

## GUT FEELINGS:

### *Interoceptive Contributions to Obesity and Disorders of Gut-Brain Interaction*

April 30–May 1, 2024 (Hybrid)  
Bethesda, Maryland



National Institute of  
Diabetes and Digestive  
and Kidney Diseases



## Workshop Co-chairs

Dr. Lin Chang  
Dr. Zachary Knight  
Dr. Christoph Thaiss

## National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) Staff

Dr. Bradley Cooke  
Dr. Diana Cummings  
Dr. Voula Osganian  
Dr. Terez Shea-Donohue

## Workshop Co-chairs

### **Lin Chang, M.D., University of California, Los Angeles**

*Professor of Medicine*



Lin Chang, M.D., is a Professor of Medicine and Vice-Chief of the Vatche and Tamar Manoukian Division of Digestive Diseases at the David Geffen School of Medicine at the University of California, Los Angeles (UCLA). She serves as the Co-Director of the G. Oppenheimer Center for Neurobiology of Stress and Resilience and Director of the Clinical Studies and Database Core for the Goodman-Luskin Microbiome Center at UCLA. She is also Program Director of the UCLA Gastroenterology Fellowship Program. Dr. Chang is a gastroenterologist and clinical investigator whose research focuses on brain–gut interactions underlying irritable bowel syndrome (IBS)—including early adverse life events, stress, sex differences, and gut microbiome—and the treatment of IBS. She serves on the Rome Foundation Board of Directors and is Past President of the American Neurogastroenterology and Motility Society.

Website: <https://www.uclahealth.org/departments/medicine/gastro/research/labs-and-programs/chang-laboratory>

### **Zachary Knight, Ph.D., University of California, San Francisco**

*Professor of Physiology*



Zachary Knight, Ph.D., is a Professor in the Department of Physiology at the University of California, San Francisco (UCSF) and an Investigator of the Howard Hughes Medical Institute. His laboratory studies the neural mechanisms that control homeostasis, especially the regulation of hunger and thirst. Dr. Knight received his B.A. in chemistry from Princeton University and his Ph.D. in chemistry from UCSF. During his Ph.D. research in the laboratory of Kevan Shokat, Dr. Knight discovered some of the first selective inhibitors of PI3-kinase and mTOR. He then performed postdoctoral studies in physiology and neuroscience in the laboratory of Jeffrey Friedman at Rockefeller University, where he developed genetic methods for identifying neural cell types in the mouse brain. Dr. Knight returned to UCSF in 2012 to start his independent research group investigating the neurobiology of homeostasis.

Website: <https://knightlab.ucsf.edu>

**Christoph Thaiss, Ph.D., University of Pennsylvania**  
*Assistant Professor*



Christoph Thaiss, Ph.D., is an Assistant Professor at the Microbiology Department of the Perelman School of Medicine at the University of Pennsylvania. Dr. Thaiss performed his undergraduate studies in molecular biomedicine at the University of Bonn, Germany, and his M.Sc. studies in microbiology and immunology at Yale University and ETH Zurich, Switzerland. After a short-term scholarship at the Broad Institute of the Massachusetts Institute of Technology (MIT) and Harvard University, he performed his graduate studies at the Weizmann Institute of Science in Israel, including a visiting fellowship at Stanford University. After completing his graduate work, Dr. Thaiss established his research group at the University of Pennsylvania. His laboratory studies the role of body–brain interactions in metabolic and inflammatory diseases, with a particular focus on the role of the intestinal microbiota in the regulation of host physiology.

Website: <https://www.thaisslab.com>

## Workshop Faculty

**Vance L. Albaugh, M.D., Ph.D., Pennington Biomedical Research Center**  
*Assistant Professor of Metabolic Surgery*



Vance Albaugh, M.D., Ph.D., earned his medical degree from Penn State College of Medicine. Dr. Albaugh then completed his residency in general surgery at Vanderbilt University Medical Center and his Fellowship in advanced laparoscopic and bariatric surgery at Cleveland Clinic. He serves as Assistant Professor of Metabolic Surgery at Pennington Biomedical Research Center at Louisiana State University (LSU), as well as Assistant Professor of Surgery at the LSU Health Sciences Center in New Orleans. In addition to being a Diplomate of the American Board of Surgery, Dr. Albaugh has extensive scientific training, earning his Ph.D. in the physiology of metabolism, with emphasis on body weight regulation and diabetes. While at Vanderbilt, he completed a postdoctoral research fellowship in surgical metabolism and bariatric surgery supported by the National Institutes of Health (NIH). As a physician–scientist, Dr. Albaugh’s research

interests include investigation of the mechanisms of metabolic surgery; detection and prevention of obesity-related cancer; and gut–brain communication in health, with obesity, and following metabolic/bariatric surgery.

