Featured Presenter:

Dr. Alia Crum, Ph.D.
Assistant Professor of Psychology, Stanford University, CA

Dr. Crum is an Assistant Professor of Psychology at Stanford University. She received her PhD from Yale University and BA degree from Harvard University. Dr. Crum's research focuses on how changes in subjective mindsets—the lenses through which information is perceived, organized, and interpreted—can alter objective reality through behavioral, psychological, and physiological mechanisms. Her work is, in part, inspired by research on the placebo effect, a robust demonstration of the ability of the mindset to elicit healing properties in the body. She is interested in understanding how mindsets affect important outcomes outside the realm of medicine, in domains such as exercise, diet and stress. More specifically, Dr. Crum aims to understand how mindsets can be consciously and deliberately changed through intervention to affect physiological and psychological well-beings. To date, her research has won several awards including the NIH New Innovator Award, the Thomas Temple Hoopes Prize and mention in several popular media including the Boston Globe, the Wall Street Journal, and in *The New York Times Magazine's* 2007 "Year in Ideas."

Nominated publication:
Turnwald BP, Goyer JP, Boles DZ, Silder A, Delp SL, Crum AJ. 2019 Learning one's genetic risk changes physiology independent of actual genetic risk. Nat Hum Behav. Jan;3(1):48-56.

Session 1: BSSR in Health and Wellness

Yujin Lee, Ph.D.
Postdoctoral fellow, Friedman School of Nutrition Science & Policy, Tufts University, Boston, MA
Dr. Yujin Lee is a postdoctoral fellow at the Friedman School of Nutrition Science & Policy at Tufts University. She took the lead on a project to quantify the cardiometabolic health and economic impacts of nutrition policy strategies to improve diet and reduce the health and economic burden of cardiometabolic diseases; and to understand how the impacts of the policy are modified by economic disparities. Dr. Lee has presented the findings from her research at several conferences including the American Heart Association's EPI|LIFESTYLE 2018 Scientific Sessions where she was selected as a finalist for the Jeremiah and Rose Stamler Research Award for New Investigators. Dr. Lee completed her PhD in Nutritional Sciences at the Pennsylvania State University.

Nominated publication: Lee Y, Mozaffarian D, Sy S, Huang Y, Liu J, Wilde PE, Abrahams-Gessel S, Jardim TSV, Gaziano TA, Micha R. Cost-effectiveness of financial incentives for improving diet and health through Medicare and Medicaid: A microsimulation study. PLoS Med. 16(3).

David Creswell, Ph.D.
Associate Professor of Psychology, Carnegie Mellon University, Pittsburg, PA
David Creswell is an Associate Professor in Psychology and the Neuroscience Institute at Carnegie Mellon University. As director of the Health and Human Performance Laboratory, his work focuses on understanding what makes people resilient under stress. David received the American Psychological Association and the American Psychosomatic Society Early Career Awards and was named a Rising Star by the Association for Psychological Science. His work is regularly profiled in the media, including coverage in the NY Times, LA Times, NBC News, and the Today Show.

Nominated publication: Lindsay EK, Young S, Brown KW, Smyth JM, Creswell JD. 2019 Mindfulness training reduces loneliness and increases social contact in a randomized controlled trial. Proc Natl Acad Sci U S A. 116(9):3488-3493.

Keynote Address:

Chanita Hughes-Halbert, Ph.D.
Associate Dean for Assessment, Evaluation, and Quality Improvement, College of Medicine, Professor, Department of Psychiatry and Behavioral Sciences, and Distinguished AT&T Endowed Chair for Cancer Equity, Hollings Cancer Center Medical University of South Carolina

Dr. Hughes-Halbert is a nationally recognized expert in cancer disparities research and behavioral science. Her research focuses on understanding barriers to clinical trial participation in underserved communities and developing population-based interventions to reduce disparities in local settings. In order to accomplish this goal, her research identifies sociocultural, psychological and environmental determinants of cancer prevention and control, and translates this information into interventions and the dissemination of efficacious strategies into clinical and community settings. Her research has made several seminal contributions to the fields of cancer control, minority health and health disparities. Currently, she is examining community-based strategies for increasing access to, and enhancing the quality of, precision medicine strategies among medically underserved populations, with a focus on minority men. Dr. Hughes-Halbert has been the recipient of numerous honors and awards, including the American Cancer Society Cancer Control Award, Chair-Elect for the American Association for Cancer Research Minorities in Cancer Research Council, and the MUSC Leadership Fellowship Award. Dr. Hughes-Halbert was the first woman and first African American from South Carolina elected to join the National Academy of Medicine and has authored over 100 peer-reviewed scientific articles.

