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Life Line March 2015

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Life Line

Volume 16

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March 2015

Greetings from the Department of Biology and Earth Science, Spring 2015

On 20 February 1994, the department published its first Life Line. Articles in that newsletter described how students were involved in internships and research while others were taking summer jobs with Ohio EPA, and still others were active in AED and a new environmental organization on campus, Globe Otters. That newsletter had articles about a new minor in Environmental Studies being proposed by the department and other curricular changes to the department's majors. It described what the faculty in the department were up to and it set the stage for us as a community of faculty, staff, students and alums to build and flourish. It seems the more things change the more they stay the same.

In recent years the department has changed its name from Life and Earth Sciences to Biology and Earth Science, added a new major in Zoo and Conservation Science, and have provided courses and energy to the university's multidisciplinary Sustainability major.

We are one of two departments (with Chemistry) to offer a major in Biochemistry and Molecular Biology (BMB) and faculty in the department continue to develop courses in the Integrative Studies, Senior Year Experience, and First Year Seminar programs. The Department has never been more vital and more relevant to our students' lives.

As Interim Chair this year between Hal Lescinsky, who lead the Department through some major changes over the last few years (change in calendars from quarters to semesters and our most recent program review, just to mention a couple) to Sarah Bouchard, who asked to complete some work as Director of Undergraduate Research at the University before taking on the Chair position, it has been my pleasure, once again, to help what I believe is the most talented faculty on this campus attain their professional goals as teachers, as researchers and as essential links between our programs and our students. This year

we add two new fulltime faculty to this group: one position moving from Visiting Assistant Professor to fulltime and the other a second position in Zoo and Conservation Science. This brings the Department to a total of 12 fulltime faculty. To put this in some context, in 1994 we had four fulltime faculty.

The following few pages (FYI – our first newsletter was four pages long with one half of the last page reserved for mailing addresses) describe some of the activities our students, faculty and staff have been up to this year. It can't cover everything and so if you are an alum, reconnect with us and let us know what you enjoyed about Life Line and look for ways you can get involved. If you are a prospective student reading this, imagine what this department can do for you to accomplish your goals, and if you are a current student, consider how your story could be found in these pages. I hope you enjoy reading about what I believe is a truly outstanding department.

Michael Hoggarth, Interim Chair

Trees, Trees, and More Trees

In addition to learning to identify 60-70 tree species, students enrolled "BIO 2630: Trees of Ohio" made apple cider and hulled black walnuts to make a black walnut cake to be served during the final exam (a sweet reward for a semester of hard work). During the fall 2014, students walked the Otterbein cam-

pus, Columbus Metro parks, and various local sites to learn about the woody wonders of the Eastern deciduous forests. Students used all five senses (even taste) to identify trees by leaf, bark, twig, silhouette, and fruit.

Dr. Jeffrey Lehman



Erin Miller '97 Receives the 2014 Young Alumnus Award in Leadership and Citizenship

It was my sincere pleasure and deep honor to nominate and then present Erin with the Young Alumnus of the Year Award for 2014 in Leadership and Citizenship. Erin currently works in the Office of Mayor Michael B. Coleman as Environmental Steward. Below I have reproduced my introduction of Erin at the awards ceremony (slightly edited):

It is my pleasure to announce Erin Stewart Miller, alumna from the class of 1997, as one of the recipients of the 2104 Young Alumni Award. She is to receive the award for Leadership and Citizenship. Alumni who receive this award have demonstrated outstanding leadership abilities and have orchestrated meaningful change as leaders in their profession or community. They are committed, caring individuals to whom the Otterbein community may look up to as personifying the University's mission.

Erin majored in Ecology and Environmental Science at Otterbein. She was one of my advisees and one of my research students who worked with me to help protect endangered species of mussels. In fact, I have a picture of Erin, Leah Gillig, and Melissa Haltuch (all three very accomplished in their own fields today) carrying a john-boat up the banks of the Blanchard River following a long day of electroshocking fish to help us understand the relationship between the fish and mussels in this river. In

the photograph, Erin is holding onto the handle on the bow of the boat while Leah and Melissa are bringing up the stern. As Erin leads the way up the hill she jokes, "that if all I planned to do was to take pictures I might as well ride in the boat rather than walk behind as I wasn't being very helpful." That morning she led us out of the river and she has been leading environmental science in central Ohio since.

