Alzheimer's and Cognition Center

UNIVERSITY OF COLORADO **ANSCHUTZ MEDICAL CAMPUS**

"Healthy Brain Aging Starts Here"

March 2022 Volume 4, Issue 1

Center Celebrations

Congratulations to Brianne Bettcher, PhD, who has been awarded a new grant to study teleneuropsych. With this grant, Dr. Bettcher and her team will be conducting a study to evaluate and compare traditional face-to-face neuropsychological assessment with home-based video teleneuropsych (TeleNP) in older adults with suspected typical or atypical Alzheimer's disease.

Understanding more about TeleNP in a real-world clinical setting should increase access to dementia neuropsychological assessments, improve diagnostic precision, and reduce patient burden. Dr. Bettcher's co-investigator colleagues are Drs. Samantha Holden, Michael Greher, Hillary Lum, and Nichole Carlson. Congrats to all!

Congratulations to Zachary Macchi, MD who has been selected to receive the 2022 Clinical Research Training Scholarship in Lewy Body Diseases award!

With this award, Dr. Macchi will lead a national survey of neurologists and movement disorder specialists across the Lewy Body Disease Association's Research Centers of Excellence in order to further understand current practices in the detection and management of aggression towards caregivers in Parkinson's disease and Dementia with Lewy Bodies.

Research Visits Moving Buildings

If you have participated in a research study with the CU Alzheimer's and Cognition Center, you have probably visited the Clinical and Translational Research Center (CTRC) in the Leprino Building. Starting this April, many of our research visits will now take place in the brand-new Anschutz Health Sciences Building, located next to Building 400. The research-focused clinic will be located on the sixth floor of the new building. Study coordinators will provide updated directions to research participants for navigating to the building and parking when scheduling their next research visit. To learn more about the new building, visit https://bit.ly/CU-AHSB.

Investigator Spotlight: Athena Wang, PhD

If you have ever seen a picture of the universe alongside a picture of the networks of cells in the human brain, you may have noticed something. The two look very similar. The connections between brain cells appear very similar to the connections among the galaxies; the first are composed of tiny finger-like physical projections between cells, and the second are composed of long-distance communications through light, gravitational forces, and interstellar dust. So when you look up into the sky at night, or see a picture of the universe and galaxies, you can almost imagine what it might be like to look inside your brain and see the thousands of neural connections and brain cells.

Dr. Athena Wang does not have to imagine what it might be like to peer inside a brain. As a laboratory

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Investigator Spotlight Continued: Dr. Wang

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science researcher in Dr. Huntington Potter's lab at the CU Alzheimer's and Cognition Center (CUACC), she gets to look at brain cells every day under a microscope and see the way they mirror the galaxies. And when she looks up at the night sky, she can't help but think, "Wow, I have constellations of neurons like that inside my brain, too."

Dr. Wang's first love was the sky and the universe. Her interests turned to brain science as she got older; however, she was able to keep that connection to the stars through her work taking pictures of cells. She completed her undergraduate degree in Taiwan, where she grew up, and then came to the United States where she completed her master's degree at New York University, and her PhD at Mt. Sinai School of Medicine.

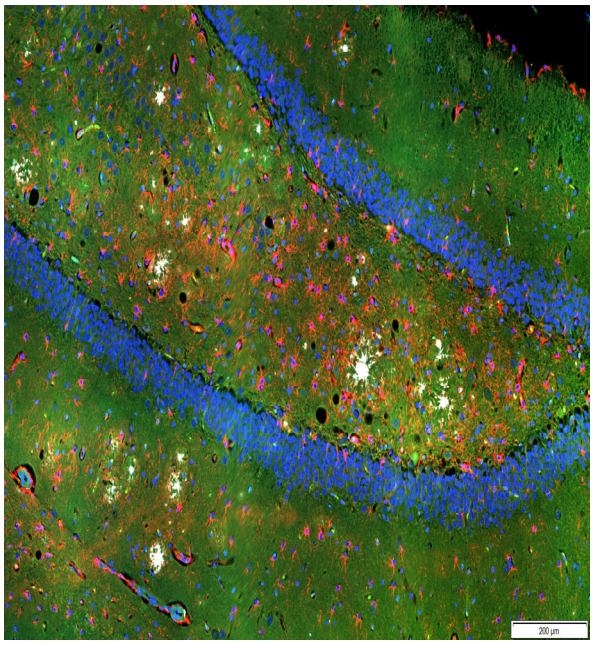
In between receiving her master's degree and her PhD, she also worked at the Rockefeller University where her research was focused on maternal stress and its impact on the adult brain, as well as on social stress and how it leads to changes in the brain. At Mt. Sinai, Dr. Wang studied normal aging with a focus on gender differences, such as the role of estrogen in aging, using animal models.

In 2013, Dr. Wang joined Dr. Potter's lab as a postdoc. At that time, the lab had just relocated from Florida and she was part of a small group of researchers. Dr. Wang was involved in most of the projects in the lab from the beginning, and she was able to watch the lab grow while making new scientific discoveries. Her previous research experience in normal aging using animal models allowed her to transition nicely into studies of neurodegenerative diseases related to aging, also known as pathological aging.

