



MMI 291 Seminar Series

Current Theme: Interdisciplinary Research
Fall Quarter 2019 – CRN 51546



Friday Seminar – 12:10-1 p.m.

**“Germ-Free Mouse Research at Michigan:
from Pathogens to Probiotics and More”**

Research

Dr. Eaton is a board-certified veterinary pathologist (Diplomate of the American College of Veterinary Pathologists) trained in the pathogenesis of disease as well as morphology, histopathologic diagnosis and development of animal models of human disease. Her early work focused on animal models of *H. pylori* gastritis. She was the first to study bacterial virulence factors in an animal model (germ free piglets)

Currently her laboratory studies the pathogenesis of disease due to Shiga toxinogenic *E. coli* (STEC), using a model of colonic disease and hemolytic uremic syndrome in germ-free mice. The lab was the first to fully describe disease due to STEC in germ-free mice, and have used this model to investigate pathogenesis.

As the director of the UM Germ Free Mouse Resource, she collaborates with and advises many investigators in the use of germ free mice to study infectious diseases and cancer, and most recently the role of the microbiome. The germ-free mouse core facility has become a regional resource for institutions establishing their own facilities, as well as a source for mice and other information.

Publications

Eaton K, Pirani A, Snitkin ES, et al. Replication Study: Intestinal inflammation targets cancer-inducing activity of the microbiota. *eLife*. 2018;7:120. doi:10.7554/eLife.34364.

Eaton KA, Fontaine C, Friedman DI, Conti N, Alteri CJ. Pathogenesis of Colitis in Germ-Free Mice Infected With EHEC O157:H7. *Veterinary Pathology*. 2017;54(4):710-719. doi:10.1177/0300985817691582.

November 1



Kathryn Eaton, Ph.D., DVM
Professor
Microbiology and Immunology

School of Medicine, University of
Michigan

November 1, 2019
12:10 – 1 p.m.
MedSci 180C

Medical Microbiology &
Immunology
School of Medicine

Seminar Contact:
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We hope to see you there!