Erin started her career as an Intern with the Ohio Environmental Council (OEC), where she examined the demographics of environmental organizations in Ohio. After graduating, she took a position as Community Watershed Coordinator with OEC and moved from there to Executive Director of the Friends of the Lower Olentangy Watershed (FLOW). She went from FLOW to become Greenways Project Manager and Director of the Center for Energy and the Environment with the Mid Ohio Regional Planning Commission and from there to Mayor Coleman's office, where she is Director of the Mayor's Green Team and Manager of the Mayor's Office of Environmental Stewardship. Under Erin's leadership, the City has implemented a comprehensive recycling program that touches over 200,000 households and has been awarded for having the "Greenest Fleet in North America." But of special interest to me, is Erin's continued work with the City's rivers. Under Erin's watch, the City has worked to remove dams from the

Olentangy River on the campus of OSU and the Scioto River. The removal of the Main Street Dam on the Scioto River has opened 33 acres adjacent to the river as green space that will help to connect the Downtown with communities along the river.

Erin has demonstrated a history of outstanding leadership for the City, her rivers, and for the people of Columbus. Her leadership has resulted in important contributions to the health and welfare of the communities she touches; be they human communities or the bugs, mussels and fish that live in our waterways. I then invited Erin to take the podium, where I gave her a copy of the picture you see below. Congratulations Erin!

Dr. Michael Hoggarth



Melinda S. Phinney MD '85 Award

Otterbein is proud to announce an award which will be offered for the first time in 2015. The Melinda S. Phinney Award was established by its namesake, who, besides being a medical doctor, happens to be both an alumna of Otterbein as well as the daughter of the Emeritus Professor George Phinney (1962-1992, Otterbein Department of Life Sciences).

The fund was established in order to provide financial support for Otterbein juniors or seniors who are pursuing a career in medicine, and have a cumulative GPA of 3.3 or above, to engage in clinical pre-medical experiences. The intent is that the money awarded be used to fund either domestic or international travel. While some Otterbein pre-med students have been

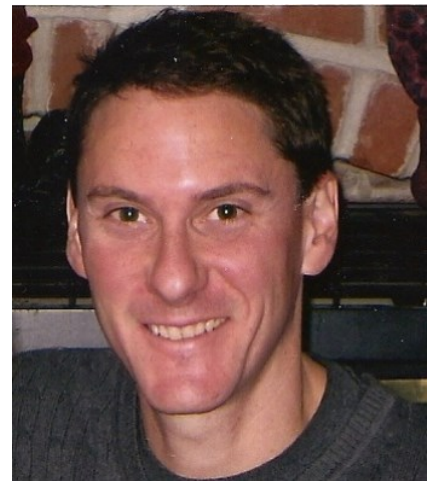
involved in such clinical opportunities (ex. Med-Life trips and Medical Mission trips), the high cost of such experiences makes them prohibitive for many. Thanks to the vision and generous support of Melinda S. Phinney MD, all pre-med students at Otterbein now have the option of applying for this competitive award.

The Department of Biology and Earth Science Welcomes New Faculty!

Dave Sheridan joined the faculty in the Fall of 2014 as an Assistant Professor to help teach anatomy and physiology. Dave received two B.A.s in Psychology and History from the University of Minnesota and then his M.S. and Ph.D. in Physiology from the University of Wisconsin. Dave moved to Ohio from Denver, Colorado where he had lived for the past 11 years, working at the University of Colorado and Regis University. He is a neurobiologist and his research interests include synaptic physiology (how neurons in the brain communicate with each other) and ion channel functionality (how

proteins in the membranes of cells conduct ions like calcium, sodium, and potassium). Dave is actively recruiting students to join his lab, so if you have similar research interest, he invites you to stop by his office in SCI 221 to chat about potential research projects.

