

The CIDD T32 Post-doctoral Research Training Program Announces New Directors and the New Trainees Starting in July 2023

Dear CIDD Community,

It gives us great pleasure to announce that, as of July 1, 2023, [Dr. Mark Shen](#) will become the Associate Director of the CIDD T32 Post-doctoral Research Training Program on Neurodevelopmental Disorders. Dr. Shen will join [Dr. Ben Philpot](#), who will become Director of the Program. Current Director, [Dr. Joe Piven](#), will be stepping down after successfully directing this training program for over 20 years. Funded by the NIH, the CIDD T32 program has trained over 60 post-doctoral trainees to date. It was one of the first programs in the U.S. to focus on bringing together multi-disciplinary trainees to accelerate translational research on neurodevelopmental disorders.

Drs. Shen and Philpot will work with a talented group of six post-doctoral research fellows in our training program on neurodevelopmental disorders research: [Crisma Emmanuel](#), [Austin Ferguson](#), [Jiseok Lee](#), [Tyler McFayden](#), [Jieun \(Esther\) Park](#), and [Joshua Rutsohn](#). We are thrilled to have these talented postdoctoral fellows in our interdisciplinary program, and we would like to introduce the fellows and the T32 Co-Directors to the CIDD community.



[Dr. Mark Shen](#) is a developmental neuroscientist, Assistant Professor of Psychiatry, and member of the Neuroscience Center and CIDD. He is also the Co-Director of the CIDD Clinical Trials Program with Dr. Jamie Capal. Dr. Shen earned his PhD from the University of California-Davis MIND Institute, and completed the CIDD T32 postdoctoral fellowship with Drs. Joe Piven, Heather Hazlett, and Martin Styner. Dr. Shen has pioneered research on the role of aberrant cerebrospinal fluid physiology in the pathogenesis of autism and other neurodevelopmental disorders. His research identifying early brain markers of developmental disabilities has received widespread recognition, with his research articles cited in numerous prestigious annual top ten lists. As a former T32 fellow and then T32 faculty mentor since 2017, Dr. Shen is the ideal fit to co-lead our T32 training program, and we are extremely pleased that he will serve as the Associate Director this July.



[Dr. Ben Philpot](#) has been the Associate Director of the CIDD T32 postdoctoral training program since 2009, and he is excited to assume the role of Director of the program. Dr. Philpot is a Kenan Distinguished Professor in the Department of Cell Biology & Physiology. He earned his Ph.D. at the University of Virginia and performed a postdoctoral fellowship in the laboratory of Dr. Mark Bear at M.I.T. and Brown University. He is the Associate Director of the UNC Neuroscience Center and a member of the Carolina Institute for Developmental Disabilities. Dr. Philpot seeks to understand the pathophysiology underlying monogenic neurodevelopmental disorders, and he is developing small molecule and gene therapies to treat these disorders. His research focuses on early-stage development of treatments for Pitt-Hopkins, Dup15q, and Angelman syndromes. Dr. Philpot has >100 peer-reviewed scientific publications and has won multiple awards for his work in neurodevelopmental disorders.



Dr. Crisma Emmanuel received her PhD in Nursing from UNC at Chapel Hill working with Dr. Hudson Santos. Her research examines socio-environmental factors that affect child development and health among children at high risk of developing a neurodevelopmental disorder. She is currently a postdoctoral associate at UNC working with Dr. Michael O'Shea on examining environmental factors that affect the health and development of extremely preterm born children. As a T32 fellow at the CIDD, Dr. Emmanuel will evaluate biosocial factors affecting the well-being of children with a neurodevelopmental disorder.



Dr. Austin Ferguson received their PhD in Mathematics from the University of North Carolina at Chapel Hill working with Dr. Peter Mucha. Dr. Ferguson's graduate work was centered around applied math, with a focus on network analysis/graph theory and data science, working on applications with genomics data, EEG, fMRI brain scans, and social networks. As a T32 Fellow at the CIDD, Dr. Ferguson will be working with the IBIS Network, jointly at UNC with Dr. Piven's lab and with Dr. John Pruett at Washington University to develop novel methods of analyzing functional connectivity fMRI data.



Dr. Jiseok Lee received her PhD in Biological Sciences from Korea Advanced Institute of Science and Technology (KAIST) working with Dr. Eunjoon Kim. Her research examines molecular, physiological, and behavioral alterations in autism model *Shank3*-mutant mice. As a UNC CIDD T32 Fellow, Dr. Lee will work with Dr. Hyejung Won to examine transcriptomic changes in mouse brain cells after CRISPR perturbation of genes linked to autism-associated genetic variants. Her ultimate goal is to decipher gene networks involved in autism in a cell type-specific manner.



Dr. Jieun (Esther) Park received her PhD in Cell Biology from Duke University with Dr. Michel Bagnat. Her PhD work focused on the development of specialized intestinal cells important for protein absorption. For her postdoc, she decided to switch gears and focus on neuroscience with the eventual goal to better understand the connection of brain and gut development. As a UNC CIDD T32 fellow, Dr. Park will work with Dr. Jason Stein to investigate the underlying molecular mechanisms leading to cortical surface area expansion in autistic individuals early in life using brain organoids as a model system.



Dr. Joshua Rutsohn received his DrPH in biostatistics from the Gillings School of Public Health at UNC-Chapel Hill under the guidance of Dr. Young Truong. His research encompasses the estimation of latent variables from longitudinal and time-series data. As a UNC CIDD T32 Fellow, Dr. Rutsohn will work with Drs. Young Truong and José Rodríguez-Romaguera to develop arousal metrics from biometric signal data sampled from translational models. His research will attempt to find ways to model heterogeneity inherent to neurodevelopmental data.



Dr. Tyler McFayden received her PhD in Clinical and Developmental Psychology from Virginia Tech working with Dr. Thomas Ollendick. Her research examines brain and behavioral metrics of social communication in infancy, youth with neurodevelopmental disorders, and individuals who are Deaf/Hard of Hearing. As a UNC CIDD T32 Fellow, Dr. McFayden will continue to work with Dr. Clare Harrop and Dr. Michael O'Shea, in year two of the fellowship, to examine developmental trajectories of social communication in autistic youth and preterm infants. The ultimate goal of her program of research is to improve our multi-modal systems of early language detection and communication interventions for autistic youth.