



BioSynthesis

Volume 12, Issue 1 (January 2013)

BioSynthesis On-Line: <http://departments.bloomu.edu/biology/>

Upcoming Events

JAN 28: Spring Semester Begins: First Day of Classes

FEB 6: Deadline for Penn State Hershey's Primary Care Scholars Program.

FEB 8: Deadline to submit applications for BAHS scholarships.

FEB 15: PAS abstracts due.

MARCH 18-23: Spring Break

MARCH 23: Tri-Beta Northeast District 2 Regional Meeting, Lincoln University

APRIL 6 and 7: PA Academy of Science Meeting, University of Pittsburgh, Bradford.

APRIL 20: CPUB Meeting, Clarion University

APRIL 25 and 26: Health Sciences Symposium, BU



Look what's inside:

<i>Student Achievements</i>	2
<i>BAHS Club</i>	3
<i>Tri-Beta Initiation</i>	4
<i>Summer Opportunities</i>	5
<i>Research News</i>	6 & 7
<i>Pre-Professional Committee Features</i>	8
<i>Allied Health Updates</i>	9
<i>Alumna Feature, Masters Program News, and Scholarship Information</i>	10 & 11
<i>Marine Science Center and Parting Shots</i>	12

Congratulations to December Grads

Best wishes to all BAHS students who graduated in commencement ceremonies in December 2012. We are delighted that one of our own, **James Redinski** (pictured below), was named as the honor graduate for the College of Science and Technology. This honor is bestowed upon the graduate from the college with the highest overall GPA. James is a B.S. Biology major pre-medicine option and chemistry minor who plans to attend medical school. Other students graduating with honors appear in the box. Congratulations to all on a job well-done. We are very proud of you. Please stay in touch and remember that Biosynthesis is available on line <http://departments.bloomu.edu/biology/>

BAHS December 2012 Graduates

Thomas Blass, B.S. Biology, Molecular Biology
Doris Bomah, B.A. Biology
Michael Brubaker, B.S. Biology
Amanda Brunstetter, B.S. Health Sciences
Samantha Campenni, B.S. Biology, pre-medical sci.
Amanda Capriotti, B.S. Health Sciences, pre-PA
Brittany Carper, B.S. Health Sciences, pre-PA
Jaclyn Ann Cross, B.S. Medical Imaging
Nam Dang, B.S. Health Sciences, pre-physical therapy
Brianne Globig, B.S. Health Sciences, pre-PT
Ryan Guyre, B.S. Health Sciences, pre-PT
Nicole Hollenbach, B.S. Health Sciences, pre-PT
Victoria Kashmere, B.S. Health Sciences, pre-PA
Keith Kinek, B.S. Secondary Education, B.A. Biology
Katherine Liebl, B.S. Biology
Ian McAndrew, B.A. Biology
Ariel Middleton, B.S. Health Sciences
Jonathan Moore, B.S. Biology
Kaitlynn Nale, B.S. Health Sciences, pre-PA
Samantha Oakes, B.S. Biology, pre-medical sciences
Kiana Payton, B.A. Biology
Monica Po, B.A. Biology
James Redinski, B.S. Biology, pre-medical sciences
David Robel, B.S. Medical Imaging
Katrina Rohr, B.S. Biology
Ryan Schneider, B.S. Biology, Microbiology
Jordan Schrock, biology minor
Elizabeth Shober, B.S. Biology
Sheila Solano, B.S. Medical Imaging
Tracy Stutzcage, B.S. Biology, environmental biology
Christopher Vitali, B.S. Medical Imaging
Lauren Yurick, B.S. Health Sciences, pre-PA

Graduate Students:

Kourtney Saba, M.S. Radiologist Assistant
Jina Jung, M.S. Radiologist Assistant



★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★
★ **Honor Graduates** ★
★ Magna cum laude: **Brittany Carper, James Redinski, Tracy Stutzcage.** ★
★ Cum laude: **Michael Brubaker, Ariel Middleton, Kaitlynn Nale.** ★
★ College of Science and Technology Honor Graduate: ★
★ **James Redinski.** ★
★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★



Celebrating Student Success

Dean's List

Congratulations to Biology and Allied Health Students who earned a GPA of 3.5 or greater and were named to the Dean's List for Fall Semester 2012. Great job!

Biology BA: **Lynnette Eichenlaub.**

Biology BS: **Taylor Ball, Carrie-Anne Barry, Danielle Bordner, Michael Brubaker, Bethany Fenster, Ariel Gieda, Kristen Haas, Brendon Juengst, Adam Kulp, Ashita Mittal, Renee Risaliti, Michael Tekin, Lauren Yurick.**

Biology BS – Environmental Biology: **Bryce Foster, Andrea Geist, Renee Noll, Ryan Smolock, Elizabeth Sowers, Elysha Sowers.**

Biology BS – Microbiology: **Joshua Mullen.**

Biology BS – Pre-Medical Science: **Louisa Andrew, Ryan Austin, Adam Bertino, Brittany Carper, Elaine Daubert, Katy Degraw, Karen Esmus, Jacqueline Glaser, Katherine Hawkins, Jennifer Hensley, Robert Loglisci, Kelsey Matthews, Krista Myhre, Dana Palermo, Steven Paliswiat, James Redinski, Robert Simpson, Matthew Swift, Stephen Taylor, Derek Weicht.**

