# WELCOME

Washington University Parents Council Jeffrey T. Fort Neuroscience Research Building Nov. 2, 2024







#### Jeffrey T. Fort Neuroscience Research Building

- Dedicated Jan. 18, 2024.
- 11-story, 609,000-square-foot facility.
- \$616 million investment.
- 100+ research teams from across campus.
- Unites experts in neurology, neuroscience, neurosurgery, psychiatry, anesthesiology, radiology, genetics and developmental biology.
- Organized by research themes, including Circuits, Neuroplasticity, and Behavior, Brain Developmental Disorders and Neurogenomics, Brain tumor biology, Psychiatric illness, Pain and neurodegenerative diseases such as Alzheimer's, Parkinson's and Huntington's diseases, as well as amyotrophic lateral sclerosis (ALS).



Jonathan Kipnis, PhD Alan A. and Edith L. Wolff Distinguished Professor of Pathology and Immunology; Director, Brain Immunology and Glia (BIG) Center; and BJC Investigator

"The immune cells that sit on the borders of the brain could potentially be a feasible target for treating neurological diseases such as Alzheimer's, once we better understand their role in these complex diseases."



Initial lymphati<u>cs</u>

Collecting lymphatics

Lymph node







Kia Barclay Graduate Student Li Lab



Tristan Qingyun Li, PhD Assistant Professor of Neuroscience and Genetics

#### **Immunity Paper**

An inducible genetic tool to track and manipulate specific microglial states reveals their plasticity and roles in remyelination







Adam Kepecs, PhD Robert J. Terry Professor of Neuroscience, Professor of Psychiatry and BJC Investigator

"If we can identify the relevant neural circuits, we can gain insight into how the brain communicates with the immune system and open immediate opportunities for developing targeted drugs for depression and related conditions."

National Institutes of Health (NIH) Director's Pioneer Award

The cytokine code and neural circuits for sensing inflammation state





Martha Bagnall, PhD Associate Professor of Neuroscience

"Research is a chance to discover new things. You can push on this small little corner and find something. Or you can push that boundary a little farther out. It's gratifying. These moments of discovery deliver glimpses, and we get something new that no one else knows."

National Institutes of Health (NIH) Grant

Unmasking neuromodulatory control of locomotion



#### **Research Lab**



High end core facilities - Equipment and scientific expertise, data management





Yo-El Ju, PhD Barbara Burton and Reuben Morriss III Professor of Neurology, and Co-Director, Center on Biological Rhythms and Sleep (COBRAS)



Paul Shaw, PhD Professor of Neuroscience



## **THANK YOU**



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