



Andrea McAlester, PhD

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Dietary Lipid Effects on Intestinal Macrophage Antimicrobial Responses to Intestinal Injury

Dr. Andrea McAlester is an early career faculty in the Department of Pathology and Immunology.

The research in her lab focuses on understanding dietary lipid effects on intestinal immune function and the influence on intestinal disease development. Dr. McAlester's research seeks to develop diet interventions that support reparative immune functions to reverse tissue-damaging conditions in intestinal diseases, such as inflammatory bowel disease. Her interest in biomedical research began during her undergraduate studies at Clark Atlanta University, where she received her B.S. in Biology. Dr. McAlester received her Ph.D. in Molecular Physiology and Biophysics from Vanderbilt University, where her studies focused on immunometabolism. She then joined Baylor College of Medicine as a postdoc in the Center for Metagenomics and Microbiome Research, where she studied the impact of microbial signals and high-fat diet feeding on intestinal immune tissue repair functions. These studies set the foundation for Dr. McAlester's K01 award from the NIDDK in 2020 and the lab's current research focus.