

Fall 2010

The Biology Flash

Where are they now?

- **Adam Badaczewski** is a research assistant studying childhood asthma at Nemours/DuPont Hospital for Children.
- **Jared Burd** is attending optometry school at Salus University.
- **Leah Christ** is attending veterinary school at Ohio State University.
- **Rachel Grabowski** is an intern educator with University of Georgia's Marine Extension Center and Aquarium.
- **Lauren Kessler** is attending graduate school at Shippensburg University.
- **Shawn Lehman** is pursuing his Masters degree at Duquesne University.
- **Chris Nealen** is pursuing his Masters degree at Plymouth State University.
- **Amanda O'Brien** is attending Altoona Regional Health System School of Medical Technology
- **Nora Standley** is attending optometry school at Salus University.

Biology Students Make the Most of their Summer

Summer is a time when biology students at SFU seek out opportunities to grow outside of the classroom. Here is a sampling of what they achieved over the summer:

Senior Ashton Bartholow shadowed physicians at Western Psychiatric and UPMC Presbyterian E.R.

Senior Michael Bresnahan was an intern at Pittsburgh Zoo and Aquarium where he helped maintain cold and tropical aquaria, the shark aquarium, and served as an educator.

Senior Chris Buzas tested the developmental response of fruit fly vision to stressful rearing conditions in research at SFU.

Senior Tinamarie DelValle completed an internship at the Atlantic City Aquarium where she assisted with animal care and served as an educator.

Senior Tyler Gillman began research into the authenticity of Sycamore Moon Trees using PCR (see reverse).

Junior Phillip Harchack surveyed distribution and daytime activity patterns of damselflies.

Junior Dylan McCusker completed an internship in Charleston, SC, where he conducted a population demographics survey of American Eels.

Senior Chris Murawski took classes in Coastal Ecology at Wallops Island Marine Station.

Senior Kristen Ritchey (right) worked as an assistant at Companion Animal Hospital of Spring Cove.

Junior Macy Rupprecht attended an intensive premed program at Howard University that involved coursework, shadowing, and guest speakers.

Junior Scott Seaman researched the metal regulatory protein CopY, and the role of dimerization of a metal binding loop.

Junior Ben Shankel shadowed Dr. Roberto Novoa at Aultman Hospital in Canton, Ohio. He also worked on "Step Forward," a NPO that delivers prosthetic limbs to earthquake survivors in Haiti.

Sophomore Mark Steinmiller surveyed curly leaf pondweed growth, an invasive species, in Lake St Francis.



Senior Kristen Ritchey describes her experience assisting with a cesarean section at a veterinary hospital.

Sophomore Selamawit Woldemeskel developed a "greener" method of inserting metals into a tetraphenylporphyrin.

Junior Emily Zagorski synthesized novel cyclic amino acids that have neurological activity as part of an alpha-conotoxin produced by *Conus* snails.

Sophomore Richard Zelnosky shadowed Dr. DeMarsico and Dr. Ghaffari at Altoona Hospital.

What's New in the Biology Department?

- 23 freshmen majors joined the department this fall, with concentrations in biology, biochemistry, environmental science, marine biology, pre-professional, and secondary education.
- Dr. Wayne Takacs retired this past spring after 45 years of service to the department and university.
- Dr. Marian Langer was appointed chair of the biology department.
- Dr. Susan Reimer completed a sabbatical this spring developing new teaching pedagogies centered on Nobel Prize-winning research.
- Dr. Lane Loya is on sabbatical this semester conducting research on dragonfly and damselfly ecology.



Department of Biology

Dr. Marian Langer, Chairperson
Biology Department
Saint Francis University
P.O. Box 600
Loretto, PA 15940-0600
Phone: 814-472-3080
Fax: 814-472-2773

Office of Admissions
Saint Francis University
117 Evergreen Drive
P.O. Box 600
Loretto, PA 15940-0600
Phone: 814-472-3100
Phone: 866-342-5738 (toll free)
Email: admissions@francis.edu

Newsletter edited by Dr. Justin Merry (jmerry@francis.edu) and
Dr. Susan Reimer (sreimer@francis.edu)

**Alumni: do you have news to share? New jobs?
Attending graduate school? Please contact us
and let us know: jmerry@francis.edu**

New Faces in the Biology Department Faculty

Joining us this semester are two new faculty!

Dr. Irene Wolf received her undergraduate degree from Bowling Green State University, and her Ph.D. from the University of Toledo College of Medicine. Most recently, she completed a post-doctoral fellowship at the University of Pittsburgh. Dr. Wolf studies the roles hormones and/or hormone receptor complexes play on metabolic and reproductive systems. She is teaching Introductory Biology and Anatomy & Physiology this fall.



Andrew Scanlan is a 2007 graduate of the SFU biology department! Mr. Scanlan recently completed his Master's Degree at Penn State. His research interests include the use of diatoms as detectors of perturbations in stream ecosystems. He also enjoys studying zebra mussels and scuba diving. He returns this fall to teach Introductory Biology and Environmental Biology.



Senior Profile: Tyler Gillmen



Tyler Gillmen collects a Moon Tree leaf sample at Dillsburg Elementary school, Dillsburg, PA

Living relics of the Apollo 14 lunar mission of 1971 can be found in our area and Biology Pre-professional Senior Tyler Gillmen, who also plays football for Saint Francis, wants to know more about them. Astronaut Stuart Roosa, a former US Forest Service "smoke jumper," piloted the Apollo 14 orbiter and took the seeds of several species of tree in his PPKs, or Personal Preference Kits. These seeds were germinated and planted by the Forest Service and distributed around the country and world, especially as the country's bicentennial of 1976 was celebrated. Two such trees, sycamores (*Platanus* sp.), are found at the Cambria County Courthouse in Ebensburg and Highland Hall in Hollidaysburg. Many others are listed on the NASA site.* Everyone wanted a Moon Tree in 1976, but unfortunately few records were kept and rumors abound about trees that died and were replaced or their location lost. Modern genetic analysis may solve these problems and identify legitimate moon trees. Tyler is using PCR (polymerase chain reaction) to analyze the DNA extracted from sample leaves sent to him from around the country and collected locally. According to Tyler, "The

ultimate goal of the experiment is to observe non-Mendelian genetics of Sycamore Moon Trees in an attempt to understand possible changes that occurred from their trip to outer space."

* http://nssdc.gsfc.nasa.gov/planetary/lunar/moon_tree.html

Submitted by Dr. John J. Trimble