Health Sciences BS – Medical Lab Science: **Deavon Dreisbach, Myrle Newcomer, Heidie Warren.**

Health Sciences BS – General: **Carrie-Anne Barry, Adam Kulp.**

Health Sciences BS – Pre-Physician Assistant: **Katlin Aunkst, Mikala Britt, Brittany Carper, Elaine Daubert, Katy Degraw, Jade Heisman, Jennifer Hensley, Bridget Krecko, Elaine McCauley, Gretchen Moore, Kaitlynn Nale, Josie Pervola, Abigail Silfies, Heather Yohnke, Lauren Yurick.**

Health Sciences BS – Pre-Physical Therapy: **Heather Cleary, Chris Dilullo, Jacqueline Glaser, Kelsey Harm, Catherine Hughes, Philip Mosolino, Gabriel Ortiz, Dominick Policare, Ashley Robertson, Jessica Shaffer, Bryce Showers, Michael Stecz, Shakira Tassone.**

Medical Imaging BS: **Devon Chilensky, Angie Diaz, Kristin Ezzyk, Ashlin Fields, McKensie Haines, Ashley Kerstetter, Sharon Loomis, Angela Lynch, Rebecca Merkel, Lauren Miller, Alison Reigle, Courtney Rudisill, Jennifer Sabins, Alexandra Savidge, Stephanie Serafin, Kyle Sisak, Justin Vandermolen, Noelle Verosky, Allison Wacendak, Justin Winn.**

Pre-Cytotechnology: **Nathaniel Flick.**

Pre-Occupational Therapy: **Kassandra Beckage, Erika Vasconez.**

Pre-Pharmacy: **Leah Cover, Shawn Smith.**

Secondary Education Biology: **Lynnette Eichenlaub, Ryan Smolock.**



Four BAHS Students Honored for Outstanding Freshman Year Performance

Phi Kappa Phi is the nation's oldest, largest, and most selective honor society that recognizes and promotes academic achievement in all fields of higher education. Each year, the Bloomsburg University Chapter of the Honor Society of Phi Kappa Phi presents awards to exceptional students on the basis of their academic performance in the freshman year. This year four BAHS students were among those honored by the Society. Receiving the award at a November ceremony were current BAHS sophomores: **Katherine Hawkins** (biology); **Ashley Kerstetter** (medical imaging); and **Adam Kulp** and **Myrle Newcomer** (health sciences). We are proud of you!



BAHS Club News

The Biology and Allied Health Club welcomes all interested students to join in a diverse array of club activities. This semester the group hosted several speakers and workshops, conducted a bake sale fundraiser, and volunteered in the community. Next semester's events include a kickball tournament, owl-ing, a picnic, and a trip. The club meets Tuesdays at 5:30 in G42 Hartline. For more information, please contact any club officer: President, **Stephen Paliswiat**; Vice President, **Heather Kinney**; Treasurer, **Katrina Rohr**; Public Relations, **Jeff Dailey** and **Amanda Naugle**; Historian, **Katrina Conrad**. **Drs. Hranitz, Corbin, and Brubaker** advise the club.

Caught in Action: BAHS Club serves the Community

Clean-up at Kocher Park with the Geoscience Club...



First Annual SPCA 4k Run/Walk in Danville





TRI-Beta Welcomes a New Crop of Members



New members of Beta Beta Beta Biological Honor Society pose for a photo following their induction ceremony in November. Beta Beta Beta (Tri-Beta) is a society for students dedicated to improving the understanding and appreciation of biological sciences and extending boundaries of human knowledge through scientific research. Since its founding in 1922, more than 175,000 persons have been accepted into lifetime membership, and more than 430 chapters have been established throughout the United States and Puerto Rico. The mission of Tri-Beta is: 1) to stimulate scholarship; 2) to disseminate scientific knowledge; and 3) to promote biological research. To fulfill this mission, the national organization of Tri-Beta recognizes the accomplishments of outstanding individuals and chapters and publishes a national journal, *BIOS*. The program included greetings by **Dean Marande** and **Dr. Chamuris**, department chairperson, and an initiation ceremony led by the chapter's officers. The featured speaker was **Dr. Barry Nolt** who discussed *Making Biogas from Farm and Industrial Wastes*. Photos of our new members and additional information about Tri-Beta can be found outside 146 Hartline. For more information, please contact any officer.

2012-2013 Members of Tri-Beta, Bloomsburg University Rho Chi Chapter

New Initiates, Regular Members: **Alexis Albertson, Ryan Austin, Taylor Ball, Gabriel Barrile, Corey Bower, Emily Broach, Stefani Cannon, Heather Cleary, Katrina Conrad, Tina DiMarco, Devin Dreisbach, Laurel Downs, Marc Francola, Kelsey Harm, Julianne Heater, Bridget Krecko, Ian McAndrew, Gretchen Moore, Dana Palermo, Alison Reigle, Renee Risaliti, Ashley Robertson, Vincent Saraceno, Meredith Salmon, Amber Shifflett, Marcus Sullivan, Michael Tekin, Heidie Warren.**