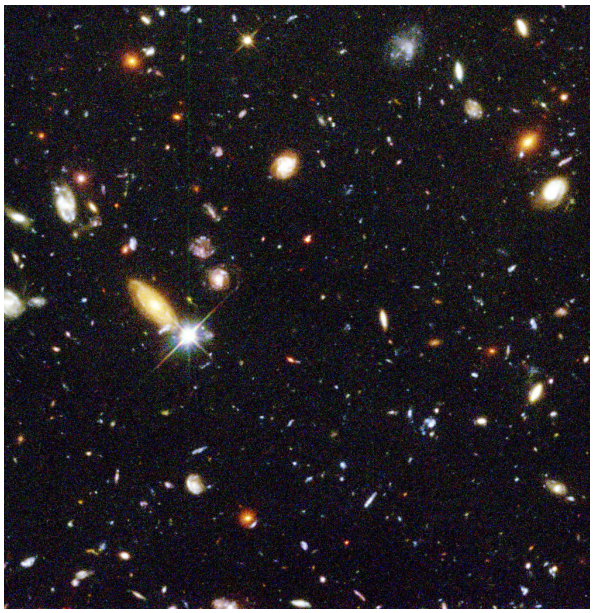
She has also enjoyed having a new opportunity to engage in translational research that brings discoveries from the bench to the bedside as Dr. Potter's lab studies neurodegenerative diseases at the molecular level with the hope their discoveries will identify new drugs that will be tested in human clinical trials. Dr. Wang has worked on many different projects in Dr. Potter's lab. Her current research is focused primarily on drug development and animal models, including working with a recently developed Alzheimer's disease (AD) rat model that few laboratories have studied. She is also investigating how traumatic brain injury (TBI) may lead to an increased risk for Alzheimer's disease.

Working with animals in brain research is a long and expensive process, and she is grateful that the CUACC provides such an incredible opportunity to use these models to advance our knowledge of neurodegenerative diseases. Her experience studying gender differences has also been a valuable addition to the team, as a focus on estrogen and neurodegeneration has become a growing interest in the neuroscience field.

Throughout it all, Dr. Wang has never lost her love for the sky and the universe. When she is not doing research in the lab, she spends her free time reading up on astrophysics and going to the observatory to star gaze and marvel at the remarkable connections between the human brain and the vast network of galaxies that are too far away to see, but that we know are there.



An Inside Look: This is an image of a rat brain under a microscope, stained and photographed by Dr. Athena Wang.



Look to the Stars: This is an image of the Hubble Ultra Deep Field in space, taken by the Hubble Space Telescope. The original photo can be found on the NASA website, at https://go.nasa.gov/35pfrxz.

Geriatric Mental Health Clinic: Sharing Clinical Care

Mental health support is an important piece of a person's health care. Depression and anxiety are very common among people with Alzheimer's disease and related dementias (ADRD), especially in the early and middle stages.

The diagnosis can have a significant emotional impact on the family caregivers as well. It's important that families feel they are not alone in this experience of living with a new diagnosis. Mental health treatment is available and can make a significant difference in quality of life.

One of the benefits of our Memory Disorders Clinic being a part of the UCHealth system is that we have access to many other clinics on campus to help round out our patients' care so that they are getting the best care possible, including care for their mental health.

The Geriatric Mental Health Clinic is one such clinic on campus that our neurologists may refer a patient to for additional emotional support.

The Geriatric Mental Health Clinic is a service of the Out-Patient Psychiatry Department. The team includes a psychologist, nurse practitioner, social worker and psychiatrist. Together, the team provides mental health support to both diagnosed individuals and care partners offering both short-term therapy and medication management. While therapy is most beneficial for someone diagnosed during the early stages of a disease, medication management is available throughout the course of the illness. Caregiver support is available at any stage of the illness.

Losing the ability to drive, manage affairs, engage in certain hobbies, or work can impact a person's mood. Therapy can be a valuable source of support in the early stages of a diagnosis as one adapts to these emotional, social, personal, role, and relationship changes. The clinic can help patients set goals, make practical plans in anticipation of disease progression, and find the most supportive community resources.

When receiving a diagnosis of cognitive impairment, there tends to be a focus on what is lost. Therapy provides tools to help patients shift that focus to what remains and the possibilities that allow them to live life to its fullest today.

If you are interested in being seen at the Geriatric Mental Health Clinic, please speak with your neurologist.

Please note there may be a waitlist to be seen.

The University of Colorado Alzheimer's and Cognition Center is very appreciative that our neurologists are able to refer to the Geriatric Mental Health Clinic. Many of our patients have benefitted from shared care between our clinics and we hope to continue to expand our partnership.

Together we can expand the care team to ensure patients have access to specialized mental health care, resources, and support.

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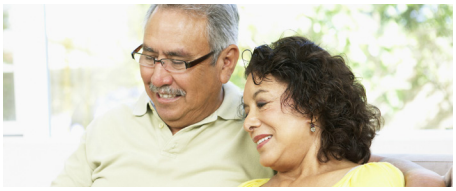

Interested in a Research Study?

Contact Neurology Research Partners at 303-724-4644 or fill out a research inquiry form at www.cumemoryresearch.org to learn more!

Give to Research

If you are interested in making a donation to the CU Alzheimer's and Cognition Center, please contact Carrie Radant Flynn at 303-724-9146.

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