Website: <https://www.pbrc.edu/research-and-faculty/faculty/albaugh-vance-phd-md.aspx>

**Amber Alhadeff, Ph.D., Monell Chemical Senses Center & University of Pennsylvania**  
*Assistant Member*



Dr. Amber Alhadeff received her Ph.D. in the laboratories of Drs. Harvey Grill and Matthew Hayes, where she investigated the effects of hindbrain neuroendocrine signaling on food intake control. After receiving her Ph.D., Amber joined the laboratory of Dr. J. Nicholas Betley at the University of Pennsylvania (Penn) for her postdoctoral research. During her time in the Betley Laboratory, Dr. Alhadeff explored the physiological regulation of homeostatic and reward circuits in the brain. The Alhadeff Laboratory opened in 2020 at the Monell Chemical Senses Center and Department of Neuroscience at Penn and is focused on the gut–brain signaling pathways underlying motivated feeding behavior. Dr. Alhadeff is a recipient of an NIH Director’s New Innovator Award and the Eppendorf & Science Prize for Neurobiology, and she is a Pew Biomedical Scholar and a New York Stem Cell Foundation – Robertson Neuroscience Investigator.

Website: [www.alhadefflab.com](http://www.alhadefflab.com)

**Polina Anikeeva, Ph.D., Massachusetts Institute of Technology**  
*Professor*



Dr. Polina Anikeeva received her B.S. in physics from St. Petersburg State Polytechnic University and her Ph.D. in materials science and engineering from MIT. She completed her postdoctoral training at Stanford University, where she created devices for optical stimulation and recording from brain circuits. She joined the MIT faculty in 2011, and she is currently the Matoula S. Salapatras Professor of Materials Science and Engineering and Brain and Cognitive Sciences. She serves as the Director of the K. Lisa Yang Brain–Body Center and an Associate Director of the Research Laboratory of Electronics. She is a member of the McGovern Institute for Brain Research. Dr. Anikeeva’s Bioelectronics group focuses on the development of minimally invasive, biologically inspired approaches to record and modulate physiology of the nervous system, especially in the context of brain–body communication. Dr. Anikeeva is a

recipient of the National Science Foundation CAREER Award, Defense Advanced Research Projects Agency Young Faculty Award, TR35, Vilcek Prize for Creative Promise, and NIH Pioneer Award.

Website: <https://bioelectronics.mit.edu>

**Lisa Beutler, M.D., Ph.D., Northwestern University Feinberg School of Medicine**  
*Assistant Professor*



Dr. Lisa Beutler earned her B.S. in genetics from the University of California, Davis and her M.D./Ph.D. from the University of Washington before completing medicine residency and endocrinology fellowship at UCSF. While at UCSF, she also completed a postdoctoral fellowship in Dr. Zachary Knight's laboratory, studying how information about ingested nutrients is rapidly communicated to the brain. Her laboratory at Northwestern University is focused on understanding both basic mechanisms of nutrient-mediated gut–brain communication and their disruption in disease states that alter energy balance.

Website: <https://lisabeutlerlab.com>

**Arthur Beyder, M.D., Ph.D., Mayo Clinic, Rochester**  
*Associate Professor*



Dr. Arthur (Art) Beyder graduated *summa cum laude* in biophysics and mathematics from the State University of New York (SUNY) Buffalo in 1998. He stayed at SUNY Buffalo and finished a combined M.D./Ph.D. in 2007. Dr. Beyder then pursued further training at Mayo Clinic in the Clinician–Investigator program. Between 2007 and 2014, he did an internal medicine residency and participated in gastroenterology and hepatology fellowship training and postdoctoral research. In 2014, Dr. Beyder joined Mayo Clinic staff as a physician–scientist. He is currently a consultant in the Division of Gastroenterology and Hepatology and an Associate Professor of Medicine and Physiology at Mayo Clinic.