Outside of work, Dave has been enjoying Ohio. Dave likes to be outside and active with his wife and two young children, finding places to hike, run, and bike. Dave is an avid runner and cyclist and currently owns 4 bikes (2 road bikes, 1 mountain bike, and a custom built commuter), but is always looking for another "project" bike to fix up and add to his stable. When not enjoying the outdoors, Dave enjoys



reading, mostly spy and horror novels, and cooking and grilling. His biggest hit with his kids' palates this winter were chicken tortilla soup and calabacitas con puerco.

ESCI 3100 Designs a Rain Garden for Campus

Dr. Kevin Svitana's ESCI 3100-Water Resources class took on a unique project during the Fall semester of 2013. The class developed a design for a rain garden (pictured below). Dr. Svitana and Dirk White, the manager of special projects for the service Department looked at water related issues on campus with the goal of identifying solutions for some of the recognized problems.

The area between Battelle Hall and the Roush Hall parking lot was frequently inundated during larger rainfall events creating ponding along the sidewalk that leads from Park Street to the main campus quad. Dr. Svitana and Mr. White decided a rain garden in that area that would contain runoff and promote infiltration which would serve as a water quality improvement measure and would eliminate flooding of the sidewalk. During the first week of the semester, discussions were held with the class regarding their interest in developing a rain garden design at a scale which would enable the service department to use existing equipment to construct the landscaping feature. The class

enthusiastically embraced the project.

The project began with the class laying out a survey grid on the Towers Hall lawn and Roush parking lot to determine surface slope and drainage directions. After completing the survey the students used contouring software, coupled with the USDA TR-55 modeling software to delineate the drainage area responsible for flooding the sidewalk, and project the volume of water associated with rainfall events. After the drainage basin delineation was completed, an additional survey was done in the area where the pine trees occur (see photo below). The purpose of this survey was to lay out an impoundment that would contain the



rainwater and facilitate infiltration. The next part of the project was to install soil borings. Students used hand augers to make bore holes to complete percolation testing to assess the infiltration potential of soils in the projected rain garden area. The data was then synthesized into a design to create an impoundment that would contain a 100 year storm event. A set of design plans were drafted, and these were the basis of the instructions for service department's construction effort. The ceremonial handoff of the design from the students to the service Department staff is shown on the photograph below.

Service Department personnel led by Loren Stone built the rain garden during spring break of 2014. Students planted ornamental grass that was taken from various campus locations where existing grasses needed thinning in order to provide some landscaping and visual boundaries. A donation of wildflowers helped provide some additional color. As you can see from the photograph, the rain garden provides a nice feature on campus that promotes positive water resource management and also represents a lasting tribute to the students who completed this project.

Otterbein Introduces the Ohio University Heritage Doctor of Osteopathy Early Assurance Program

Academic year 2014-2015 marked the start of a special program available to highly qualified incoming freshmen who are interested in becoming doctors after leaving Otterbein. The **OU Heritage Early Assurance Program (EAP)** allows HS seniors that have been admitted to Otterbein to also apply – *before starting college!* --to Ohio University's Doctor of Osteopathy Heritage Medical School. If admitted to the EAP, the student can choose between a 4+4 and a 3+4 pathway. Those in the 4+4 pathway will get a bachelor's degree in their chosen majors at Otterbein over a regular 4 year period, then go directly to Heritage Medical School for 4 years, finishing with DO degrees. Those electing the

3+4 pathway choose an accelerated schedule, whereby they spend 3 years at Otterbein majoring in Biology, Chemistry or Biochemistry/Molecular Biology, then go straight to Heritage for 4 years. The difference is that those in the 3+4 program will not receive their bachelor's degree from Otterbein until successful completion of their first year in medical school.

Sounds too good to be true? Well, there are some strict qualification criteria designed to predict success in medical school. HS seniors must have a minimum GPA of 3.5 (on a 0-4 scale) as well as an ACT composite of at least 28. Then, the EAP students must complete their Otterbein careers with a cumulative GPA of 3.7 or above (the cumulative science GPA must be 3.6 or

above). In addition, the EAP students must earn a C or above in *all the med school pre-requisite courses*. Provided they meet such performance standards, and remain in good standing at Otterbein in terms of ethical considerations, the students will be automatically admitted to Heritage Medical School after they submit the regular application. A bonus? The need to take the MCAT for an official score is waived!

