Vice President of the NeXT Basketball Foundation while also coaching baseball at Olentangy Liberty High School and throughout the Ohio youth baseball community. He resides in Powell, OH with his wife Deb and his two boys Matthew and Mason and his dog Brooklyn.

### **Dhabaleswar K. (DK) Panda, PhD**

Professor and Distinguished Scholar of Computer Science and Engineering

The Ohio State University

Dhabaleswar K (DK) Panda is a Professor and University Distinguished Scholar of Computer Science and Engineering at the Ohio State University. He has published over 400 papers in the area of High-Performance Computing, Big Data and Deep Learning.

The MVAPICH2 (High Performance MPI) libraries, designed and developed by his research group (<http://mvapich.cse.ohio-state.edu>) are currently being used by more than 2,875 organizations worldwide (in 85 countries). This software is empowering a large number of supercomputers (including the 1st, 12th, 17th, and 48th ranked ones) in the world. MPI-LiFE library to accelerate processing of neuro-imaging data is available from <http://neurohpc.cse.ohio-state.edu>.

Big Data software packages for Apache Spark and Apache Hadoop (<http://hibd.cse.ohio-state.edu>) are currently being used by more than 275 organizations in 34 countries. Prof. Panda is an IEEE Fellow. More details about Prof. Panda are available at <http://www.cse.ohio-state.edu/~panda>.

### **Mitesh S. Patel, MD, MBA, MS**

Director, Penn Medicine Nudge Unit

Assistant Professor of Medicine and Health Care Management

Perelman School of Medicine and The Wharton School, University of Pennsylvania

Mitesh S. Patel, MD, MBA, MS is Director of the Penn Medicine Nudge Unit, the world's first behavioral design team embedded within a health system. He is an Assistant Professor of Medicine and Health Care Management at the Perelman School of Medicine and The Wharton School at the University of Pennsylvania. Dr. Patel is on faculty at the Penn Medicine Center for Health Care Innovation and the Center for Health Incentives and Behavioral Economics, and is a Staff Physician at the Crescenzo VA Medical Center in Philadelphia.

His research focuses on combining insights from behavioral economics with scalable technology platforms to improve health and health care. He has led more than 20 clinical trials in partnership with health systems, insurers, employers, and community organizations that tested ways to design nudges, incentives, and gamification to change clinician and patient behavior. This work includes digital health interventions using wearable devices and smartphones, and health system interventions using the electronic health record.

Dr. Patel is Co-Director of the Wharton MBA Course on E-Health and the Perelman School of Medicine Course on Health Care Systems. He has received a Career Development Award from the Department of Veterans Affairs and a Clinical Scientist Development Award from the Doris Duke Charitable Foundation. Dr. Patel's work has been published in leading medical journals including the New England Journal of Medicine, JAMA, Annals of Internal Medicine, and Health Affairs. His work has been featured in numerous media outlets including the New York Times, NBC Today Show, Wall Street Journal, Washington Post, Forbes, Bloomberg, Time, NPR and CNN.

### **Ruchika Prakash, PhD**

Associate Professor, Psychology

The Ohio State University

Dr. Prakash is an associate professor at the Department of Psychology at Ohio State University. She is the Director of the Clinical Neuroscience Laboratory and Associate Director of Center for Cognitive and Behavioral Brain Imaging; a state-of-the-art neuroimaging research facility housed in the department of psychology. Her research interests center around designing and evaluating methodologically-rigorous randomized controlled trials of exercise training and mindfulness meditation. She has published 60 peer-reviewed journal articles, with many of her papers published in top tier psychology and neuroscience journals such as Psychology and Aging, Proceedings of the National Academy of Sciences, NeuroImage, Cerebral Cortex, and Developmental Psychology.

She received the "Rising Star Designation" given by the Association for Psychological Science in 2013 and the Springer Early Career Achievement in Research on Adult Development and

Aging by American Psychological Association in 2016. Her research program is funded by the National Institutes of Health and the National Multiple Sclerosis Society.

### **Janet B. Reid, PhD**

CEO, BRBS World, LLC

Reid is the CEO of BRBS World, LLC, a private, boutique, global management consulting consortium located in Cincinnati, Ohio. She and the consortium serve a select group of forward-leaning clients whose growth is dependent upon building world-class leaders. She has extensive board experience and is active in civic affairs on a local, state and national level. Dr. Reid was a founder of the international management consulting firm, Global Novations, LLC. Global Novations, a former Goldman Sachs portfolio company, conducted client work in over 50 countries worldwide, specializing in building organizational capacity and innovation through effective talent management.