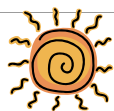
New Initiates, Associate Members: **Adam Bertino, Thomas Blass, Jennifer Hensley, Keaghan McNaughton, Stephanie Murphy, Eric Rahner, Christopher Yoch**

Current Members: Undergraduates: **Michael Brubaker, Brittany Carper, Leslie Cope, Elaine Daubert, Katy Degraw, Robert Dorosky, Jessica Fisher, Keith Kinek, Heather Kinney, Kimberley Lebron, Kelsey Matthews, Jonathan Moore, Kaitlynn Nale, Samantha Oakes, Steven Paliswiat, James Redinski, Elizabeth Shober, Stephen Taylor, Jessica Willis.** Graduate Students: **Benjamin Carlucci, Brandan Gray, Ghaith Ibrahim, Neil Sullivan.**

2012-2013 Officers: President, **Stephen Taylor**; Secretary, **Jessica Fisher**; Vice-President, **Jesica Willis**; Treasurer, **Stephen Paliswiat**; and Historian, **James Redinski**. **Dr. Surmacz** is the Tri-Beta advisor.

Tri-Beta had a busy fall semester! The group provided twice-weekly tutoring sessions for students in introductory courses at ABLE, the Academic Biology Learning Environment, at the Science and Health Science Living Learning Community at Columbia Hall. Thanks to all of the Tri-Beta members who donated their valuable time to helping their classmates. The group plans to continue this program in the spring semester. New Tri-Beta members are encouraged to participate.

Tri-Beta raised funds at a fall bake sale and will contribute its proceeds to the Donald Rabb Research Fund, an account dedicated to supporting undergraduate research in the Department of Biological and Allied Health Sciences. The Society also donated \$100 to the National Tri-Beta Research Fund. Tri-Beta ended fall semester by hosting its popular Free Coffee and Donuts during finals week.



Check out these Summer Opportunities.....

Summer Research Experiences at the Weis Center for Research, Geisinger

The Weis Center for Research, Geisinger Health System in Danville, PA invites students to apply for their summer program in biomedical research. Preference will be given to students who have completed their sophomore year or above. Students will work on projects related to the cellular and molecular basis of human diseases under the supervision of Weis Center scientists. Interested students should send a completed application form, resume, college transcript, SAT scores, reference letter from an academic advisor, and a statement of research interests to: Kristin Smith, Weis Center for Research, 100 North Academy Avenue, Danville, PA 17822-2601. The deadline for receipt of applications is January 31, 2013. For additional information visit http://www.geisinger.org/research/wcr/educational_programs.html

Thomas Jefferson offers Summer Undergraduate Research Program

The Thomas Jefferson Graduate School of Biomedical Sciences in Philadelphia is sponsoring a Summer Undergraduate Research Program for students who have completed their junior year. This 10-week program runs from May 28 through August 2, 2013 and carries a stipend of \$3,500 and an allowance for campus housing. Students will conduct research with faculty in one of the following research areas: Biochemistry & Molecular Biology; Cancer Biology; Cell & Developmental Biology; Genetics, Genomics & Cancer Biology; Immunology & Microbial Pathogenesis; Molecular Pharmacology & Structural Biology; Neuroscience; Systems Biology or Tissue Engineering & Regenerative Medicine. The program includes weekly research meetings, career planning, and opportunities to present research results. Applications are due February 1, 2013 and may be found at http://www.jefferson.edu/biomedical_sciences/admissions/apply-to/summer-undergraduate-research.html

Penn State Hershey sponsors SURIP program

The Penn State College of Medicine Summer Undergraduate Research Internship Programs (SURIP) provides a "summer-immersion" in biological research and an orientation to a career in biological sciences. The program is geared to students between their sophomore and senior year of college who are considering applying to PhD programs in the Biological/ Biomedical Sciences. It is not intended for students who will apply to medical school. In addition to a 10-week lab experience with a faculty mentor, interns will participate in twice weekly research/career seminars, a capstone presentation experience, and additional introductory experiences related to the professional culture of biological research. The deadline is noon on February 11, 2013. For more information and an online application form you may access our website at <http://www.pennstatehershey.org/web/summerresearch/home>.

NSF Research Experiences for Undergraduate (REU) Program

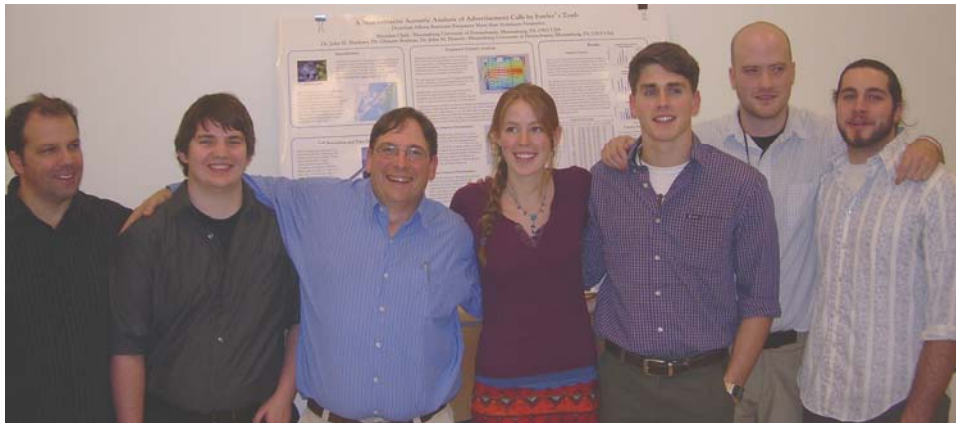
The National Science Foundation (NSF) funds a program called Research Experiences for Undergraduates (REU.) that provides opportunities for students to conduct research with faculty at a host institution. There are a large number of REU sites both in the United States and in foreign locations. Research experiences are available in nearly all areas of biology from molecular biology to ecology. NSF provides students with a stipend, and in many cases with funding for housing and travel. A complete listing of REU sites and application procedures can be found at http://www.nsf.gov/crssprgm/reu/list_result.cfm?unitid=5047. Deadlines vary by program, so check it out soon! For a first-hand account of REU programs, contact **Robert Dorosky** (B.S. Biology major) who participated in an REU at Texas A & M University last summer or **Dr. Hranitz** who has participated for many years as a faculty mentor in an REU program that focuses on bee behavior and physiology at sites in Turkey and Greece.