We have two current EAP Freshmen at Otterbein and have heard that 8 prospective Otterbein students have been offered EAP slots. Congratulations to them all!

By Lisa Marr MD, Assistant Professor and Pre-Health Advisor

The Bennett Lab: Taking Research to the Next Level

As I am about to finish my fifth year in the Department of Biology and Earth Science at Otterbein University, I am reflecting upon the advances that have occurred in the department and within my research program. My laboratory studies a genus of soil bacteria that produces over two-thirds of the commercially important antibiotics as well as anti-tumor, anti-HIV and anti-parasitic drugs. Undergraduate students conducting independent research in my lab use a variety of techniques in the fields of microbiology, cell and molecular genetics, bioinformatics and biochemistry to study the pathways that control antibiotic production and other aspects of bacterial development. Since I have arrived at Otterbein, the department in conjunction with the new Biochemistry and Molecular Biology Program has acquired new technology including upgrades to the phase-contrast fluorescence microscope with the addition of fluorescent cubes, a digital capture system, computer and software; a LI-COR Odyssey Fc for digital image capture of fluorescent

and chemi-luminescent gels and blots; and a Real-Time PCR machine for quantifying gene expression. This equipment brings undergraduate research at Otterbein to the cutting edge in the fields of biochemistry/cell and molecular biology. My research program has taken advantage of this new technology, and my students are conducting research projects that utilize techniques that are only rarely available to undergraduates. For example, we have become very active in the area of gene expression studies, using Real Time PCR and RNA-seq, a Next Gen Sequencing technique, as we continue to characterize new genes that we have identified in our lab. My students have won national

awards for their research, including the ASM Undergraduate Research Fellowship, two ASBMB Undergraduate Research Grants, and ASM and ASBMB national travel awards. We have recently published some of our research in the *Journal of Bacteriology* and continue to present our data at various national and regional scientific conferences.

By Dr. Jennifer Bennett



Faculty Visit China to Promote Zoo Program

Drs. Anna Young and Sarah Bouchard traveled to China last summer with support from a Faculty Scholar Development Committee International Travel Grant. It was a fun, wild adventure, and they were grateful to be accompanied on the trip by Dean Paul Eisenstein and Librarian Jane Wu, who being Chinese, provided invaluable cultural insight and helped with the language barrier. Together, the group met with deans, directors and faculty from three universities, Shanghai Jiatong University, University of Shanghai Science and Technology, and Southwest Jiaotong University. In addition to these meetings, which explored ways to provide experiences and opportunities of mutual benefit to both Chinese and American faculty and students, the Otterbein contingent had the opportunity to explore three very different cities from a historical, cultural, and commercial perspective: Shanghai,

Chengdu, and Beijing. The experiences are too numerous to completely reiterate here, but notable examples include the Yuyuan Gardens in the Old City of Shanghai. These gardens were first constructed in 1559 and were declared a national monument in 1982 because of their historical significance. We also toured the Shanghai Museum, which is a museum of ancient Chinese art and features exhibits of coins, jade, ceramics, among others. In Chengdu, we visited the Jinsha Archeological Site, which was discovered relatively recently in 2001. The site, which is still being excavated, provides a record of an ancient city from 1000 BC. In Beijing, we visited landmark World Heritage Sites, including the Great Wall, Forbidden City, Temple of Heaven and Summer Palace.

Although Drs. Young and Bouchard were duly impressed with



While at the Chengdu Research Base of Giant Panda Breeding we were able to meet with the world expert on panda reproductive biology, Dr. Hou Rong!

Left to Right: Dr. Bouchard, Dr. Young, Dr. Rong, Dean Eisenstein, Mr. Li from Southwest Jiaotong University, Mr. Ayala – an American scientist working at the base, Mrs. Wu.

the cultural and historical experiences, the highlight of the trip for these intrepid biologists were visits to two research stations: Chengdu Research Base of the Giant Panda and the China Conservation and Research Center for the Giant Panda. Giant Pandas are such an endangered and high profile species that the opportunity to work with them and study them is very rare. Only four zoos in the United States have Giant Pandas, and those are on loan from

China. The main goal of the visits to the Panda bases was to build connections such that Otterbein students could travel to China and work with pandas. The meetings were highly successful and we are excited to announce that two students, Macie Smith and Kelly Jackson, will be traveling to China this summer! Stay tuned to future issues of Life Line to hear about their adventures.