Dr. Beyder runs an NIH-funded research program, the aim of which is to determine the mechanisms of “gut feelings” and, in particular, how mechanisms such as “gut touch” can be used to understand and treat gastrointestinal motility disorders. His specific expertise is in the areas of mechanical and electrical aspects of the digestive system function. His work has focused on the cellular and molecular aspects of ion channel physiology and biophysics in the gut and how forces are sensed and transduced by these ion channels. Dr. Beyder's group recently was presented with an NIH Director's New Innovator Award, recognizing the creativity of the group's work.

Website: <https://www.mayo.edu/research/labs/gastrointestinal-mechanotransduction/overview>

**Kirsteen Browning, Ph.D., The Pennsylvania State University**  
*Professor of Neural and Behavioral Science*

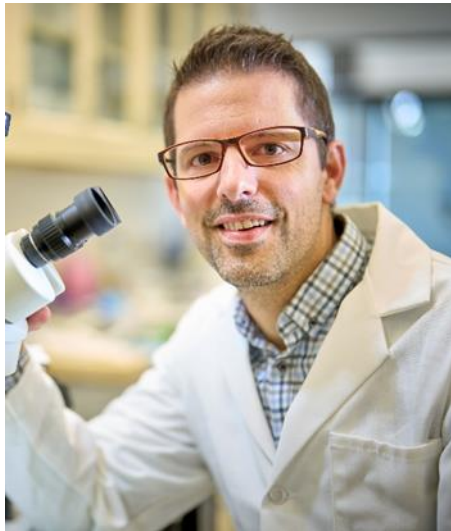


Dr. Kirsteen Browning received her B.Sc. in pharmacology from the University of Glasgow, followed by her Ph.D. in biomedical sciences from the University of Aberdeen. She is a Professor in the Department of Neural and Behavioral Sciences at the Penn State College of Medicine, and her research centers around brainstem control of autonomic neurocircuits, particularly those that regulate the gastrointestinal tract. Current projects include investigations into (1) the effects of sex and stress on vagal neurocircuit physiology and pathophysiology, (2) the effects of diet on the development of vagal neurocircuits, and (3) the pivotal role of the vagus nerve in neurological disorders, including Parkinson's disease.

Website: <https://sites.psu.edu/browninglab>

**Guillaume (Will) de Lartigue, Ph.D., Monell Chemical Senses Center & University of Pennsylvania**

*Associate Member/Associate Professor*



Guillaume (Will) de Lartigue, Ph.D., leads a research program studying the neurobiology of feeding behavior. His laboratory has been at the forefront of developing pharmacological, molecular, and genetic tools to visualize, map, record, and manipulate vagal sensory neurons. His team has identified previously unsuspected roles of gut-brain signaling in various aspects of higher-order feeding behavior. Dr. de Lartigue has received many awards and honors for his work, including the Alan N. Eppstein Award from the Society for the Study of Ingestive Behavior, the Burgen Prize from the Academia Europaea, a Pathways to Independence award from NIH, and the Acta Physiological Award from the Scandinavian Physiological Society. He currently is the elected Treasurer of the Society for the Study of Ingestive Behavior.

Websites: [www.monell.org/guillaume-de-lartigue](http://www.monell.org/guillaume-de-lartigue); [www.vagalafferents.com](http://www.vagalafferents.com)

**Arpana (Annie) Gupta, Ph.D., UCLA**  
*Associate Professor*



Dr. Arpana (Annie) Gupta, an accomplished investigator in medical research focusing on the brain, gut, and microbiome, has a Ph.D. in psychology after completing an American Psychological Association–accredited clinical internship at Massachusetts General Hospital/Harvard Medical Center. Her current research focuses on the interactions between environmental and biological factors in shaping brain–gut microbiome signatures associated with stress-based diseases, such as obesity. Broadly defined, this groundbreaking research aims to integrate two systems (the brain and the gut) to better understand the underlying mechanisms associated with obesity and altered consumption behaviors. This focus on obesity is key to a deeper understanding of the risk factors for many chronic diseases, and ones that disproportionately affect ethnic minorities and women. Backed by NIH, Dr. Gupta’s goal is to develop a

comprehensive model that provides a powerful biomarker that will increase diagnostics around obesity in an effort to improve overall health outcomes.