VETS program at the University of Pennsylvania

The Veterinary School at the University of Pennsylvania is offering the Veterinary Exploration Through Science (VETS) program, a one-week summer program for college students who are interested in careers in veterinary medicine. Students will have the opportunity to participate in labs in pathology and anatomy and lectures in public health, toxicology, working dogs, and clinical investigations. Students will gain first-hand experience in veterinary medicine through rotations at the small animal hospital in the areas of Cardiology, Medicine, Dentistry and Oral Surgery, Emergency Services and Surgery/ Orthopedics. Students will also spend a day at the Bolton Center, a facility for large animals. Participants will also have the opportunity to interact with current veterinary students and learn about the veterinary school admissions process. Please see the VETS program website for more information: <http://www.vet.upenn.edu/EducationandTraining>

BAHS Students Share Results at CoST Research & Scholarship Day

Several BAHS Students took to the stage at the end of fall semester to share the results of their research projects at the College of Science and Technology Research and Scholarship Day. See the complete listing of presentations and mentors below. Several of the talks were delivered by Dr. Hranitz and Dr. Klinger's research group that examines the genetics, morphology, development, and natural history of the toads on barrier islands of the Eastern Shore of Virginia (such as Assateague Island, VA). The audience thoroughly enjoyed learning



about the morphological differences, mating behaviors, and developmental differences between island and mainland toads. Members of the research group conducted their studies in the summers of 2011 and 2012 at the Marine Science Consortium, Wallops, Island, VA. The group is presenting their work at the annual meeting of the Society for Integrative and Comparative Biology in San Francisco, CA in January. Details to follow! Shown in the photo below from left are: collaborator Dr. Huckans and Brendan Clark from Department of Physics; **Dr. Hranitz, Laurel Downs, Corey Bower, Jonathan Moore, and Gabriel Barrile**. Missing from the photo are **Thomas S. Klinger and Jordan Klinger**.

Samantha M. Oakes and Dr. John Hranitz. A bioinformatics study of microsatellite loci in the *Mya arenaria* genome.

Jordan M. Klinger and Dr. John Hranitz. Evaluation of Cane Toad Microsatellite Primers for Cross-species Amplification of Microsatellite Loci in Fowler's Toad.

Laurel Downs and Dr. John Hranitz. The Effect of Island Dwarfism on Sexual Dimorphism and Female Reproduction in Island versus Mainland Populations of *Anaxyrus fowleri*, a Species that Exhibits Island Dwarfism.

Corey D. Bower and Dr. Hranitz. Comparative Approach to the Evolution of Body Size in Island and Mainland Environments.

Gabriel Barrile and Dr. John Hranitz. A Common Garden Experiment Comparing the Larval Growth and Development of *Anaxyrus fowleri* from island and mainland populations.

Jonathan Moore and Dr. John Hranitz. Distribution of Anurans in Freshwater Habitats on a Assateague Island.

Steven Baade and Dr. Steven Rier. Polyphosphate Storage in Stream Periphyton.

Research Assistants Wanted: Study Island Dwarfism During Spring and Summer 2013

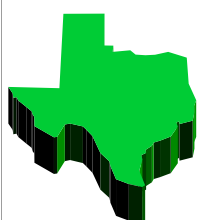


The evolution of body size on islands is an interesting topic in evolutionary ecology. Since 2010, students at Bloomsburg University have conducted studies of the ecology of island dwarfism in anurans (toads and frogs) on Atlantic coast barrier islands in Virginia. Students design experiments with **research mentors** (Dr. Hranitz and Dr. Klinger in ecology; Dr. Huckans and Dr. Ibrahim in sound production/call analysis). Research activities take place both on campus and at the Marine Science Center (MSC). Students wanting to conduct spring research must be willing to travel to/stay at the MSC on weekends in March - May. Research activities will depend on the weather conditions for anuran breeding activity. Research involves cooperation with the **Marine Science Consortium, U.S. Fish and Wildlife Service, NASA, and The Nature Conservancy**. Research will build upon the results of previous studies and investigate the distribution of anuran breeding activity, mate selection, habitat use by tadpoles, tadpole growth and development, and competition. Students may design a project to their own interests. All members of the research team must be willing to collaborate to gain diverse research experiences. **Contact** Dr. Hranitz (268 HSC, jhranitz@bloomu.edu) or Dr. Klinger (B54 HSC, tklinger@bloomu.edu).

