Monday, November 8th, 2021
via ZOOM

Event Agenda

4:45-5:00  Mentors and volunteers check in
5:00-5:15  Welcome and Keynote address
5:15-5:30  Best Mentors Award
5:30-6:00  Mentoring session I
6:00-6:30  Mentoring session II
6:30-6:55  Mentoring session III
6:55-7:00  Closing statement
William Pu, MD, is the Director of Basic and Translational Cardiovascular Research in the Department of Cardiology at Boston Children’s Hospital, and the Aldo R. Castañeda Professor of Pediatrics at Harvard Medical School. Dr. Pu has broad expertise in cardiac biology that includes cardiac development, heart failure, cardiac regeneration and in vitro cardiac disease modeling. His lab has made fundamental discoveries in gene regulation in developing and diseased hearts, particularly in the area of transcriptional regulation. His lab is currently studying the pathogenesis of inherited heart diseases and using insights gained to developed targeted therapies.

Dr. Pu completed his combined BS-MS degree at Yale University and obtained his MD degree from the Harvard Medical School/MIT Science and Technology Program in 1993. He trained in Pediatrics and Pediatric Cardiology at Boston Children's Hospital. He received his training in basic research in the laboratories of Kevin Struhl, David Clapham, and Seigo Izumo. He established an independent research lab at Boston Children’s in 2004.
Dr. Moses is the Julia Dyckman Andrus Professor at Harvard Medical School and the Director of the Vascular Biology Program at Boston Children’s Hospital. She has made significant contributions to our understanding of the biochemical and molecular mechanisms that underlie the regulation of tumor growth and progression. The Moses Lab has discovered a number of regulators of tumor growth and neovascularization that function at both the transcriptional and translational level, some of which are being developed for potential clinical use. To complement these mechanistic studies, she created a Precision Medicine Initiative in her laboratory and has utilized its resources, including an extensive human biorepository and significant expertise in proteomics, to discover and validate a number of novel, non-invasive biomarkers for a variety of cancers for which the Journal of the National Cancer Institute named her a pioneer in the field of cancer biomarkers. To augment these studies, the Moses Lab has recently engineered novel, non-toxic, actively targeted nanomedicines for the treatment of breast, pancreatic and brain cancer, among others. Her group has also recently reported the mechanism by which breast cancer extracellular vesicles breach the blood brain barrier to prepare a pre-metastatic niche in breast to brain metastasis and the downstream consequences of this activity. They have recently engineered novel exosome mimetics for drug delivery and biomarker use as well. These potential therapeutics and diagnostics form the basis of her extensive patent portfolio. Dr. Moses has been elected to the Institute of Medicine (National Academy of Medicine) of the National Academies of the United States, the National Academy of Inventors, the American Institute for Molecular and Biological Engineering and as a Fellow of the American Association for the Advancement of Science. She is also nationally recognized as a highly committed and effective mentor.
Christopher A. Walsh, MD, PhD  
BCH

Dr. Christopher A. Walsh is Bullard Professor of Pediatrics and Neurology at Harvard Medical School, Chief of the Division of Genetics and Genomics at Boston Children’s Hospital, an Investigator of the Howard Hughes Medical Institute, and an Associate Member of the Broad Institute. Dr. Walsh completed his MD and PhD degrees at the University of Chicago, neurology residency and chief residency at Massachusetts General Hospital, and postdoctoral training in Genetics at Harvard Medical School with Dr. Connie Cepko. In 1993 he became Assistant Professor of Neurology at Harvard and Beth Israel Deaconess Medical Center. From 2003-2007 he served as Director of the Harvard-MIT Combined MD-PhD training program. He moved to Boston Children’s Hospital in 2006, becoming Chief of Genetics.