Website: <https://www.uclahealth.org/departments/medicine/gastro/gupta-lab>

**M. Maya Kaelberer, Ph.D., Duke University School of Medicine**  
*Assistant Professor*



Dr. M. Maya Kaelberer is a sensory neurobiologist who was awarded a Ph.D. in cellular and molecular physiology from Yale University in 2015. At Yale, Dr. Kaelberer studied how individual neurons of the vagus nerve respond to inflammation. Although the vagus has been of interest for centuries, only in recent years have the tools emerged to study single cells. These experiences were a platform for her to uncover a novel sensory neural circuit during her postdoctoral work at Duke University. There, she focused her expertise on uncovering how the gut communicates sensory signals from nutrients to the brain. Dr. Kaelberer was the leading author on an article showing the neural basis of a new sense—a gut sense. This work has opened a new field of exploration in sensory neurobiology: one to explore how nutrients affect emotions and behavior through dedicated neural circuits. Dr. Kaelberer’s research seeks to uncover the secrets of how the gut and brain talk in real time.

Website: <https://medicine.duke.edu/profile/melanie-maya-kaelberer>

**Katja Karrento, M.D., Medical College of Wisconsin & Children's Wisconsin**  
*Associate Professor of Pediatric Gastroenterology*



Katja Karrento, M.D., is Associate Professor of Pediatrics and Director of Pediatric Gastrointestinal Motility and Cyclic Vomiting Syndrome programs at the Medical College of Wisconsin. She is a clinical investigator, recently completing K23 and R03 awards by NIDDK. Her research is focused on pediatric disorders of gut–brain interaction (DGBI), particularly nausea and vomiting disorders and gastric motor disturbances along with noninvasive neuromodulation therapies. Her work on auricular neuromodulation was published in *The Lancet* and resulted in the first U.S. Food and Drug Administration approval for a treatment for pediatric IBS. She received the 2017 North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN) Prize for Excellence in Research and the 2018 International Foundation for Functional Gastrointestinal Disorders Pediatric Scientist Award, among others. Dr. Karrento chairs the

NASPGHAN cyclic vomiting syndrome treatment guidelines task force and is a member of the international Rome V diagnostic criteria committee for pediatric DGBI.

Website: [https://fcd.mcw.edu/?faculty/view/name/Katja\\_K.\\_Karrento\\_MD/id/4788](https://fcd.mcw.edu/?faculty/view/name/Katja_K._Karrento_MD/id/4788)

**Purna Kashyap, M.B.B.S., Mayo Clinic, Rochester**  
*Professor of Medicine and Physiology*



Purna Kashyap, M.B.B.S., is a practicing gastroenterologist, Professor of Medicine and Physiology, and the Bernard and Edith Waterman Director of the [Microbiomics Program](#) at Mayo Clinic, Rochester, Minnesota. The NIH-funded Gut Microbiome Laboratory, led by Dr. Kashyap, is focused on delineating the complex interactions among diet, gut microbiome, and host gastrointestinal physiology. The laboratory uses germ-free mouse models in conjunction with *in vitro* and *in vivo* measures of gastrointestinal physiology to investigate effects of gut microbial products on host gastrointestinal function. In parallel, it uses a systems approach, incorporating multi-omics, patient metadata, and physiologic tissue responses in human studies, to aid in discovery of novel microbial drivers of disease. The overall goal of the program is to develop novel microbiota-targeted therapies. Dr. Kashyap has published nearly 100 peer-reviewed articles,

including in such journals as *Cell*, *Cell Host Microbe*, *Science Translational Medicine*, *Nature Communications*, and *Gastroenterology*. He serves on the council and the research committee of the American Gastroenterology Association, in an editorial role for the journal *Gut Microbes*, and as an *ad hoc* reviewer on NIH study sections.

Website: <https://www.mayo.edu/research/labs/gut-microbiome/about>



**Sahib Khalsa, M.D., Ph.D., Laureate Institute for Brain Research**  
*Director of Clinical Operations*



Dr. Sahib Khalsa received an M.D. and Ph.D. in neuroscience from The University of Iowa and completed his residency training in psychiatry at UCLA, serving as the Program Chief Resident and Chief Resident in the UCLA Anxiety Disorders Program. He is currently the Director of Clinical Operations at the Laureate Institute for Brain Research in Tulsa, Oklahoma, as well as an Associate Professor in the Oxley College of Health Sciences at The University of Tulsa.