Research News

Jessica Willis Receives Tri-Beta Grant

Jessica Willis (B.S. Biology, pre-medical sciences) has been investigating the relationship of the presynaptic proteins rab3a and synapsin while at rest and during synaptic activity at the mouse diaphragm neuromuscular junction. She is testing the hypothesis that if rab3a and synapsin interact during synaptic activity, then these two proteins will show an increase in colocalization in the presynaptic terminal during treatment with a depolarizing high potassium solution. She has gained experience with fresh tissue dissection and immunohistochemistry techniques as part of her study. In the Fall 2012 semester, Jessica applied for and was awarded a research grant from the Beta Beta Beta Research Foundation for \$560, which was used to purchase new primary antibodies. Her research will continue in the Spring 2013 semester. Jessica is pictured at right with her mentor **Dr. Coleman**. She plans to attend medical school.



BAHS Student Research to be Featured at National Conference.

Dr. Venditti's research group has had two presentations accepted by the American Society for Andrology for their 38th annual meeting in San Antonio Texas in April. **Neil Sullivan** will present a poster on "Functional Distribution of Human Semen Alpha-L-Fucosidase as a predictor of fertility." **Charmiane Henderson, Elisa Busada, and Neil Sullivan** are co-authors on the accepted abstract "Investigating the Cytotoxic effects of novel compounds as potential spermicides" that will be presented in poster format by Dr. Venditti.

Students Head to the Research Labs Spring Semester!

The BAHS research labs are busy this semester! The following students are conducting independent research projects this semester:



Robert Dorosky (B.S. Biology, environmental biology) will examine the structure of bryophyte-based communities on the surface of the rhytidome of living trees. Robert is mentored by **Dr. Chamuris**.

Andrea Geist (B.S. Biology, environmental biology) will estimate *Pythium* Populations in Greenhouse Soils Cultivated with Oriental Lilies. **Dr. Nolt** is her mentor

Renee Risaliti (B.S. Biology) will investigate cellular stress responses in *Lumbriculus variegatus*. She will examine the expression of Heat Shock Protein 70 (HSP70) as a function of temperature and environmental pollutants in blackworms. **Dr. Surmacz** is her mentor.

Ashley Robertson (B.S. Health Sciences, pre-physical therapy) will investigate the spermicidal properties of novel compounds A13HEG, A13TEG, and A17TEG in **Dr. Venditti's** lab.

Vincent Saraceno (B.S. Biology, molecular biology) will be working with **Dr. Davis** on the functional characterization of a putative iron/phytosiderophore transporter from oats using *S. cerevisiae* as a model system.

The following BAHS students are members of the BU Honors Program and will conduct honors research spring semester:

Erik Rahner (B.S. Biology, pre-medical sciences) will investigate the correlation between mono-unsaturated fatty acid chain length to PPAR-dependent anti-proliferative effects of malignant melanoma in Dr. Borland's laboratory.

Meredith Salmon (B.S. Secondary Education in Biology) will investigate "Stream Cleaning" with **Dr. Rier**.

Amber Shifflet (B.S. Health Sciences, pre-physician assistant) will investigate the dependence of physical fitness on the reaction times of female lacrosse players. **Dr. Surmacz** is her mentor.

Daniel Smith (B.S. Biology, pre-medical sciences) will determine the effectiveness of Vitamine E as an antioxidant in human skin cells exposed to long term low dose ionizing radiation. **Dr. Hess** is his mentor.



Pre-professional Committee UPDATES

Looking Ahead to “Pre-Med March Madness”

The BU pre-professional committee assists students in gaining admission to professional schools such as allopathic, osteopathic, podiatric, or veterinary medicine, as well as dentistry, optometry, podiatry, and chiropractic medicine. To achieve this goal, the committee will host a series of workshops in March in their “Pre-Med March Madness” event that focuses on the application process, resume writing, and preparing personal statements. Stay tuned for details. The committee co-chairs are **Drs. Ardizzi** and **Surmacz** from BAHS. Other committee members are **Dr. Henry** (BAHS) and **Drs. Morgan and Bell** (Chemistry). For more information on pre-medical sciences at BU, students are encouraged to check the committee’s website (<http://departments.bloomu.edu/biology/preprof.htm>) and the pre-med club bulletin board outside room 145 HSC. You are also encouraged to join the Pre-professional /Graduate Community on BOLT by contacting Dr. Bell (tbell2@bloomu.edu).

2013 Penn State Hershey Primary Care Scholars Program

The Primary Care Scholars’ Program is sponsored by Penn State University Medical School and commences May 20, 2013. This program will include discussions with professors and staff from various departments within the College of Medicine on topics such as medical care, primary care, medical school admissions, financing, and the medical school’s curriculum. Students will have opportunities to interact with medical students and faculty, and to learn about the philosophy and practice of primary care within the disciplines of family medicine, internal medicine, and pediatrics. Students should be interested in primary care and have completed their sophomore or junior year of college.

