



June 15th and 16th 2023

June 15, 9:00 am- 4:10 PM EDT

- 9:00 -9:10 **Welcoming Ceremonies** Co-Directors: Mary Cushman, MD MSc and Mark Nelson, PhD
Opening Remarks from Drs Cushman and Nelson
- 9:10-10:30 **VCCBH Project Director Presentations** Moderator: David Punihaole, PhD
Denise Peters, DPT, PhD, Assistant Professor of Rehabilitation and Movement Science
Let's Move! Walking Predictions and Actualizations Post-stroke
Osama Harraz, PhD, Assistant Professor of Pharmacology
May the Force Be with You: Piezo1 and Cerebral Blood Flow Regulation
Katharine Cheung, MD, PhD, Assistant Professor of Medicine
Mechanisms and Outcomes of Cognitive Impairment in Kidney Disease
Masayo Koide, PhD, Assistant Professor of Pharmacology
Crippled Cerebral Blood Flow Regulation in Hypertension and Beyond
- 10:30-10:45 **Coffee Break**
- 10:45-12:05 **Pilot Grant Awardee Presentations** Moderator: Masayo Koide, PhD
David Punihaole, PhD, Assistant Professor of Chemistry
Towards Directly Imaging the Chemical Dynamics of Amyloid Fibrils and Polymer Gene Delivery Vehicles in Cells
Yanguang Ou, PhD, Assistant Professor of Chemistry
Measuring Reactive Oxygen Species from Cells Incubated with Amyloid-beta Fibrils
Mansour Gergi, MD, Assistant Professor of Medicine
Cardiovascular Care Delivery and Bleeding in Individuals with Cancer
Matthew Caporizzo, PhD, Assistant Professor of Molecular Physiology and Biophysics
The Molecular Underpinnings of Diastolic Dysfunction
- 12:05-2:00 **Lunch Break / Poster Session #1** Moderator: Owen Nadeau, PhD
- 2:00-3:00 **Science Keynote Address** Moderator: Mark Nelson, PhD
David E Clapham, MD, PhD, Group Leader, Howard Hughes Medical Institute (HHMI); Janelia Research Campus, Aldo R. Castañeda Professor of Cardiovascular Research and Professor Emeritus of Neurobiology, Harvard Medical School; HHMI Vice President and Chief Scientific Officer, 2016-22; Member of the National Academy of Sciences and National Academy of Medicine.
Never Work on Smooth Muscle
- 3:00-4:00 **VCCBH Science Core Presentations** Moderator: Denise Peters, DPT, PhD
Neil Zakai, MD, MSc, Professor of Medicine and **Peter Durda, PhD**, Faculty Scientist, Pathology & Laboratory Medicine; Co-directors of the **Study Design and Epidemiology Core**
What Do Statistics and Biomarkers Have in Common
Todd Clason, MS, Neurological Sciences and Pharmacology; Director of the **Customized Physiology and Imaging Core**
Moving, Maintaining and Mouse Fuzz – New Iconeus Functional Ultrasound System
- 4:00-5:30 **Concluding Remarks / Announcements and Break** Mary Cushman, MD
- 5:30-7:30 **Reception**
Echo, Leahy Center for Lake Champlain, 1 College Street, Burlington, VT 05401

June 16, 9:00am-2:40 PM EDT

| | | |
|-------------|--|---|
| 9:00-9:10 | Welcome | Mary Cushman, MD, MSc and Mark Nelson, PhD |
| 9:10-10:30 | Pipeline Investigator Flash Talks | Moderators: Denise Peters, DPT, PhD & Masayo Koide, PhD |
| | Nicholas Klug, PhD , Postdoctoral Fellow, Dept of Pharmacology <i>Dura Mater Capillaries: An Unexplored Hotbed for Pain</i> | |
| | Timothy Plante, MD, MHS , Assistant Professor of Medicine, Hematology / Oncology The Inflammatory Basis of Hypertension | |
| | Maria Noterman-Soulinthavong, PhD , Postdoctoral Fellow, Dept of Pharmacology <i>Endothelial Cell Metabolism Regulates On-demand Brain Blood Flow</i> | |
| | Debora Kamin-Mukaz, PhD , Postdoctoral Associate, Dept of Medicine <i>Residential Segregation and Risk of Hypertension in a Biracial Cohort</i> | |
| | Matthew Caporizzo, PhD , Assistant Professor of Molecular Physiology and Biophysics <i>Molecular Underpinnings of Diastolic Dysfunction</i> | |
| | Jessica Badlam, MD , Assistant Professor of Medicine, Pulmonary Disease <i>Pregnancy and Reproductive Risk Factors for Pulmonary Arterial Hypertension in Women</i> | |
| | Amreen Mughal, PhD , Assistant Professor, Dept of Pharmacology <i>Electro Calcium Signaling in the Brain Endothelium</i> | |
| | Nicole Habel, MD, PhD , Clinical Cardiac Fellow, Lerner College of Medicine <i>The Grinch Heart – Novel Treatment Strategies for HFpEF</i> | |
| | Margaret Philips, PhD , Postdoctoral Associate, Dept of Pharmacology <i>Mechanistic Insights into the CECR2-bromodomain Activity in Endothelial Inflammation</i> | |
| | Emmett Whitaker, MD , Associate Professor, Dept of Anesthesiology <i>Mechanistic Insights into the CECR2-bromodomain Activity in Endothelial Inflammation</i> | |
| 10:30-11:30 | Coffee Break / Poster Session #2 | Moderator: Owen Nadeau, PhD |
| 11:30-12:30 | Science / Diversity and Inclusion Keynote Address | Moderator: Mark Nelson, PhD |
| | Andra S. Stevenson, PhD, MPH , Senior Director – Global Medical Affairs, Global Medical & Scientific Affairs Department, General Medicine: CVD – Heart Failure and Thrombosis, Merck & Co., Inc, Chatham, New Jersey <i>Translating Science to Drug Development: Diversity in Clinical Trials & SDoH</i> | |
| 12:30-1:30 | Lunch Break | |
| 1:30-2:30 | Poster Session #3 | Moderator: Owen Nadeau, PhD |
| 2:30-2:40 | Closing Remarks | Mary Cushman, MD, MSc and Mark Nelson, PhD |

Thank you to the VCCBH External Advisory Board!

Manuel F. Navedo, PhD, Professor of Pharmacology, University of California, Davis

Suzanne Judd, PhD MPH, Professor of Biostatistics, Director: Lister Hill Center for Health Policy, University of Alabama, Birmingham

Scott Earley, PhD, Professor of Pharmacology, University of Nevada, Reno

Sharon Rounds, MD, Professor of Medicine, Professor of Pathology and Laboratory Medicine, Brown University

Thank you to the Organizing Committee!

Catherine Cate; Masayo Koide, PhD; Denise Peters, DPT, PhD; Owen Nadeau, PhD; Mark Nelson, PhD