Dr. Reid spent a decade at the Procter and Gamble Company where she was first an innovation and product development executive and later a marketing executive. In addition to her scientific and marketing contributions, Dr. Reid was a pioneer in leading diversity initiatives and was given a Procter and Gamble Pioneering Woman award for groundbreaking results in changing corporate culture. She is a thought-leader in diversity and inclusion having co-authored the book *The Phoenix Principles: Leveraging Inclusion to Transform your Company* and the *Phoenix Principles Work Book*, with V. Randolph Brown. She and Vincent Brown are the developers of the concepts of Cultural Dexterity™, Familiarity, Comfort and Trust (FCT™), Global Bead™ and many other intellectual properties of Global Novations. Dr. Reid also created the powerful executive coaching and team building solutions named Success Path™, Success Path Pair™ and Success Path Team™ respectively. The Success Path™ suite of coaching options has had a significant impact on 10,000+ executives worldwide.

In higher education, she serves on the Board of Trustees of The Ohio State University. She is also on the Board of Trustees of Xavier University in Cincinnati. On Ohio State's Board, Dr. Reid is Chair of the Advancement Committee (where a \$2.5bn campaign is nearing completion), Vice Chair of the Talent and Compensation Committee and a member of the Academic Affairs and Student Life Committee and Executive Committee. On Xavier's Board, she is Chair of the Academic Affairs Committee and serves on the Executive and Governance Committees. Dr. Reid has received numerous honors and awards over the years including: Ernst & Young Entrepreneur of the Year; Deloitte and Touch 100 Wise Women; A.K. Steel Foundation Steel Magnolia; Cincinnati Youth Collaborative Dream Maker Youth Champion; Cincinnati Enquirer Woman of the Year; YWCA Career Woman of Achievement; Leadership Cincinnati Distinguished Alumni; Procter and Gamble Pioneering Black Woman; Fifth Third Bank Profiles in Courage; Speaking of Women's Health Woman of Honor; and, many more.

### **Jan Schwab, MD, PhD**

Professor of Neurology and Neuroscience  
Director, Spinal Cord Injury Division  
The Ohio State University

### **Per Sederberg, PhD**

Associate Professor, Cognitive Area, Department of Psychology  
Primary Investigator, The Ohio State University Computational Memory Lab

The Ohio State University

**Tad Seifert, MD**

Director, Sports Neurology

Norton Healthcare

Dr. Tad Seifert, is a graduate of the University of Oklahoma College of Medicine. He completed his residency in neurology at the University of Texas-Houston and a fellowship in headache and facial pain at the Houston Headache Clinic. Dr. Seifert currently serves as Director of Norton Healthcare's Sports Neurology program in Louisville, Kentucky.

Dr. Seifert is an independent neurotrauma consultant for the NFL and serves as head of the NCAA's Headache Task Force. He is currently the team neurologist for a number of Kentucky and Indiana-based colleges and universities. He is also a chairman of the Kentucky Boxing and Wrestling Commission's Medical Advisory Panel. His research interests include post-traumatic headache in athletes, as well as combat sports medicine.

**Gaurav Sharma, PhD**

Senior Research Scientist

Battelle Medical Devices and Neuromodulation

**Danny Shea**

Head of Global Expansion

Thrive Global

Shea spent over ten years at The Huffington Post, where he helped build the company from a startup into the world's leading online publication. As Editorial Director, he oversaw the site's expansion into video and led high-impact editorial initiatives, including HuffPost Rise, the solutions journalism video series, HuffPost's presence at the World Economic Forum in Davos and its WorldPost conference in London. In his time at HuffPost, he executed several high-profile launches including HuffPost Live, where he oversaw eight hours of daily live news programming, HuffPost France, the site's first foreign-language edition, and the site's presence on new platforms. He began his career there as Media Editor, covering the media industry. He has appeared in the New York Times, the Wall Street Journal, Bloomberg Business Week and on NBC's "Today" show and MSNBC's "MorningJoe." He graduated with honors from Princeton University, where he studied at the Woodrow Wilson School of Public and International Affairs.

