

2016 BAILLET LATOUR ANTARCTICA FELLOWSHIP AWARDED TO DR. LORI ZIOLKOWSKI

Brussels, Belgium, 9 December 2016 –Prof. Lori Ziolkowski of the University of South Carolina has been awarded the prestigious Baillet Latour Antarctica Fellowship for her proposal for two trips to Antarctica to study estimates of microbial activity and carbon accumulation surrounding the Princess Elisabeth Antarctica Research Station. This award is given to one scientist every two years, and has historically gone only to Europeans. Dr. Ziolkowski is the first non-European winner.

Dr. Ziolkowski, in the School of the Earth, Ocean & Environment within the College of Arts & Sciences, was unanimously selected by the Baillet Latour Antarctica Fellowship Committee. Her project, “REMACA”, will use the natural abundance of radioactive carbon to study the rates of carbon accumulation and microbial activity. Through an international collaboration led by Dr. Ziolkowski, age estimates of carbon present in the environment will be coupled with microbial community analyses to better characterize what microbes are active in the harsh Antarctic environment. In addition, these estimates of the age of carbon will be the first to be done in the region surrounding the Princess Elisabeth Station. By comparing carbon ages in these pristine Antarctic sites with studies from the northern hemisphere, the project is also expected to yield important information on the influence of human activities on the darkening of glacier surfaces.

“Winning the Baillet Latour Fellowship award will allow me to collect samples and study rates of microbial activity in East Antarctica, one of the worlds remotest and most extreme environments. This research will improve our understanding of the limits of life on Earth” says Dr. Lori Ziolkowski.

This proposal received top scores from a Scientific Jury made up of three international experts in microbiology. The experts stated that the proposal described an excellent, well planned, novel and feasible research project led by a very well-qualified and knowledgeable applicant. They also agreed that the use of ^{14}C to study carbon dynamics introduces an innovative aspect to research done in this field. Members of the Fellowship Committee also agreed that her proposal stood out from other candidates and follows up on previous Belgian microbiological research in the different habitats surrounding the Princess Elisabeth Station.

In January 2017, Dr. Ziolkowski will travel to the Princess Elisabeth Antarctica polar research station to begin her fieldwork. She will spend five weeks working at various sites within the vicinity of the station. More information about the REMACA project will be available in the coming months on the Princess Elisabeth Antarctica station website www.antarcticstation.org.

Baillet Latour Antarctica Fellowship

The Baillet Latour Antarctica Fellowship is a joint initiative between the International Polar Foundation and the Baillet Latour Fund. This award promotes science and scientific excellence in Antarctica through young research scientists. The fellowship, worth € 150 000, recognizes the importance of science carried out in Antarctica for improving the understanding of Earth, and encourages scientific research at, or close to the Princess Elisabeth Antarctica polar research station.

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Dr. Lori Ziolkowski BIO

Dr. Lori Ziolkowski is a Canadian who turned her love of the outdoors into a career in science. From her first fieldwork experience as a high school student in northern Canada's boreal forest sampling microbial material on Arctic glaciers, today, she is passionate about understanding what controls the limits of life and carbon recycling on Earth. She completed her Bachelors in Environmental Chemistry at the University of Waterloo and a Masters degree in Oceanography from Dalhousie University. After working for four years as a research technician and afterwards spending three hundred days at sea, she decided to pursue a career as a research professor and started her PhD at the University of California Irvine in the US.

During her PhD, Dr. Ziolkowski developed new techniques to isolate chemicals from complex mixtures to determine their age using carbon dating. Just as mixing yellow and blue yields green, mixtures of compounds with different ages skews the apparent age of a material. She found that while carbon in the ocean may have an overall age of a few thousand years, combusted carbon from forest fires is preserved in the ocean for tens of thousands of years. Intrigued by new challenges, she returned to Canada to pursue postdoctoral studies at McMaster University and applied her carbon dating techniques to study the limits of microbes in extreme environments. In 2013, she returned to the US as an Assistant Professor at the University of South Carolina, where she studies the role that microbes in permafrost and glaciers may play in future climate feedback. The REMACA project in Antarctica will provide a unique opportunity to provide the first estimates of microbial activity in this region of Antarctica.

International Polar Foundation

The International Polar Foundation supports polar scientific research for the advancement of knowledge, the promotion of informed action on climate change, and the development of a sustainable society.

www.polarfoundation.org
www.antarcticstation.org

Baillet Latour Foundation

The Baillet Latour Foundation was established in 1974, on the initiative of Count Alfred de Baillet Latour. Its aim is to promote, encourage and reward excellence, principally in Belgium, by focusing **its work on people**.

For over 40 years, the Foundation has sought to support initiatives that are remarkable for their influence, the excellence they inspire or their innovative approach to meeting the challenges faced by tomorrow's society.

Its support generates concrete spin-offs with specific future benefits in four areas: **health, education, culture and sport.**

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