We ate lots of unusual things – this is Dr. Young mentally preparing to eat a fried bee!



Dr. Bouchard was just as interested in the panda poop as the pandas themselves! They have unique digestive systems since they subsist on bamboo.



Climbing Mountains

As part of the new Freshman Year Seminar requirement, Dr. Hal Lescinsky developed a new FYS this fall on “Climbing Mountains”. One of the program’s goals is to develop group comradery among Freshmen, and as an avid climber, Hal knew that climbing and outdoor adventures are a prime way to do this. The course included elements of Outward Bound

Philosophy and real-life climbing (students took a co-requisite PE course at Vertical Adventures (the local climbing gym), and there was a fall-break climbing trip to Red River Gorge Kentucky). In the classroom they learned about climbing from the perspective of many academic disciplines. These included units on the physics of ropes and anchors, the

geology of mountains, the psychology of risk taking, the physiology of going to altitude, and the literature of mountaineering. Overall, not only were they immersed in real climbing, they also developed strategies and techniques for confronting obstacles and scary situations in all areas of their lives.

Corals Making a Comeback?

Last summer, Dr. Hal Lescinsky co-lead a Keck Consortium fund undergraduate research experience to northern Belize. Eleven students, selected from a national pool of applicants (including Zeb Martin '15) completed field work for senior theses. The project examined unusually large and healthy stands of the endangered staghorn coral (*Acropora cervicornis*) and asked why these stands had survived and were undergoing resurgence while similar patches throughout the Caribbean are largely dead. Each student pursued a different aspect of the reefs including the coral growth rates, the effect of

fish communities on reef bioerosion, the genetics of the corals, the geologic history of the reefs through cores that we extracted, and the use of remote sensing data to identify previously unknown coral patches. This May, Otterbein students will return to Belize as part of BIO 3340 Coral Reef Ecology, and we hope to apply the remote sensing technique to the South Water Cay World Heritage Site in central Belize. We have been tracking *Acropora* coral cover and its resurgence on several patch reefs over the last decade, but hope to identify many new areas this year. The coral stands in these areas will then be the



At the end of a hard research day, Hol Chan, Ambergris Cay, Belize

focus of Jill Keefer's ('16 Honors) and Sam Hargrove's ('16 Distinction) senior research.

Science Night Outreach

Students from the Department of Biology and Earth Science teamed up with Chemistry, Physics, and Biochemistry and Molecular Biology students to teach science to kids at Annehurst Elementary School. Otterbein students organized a series of hands-on stations where kids could learn about DNA structure, bubble science, tadpole development, weather, and much more! It was a fun evening of science for college and elementary students alike. *Dr. Sarah Bouchard*



Research Partnership between Microbiology and Public Health

Dr. Jeff Vasiloff has a background in medicine and public health. Most of his research has been in infectious diseases with public health implications. Jeff has been investigating a sexually transmitted infection that has been endemic for centuries: syphilis. Working with HSS junior Sarah Uhlenbrock on predisposing and enabling factors that they posited could lead to syphilis infections in Ohio, this data was presented by Sarah on October 24, 2014 at the annual meeting of the Society of Public Health Education (SOPHE).

Dr. Jennifer Bennett is not only a molecular biologist, but a microbiologist with an interest in infectious diseases; she and Dr. Vasiloff decided to begin collaborating on research of topics on the interface of microbiology and public health. In fact, along with students, Sarah Holbrook, and Sarah Bousfiha, Drs. Bennett and Vasiloff submitted two abstracts, one on syphilis in Ohio, and the other on several reportable infectious diseases in Ohio.

The First to Go



I'd like to dedicate this article to the "Pioneer Class" and Dr. Young.

My name is Amanda Stilwell and I am senior in the first class of Zoo and Conservation Science majors. Not only that, but I am the first and only one to be graduating this year. It is a great but lonely honor.