Dr. Walsh’s research has focused on the development, function, and evolution and of the human cerebral cortex, pioneering the analysis of genetic diseases that affect the developing brain, and has discovered that some of these disease genes were important targets of the evolutionary processes that shaped the human brain. In 2017 he inaugurated the Allen Discovery Center for Human Brain Evolution at Boston Children’s Hospital and Harvard Medical School, bringing together brain science with evolutionary genetics to search for the key changes in the genome that endow humans with their unique abilities for language, art, culture, and science. Dr. Walsh is an elected member of the American Association of Physicians, the National Academy of Medicine, the American Academy of Arts and Sciences, and the National Academy of Sciences, and received the Gruber Neuroscience Award in 2021.
Dr. Krause had worked at Vertex Pharmaceuticals in the Clinical Biomarkers Group since 2018. Her focus is to develop biomarker strategies for several rare diseases and develop and validate biomarker assays to then implement them in the clinic. Dr. Krause also leads Companion Diagnostic developments at Vertex.

Prior to Vertex, she was at Momenta Pharmaceuticals as the project lead for a new antibody construct in the field of immunotherapy. Leading a team of research scientists, they performed in vitro and in vivo studies to complete a preclinical package necessary to start human clinical trials of their compounds. Dr. Krause was also the Research lead for an oncology drug which was tested in a Phase I/II study in patients with metastatic pancreatic cancer.

Prior to Momenta, Dr. Krause was a postdoctoral fellow at Boston Children’s Hospital (BCH) and the Wyss Institute of Biologically Inspired Engineering in the laboratory of Donald Ingber working on various breast cancer projects from 2008-2013. During that time and together with her colleague, Nader Ghasemlou, she co-founded the postdoc association at BCH.
Dr. Machlus, an Assistant Professor at Boston Children’s Hospital and Harvard Medical School. She obtained her PhD at the University of North Carolina at Chapel Hill under the supervision of Dr. Alisa Wolberg, studying the pathophysiology of venous thromboembolism. She then did her postdoc with Dr. Joseph Italiano, studying megakaryocyte biology. The Machlus lab is focused on identifying molecular mechanisms of megakaryocyte development that lead to enhanced platelet production, with specific emphasis on how inflammation affects megakaryocyte function. In many inflammatory conditions, platelet counts rise acutely, resulting in thrombocytosis; what initiates this platelet up-regulation is not well understood. Dr. Machlus lab uses inflammation as a model of exacerbated, TPO-independent hematopoiesis that results in differences in platelet quality and quantity in order to 1) gain a better understanding of the basic biology of megakaryocyte maturation and platelet production, 2) identify TPO independent pathways of megakaryocyte maturation, and 3) determine ways to reduce platelet-related morbidity and mortality in inflammation. Our long-term goal is to identify TPO-independent pathways of megakaryocyte maturation that result in novel therapeutics to treat platelet disorders. Current lab projects are focused on using the chemokine CCL5 and platelet extracellular vesicles to enhance megakaryopoiesis and platelet production, and on studying the role of megakaryocytes in the pathogenesis of autoimmune diseases such as lupus.
Dr. Yang Lee is a drug discovery professional with experience in planning, designing, and executing preclinical and translational projects in oncology drug discovery programs in GSK. He has been working on the drug discovery process, including target selection, in vitro and in vivo pharmacology, pharmacodynamic marker identification, pharmacokinetic/pharmacodynamic relationship, and patient stratification strategies. Before joining GSK, Yang was a postdoctoral research fellow in Vascular Biology Program at Boston Children’s Hospital and studied how lymphangiogenesis protected against metabolic disease. During his postdoctoral training, he received an AHA postdoctoral fellowship and NIH F32 fellowship. He completed his Ph.D. in Medical Science/Lymphatic Biology at Texas A&M Health Science Center. He received a Lymphatic Biology Fellowship and doctorate work focused on the molecular mechanisms of lymphatic dysfunction in metabolic syndrome.
Dr. Azza Gadir is a molecular immunologist with experience in the field of immune tolerance. She is currently Portfolio Manager at Orionis Biosciences, a life sciences company pioneering innovative technologies to tackle the industry’s most intractable disease targets. Azza previously served as Director of Research and Development at Seed Health overseeing pre-clinical research, regulatory, clinical trials, and academic collaborations.

