



Alzheimer's and Cognition Center

UNIVERSITY OF COLORADO **ANSCHUTZ MEDICAL CAMPUS**

“Healthy Brain Aging Starts Here”

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The Center's COVID-19 Response

As Coronavirus Disease 2019 (COVID-19) continues to be a major public health concern, we wanted to update you on the steps we are taking here at the University of Colorado (CU) Alzheimer's and Cognition Center and at the hospital to protect our research participants and our clinic patients.

As of March 16, appointments in the Memory Disorders Clinic were converted to virtual telehealth visits for all patients over age 65 and for those with chronic health conditions, following Center for Disease Control (CDC) guidelines for preventing the spread of the virus to more vulnerable populations.

For those unable to participate in telehealth visits, non-urgent appointments are being deferred and will be rescheduled to occur as soon as restrictions are lifted.

Our clinic staff, including our physicians, nurse practitioner, nurses, social worker, and medical assistants, remain available to all patients by phone and through MyHealth Connection messaging.

Also beginning March 16, all research visits were suspended for the studies run through the

CU Alzheimer's and Cognition Center, and employees deemed “non-critical” began working from home.

As things change quickly, we will continue to maintain the integrity of our studies. We will be rescheduling research visits for later in the year with the knowledge that changes will be ongoing and that schedules will need to be flexible.

However, as always, our participants' and patients' safety is of the utmost importance to us, and we will always put that first.

In the coming weeks and months, we will continue to monitor the spread of COVID-19 and will update our research studies and clinic practices accordingly.

We are very appreciative of our research participants who continue to help us advance the field of Alzheimer's and dementia research, and of our patients who entrust their clinical care to our team.

We look forward to resuming normal operating procedures as soon as possible. In the meantime, please follow the CDC guidelines and stay safe!

Tips For Caregivers

When people with dementia get sick, even if it's a mild cold, they may become a little more confused due to the additional stress of the illness on their brain.

This confusion should be temporary, and improve once they're feeling better. Supportive care, including fluids, Tylenol for fever or pain, and rest is best. Here are some other tips:

1. People living with dementia may need extra and/or written reminders and support to remember important hygienic practices from one day to the next.

- Consider placing signs in the bathroom and elsewhere to remind people with dementia to wash their hands with soap for 20 seconds.
- Demonstrate thorough hand-washing.
- Alcohol-based hand sanitizer with at least 60% alcohol can be a quick alternative to hand-washing if the person with dementia cannot get to a sink or wash his/her hands easily.

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Investigator Spotlight: Brice McConnell, MD, PhD



Brice McConnell, MD, PhD, is a behavioral neurologist in the Department of Neurology at the University of Colorado Anschutz Medical Campus and Director of the Sleep Research Program at the University of Colorado (CU) Alzheimer's and Cognition Center.

Dr. McConnell's research is focused on identifying and enhancing the restorative and neuroprotective aspects of sleep

that decline with aging and neurodegenerative disease.

In order to study sleep, Dr. McConnell utilizes electroencephalography, which is a noninvasive way to measure and record electrical activity in the brain.

In order to obtain these recordings, participants wear a mesh cap on their head that is connected to a computer while they sleep.

Dr. McConnell invented the methods needed to allow participants to use this sleep device at home. Being able to take the sleep device with them allows participants to sleep in the comfort of their own home, instead of in a sleep lab, while the electrical activity is recorded.

The Sleep Research Program at the CU Alzheimer's and Cognition Center is currently the only research center in the world con-

ducting these innovative studies.

Dr. McConnell is especially interested in determining whether sleep patterns can serve as early detection signals for neurodegenerative disease, based on evidence from recent studies showing that Alzheimer's disease disrupts normal brain communication that is needed to support the neuroprotective benefits of sleep.

Dr. McConnell is further investigating whether non-invasive brain stimulation (electrical pulses) can be used to restore this type of brain communication during sleep as a potential treatment or prevention for Alzheimer's disease.

