Andrea Henle

**Award:** Higher Education Initiatives; $9947.00

**Title:** Assistant Professor, Biology

**Project:** Development of an upper-level biology course on human health and disease in space

**Abstract:** (First Paragraph of Proposal) The goal of this project is to develop an advanced space biology course at Carthage College, a small liberal arts college in Kenosha, WI. Students will analyze scientific articles, meet NASA scientists, and use NASA’s GeneLab database to investigate space research. For the majority of biology majors enrolled in this course, this will be their first exposure to the interdisciplinary nature of space biology research. The course will serve as a capstone course in these students’ biology education, with a goal of allowing the students to make connections between research topics across a variety of biological disciplines. The objectives for the course can be contained within an important over-arching theme composed of two questions: what do scientists need to understand about biological adaptation to the space environment for long-term human missions in space and how do these studies help advance our understanding of human health and disease on Earth?

**Biography:** Andrea Henle is an immunologist and cancer cell biologist who studies the development of  
melanoma. At Carthage College she teaches cellular and molecular biology and an introductory  
biology course in which first year students conduct research to isolate bacteriophages from the  
environment. She previously received a WSGC research grant to isolate bacteriophages from the  
International Space Station with a Carthage undergraduate student. She will continue to promote  
space biology at Carthage by developing a course focused on understanding human health and  
disease through space research.

**Congressional District**: 1

**Congressional Representative**: Paul Ryan