I feel that I am ready to go out into the world and zoo field, the department has surely prepared me for that. From the various practicums and internships I've had I can't imagine being any more ready than I am

right now. The hard part is leaving everyone behind; my professors that have guided me through every obstacle, taught me and challenged me, and my fellow classmates that I have shared so many important moments with.

These past three years at Otterbein I've spent the majority of my time with the same group of people, my fellow "zoodents". We've been through so many things together, classes, exams, internships and the unfortunate passing of Kyle Miller, our fellow classmate. I don't know if any other program becomes this close but we have. We are a family. And while graduating is exciting, I'm sad to be the first to go.

While the rest of my friends are scheduling their classes for next year, I'm applying for jobs. The world here at Otterbein will continue to spin without my presence but my only hope is that I can make everyone proud. I

cherish the relationships I've gained and the memories made. Nothing can ever replace the family created here. A family of students and professors that came to together in one amazing program that will forever change our lives. We've done something magnificent and I know that soon the entire zoo community will know who we are.

*Amanda Stilwell,
Zoo and Conservation Science '15*



Ohio EPA Conducts Certified Environmental Professionals Training at Otterbein

The Ohio EPA Department of Emergency and Remedial Response conducted groundwater sampling on Otterbein's campus for Ohio's Certified Environmental Professionals on September 16, 17, 24, 25 and 30, 2014. The class was designed to provide continuing education for the environmental professionals. Otterbein environmental science students were able to participate in the training event as well. The training utilized the well field that has been established by Dr. Kevin Svitana for class instruction and research. The well field is located at the 60 Collegeview property; there are 11 wells distributed on the East side of the 60 Collegeview building as well as around the perimeter of Otterbein Lake. When Dr. Svitana met with Ohio EPA personnel last year they indicated they would like to do hands-on groundwater training, but they were not aware of the facility with sufficient monitoring wells where the training could be conducted, so this

was a win-win for Ohio EPA and Otterbein environmental science students.

The Ohio EPA Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring (TGM) provides detailed regulatory guidance for ground water sampling activities, and the purpose of this training was to provide a hands-on opportunity for environmental professionals. The class was specifically designed to move a step beyond the TGM and provide a "hands on" field training experience with the commonly used ground water sampling methods, including bladder pumps, electrical submersible pumps, peristaltic pumps, inertial lift pumps (used with direct-push ground water samplers) and bailers. The training began with a discussion of the practical application (and pros and cons) of these sampling methods. After the presentation, the attendees broke up into groups of four to five attendees for "hands on" field practice with each method at the Otterbein University Department of

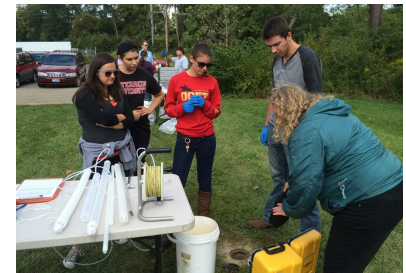


Figure 1-Ohio EPA's Wendy Vorwerk demonstrates low flow sampling to Otterbein students Victoria Stevens, '16, Kim Shapiro, '16, Marie Paquette, '14 and Scott Shipkowski, '16 during the Ohio EPA groundwater sampling short course.

Biology and Earth Science monitoring well field.

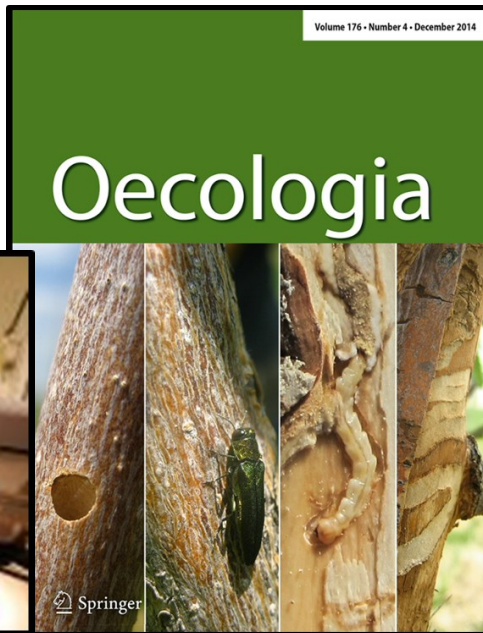
Otterbein students had the ability to talk one-on-one with Ohio EPA personnel about career aspects, skills necessary for the job, as well as other insights. The certified professionals in attendance also gave the students perspective on some of the more important skill sets they look for in potential employees. The students heard that problem solving, oral communication and writing are "must have talents". The students felt that this training gave them a greater appreciation of the challenges related to careers in environmental science.

