

# The Biology Flash

Spring 2013

Photograph by Shelley Kirkpatrick

## Student News

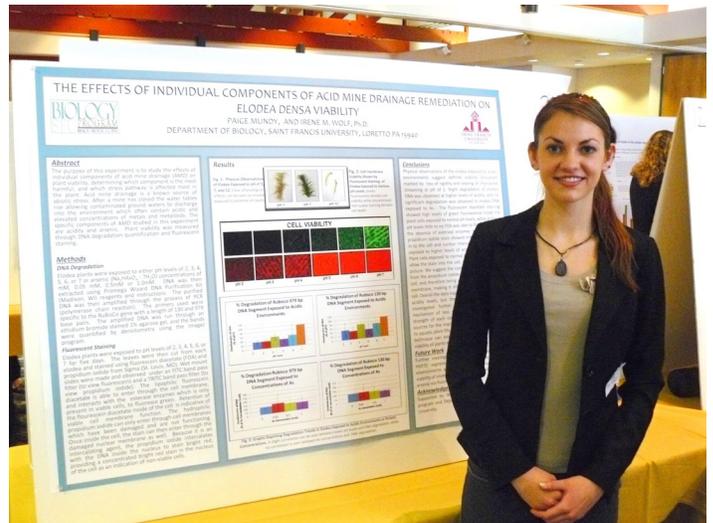
- **Maura Belinda** ('14) will attend the Medical Laboratory Science Program at Altoona Regional Hospital, Fall 2013.
- **Abigail Blair** ('15) was selected to participate in the NOAA Ernest F. Hollings Undergraduate Scholarship.
- **Jesse Felts** ('13) will attend Penn State College of Medicine at Hershey, Fall 2013.
- **Laura Husband** ('13) will attend Pennsylvania College of Osteopathic Medicine, Fall 2013.
- **Paige Mundy** ('15) was selected to participate in the Summer Undergraduate Research Program (SURP) at the University of Pittsburgh in the department of Cell Biology and Molecular Physiology.
- **Dana Nelson** ('13) will attend Pennsylvania College of Optometry and Salus University, Fall 2013.
- **Zachary Rozansky** ('14) was accepted into the summer REU program at Samford University to study stream macroinvertebrate ecology.

## Biology STARS Engage in Research as Freshmen at SFU

By Dr. Irene Wolf

Two years ago the Biology Department launched a new program: Science, Technology And Research Scholars (STARS). This program was designed to give interested freshman the opportunity to immerse themselves into a research project. This is a rare experience; at most institutions, students typically do not begin research until their junior or senior year. At a very early stage of their careers, STARS freshman apply the knowledge gained in freshman science classes to the scientific process.

Since its inception, several of these STARS participants have presented at local TriBeta conferences (see story, page 2) and the Undergraduate Research Symposium at University of



Paige Mundy presents her first-place winning poster at the Tri-Beta meeting at the University of Pittsburgh-Johnstown, March 23, 2013. Paige began the research as a STARS student during Spring 2012.

Maryland Baltimore County. The STARS program was recently awarded a \$1000.00 Excellence in Education grant from Saint Francis University, which will supply the students

with the necessary equipment to carry out their research. The department looks forward to the incoming class of freshman and its future STARS participants.

## What's New in the Biology Department?

- The department will be joined by **Ms. Gail Drus** as Assistant Professor of Biology, beginning in Fall 2013. Ms. Drus is currently completing her Ph.D. at the University of Santa Barbara, where she has studied how desert riparian ecosystems have been influenced by invasive *Tamarisk*. She brings with her a wealth of knowledge about plant biology, ecology, and invasive species biology, and is keen to begin teaching at SFU.
- **Dr. Justin Merry** was promoted to the rank of Associate Professor, effective Fall 2013. Dr. Merry joined the department in fall of 2008 after completing his Ph.D. in Biology at Arizona State University. He studies animal behavior, with an emphasis on how limitations in sensory systems influence behavioral evolution in animals.
- **Dr. Devonna Sue Morra** is at Saint Francis University's Ambialet facility in France to teach the course "Natural History of Southern France" during the Spring 2013 semester.
- The department will move into the beautiful new Science Center in July, 2013!

## Department of Biology

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## Senior Profile: Amanda Zahumensky

My name is Amanda Zahumensky and I'm a senior biology (pre-professional) student. Throughout these quick four years at SFU, I've been a volleyball player. Recently, I completed research with Dr. Irene Wolf at a local acid mine drainage site to determine chaperone protein levels in the cattails found in each of the ponds. We found that cattails sampled from ponds that are more severely impacted by acid mine drainage have lower titers of heat shock proteins. This indicates that the production of these proteins, which promote proper protein folding and integrity, are impaired under adverse conditions. This may contribute to the overall smaller size and impaired development seen in these ponds. This has been such an amazing experience and I greatly suggest any science major to get into some sort of research while they are in undergrad.

While my time at Saint Francis has been a great experience, it has also been challenging. Time management has been a huge part of my four year, as I have had to balance the time required for both my



studies and volleyball. Although it was difficult, I will graduate this May with honors and am so thrilled to have been able to accomplish this while balancing my commitments in athletics. Next year, I will be taking a short year off school before continuing into medical school and becoming an anesthesiologist. I am very excited to start this next chapter in my life.

## Beta Beta Beta: 33 Years of Biological Research at Saint Francis

By Dr. Lane Loya

Beta Beta Beta (TriBeta) is a national honor society for biology students dedicated to promoting the biological sciences through scholarship and research. The SFU Biology Department is home to the Upsilon Beta chapter of TriBeta, which was established in 1980 with an initial membership of 20 students. Since that time, the chapter has inducted 235 Regular Members (biology majors) and 38 Associate Members (non-majors) into its ranks. Membership is open to students with a 3.0 GPA or better in at least three biology courses taken at SFU. This year, 12 new members were inducted into the chapter at a ceremony held in Raymond Hall on March 20, 2013.

One of the primary missions of TriBeta is to support and encourage undergraduate research. This goal is accomplished in part by a national competitive grants program that helps student members defray the costs of supplies and other research needs. The Upsilon Beta chapter has an-

nually donated a portion of its student dues to support this scholarship initiative, and over the years, a number of SFU students have been awarded these grants.

TriBeta also encourages undergraduate research by sponsoring both regional and national student conventions. Twelve SFU students traveled to the University of Pittsburgh at Johnstown on March 23, 2013 to attend this annual meeting. There, Paige Mundy, a sophomore SFU Biology major from Mars, PA, was awarded first place for her research poster at this event, "The effects of individual components of acid mine drainage remediation on *Elodea densa* viability." In recognition of her accomplishment, Paige will be awarded an all-expenses paid trip to



Inductees, Officers, and Members at the 2013 Induction Ceremony of the TriBeta Biological Honor's Society. Photograph: Geoffrey Crowe.

the National TriBeta Convention at Gannon University in the summer of 2014. Additionally, SFU students captured two runner-up awards at this meeting, and the Upsilon Beta chapter was recognized for having the most number of delegates present.