Dr. Khalsa's work as a physician–scientist aims to delineate how interoception influences mental and physical health, using innovative physiological probes to study heart–brain and gut–brain communication. Central aims of this work include discovering modifiable neuroscience-based targets to improve the treatment of psychiatric conditions, such as anxiety and eating disorders, as well as medical issues affecting the gastrointestinal and cardiovascular systems.

Website: <https://www.laureateinstitute.org/sahib-khalsa.html>

**Zhongming Liu, Ph.D., University of Michigan**  
*Associate Professor*



Dr. Zhongming Liu received his B.S. and M.S. in electrical engineering from Zhejiang University and his Ph.D. in biomedical engineering from the University of Minnesota. He was a research fellow at NIH (2009–2013) and a faculty member at Purdue University (2013–2019). Since 2020, he has been working at the University of Michigan as an [Associate Professor in Biomedical Engineering and in Electrical Engineering and Computer Science](#). He directs the Laboratory of Integrated Brain Imaging in developing advanced techniques for imaging, recording, stimulating, and modeling the brain to accelerate progress in neurosciences, neural engineering, and artificial intelligence. Ongoing projects include (1) imaging gut–brain interactions in rodents and humans, (2) imaging and modeling brain activity and its association with behavior, and (3) aligning human and artificial neural networks.

Website: <https://libi.engin.umich.edu/profile/zhongming-liu>

**Sarkis Mazmanian, Ph.D., California Institute of Technology**  
*Professor*



Sarkis Mazmanian, Ph.D., is the Luis & Nelly Soux Professor of Microbiology in the Division of Biology & Biological Engineering at the California Institute of Technology (Caltech). He is a Phi Beta Kappa graduate from UCLA, where he also received his doctoral training in microbiology and immunology. Dr. Mazmanian was a Helen Hay Whitney Postdoctoral Fellow at Harvard Medical School. His laboratory at Caltech studies the human gut microbiome, with a focus on developing novel therapies for immunologic and neurologic disorders, including inflammatory bowel disease, autism spectrum disorder, and Parkinson’s disease. Dr. Mazmanian has been a principal investigator on 13 NIH grants and numerous foundation and industry-sponsored projects. His research accomplishments have been recognized through many awards, including a Searle Scholarship, Damon Runyon Innovation Award, Catalyst Award

(UCLA), *Discover Magazine*’s “Best Brains in Science under 40,” a MacArthur Foundation “Genius” Award, and the DuPont-Danisco Microbiome Science Award. He is a founder of three biotechnology companies and serves on the Scientific Advisory Board of over a dozen companies, academic centers, and nonprofit foundations. Most importantly, Dr. Mazmanian has trained numerous students and fellows who have gone on to successful independent careers in academia, industry, and medicine.

Website: <https://sarkis.caltech.edu>

**Albert Orock, Ph.D., University of Oklahoma Health Sciences Center**  
*Postdoctoral Fellow*



Dr. Albert Orock is originally from Cameroon, Africa. He traveled to the United States to attend college and received a B.S. in biomedical engineering from the University of Central Oklahoma. After earning his undergraduate degree, he transferred to the University of Oklahoma Health Sciences Center (OUHSC) to earn a Ph.D. in neuroscience under the mentorship of Dr. Ferenc Deak, studying the molecular mechanisms of age-related memory loss. Dr. Orock then went on to conduct postdoctoral research in the laboratory of Dr. Beverley Greenwood-Van Meerveld in the area of neurogastroenterology. He is currently working with Dr. Anthony Johnson at OUHSC, where he uses rodent models of IBS to investigate the role of behavioral therapies in ameliorating visceral hypersensitivity.

Website: <https://profiles.ouhsc.edu/display/214206>

**Pankaj (Jay) Pasricha, M.D., M.B.B.S., Mayo Clinic, Scottsdale**  
*Professor of Medicine*



Pankaj (Jay) Pasricha, M.D., M.B.B.S., is Chair of the Department of Internal Medicine and a consultant in the Division of Gastroenterology and Hepatology at Mayo Clinic in Scottsdale, Arizona. He joined the staff of Mayo Clinic in 2022 and holds the academic rank of Professor of Medicine, Mayo Clinic College of Medicine and Science.