Azza completed her postdoctoral training at Boston Children’s Hospital where her published research was focused on the immunological mechanisms that underlie the role of the gut microbiome in conferring protection from diseases early in life. She grew up in London and holds a Ph.D. in Immunology from University College London (UK) and an M.Sc. in the Immunology of Infectious Diseases from the London School of Hygiene and Tropical Medicine (UK).
Dr. Raby is Chief of the Division of Pulmonary Medicine at Boston Children's Hospital (BCH), Director of the Pulmonary Genetics Center at the Brigham and Women’s Hospital (BWH), and the Leila and Irving Perlmutter Professor of Pediatrics at Harvard Medical School. He received his MD from McGill University, where he completed his residency in Internal Medicine and his pulmonary fellowship. After a year of post-doctoral research at the McGill University Genome Center, he relocated to Boston for further research training at Harvard at the Channing Laboratory with Dr. Scott Weiss.

He is a pulmonologist and genetic epidemiologist with expertise in the genetics and genomics of chronic lung disease. He is the Principal Investigator of three NHLBI-sponsored grants, and the NIH has continuously funded his research for 18 years.

Dr. Raby has mentored several K-awardees to successful independent research careers, and as a former standing member of the NHLBI MCBS Study Section for K01/K08 Mentored Clinical Scientist Research Career Development Awards, he is fully aware of the expectations of both candidate and mentor necessary to assure a successful outcome in the trainee’s development. He has teaching responsibilities at BCH, BWH and HMS, and lectures monthly to the Pediatric Pulmonary Fellows at BCH on scholarship, grant writing, and career development in academic medicine. He also lectures to students in the Scholars in Clinical Sciences Program; to BWH and Harvard faculty; and at postgraduate courses for the American Thoracic Society. He has trained postdoctoral fellows, junior faculty, and doctoral candidates in genetics and genomics. In 2021 He was the recipient of the HMS, A. Clifford Barger Excellence in Mentoring Award.
Dr. Stephanie Courchesne is a Senior Advisor in the Office of the Director at the National Institutes of Health. She manages strategic planning and legislative policy for the NIH Common Fund, a $650 million fund supporting bold, innovative scientific programs that catalyze discovery across all biomedical and behavioral research. In her time at NIH, she has also led efforts in science communication, program evaluation, and program management. Stephanie came to NIH in 2010 through the AAAS Science and Technology Policy Fellowship, after receiving her Ph.D. in Dr. Rosalind Segal’s laboratory at Dana Farber Cancer Institute and Harvard Medical School. During graduate school, she studied long-range neurotrophin signaling in development and degeneration of sensory and motor neurons.
Catherine is the Senior Director of Business Development and Licensing for the Technology & Innovation Development Office (TIDO) at Boston Children’s Hospital (BCH). Catherine leads the licensing and contracts staff to successfully commercialize BCH’s research and clinical discoveries. She is also responsible for developing policies and procedures and working with TIDO and hospital leadership to develop and implement strategic initiatives for BCH.

She has built a nineteen-year career in the Boston area in the non-profit sector - weaving her policy interests with practical action and expertise at the intersection of science, business and law - focused on commercializing research innovation at Boston University and, Boston College, MIT and now BCH. Throughout her professional career, she has focused on building relationships between public and private organizations to promote innovation and encourage company formation.

She has an undergraduate degree at Virginia Tech and a PhD in Microbiology and Immunology from the University of North Carolina at Chapel Hill. She was both an American Association for the Advancement of Science (AAAS) Congressional Fellow (in the Office of Congressman Edward J. Markey) and a AAAS Diplomacy Fellow at the U.S. Agency for International Development, overseeing international programs on agricultural biotechnology, research infrastructure and intellectual property laws. After her time in Washington D.C., she spent four-plus years at Michigan State University as the director of an international agricultural biotechnology project, leading an international consortium of eleven public and private sector collaborators in six countries to develop applied research projects and technology transfer in agricultural biotechnology before relocating to Boston.

Catherine L. Ives, PhD
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