Session 2: Incorporating Cutting Edge Technology in Behavioral and Social Sciences Research

Roschelle "Shelly" Fritz, Ph.D., R.N.
Assistant Professor, Nursing, Washington State University, Vancouver, WA

Dr. Fritz's research focuses on the application of smart technologies in healthcare delivery. Her multidisciplinary team is developing health-assistive technologies designed to improve health outcomes for persons with chronic conditions and extend independence for older adults. Dr. Fritz's nursing career spans 3 decades with nearly 20 years spent on the frontline working in public health, emergency nursing, and hospital administration. She is a Fellow of the National Science Foundation's Integrative Graduate Education Research and Training (IGERT) program. She has advised multiple Silicon Valley health technology start-ups and is a publicly elected critical access hospital Commissioner in Washington state. Her research is supported by the National Institutes of Health's Office of Behavioral and Social Sciences Research, National Institute of Nursing Research, National Science Foundation, Sigma Theta Tau, and several private foundations.

Nominated publication:
[Cook DJ, Duncan G, Sprint G, Fritz R. 2018. Using Smart City Technology to Make Healthcare Smarter. Proc IEEE Inst Electr Electron Eng. 106(4): 708–722.](#)
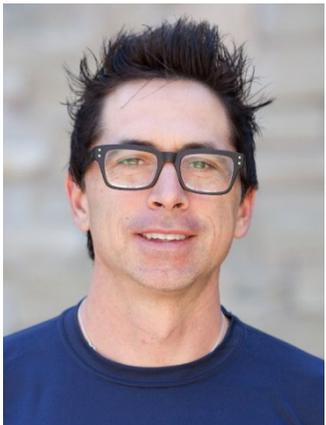
Dennis P. Wall, Ph.D.
Associate Professor of Pediatrics, Psychiatry, and Biomedical Data Sciences, Stanford, CA

Dr. Wall received his Ph.D. in Integrative Biology from the University of California, Berkeley and a National Science Foundation postdoctoral fellowship in Computational Genetics at Stanford University before joining the faculty at Harvard Medical School. He is now Associate Professor of Pediatrics, Psychiatry and Biomedical Data Sciences at Stanford Medical School. He leads a lab in Pediatric Innovation focused on developing methods in biomedical informatics to disentangle complex conditions that originate in childhood and perpetuate through the life course, including autism and related developmental delays. Dr. Wall has innovated, adapted and deployed bioinformatic strategies to enable precise and personalized interpretation of high resolution genetic, microbiological and phenotypic data. Dr. Wall has pioneered the use of machine learning and artificial intelligence for fast, quantitative and mobile detection of neurodevelopmental disorders in children, as well as the use of machine learning systems on wearable devices, such as Google Glass, for real-time "ex-clinical" therapy. These same precision health approaches enable quantitative tracking of progress during treatment throughout an individual's life

enabling big data generation of a type and scale never before possible and have defined a new paradigm for behavioral detection and therapy. Dr. Wall has founded several companies, including the digital pediatric health company, Cognoa.com and serves as advisor on several others in working on genomic and precision health. In addition, Dr. Wall has won several awards including a spot in the top ten of the World's autism researchers the Vice Chancellor's Award for Research, three awards for excellence in teaching, the Harvard Medical School Leadership award, and the Slifka/Ritvo Clinical Innovation in Autism Research Award for outstanding advancements in clinical research translation.

Nominated publication: Voss C, Schwartz J, Daniels J, Kline A, Haber N, Washington P, Tariq Q, Robinson TN, Desai M, Phillips JM, Feinstein C, Winograd T, Wall DP. 2019. Effect of Wearable Digital Intervention for Improving Socialization in Children with Autism Spectrum Disorder: A Randomized Clinical Trial. JAMA Pediatr. 1;173(5):446-454.