Alumni News

Congratulations to Dr. Justin Whitehill (2006) (insert) for having his research featured as the cover illustration for the international journal *Oecologia*. Justin's work addresses the emerald ash borer (EAB), which continues to spread and kill ash trees through larval feeding on the inner bark. The work by Whitehill and colleagues show that application of the phyto hormone methyl jasmonate reduces EAB attack rates. Check out pp. 1047-1059 and the cover of the December 2014 issue of

Oecologia to find out more.

Justin is currently a research associate at the Michael Smith Laboratories at the University of British Columbia.



Alum Returns to Teach Spring Semester

Upon graduating from Otterbein in 2008, I pursued my dream of going to graduate school to complete my PhD. While in graduate school at Wake Forest University, I realized just how prepared I was thanks to the dedicated professors and the rigorous curriculum at Otterbein. I had 2 ½ years of research under my belt and I had the motivation and dedication to take my research project and truly make it my own. My doctoral research focused on the Wnt signaling pathway, specifically its involvement with cancer and diabetes. While this pathway is well known, its role in a variety of diseases remains unclear. After finishing my PhD, I began my journey as a postdoctoral researcher at The Ohio State University. Since returning, I have been studying musculoskeletal disorders specifically muscular dystrophy and understanding the molecular processes to determine potential therapeutics. It was quite nice to return to friends and family in Ohio but being at such a large intimidating university made me miss the unique atmosphere of Otterbein. Luckily I recently was given the opportunity to be an adjunct professor in the department of biology for a human microbiology course. It has been such an amazing experience to now be teaching at Otterbein and for my previous professors to be my colleagues. I not only love teaching but I love being able to dedicate my time and knowledge to helping students just as professors did for me. I am forever grateful for my education at Otterbein and now for this teaching opportunity. *Dr. Heather Manning '08*



Faculty Talent

Dr. Jeff Vasiloff completed his album, *Treasure Every Day*, which contains 11 original songs. The album was dedicated to his mother, who was a great person and teacher, who died of brain cancer in June of 2014. The album is available for download on iTunes and Amazon.

Surviving the Cat'astrophes

What happens when things go wrong with purchasing supplies for the labs? What happens when the protozoa freeze during shipping? Or, when eight sections of A&P are going to start dissections in a week, and their specimens are backordered until early the next month?

The purchaser becomes negotiator, trying to get the correct item or a comparable one onto campus without detracting from planned labs. Panicked deals with multiple vendors can occur; occasionally, there is flat-out begging for a hero. Advice is sought from our faculty and from colleagues at other universities.

In one year, we've had a dissection order go so wrong that we were, daily, receiving the next day's specimens in afternoon shipments. *C. elegans* were grown at too warm of a temperature—correction, *C. elegans* failed to grow at too warm of a temperature. And live organisms, arriving on campus only from Tuesday midday and Friday late afternoon, didn't last through the weekend for a Tuesday morning lab.

If the lab cannot proceed, we look for scheduling flips we could pull-off on short notice, or alternative labs. Unfortunately, there are going to be times that labs get canceled. It's a last resort, and we avoid it. Labs are great! Who would want to miss one of those? *Erin Ulrich, Lab Coordinator*

Department to be featured as Homecoming Academic

Spotlight Sept. 25 & 26, 2015

Mark it on your calendars. Following the Alumni parade on Saturday of Homecoming, we will hold an open house full of lab demonstrations and fun activities for the whole family. Friday evening will feature an Alumni panel and poster session. More details coming soon.



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