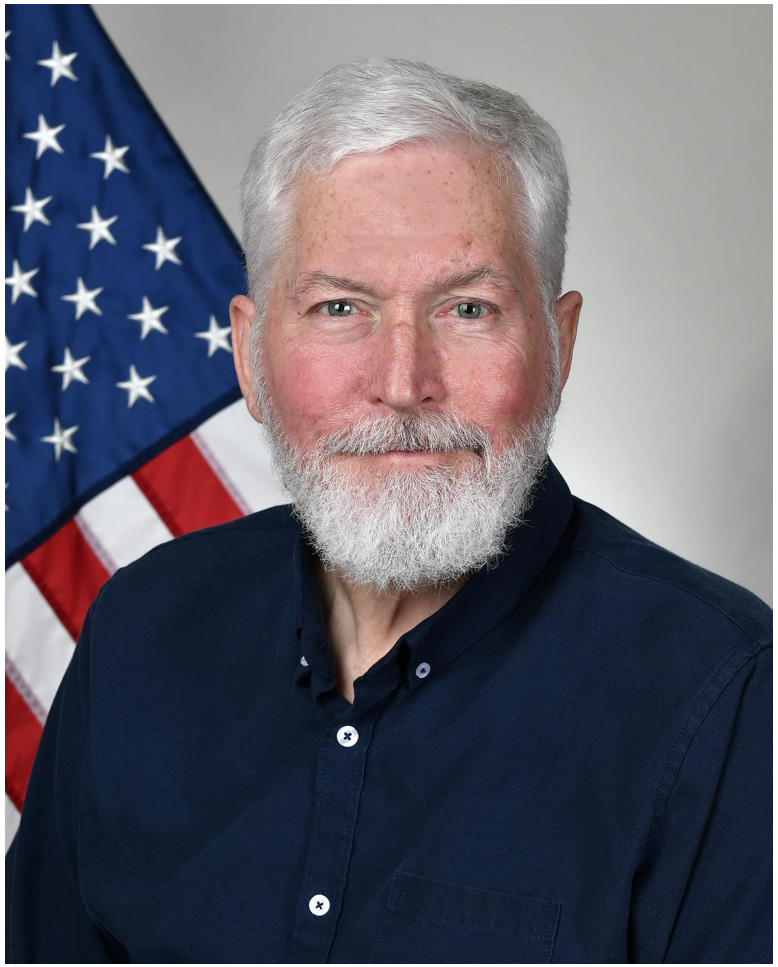

Biography

Steven Carroll, MD, PhD, is a Distinguished University Professor and former Chair of the Department of Pathology and Laboratory Medicine at the Medical University of South Carolina (MUSC). He holds the Gordon R. Hennigar, Jr., MD, Endowed Chair in Pathology and serves as Director of the South Carolina-Alzheimer's Disease Research Center (SC-ADRC), which is a joint effort between MUSC, Clemson University and the University of South Carolina. Dr. Carroll is also the Director of the Carroll A. Campbell Jr. Neuropathology Laboratory (the Neuropathology Core of the SC-ADRC) and Executive Director of the Veterans' Health Administration National Coordinating Center for Alzheimer's Disease and Related Dementias. Dr. Carroll serves on the Advisory Council of the State of South Carolina's Alzheimer's Disease and Related Disorders Resource Coordination Center, where he chairs the Research and Evaluation Subcommittee. Dr. Carroll also serves on the South Carolina Parkinson's Disease Registry Advisory Committee and on the Board of Directors for the South Carolina Chapter of the Alzheimer's Association. Additionally, he is a member of the Neuropathology Working Group of the T21 Society, which studies the development of Alzheimer's disease in Down syndrome.

Title: How Parkinson's Disease and Related Conditions Are Diagnosed at Autopsy

Dr. Carroll will discuss how Parkinson's Disease and related conditions are diagnosed at autopsy. His talk will include the variability seen in the pathology of these disease and how this reflects the findings (patient symptoms) that were seen during life. Dr. Carroll will also consider recent advances in this field and the varied ways that biospecimens collected at autopsy support ongoing research into the causes of these disease and how this is informing effort to develop new treatments.

Biography

Jennifer Belk is the Donor Liaison and Technician for the Brain Bank (formerly the Carroll A. Campbell, Jr. Neuropathology Laboratory) for the SC-ADRC at MUSC. She is originally from the mountains of Western North Carolina and went to college at Appalachian State University in Boone, North Carolina. Ms. Belk graduated with a Bachelor of Science in Biology with a concentration in Cell and Molecular Biology, with a minor in Chemistry. While there, she researched the genetics of rare plant species specific to the Appalachian Mountains. Ms. Belk started as the Brain Bank Liaison for the SC-ADRC at the MUSC about a year and half ago and was drawn in because of the diversity of opportunities associated with this job; genetic research, histology, speaking with and teaching the community about Alzheimer's research. Her role consists of coordinating brain donations to our biobank, consulting/ communicating with donor families, laboratory upkeep, maintenance of specimen/data associated, histology/histology preparation, liaison for distribution of samples, performance of projects associated with donated tissue, and so much more! She sees her role as a connection between research and people—a blend of science and empathy that makes this work truly meaningful!

Title: Banking on the Brain: A Technician's Role in Fighting Neurodegenerative Disease

Ms. Belk will present the detailed process of coordinating, collecting and preserving donor samples.

Biography

Brittany Ivey, PhD, is a Staff Scientist in the Department of Pathology and Laboratory Medicine at the Medical University of South Carolina (MUSC). Originally from South Carolina, Dr. Ivey received her PhD from Clemson University in Microbiology and Immunology, where she studied adhesion molecules in breast cancer. She moved to Charleston, SC in 2008 and continued her work in breast cancer, specifically in the field of cancer genomics. From 2018-2023, Dr. Ivey was the Operations Manager for the Biorepository and Tissue Analysis Shared Resource for Hollings Cancer Center. While there, she collaborated with researchers, clinicians and pathologists to facilitate cancer research at MUSC. In 2023, Dr. Ivey returned to her basic science roots and pivoted to understanding the pathology of Alzheimer's disease. She participated in weekly Neuropathology Consensus meetings to learn more about the diagnosis of Alzheimer's and related dementias. She is currently working with the Carroll A. Campbell Jr. Neuropathology Laboratory to obtain eye globes and fluids from Alzheimer’s patients to further her work in identifying novel biomarkers of the disease. Dr. Ivey believes that her work will impact early detection of Alzheimer’s disease in the future as we continue to develop better treatments for patients with this disease.

Title: The Potential of Eye Fluid Biomarkers in Neurodegeneration

The eyes are a direct reflection of our brain health. As a SC-ADRC researcher Dr. Ivey collaborates with the Brain Bank, utilizing donor eye fluids to identify new indicators of dementia.