Ahmet Arac, M.D.
Assistant Professor, Department of Neurology, University of California Los Angeles, CA
Dr. Arac is an Assistant Professor in the Department of Neurology at UCLA. He received his medical degree from Hacettepe University in Ankara, Turkey. After medical school, he completed a 5.5-year postdoctoral research fellowship at Stanford University. He then moved to Southern California to complete his medicine internship at UC-Irvine, and neurology residency at UCLA, serving as Chief Resident. He stayed at UCLA for fellowship training in neuro-rehabilitation. During residency, he was awarded an NINDS R25 grant, and during fellowship, an NINDS K08 Career Development Award. His lab focuses on understanding the mechanisms of brain-behavior relationship, using the motor system as a model.

Nominated publication: Arac A, Zhao P, Dobkin BH, Carmichael ST, Golshani P. 2019. DeepBehavior: A Deep Learning Toolbox for Automated Analysis of Animal and Human Behavior Imaging Data. Front Syst Neurosci. 13: 20.

Session 3: Brain and Behavior

Kamran Khodakhah, Ph.D. *Chair, Dominick P. Purpura Department of Neuroscience, Florence and Irving Rubinstein Chair in Neuroscience, Vice Chair for Research, Department of Psychiatry and Behavioral Sciences, Albert Einstein College of Medicine, NY*

Dr. Khodakhah's research focus is to understand the role of the cerebellum in motor coordination, cognitive and social function, and in addiction. Of particular interest is the general computational principles of the cerebellum, its interactions with other brain structures, and its role in motor and non-motor behaviors. His laboratory takes a multidisciplinary approach from both basic science and clinical perspectives. Dr. Khodakhah was trained as a biophysicist during his graduate and postdoctoral years. His laboratory combines biophysical approaches with physiology, behavior, biochemistry and molecular biology, including using a combination of techniques, from behavioral studies to optogenetics and electrophysiology (both in vitro and in vivo).

Nominated publication: [Carta I, Chen CH, Schott AL, Dorizan S, Khodakhah K. 2019. Cerebellar modulation of the reward circuitry and social behavior. Science. 363 (6424):eaav0581.](#)

Kareem Zaghloul, M.D., Ph.D.
Investigator, Surgical Neurology Branch, National Institute of Neurological Disorders and Stroke, Bethesda, MD

Dr. Zaghloul received his B.Sc. degree from MIT in 1995 and his M.D. and Ph.D. degrees from the University of Pennsylvania in 2003. His graduate work focused on developing silicon models of visual processing in the mammalian retina with Dr. Kwabena Boahen. Dr. Zaghloul completed a residency in Neurological Surgery in 2010 from the University of Pennsylvania. During this time, he completed postdoctoral research with Dr. Michael Kahana, investigating the neural correlates of human memory encoding, decision, and reward. Dr. Zaghloul has completed clinical fellowships in Epilepsy Surgery and in DBS Surgery. Dr. Zaghloul joined NINDS as a Staff Clinician in 2010, and as an Investigator in 2013. His laboratory is focused on investigating the neural mechanisms underlying human cognitive function.

Nominated publication: [Vaz AP, Inati SK, Brunel N, Zaghloul KA. 2019. Coupled ripple oscillations between the medial temporal lobe and neocortex retrieve human memory. Science. 363(6430):975-978.](#)

Michael Baratta, Ph.D.
Assistant Professor, Department of Psychology and Neuroscience, University of Colorado Boulder, CO
Dr. Baratta's work is directed at understanding how experiential factors confer resilience to adverse events, and the neural mechanisms that mediate their effects. He earned his bachelor's degree in biological psychology from the University of California San Diego and Ph.D. in neuroscience from the University of Colorado Boulder in the laboratory of Dr. Steven Maier, where he helped identify novel and unsuspecting roles for the medial prefrontal cortex in determining how animals respond to stressors. Following postdoctoral work at MIT, Dr. Baratta returned to Boulder to establish a research program that uses circuit-level targeting and readout strategies for investigating the enduring trans-situational protective effects of coping with stress.

Nominated publication: Baratta MV, Gruene TM, Dolzani SD, Chun LE, Maier SF, Shansky RM. 2019. Controllable stress elicits circuit-specific patterns of prefrontal plasticity in males, but not females. Brain Struct Funct. 224(5):1831-1843.