



Office of Faculty Development

Pathology & Immunology

Cheryl Lichti, PhD was raised on a farm in rural northwest Arkansas. She earned a BA in chemistry from Hendrix College and a PhD in organic chemistry from Duke University. After a brief postdoctoral stint at University of Colorado-Boulder, she began her career as a chemistry professor at a small liberal arts college. She spent six years at Lyon College and one year at Washington & Lee University in Lexington, VA. An interest in bio-organic chemistry led to a change in career paths, with a position as a research assistant in the lab of Dr. Kevin Raney at the University of Arkansas for Medical Sciences. While at UAMS, Dr. Lichti switched to the field of proteomics and helped establish the proteomics core facility. She was also co-director of the

Medical Biochemistry course. Concerns about funding led her to accept a position at the Arkansas Department of Health, and two years later she moved to St. Louis to work in the Proteomics Core Lab at Washington University. After four years, the opportunity to work more independently took her to The University of Texas Medical Branch in Galveston, TX, for 5 years. While there, she collaborated with multiple faculty members to design and execute various proteomics studies, mostly related to neuroscience and Glioblastoma multiforme (GBM). Her mother's illness and subsequent death from frontotemporal dementia and Alzheimer's Disease led to an interest in neurodegeneration and an affiliation with The Mitchell Center for Neurodegenerative Diseases at UTMB. Ultimately, her studies led to a desire to learn more about innate immunity and its role in neurodegeneration.

Since 2017, Dr. Lichti has worked with Drs. Robert Schreiber and Emil Unanue as the manager of the Bursky Center for Human Immunology and Immunotherapy Programs Mass Spectrometry Lab. Her work centers around sequencing the major histocompatibility complex (MHC) peptidome by mass spectrometry. With Dr. Schreiber's lab, this work involves identification of tumor neoantigens. The work with Dr. Unanue's lab is aimed at identifying self-antigens associated with type 1 diabetes. While working from home, she completed the American Association of Immunologists' immunology courses, allowing her to develop a deeper understanding of the biological side of both projects.



Cheryl is very active in her church's music program; she sings in the choir and is also a member of the handbell choir. She is also interested in sports and enjoys watching college football, college basketball and figure skating. She still maintains an obsessive interest in Duke basketball, having been a Cameron Crazy during her graduate school years.