BRAIN & BEHAVIOR INSTITUTE

Please join us for a half-day event celebrating the launch of the Brain and Behavior Institute, featuring lightning talks from 2019 and 2020 BBI seed grant recipients and a seminar by our keynote speaker, Dr. Nenad Sestan.

Tuesday, September 28, 2021

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| 12:00 – 1:00 p.m. | **Catered Boxed Lunches** | Main foyer & first floor BRB |
| 1:00 – 1:15 p.m. | **Opening Remarks**<br><br>Dr. Amitabh Varshney, Dean, College of Computer, Mathematical and Natural Sciences<br>Dr. Elizabeth Quinlan, Director, Brain and Behavior Institute | 1103 BRB |
| 1:15 – 2:15 p.m. | **Presentations from BBI Seed Grant Recipients** | 1103 BRB |
| 1:15 p.m. | *Black men's mental health: Healing from complex trauma and toxic environments*<br>Drs. Craig Fryer. Joseph Richardson, Kevin Roy | |
| 1:25 p.m. | *Sex differences in exercise effects on brain microvascular endothelial glucose metabolism*<br>Drs. Alisa Clyne, J. Carson Smith, Ganesh Sriram | |
| 1:35 p.m. | *Engineering Behavior to Have Transgenerational Consequences*<br>Drs. Quentin Gaudry, Antony Jose | |
| 1:45 p.m. | *Competing Values in Hearing Healthcare Service Delivery*<br>Drs. Eric Hoover, Katie Shilton | |
| 1:55 p.m. | *Learning Age and Gender Adaptive Gait Motor Control-based Emotion Using Deep Neural Networks and Affective Modeling*<br>Drs. Aniket Bera, Dinesh Manocha, Jae Kun Shim | |
| 2:05 p.m. | *The Impact of Race and Gender on Cyberbullying and Interventions among Middle School and High School Students*<br>Drs. Cixin Wang, Rashawn Ray | |
| | BREAK | |
| 2:30 – 2:40 p.m. | **Introduction of New Research Cores and Incentive Programs**<br><br>Dr. Elizabeth Quinlan, Director, BBI<br>Dr. Najib El-Sayed, Director, Brain and Behavior Institute Advanced Genomic Technologies Core (BBI-AGTC) | 1103 BRB |

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| 2:40 – 3:40 p.m. | **Presentations from BBI Seed Grant Recipients** | 1103 BRB |
| 2:40 p.m. | *The impact of transcutaneous vagus nerve stimulation on therapy outcomes in aphasia*<br>Drs. Rochelle Newman, Polly O'Rourke, Kristin Slawson | |
| 2:50 p.m. | *Molecular connectomics of activity-dependent circadian circuit development*<br>Drs. Najib El-Sayed, Peter Nemes, Colenso Speer | |
| 3:00 p.m. | *Nexus between sustainable buildings and human health: a neuroscience approach*<br>Drs. Edward Bernat, Ming Hu | |
| 3:10 p.m. | *Moving beyond the "Yuck Factor": measuring brain responses to water reuse terms and determining if natural environmental images change responses*<br>Drs. Edward Bernat, Rachel Rosenberg Goldstein | |
| 3:20 p.m. | *Time-Release Capsules for Neurotransmitter Delivery to the Brain of Behaving Birds*<br>Drs. Gregory Ball, Robert Dooling, Srinivasa Raghavan | |
| 3:30 p.m. | *Neural representations of continuous speech and linguistic context in native and non-native listeners*<br>Drs. Ellen Lau, Jonathan Z. Simon | |
| 3:40 – 3:50 p.m. | **Concluding Remarks**<br>Dr. Gregory Ball, Dean, College of Behavioral and Social Sciences | 1103 BRB |
| | BREAK | |
| 4:00 – 4:10 p.m. | **Welcome Remarks**<br>Dr. Elizabeth Quinlan, Director, BBI<br>Dr. Jennifer King Rice, Senior Vice President and Provost | 1101 BRB |
| 4:10 – 5:15 p.m. | **BBI-Kavli Distinguished Seminar**<br>Introduction by Dr. Colenso Speer<br><br>*Building the Human Cortex: Molecular Logic of Neural Circuit Formation and Evolution*<br><br>Dr. Nenad Sestan<br><br>Harvey and Kate Cushing Professor of Neuroscience<br>Professor of Comparative Medicine, of Genetics and of Psychiatry<br>Executive Director, Genome Editing Center<br>Yale University<br><br>The question of what makes us human has fascinated humankind throughout modern history. Today, we view the brain as the core | 1101 BRB |

component of human identity, and an understanding of this organ is consequently essential for answering why we as a species are what we are. What distinguishes humans from other species is largely thought to reside in the unique features of brain development, especially in the wiring of the immensely complex neural circuits that underlie our remarkable cognitive and motor abilities. However, the unique innovations driving the formation of these intricate neural circuits may also increase our susceptibility to certain neurological and psychiatric disorders. In my presentation, I will describe some of our recent efforts to understand the molecular and cellular mechanisms by which the connections between neurons are formed within the developing cerebral cortex, the part of the brain that processes senses, commands motor activity, and underlies higher-order cognitive functions. I will also present evidence on how this complex developmental process may have evolved and become compromised in human disorders.

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| 5:15 – 6:45 p.m. | **Reception** | Ground floor & courtyard BRB |
| 5:45 – 6:15 p.m. | **Optional Tour of the BBI-Advanced Genomic Technologies Core** | 3229 BRB |