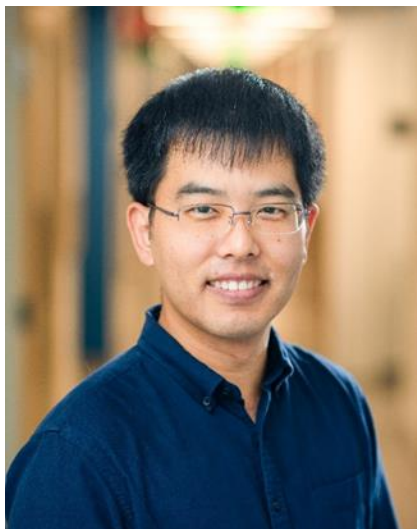
Dr. Pasricha earned his B.Sc. at Delhi University in New Delhi, India, and his M.B.B.S. at All-India Institute of Medical Sciences in New Delhi, where he also completed an internal medicine residency. He continued his training at [The Johns Hopkins Hospital](#) in Baltimore, Maryland, completing fellowships in gastroenterology and advanced and therapeutic endoscopy. Dr. Pasricha has served as Chair of Gastroenterology at The University of Texas, Stanford University, and Johns Hopkins

Bayview Medical Center. Prior to joining Mayo Clinic, Dr. Pasricha was Vice Chair of Medicine, Innovation, and Commercialization at The Johns Hopkins University School of Medicine.

Dr. Pasricha's research focuses on the nervous system within the gut and the connections between the gut and the brain. He is engaged in both basic and clinical research, with both areas interacting with each other. Dr. Pasricha's laboratory research investigates neural stem cells and how nerve cells are coded to function, and he examines the messages nerve cells send to each other. These messages can sometimes cause problems, such as difficulty in swallowing, nausea, vomiting, abdominal pain, and constipation. His research investigates how these signals can cause problems with the brain itself, as well as how the gut microbiome influences those signals.

Website: <https://www.mayo.edu/research/faculty/pasricha-pankaj-j-m-b-b-s-m-d/bio-20551507>

**Chen Ran, Ph.D., The Scripps Research Institute**  
*Assistant Professor*



Dr. Chen Ran obtained his B.S. from Peking University in 2011. He received his Ph.D. from Stanford University in 2017, working on somatosensory coding with Dr. Xiaoke Chen. Dr. Ran was trained as a postdoctoral fellow in the laboratory of Stephen Liberles at Harvard Medical School, where he used *in vivo* brainstem imaging to study viscerosensory coding. Dr. Ran is an Assistant Professor at The Scripps Research Institute, and the Ran laboratory aims to unravel how the nervous system detects mechanical, chemical, and thermal stimuli from the periphery to synthesize our internal sensations, such as satiety, hunger, nausea, hypoxia, and visceral pain.

Website: <https://www.ran-lab.org>

**Linda Rinaman, Ph.D., Florida State University**

*Professor*



Dr. Linda Rinaman earned her Ph.D. in neuroscience at the University of Pennsylvania in 1989, followed by postdoctoral training with Pat Levitt, Gloria Hoffman, and Joseph Verbalis. She established her independent research group in 1995 at the University of Pittsburgh, where she rose to the rank of Full Professor, directed the Neuroscience Graduate Training Program, and served as Assistant Dean of Graduate Studies. In 2017, Dr. Rinaman was recruited back to her undergraduate alma mater, joining the Department of Psychology and Program in Neuroscience at Florida State University (FSU). At FSU, her NIH-funded research program uses rodent models to examine the multisynaptic neural pathways through which animals respond to emotional and physiological stress and how early-life nutrition and other experiences modify these neural circuits to shape life-long motivated behaviors and stress responsiveness.

