

## December 2013 News Notes

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### Alumni Change Lives

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*Andrew Tenison (B.S. 2013) received support from the Friends of Orton Hall, as well as from the OSU College of Arts and Sciences. Here, Andrew describes how this helped advance his career.*

It is not all that common for undergraduate students to travel abroad as part of their research. With funding from the Friends of Orton Hall and from Ohio State College of Arts and Sciences, I was able to experience the research opportunity of a lifetime. My work with Professor Michael Barton involves looking at geochemical variation of lava from Icelandic volcanoes in order to determine pressures of crystallization of the magma, which consequently is converted to depth. With this information we are able to determine at what depth the magma chambers are located and this gives insight into the tectonic processes which are at work along this portion of the Mid-Atlantic Ridge.



Travelling to Iceland was necessary to gather more samples from various volcanic centers because data for some locations was lacking. Doing field work also gave me a whole new level of understanding the geologic setting of Iceland in a way that reading scientific papers cannot. It is one thing to read about the dimensions of a volcano, but when you're standing on the flanks of something you've only read about... you get a whole new appreciation for your research. My time in Iceland was such an incredible learning experience. From camping on lava fields many kilometers from any form of civilization beneath the northern lights, to hiking up the sides of active volcanoes, to eating whale in Reykjavik while on my way back to the States, I never could have dreamed of having such an opportunity as an undergraduate student. Hopefully as the future unfolds, my passion for research will continue to lead me to foreign lands and new discoveries.

## Earth Sciences Undergraduate Students Awarded Shell Scholarships for 2013–2014

School of Earth Sciences undergraduate majors Jake Harrington (B.S. 2015) and Christina “Chrissy” Zerda (B.S. 2014) are winners of \$5000 Shell Oil Company scholarships for the 2013–2014 academic year. Chrissy’s scholarship is a renewal scholarship for this year based on her continuing high level of academic achievement. Jake’s scholarship was awarded for the first time this year and he will be eligible to renew it next academic year. Jake is pursuing Earth Sciences’ new B.S. track in Petroleum Geology and Geophysics and he is also minoring in Portuguese. He has been studying the geochemistry and mineralogy of the Utica Shale, working under the direction of Professor David Cole and research scientists Dr. Julie Sheets and Dr. Sue Welch. He began his project during the summer of 2012 when he was one of 14 Shell Undergraduate Research Experience (SURE) interns. Chrissy is pursuing a petrology and geochemistry research project under the direction of Professor Mike Barton on deep crustal partial crystallization at the east Pacific Rise. She spent Summer 2012 at field camp in Ephraim, Utah. Chrissy was a SURE intern during summer 2013. She plans to obtain an M.S. in Earth Sciences and then pursuing a career teaching high school Earth science back home in Texas.



Ohio State is one of only 22 universities nation-wide whose students are eligible to apply for Shell scholarships. The School of Earth Sciences congratulates our students on their scholarships from Shell.

## Thompsons receive Sullivant medal

Prof Lonnie Thompson and Professor of Geography Ellen Mosley-Thompson received the Joseph Sullivant medal at the OSU commencement on December 15th. From OSU College of Arts and Sciences ([link](#)):

“The Joseph Sullivant Medal was established in 1920 with a fund endowed by Thomas C. Mendenhall, an Ohio State professor of physics. The Sullivant Medal is awarded every five years and recognizes individuals for notable achievement... in the form of an important invention, discovery, contribution to science, the practical solution of a significant engineering, economic or agricultural problem, or the production of a valuable literary, artistic, historical, philosophical, or other work.”



# SES researchers explore unique biogeochemistry of North Dakota lakes

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The Prairie Pothole area of the US and Canada spans a large portion of the Midwest/Great Northern Plains, and consists of many small wetlands that were formed during the retreat of glaciers over this region. Due to combined hydrologic and weathering processes, some of these lake sediments and pore waters contain some of the highest concentrations of dissolved organic carbon and sulfur species ever measured in fresh water systems. This past November, Prof. Michael Wilkins, graduate student Brandon McAdams (supervisor Prof. Yo Chin), and colleagues from the University of Minnesota sampled prairie pothole lake sediments and pore waters. Despite cold conditions, icy lakes, and the start of the hunting season, samples were successfully recovered. These materials will be used to study (1) pesticide degradation potential of chemical species in pore waters and sediments, (2) sulfur speciation in these environments, and (3) the microbial communities in these systems that utilize the dissolved carbon, and generate significant concentrations of aqueous sulfide, and possibly methane.



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## Brevia

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I2M's Michael D. Campbell, P.G., P.H., Chief Geologist /Hydrogeologist, and 1966 graduate of OSU and 1976 graduate of Rice University, was elected a Fellow of the Geological Society of London. Additionally, Campbell was recently elected as an European Geologist by the European Federation of Geologists in Bruxelles, Belgium. Congratulations, Michael!

Alex Lin (PhD 2007, adviser: Prof Emeritus Ausich) received the Chinese Academy of Sciences International Cooperation Award for Young Scientists, along with colleague Joseph P. Botting. Subsequently, Lin won the Young Scientist of the Year Award of the Paleontological Society of China. Congratulations Alex!

John Lieftinck, a member of the undergraduate class of '55/'56 died on November 25 at OSU Hospital. John had a good career as a geologist, having served as chief of overseas operations for Tidewater/Getty Oil. His online obituary is linked [here](#). Contributed by Donald H Owens (B.S. 1956).