**Regina M. Shia, PhD**

Research Psychologist

Air Force Research Laboratory

Regina M. Shia is a research psychologist for the Air Force Research Laboratory, Wright Patterson AFB, OH. She received her Bachelor's Degree from Wheeling Jesuit University where she was awarded the Reverend Frank Haig Science Award for her undergraduate thesis. Her Master's Degree in Experimental Psychology was awarded from the University of Dayton in 2001. She then pursued a position to teach for the evening division of the Human Factors Psychology program at Methodist College in Fayetteville, NC. She received her PhD. in 2008 in Human Factors Psychology from Wright State University where she studied the interaction of affect and fatigue on cognitive performance.



She worked as a full-time research scientist at NTI, Inc in Dayton, OH from 2002-2006, where she studied the development of cognitive testing procedures for the identification of performance decrements due to various stressors.

Dr. Shia is currently leading a comprehensive, diverse effort to test biomarker relationships of Battlefield Airmen stress resilience, providing foundational data for the development of near real-time biosensing. Dr. Shia is also leading a performance and safety initiative for real-time physiological sensing during early Battlefield Airmen training that currently led to ~50 mitigations of heat stress/injuries. In addition, Dr. Shia initiated a program to develop technology that will record SpO2 and heart rate in aquatic environments. The objective of this program is to reduce the number of shallow water blackouts that occur across all of the DoD.

Dr. Shia has a multidisciplinary approach to solving AF problems by collaborating with Subject Matter Experts, Exercise Physiologists, Material Engineers, and other professionals in AFRL, ARL and the NAMRU.

### **Brennan Spiegel, MD**

Director, Health Services Research, Cedars-Sinai Health System

Professor of Medicine and Public Health, University of California, Los Angeles

Dr. Brennan Spiegel is the Director of Health Services Research for Cedars-Sinai Health System and Professor of Medicine and Public Health at UCLA, where he teaches digital health science, health analytics, and cost-effectiveness analysis. Dr. Spiegel directs the Cedars-Sinai Center for Outcomes Research and Education (CS-CORE), a multidisciplinary team that investigates how digital health technologies, including wearable biosensors, smartphone applications, virtual reality, and social media, can strengthen the patient-doctor bond, improve outcomes, and save money. CS-CORE unites clinicians, computer scientists, engineers, statisticians and health services researchers to invent, test, and implement digital innovations for the clinical trenches, always focusing on the value of technology to patient and provider end-users.

Dr. Spiegel has published more than 170 articles in peer-reviewed journals. He is listed in the Analytica "Top 100 Influencer" lists for digital health (#13) and virtual reality (#14). His research has been featured by major media outlets, including Bloomberg, CBS, NBC, LA Times, and the Wall Street Journal.

### **Mark Stephenson, MS, ATC, CSCS, \*D, CSPS**

Director of Sports Science

NeuroSport Science, Inc.

Mr. Stephenson is the Director of Sports Science for NeuroSport Science, Inc. which owns and operates Rejuvenate Active Recovery Centers in Naples, FL. Mark brings with him over 28 years of experience of rehabilitation, strength and conditioning, and sport science. Mark's area of expertise is in the psychophysiological recovery of the elite performer using various recovery modalities such as, Flotation Tanks, Cryostimulation Chambers, Photobiomodulation, Biofeedback, Heart Rate Variability (HRV), EEG, and tensiomyography, to determine optimal training loads and psychophysiological recovery interventions.

Stephenson consults with various organizations from the NCAA, NFL, MLB, and NBA. He regularly presents at both national and international professional conferences on topics

related to sports science and the state of physical and psychological readiness, recovery, and performance. Previously, Mr. Stephenson served as the Human Performance Program Manager for Naval Special Warfare Development Group for over eight years. While at DEVGRU, Stephenson oversaw strength and conditioning, Sports Medicine, nutrition, mental performance/sport psychology, sport science/tactical physiology, testing and assessment, research and development, and recovery. Stephenson also served in leadership positions as the Director of the Human Performance Center at the National Strength and Conditioning Association, Head Strength & Conditioning Coach Colorado College Men's Ice Hockey, and Head Strength & Conditioning Coach Providence College.

**Adam Strang, PhD**

Human Performance Research Scientist  
Air Force Research Laboratory

**Sigrid Veasey, MD**

Professor of Medicine  
Center for Sleep and Circadian Neurobiology  
Perelman School of Medicine, University of Pennsylvania

**Julie Wilkes**

Manager, Truly Human Employee Experience  
Accenture, Columbus, Ohio

Julie is responsible for helping to re-imagine the employee experience to be in a truly human work environment, specifically focusing on our business processes that include Performance, Promotions, Hiring and Exits. Julie has been with Accenture for twenty years and also leads the North American Wellness and Disability Team.