Website: <https://psychology.fsu.edu/person/linda-rinaman>

**Darleen Sandoval, Ph.D., University of Colorado Anschutz Medical Campus**

*Professor*



Dr. Darleen Sandoval is a Professor of Medicine in Pediatrics, Section of Nutrition, at the University of Colorado Anschutz Medical Campus. She received her Ph.D. in exercise science at Arizona State University and did a postdoctoral fellowship at Vanderbilt University in the Division of Endocrinology. Her first faculty appointment was in the Division of Endocrinology at the University of Cincinnati and then later in the Department of Surgery at the University of Michigan. Dr. Sandoval's research focuses on the role of the gut-brain axis in regulating metabolism. There are two underlying themes to this work. One is focused on understanding the mechanisms and consequences of bariatric surgery. The other is focused on understanding the physiology, pharmacology, and pathophysiology of glucagon-like-peptide-1 (GLP-1), a gut peptide. The metabolic success and widespread physiological

effects of bariatric surgery and of GLP-1-targeted therapeutics for obesity and diabetes underscores the critical role of the gut in regulating homeostasis. Dr. Sandoval has more than 120 publications and has been funded by NIH, the American Diabetes Association, and various other foundation and pharmaceutical research grants.

Website: <https://medschool.cuanschutz.edu/pediatrics/sections/nutrition/faculty2/sandoval-lab>

**Roberta Sclocco, Ph.D., Spaulding Rehabilitation Hospital and Massachusetts General Hospital, Harvard Medical School**

*Assistant Professor*



Dr. Roberta Sclocco received her Ph.D. in bioengineering from Politecnico di Milano, Italy, and completed her postdoctoral training at the Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Harvard Medical School. Currently an Assistant Professor at Spaulding Rehabilitation Hospital and Massachusetts General Hospital, Dr. Sclocco focuses on brain–gut axis physiology, autonomic neuroimaging, and neuromodulation. Her primary research efforts converge on the topic of characterizing and modulating the interactions between the brain and the body and between central and peripheral autonomic nervous systems using noninvasive approaches, such as magnetic resonance imaging, and neuromodulatory interventions, such as vagus nerve stimulation. Dr. Sclocco’s ongoing projects include noninvasive modulation of gastric interoception in humans.

Website: <https://napadowlab.mgh.harvard.edu>

**Mireille Serlie, M.D., Ph.D., Yale University School of Medicine**

*Professor*

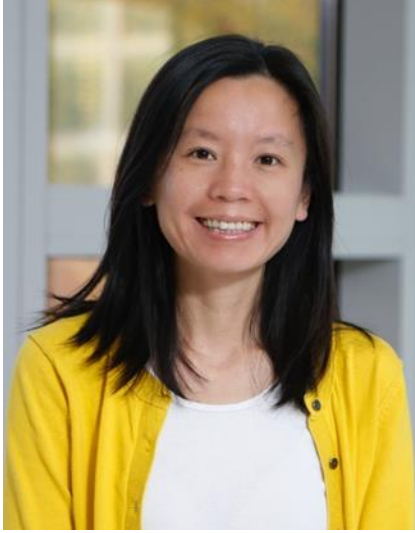


Dr. Mireille Serlie earned her M.D. and Ph.D. from the University of Amsterdam the Netherlands, and she is an endocrinologist at the Amsterdam University Medical Center. In 2019, she was appointed Professor of Medicine, Nutrition, and Energy Metabolism at the University of Amsterdam. In 2023, she began also working at Yale School of Medicine, where she was promoted to Professor of Medicine in the Section of Endocrinology. Her research focuses on metabolic consequences of obesity and on the role of the brain in body weight regulation in humans.

Website: <https://medicine.yale.edu/profile/mireille-serlie>

**Lihua Ye, Ph.D., The Ohio State University**

*Assistant Professor*



Dr. Lihua Ye received her Ph.D. in cell biology and physiology from the Indiana University School of Medicine and completed a postdoctoral fellowship at Duke University School of Medicine in the Department of Molecular Genetics and Microbiology. Her research focus at Duke was the development and function of intestinal sensory circuitry in zebrafish. Dr. Ye is the recipient of an early-career development K01 award from NIDDK titled “Enteroendocrine Cells (EECs) Sense Gut Bacteria and Activate a Gut–Brain Pathway.” EECs are specialized chemosensory cells in the digestive tract, and this work will strengthen understanding of the precise microbial mechanisms and the cellular pathways that allow gut microbes to communicate with the brain. In general, the Ye laboratory is interested in understanding the function of EECs in health and disease conditions and developing approaches to manipulate EEC function for disease treatment.

Website: <https://medicine.osu.edu/find-faculty/non-clinical/neuroscience/lihua-ye-phd>