



DATE

Friday, December 7,
2018

TIME

11:00 am – 12:00 pm

LOCATION

HEC 356

HOSTED BY

Genomics and
Bioinformatics Cluster

SEMINAR

Mollusks, Microgravity and More: understanding the impact of the space environment on host-microbe interactions

Dr. Jamie Foster

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Abstract: Long-duration space flight imposes physiological challenges to the human body, such as bone loss and immune system dysregulation. Although considerable progress has been made studying these phenomena, one area of research that has received little attention is the impact of space flight on commensal, non-pathogenic, microbes that associate with animal tissues. To examine the effect of low shear modeled microgravity (LSMMG) on bacteria-induced developmental apoptosis, the monospecific symbiosis between the bobtail squid, *Euprymna scolopes* and its luminescent partner *Vibrio fischeri* ES114 was used as a model. In this seminar I recap the impact the LSMMG has on the symbiotic partners and the bacteria-induced development of the host animal.

Dr. Jamie Foster is an Associate Professor at the University of Florida in the Department of Microbiology and Cell Science. She works at the Space Life Sciences lab near the Kennedy Space Center and focuses her research on the interactions between microbes and their surrounding environment. In this seminar she will be discussing her work on the effects of simulated microgravity on the beneficial symbiosis between the Hawaiian bobtail squid *Euprymna scolopes* and the luminescent bacterium *Vibrio fischeri*. Her work highlights the important role that microbes play in maintaining the health of their host animals under modeled microgravity conditions.