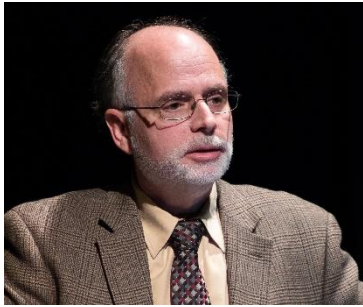


Dr. Mark Lyte, Iowa State University



Dr. Mark Lyte, MT(ASCP) is in the Department of Veterinary Microbiology and Preventive Medicine at the College of Veterinary Medicine since 2015. He earned his Master's and PhD degrees in Biophysics and Cellular Immunology at the Weizmann Institute of Science in Israel and had been mainly involved in human disease until joining the veterinary college. Work from Prof. Lyte's laboratory has provided the initial and continuing results demonstrating the ability of microorganisms to produce neurochemicals that are capable of influencing host health, behavior, and disease pathogenesis. This has resulted in the creation of a new translational scientific discipline uniting the fields of neurobiology and microbiology that has been termed microbial endocrinology. The realization that there is an evolutionary-based communication pathway between the microbiota and the host based on the shared common language of neurochemistry provides for new mechanistic approaches to understanding the various ways that the microbiota can interact with host physiology extending from humans to farm production animals. Most critically, nutrition has a central role to play in microbial endocrinology since food-based neurochemical substrates can alter neurochemical production by the gut microbiota and thereby influence host physiology; including pathways affecting the development of inflammation as well as development of infectious disease. Prof. Lyte is the recipient of awards including the Joseph Susman Memorial Award for Surgical Infectious Disease Research by the Surgical Infection Society and was named a finalist for the NIH Director's Pioneer Award.