The first week will expose students to Penn State’s College of Medicine and primary care in large and small didactic groups and seminar presentations. The second week will be spent in the office of a family physician, general pediatrician, or general internist. If the student chooses, this could be a location near his/her college or hometown. The program will do its best to accommodate the students’ requests in matching them with preceptors, but encourages students to select preceptors they already know.

The Pre-professional Advisory Committee has been invited to nominate students for participation in the program. Participants must be of high academic quality and truly interested in primary care. PSU gives preference to applicants who are Pennsylvania residents, and they want to attract some students who are included in the minority status designations of colleges of medicine or students who are interested in practicing in underserved rural or urban areas. Selection is very competitive for the limited number of slots available. Applications may be obtained from any member of the pre-professional committee. The completed application forms, student personal statement, “community” letter, and a letter of support from a pre-health professions advisor, must be submitted on or before **Weds, Feb. 6, 2013** to Dr. Ardizzi, 145 HSC. The Pre-professional Advisory Committee will evaluate and submit the selected applicants to the program. Direct applications are not accepted.

Pre-Medical Sciences Club

The Pre-Medical Sciences Club welcomes all students interested in any of the medical sciences (allopathic or osteopathic medicine, optometry, podiatry, dentistry, veterinary medicine, chiropractic, etc.) The club hosted several speakers during fall semester. Dr. Steven B. Wolf, picture on top with pre-medical science club members, discussed his career in medicine starting with his college days at the University of Pennsylvania, his attendance at Temple Medical School, his work as a physician in the U.S. Navy, and his career as a board certified orthopedic surgeon at the Orthopedic Institute of PA in Camp Hill, PA. Dr. Wolf graciously entertained numerous questions. Those in attendance agreed that Dr. Wolf’s enthusiasm and passion for medicine were truly inspiring.

Maggie Yesalavage (B.S. Biology, pre-medical sciences 2008) came back to BU as part of the Freshman Seminar Career Series. Maggie is currently in her fourth year of medical school at Lake Erie College of Osteopathic Medicine (LECOM). Maggie discussed her positive experience in a Problem-Based Learning (PBL) medical curriculum and her clinical rotations. The students enjoyed hearing about Maggie’s “Day in the Life” of a medical student. Maggie encouraged the students to work hard and gain the most from their college experience. Maggie plans to pursue a residency in adult psychiatry and eventually become a child psychiatrist. Maggie is shown at bottom right with **Drs. Ardizzi and Williams**. It was great to have Maggie return for a visit!



Allied Health News



Health Sciences Symposium Focuses on Alzheimer's Disease

Bloomsburg University and the Berwick Health and Wellness Foundation will sponsor the 22nd Annual Health Sciences Symposium and Wellness Fair on April 25 and 26, 2013. The symposium will focus on Alzheimer's Disease and will feature Grammy Award Winner and Professional lecturer Kathy Mattea as the keynote speaker. Ms. Mattea's talk on the "Healing Power of the Arts" will be presented on Thursday, April 25 at 7:30 p.m. at Haas Auditorium. Professional presentations, student poster sessions, and the wellness fair will follow on Friday, April 26 from 9:00 a.m. to 2:00 p.m. at Kehr Union. Hope to see you there!

BAHS MI Majors visit Johns Hopkins Hospital

BAHS Medical Imaging majors headed to Johns Hopkins Hospital in Baltimore, Maryland to learn more about their core clinical programs in radiography, diagnostic medical sonography, and nuclear medicine and their specialty programs in computed tomography and magnetic resonance imaging. Attending were MI majors: **Ashley Stickler, Ashlin Fields, Allison Fairchild, Nikotah Kistner, Allison Wacendak, Devon Chilensky, Aaron Brown, Bryana Loss, Taylor Kreston, Robin Leonard, Lauren Miller, and Courtney Rudisill.** Accompanying the group were **Drs. Kipe-Nolt and Nolt.**



Students Gain Healthcare Experience

Internships are a great way to get experience and earn academic credit. While internships may vary from 3 – 15 credits, no more than 3 credits may be applied as biology electives. Internships may be paid employment or may be volunteer. To learn about internship opportunities and procedures, contact your academic advisor. Several BAHS students will get a first-hand look at healthcare fields this semester through academic internships.

Ashlin Fields, Kelsey Mitchell, Breanna Parsons will serve as medical imaging interns at Geisinger Medical Center, Danville. Interning at Geisinger-Bloomsburg are **Devon Chilensky** and **Taylor Kreston**. **Cicelia Paulus** will intern at Geisinger Shamokin. **Keaghlán McNaughton** (B.S. Health Sciences, pre-physician assistant) will conduct an internship with Dr. David Ball, orthopedic surgeon in the Spring 2013 semester. **Megan Sell** (B.S. Biology, pre-medical sciences) will conduct an internship in dentistry at Carnicella and Associates.



It's Interview Season!

Many Medical Imaging and Medical Lab Science students are currently interviewing for clinical slots for the coming academic year. Good luck and remember to be yourself! Once you have made a decision, please see **Dr. Kipe-Nolt**, 269 Hartline, to finalize your plans and complete the appropriate forms.

Alumna Feature

Meet Dr. Susan Dallabrida....