If you are interested in learning more about his research interests and ongoing studies, please visit: www.medschool.ucdenver.edu/alzheimers.

Legislative Caucus on Aging Learns About Dementia

On January 15, 2020 the Colorado Chapter of the Alzheimer's Association and the University of Colorado (CU) Alzheimer's and Cognition Center hosted a Lunch & Learn for members of the Legislative Caucus on Aging.

The purpose of this event was to educate Colorado state legislators on the public health crisis of dementia.

The Alzheimer's Association opened the meeting with a brief presentation of the most recent figures on Alzheimer's disease, such as how many people get diagnosed per year and what the cost of dementia is on the health care system.

Samantha Holden, MD, and



Lunch & Learn: Dr. Samantha Holden presents to the Legislative Caucus on Aging at a Lunch & Learn in January at the State Capitol.

Huntington Potter, PhD, from the CU Alzheimer's and Cognition Center then presented to over 15 state legislators and their aides, as well invited members from the community.

Dr. Holden presented on the myths of Alzheimer's disease

and dementia, and Dr. Potter updated the state legislators on the current status of dementia research. There was also a Q&A session.

The Lunch & Learn was presided over by Colorado State Senator, Joann Ginal.



Ins and Outs of Research: Lumbar Puncture

A lumbar puncture is one of the many methods we use to collect biological samples in our research studies. A lumbar puncture, also known as a spinal tap, is the process of placing a small needle in the lower back to obtain cerebrospinal fluid.

Cerebrospinal fluid is the liquid that surrounds and cushions the brain and spinal cord, which together make up the central nervous system. Cerebrospinal fluid also contains proteins that may help us measure brain health.

It is these proteins that are of interest to us for research, because they may serve as indicators of immune system function, of Alzheimer's disease-related processes, and of normal brain aging.

In addition to blood samples, collecting cerebrospinal fluid samples is important, because while a blood sample

gives us a good idea of what is going on in the body, it may not be a direct indicator of what is happening in the brain.

The body has what is called the blood-brain barrier, which limits the entry of some cells and proteins in the blood from entering the brain and affecting the central nervous system.

Certain types of cells and proteins from blood can cross this barrier, but we are not yet sure if they accurately reflect the brain's status. As a result, the story of how proteins build up in the brain is currently best told by examining the cerebrospinal fluid that surrounds it.

A key goal in the field of Alzheimer's research is to identify biomarkers, such as proteins in cerebrospinal fluid, that may be used for early detection of Alzheimer's disease and other related dementias, before physical and cognitive symptoms appear.

It is only through research that we are able to study different combinations of biomarkers and reliably measure their levels.

Obtaining cerebrospinal fluid samples from a large, diverse population allows us to analyze samples and learn about protein biomarkers.

This is especially true in our longitudinal and observational studies, where we can study a group of research participants over a certain period of time and determine how changes in the protein make-up of their cerebro-

spinal fluid samples correlate with changes in their cognitive function.

The importance of cerebrospinal fluid for Alzheimer's research is undeniable. Someday, the discoveries made using these samples may lead to the development of tests that can be used to diagnose Alzheimer's disease earlier, allowing for treatments to begin sooner and steps to be taken to slow down or prevent cognitive decline.

To learn more about lumbar punctures, their importance in research, and what it is like to have one, visit:

www.coloradoagingbrain.org

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Caregiver Tips

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2. Ask your pharmacist or doctor about filling prescriptions for a greater number of days to reduce trips to the pharmacy.
3. Think ahead and make alternative plans for the person with dementia, should adult day care, respite, etc. be modified or cancelled in response to COVID-19.
4. Think ahead and make alternative plans for care management if the primary caregiver should become sick.

Tips adopted from the Alzheimer's Association. For more tips for caregivers, please visit alz.org

Support Our Research

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BRAIN AGING**
- Starts Here -

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.