April 20, 2016

Graduate College Announces Recipients of 2016 Gwen Frostic Doctoral Fellowships

The Graduate College is pleased to announce that four WMU doctoral students have been named recipients of Gwen Frostic Doctoral Fellowships for the 2016–17 academic year. The Gwen Frostic Doctoral Fellowships are funded generously from an endowment made possible by the late poet, artist, and naturalist, Gwen Frostic, a WMU alumna, Class of 1929. Awards are given to assist recipients with the completion of the doctoral dissertation in all disciplines.

The 2016–17 Gwen Frostic Doctoral Fellowships recipients are as follows:

Carol L. Beaver – Department of Biological Sciences: Carol Beaver will receive the Gwen Frostic Doctoral Fellowship for her dissertation, “Microbial Communities Associated with High Magnetic Susceptibility in Hydrocarbon-Contaminated Soils.” According to Dr. Silvia Rossbach, Carol’s dissertation advisor, “Carol’s work is at the forefront of a new interdisciplinary research area: biogeophysics.” Only recently, writes Rossbach, are geologists beginning to understand that microorganisms influence geology and that these geological parameters change in response to microbial activity. Carol has presented her research at various state, regional, and international conferences and has received numerous awards for her writing and presentations at these events. She was recently published in the peer-reviewed journal Geomicrobiology. According to Dr. Rossbach, “Carol’s research will have great impact on not only one, but two disciplines, microbiology and geophysics.” Carol writes that her future interests include “discovering the relationships between microbial populations and the metabolic processes they use for the bioremediation of petroleum, and exploring geophysical methods that monitor bioremediation by these organisms. After graduation with her Ph.D., Carol plans to continue to develop tools that ameliorate polluted environments.
**Sarah M. VanderMeer – Department of Geosciences:** Sarah VanderMeer will receive the Gwen Frostic Doctoral Fellowship for her dissertation research titled, “Mapping and Interpreting Quaternary Landforms of Pictured Rocks National Lakeshore, Michigan.” Sarah has presented her research at three different regional and national geology conferences and was the first place winner for the Best Graduate Student Poster Contest at one of the regional conferences. She is also the recipient of many awards and professional recognitions. In 2014, Sarah won the W. David Kuenzi Memorial Award, as well as the Douglas Daniels Endowed Geoscience Scholarship and Award. Sarah also is the recipient of Western Michigan University’s All-University Graduate Teaching Effectiveness award in 2016.

Dr. Alan Kehew, Sarah’s dissertation advisor, writes that “Pictured Rocks was the only park in the entire national system that did not have a surficial geologic map,” and he envisioned the creation of a geologic map as a project that Sarah should consider as one focal point of her dissertation research. Dr. Kehew writes that this project “will have great significance in that it will be viewed by hundreds of thousands of visitors per year at the visitors’ centers and will be used for geologic interpretation by the National Park Service.” In his view, Sarah is “building an outstanding record of academic accomplishments at WMU.”

**Jagjit Kaur – Department of Physics:** Jagjit Kaur will receive the Gwen Frostic Doctoral Fellowship for her dissertation research titled, “Low-Temperature Dielectronic Recombination Calculations For Si-like Ions.” Jagjit is an advisee of Dr. Thomas Gorczyca and is part of his atomic physics research group at Western Michigan University. She is also collaborating with Dr. Nigel Badnell, renowned atomic physicist from the University of Strathclyde, Glasgow, who has developed a set of computational programs that Jagjit is currently using in her research. Jagjit has presented her research at both national and international conferences, and she has published her work in the *Journal of Physics: Conference Series*. She is also the recipient of the prestigious Leo R. Parpart Scholarship for outstanding research. In addition to research, Jagjit also has an impressive teaching record and has taught the undergraduate physics laboratory for over three years. Moreover, she has mentored students in the advanced physics laboratory, covering experiments in solid-state physics, nuclear physics, and atomic physics, an opportunity given only to students whose work the Department of Physics recognizes as exceptional. Dr. Gorczyca writes that Jagjit “has a bright future ahead of her in the interdisciplinary research area of laboratory astrophysics.”
Rong Shi – Department of Economics:  Rong Shi will receive the Gwen Frostic Doctoral Fellowship for her dissertation research titled “Three Essays on Educational and Nutritional Problems in China.” This study focuses upon the topic of nutrition and educational needs in rural China and will have important implications in the development of health and wellbeing initiatives for children in developing countries. Dr. Christine Moser, Rong’s dissertation advisor, writes that this topic is an “important and growing area in economics” that has critical public policy implications. Rong writes that given China’s rapid economic growth and economic reform measures, there has also been the creation of a “large gap between urban and rural China, in both health and educational outcomes.” She recognizes this gap as a factor that lends to social instability and that also contributes to future income and social inequalities. Her research will examine the impact of supplemental nutrition programs, as well as parent training programs and will lend insightful information into the creation of effective interventions to enhance rural children’s nutritional and educational sustainability. Rong has presented her research at professional conferences and is currently developing manuscripts for publication in peer-reviewed journals.