Susan Dallabrida graduated cum laude from Bloomsburg University in 1993 with a double major in Biology and Chemistry. Susan conducted undergraduate research on bark chemistry with Drs. Schultz and Chamuris. Following graduation, she attended Penn State University where she earned a Ph.D. in Biochemistry and Molecular Biology. Dr. Dallabrida conducted her post-doctoral training at Harvard Medical School. Following her postdoctoral studies, she had a translational laboratory at Harvard Medical School for 7 years before moving to biotechnology.

Dr. Dallabrida was a biotechnology and clinical trial consultant and strategic advisor working with Biogen Idec, Rubin Anders Scientific, Zafgen, Dana Farber Cancer Institute, Brigham and Women's Hospital, and Children's Hospital of Boston. She has more than 10 years of experience as a Senior Scientist and Project Director in research and development, clinical trial design and strategy, and product development. She has led cross-functional drug discovery and product development teams and collaborations in a wide range of therapeutic areas including oncology, cardiovascular disease, hemophilia, dermatology, obesity, and vascular disorders. Dr. Dallabrida has significant regulatory experience in the US and internationally for biologics. She has a broad background in scientific presentations and writing with 20 publications, 14 grants, 3 patents, 18 awards, 26 conference presentations, and 14 abstracts to her credit.



Dr. Dallabrida has recently joined PHT Consulting Services as Senior Scientific Advisor. PHT Corporation is a leading provider of innovative technology systems used to collect patient-reported electronic data for clinical research. Dr. Dallabrida provides scientific guidance and analysis. She works with PHT clients and internal teams to expedite and expand PHT's technology systems and to facilitate study design. Dr. Dallabrida leads webinars and interacts with sponsors, biotechnology and pharmaceutical companies, and academia to promote awareness of the electronic collection of clinical outcome assessment data in therapeutic areas such as oncology, cardiovascular disease, ophthalmology, dermatology, and obesity. The electronic collection of clinical outcomes assessment data offers an opportunity to monitor symptoms in real time, resulting in improved patient quality of life and a rapid interpretation of the impact of novel treatments.

Dr. Susan Dallabrida reflects on her experiences....

One of the key aphorism's that I follow, is Louis Pasteur's quote, "Chance favors the prepared mind". Constant preparation and continued knowledge enable connections that would otherwise not be achievable. My post-doctoral mentor, Dr. Judah Folkman, was known for saying that, "if you drained the ocean, you shouldn't be surprised to see that the islands are all connected." Science and medicine share this notion. There are so many connections, discovered and undiscovered, that need to be made. For example, while conducting cardiovascular research, I identified a peptide that promoted cardiac myocyte health and energetics that was then applied toward anti-aging mechanisms in skin cells. At a glance, these two areas may seem unrelated, but upon further analysis, the same cellular machinery is involved, namely the mitochondria. Thus, understanding of the biology enables multi-disciplinary connections and more opportunities for success and advances in science.

I am very grateful to BU for preparing me well in the fields of biology and chemistry. The opportunities for discussions with the faculty, participating in research, an internship, competitions, and earning a publication were experiences that were enabled by BU faculty. There is a wealth of training and opportunities at BU and this platform is a successful springboard. Many thanks to the Departments of Biology and Chemistry for excellent mentorship, and a special thanks to Dr. Emeric Schultz, my undergraduate mentor, for great inspiration and training.

News from the BAHS Masters Program

Congratulations to **Megan Kopec** and **Jonathan Bobek** who have successfully defended their masters theses this semester: Megan's thesis was entitled, "Characterization of Heat Shock Factor-1 in the Thermotolerant Species *Megachile rotundata*." **Dr. Brubaker** is her research mentor. Jonathan's thesis is entitled "Senescence Marker Expression is Linked to Foraging Decisions in the Honey Bee." Jonathan is presently a doctoral student at Arizona State University. **Dr. Hranitz** is his research mentor. Jane Graham will conduct a Directed Study Research project on the "Effects of Wastewater Effluent Hormones on Fat-Head Minnows, *Pimephales promelas*.: Fate of Estrogen Agonists within the Susquehanna River Basin." **Dr. Rier** is her mentor.

APPLY NOW

Biological & Allied Health Sciences Scholarships

Scholarship	AMOUNT	CRITERIA
Biology and Allied Health Scholarship	\$500 or \$250	Biology (including Secondary Education Biology) and Health Science majors who are currently sophomores or juniors and have completed 12 credits in biological science courses at BU
James E. Cole Scholarship	\$465	Current BU Medical Imaging majors who will be on campus fall 2013
James E. Parsons Microbiology Scholarship	\$470	Biology and Health Science majors who are currently sophomores or juniors. <i>Preference to microbiology option or Medical Lab Science majors.</i>

APPLICATION PROCESS FOR ALL OF THE ABOVE SCHOLARSHIPS:

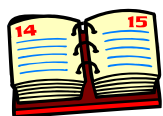
REQUIRED MATERIALS:

- BU Scholarship Application Form (may be downloaded from ISIS or obtained from the Financial Aid Office, 119 Student Services Center or in wall pocket outside Dr. Surmacz's office (146 HSC).
- official transcript
- one reference letter from a biology faculty member
- one reference letter from a faculty member outside biology
- paragraph describing your career and educational goals.

DEADLINE: Friday, February 8, 2012 at 4:30 p.m.

SEND/DELIVER MATERIALS TO: Dr. Surmacz, BAHS, 146 Hartline Science Center

QUESTIONS? See Dr. Surmacz, 146 Hartline, csurmacz@bloomu.edu



Mark your calendars for spring conferences!

Ready for a road trip? The following regional conferences provide a great opportunity to share research results and meet faculty and students from other universities.

- The annual meeting of the Pennsylvania Academy of Science (PAS) is on April 5 to 7, 2013 at the University of Pittsburgh-Bradford. The meeting features a special symposium on Shale Gas Resources. Also included are research posters and presentations on a wide variety of topics. Abstracts are due February 15, 2013. For more information see <http://pennsci.org/index.htm>.
- The Commonwealth of Pennsylvania University Biologists (CPUB) will hold their annual meeting at Clarion University on PA on April 20, 2013. The annual meeting is an opportunity for faculty and students from universities in the PA State System Of Higher Education to join for a day of research presentations and workshops.
- Tri-Beta, the Biology Honor Society, will hold its Northeast District 2 Convention at Lincoln University on Saturday, March 23, 2013. Tri-Beta members are encouraged to attend to present their research and to meet with students from other colleges and universities.

Taking the GRE? Check out BU's GRE Prep Program!

GRE review sessions and practice tests will be offered spring semester. The cost for all sessions and practice exams is \$20. Students can sign up for the program in 2149 McCormick.

Verbal Section Review Times: T 3:30-4:30; R 10:30-11:30 and 2-3pm

Math Section Review Times: T 12-1pm; R 12-1pm; F 11am-12pm

Practice Exams: Feb 16 and April 16 (both 3rd floor of McCormick)



Study at the Beach this Summer

Summer classes at the Marine Science Center (MSC) at Wallops Island, Virginia are a great way to get a “hands-on, feet-wet” education. Classes are taught by faculty from different colleges of the PA State System of Higher Education but **ALL COURSES** will transfer to BU WITH THE LETTER GRADE. Courses run three weeks and meet morning, afternoon, and sometimes evening as needed for the course content. MSC courses are total immersion, transformative learning experiences, so you only take one course in three weeks. Most of the science courses at the MSC are not offered at BU and many count as biology electives. Be sure to check with your academic advisor regarding the appropriateness of a class to your particular curriculum! Please contact **Drs. Klinger** (tklinger@bloomu.edu) or **Hranitz** (jhranitz@bloomu.edu) for more information and assistance with registration. First time registrants often find registration confusing. Registration is a two-step process, entailing both a registration with the Marine Science Consortium and a companion registration at a member university. **Students committed to taking courses at the Marine Science Center should complete the Marine Science Consortium on-line pre-enrollment as soon as possible.** Marine Science Consortium pre-enrollment opened in November, and popular courses fill very quickly.

Directions for completing registration for MSC courses, with Bloomsburg University and the appropriate member institutions, will be found later in the spring semester at the BU registrar's office: <http://www.bloomu.edu/summer/msc/>.

Complete information and pre-enrollment for MSC Summer Courses can be found at their website: <http://msconsortium.org/-/registration-information/4536272159>

Courses and Sessions are as follows:

May 20-June 7: Marine Biology, Coral Reef Ecology, Marine Invertebrates, Natural History of the Mid-Atlantic, GIS, Coastal Herpetology

June 10 - June 28: Marine Ichthyology, Field Methods in Oceanography, Marine Ecology, Ornithology, Natural Science Drawing

July 1 - July 19: Molecular Biotechnology, Marine Mammals, Conservation Biology, Marine Ichthyology, Coastal Ecophysiology

July 22 - August 9: Coastal Environmental Oceanography, Marine Ecology*, Marine Invertebrates

*Marine Ecology will be taught by Dr. Hranitz in Session IV (July 22-August 9). See course information at http://facstaff.bloomu.edu/jhranitz/Courses/Marine_Ecology/MARSCI260_main.htm.

Special Opportunity at the Marine Science Center

The MSC has instituted a *Research and Residence Life Volunteer Program*, where students may volunteer to assist with programs and station operations for one 3 week session, in exchange for a waiver of MSC room and board fees, for course work or for research, the following session* Applications are due **February 1, 2013**.

Pre-Enrollment for Marine Ecology at the Marine Science Consortium is NOW through February 15!



Dr. Hranitz will offer the summer course **Marine Ecology** at the Marine Science Consortium in Session IV. This three-week course covers population, community, and ecosystem ecology through experiential learning integrating **ecological theory and research techniques** in marine and coastal ecosystems. The course meets Monday-Friday for lecture, field exercises, and open lab time in the evenings. Students apply ecological research design to a course project on a marine community. Students are publishing results from the summers of 2011 and 2012! **Tuition** is paid to Bloomsburg University for three credits. **Housing and meal plans** (\$730 for traditional dorms, \$850 for Salicornia dorm) are paid to the Marine Science Consortium. Social activities such as movies, brunches, bonfires, and cookouts occur on weekends. **Pre-enrollment for Marine Ecology started in November 2012** at: <http://msconsortium.org/-/summer-sessions/4546202795>. Visit with Dr. Hranitz (jhranitz@bloomu.edu, 389-4130) or go to the web site (http://facstaff.bloomu.edu/jhranitz/Courses/Marine_Ecology/MARSCI260_main.htm) for more information about Marine Ecology in 2013.