



BioSynthesis

Volume 10, Issue 2 (April 2011)

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

Important Dates

APR 29: CoST Student Research Day; 2303 MHSC; Reception for Graduating Seniors and Masters students, noon to 3 p.m., 2nd floor HSC.

MAY 2: Deadline for Research in Biology Proposals and Rabb Research Grant; Last day of classes.

MAY 3 and 4, Free Coffee and Do-nuts, morning, 178 HSC.

MAY 6, Graduate Commencement, 6 p.m., Haas Center.

MAY 7, CoST Undergraduate Commencement, 3 p.m., Academic Quad.

MAY 23, Summer College, Sessions 1 and 2 begin.

JUNE 13, Dendrology begins (3 week field course)



Look what's inside:

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BAHS Students engage in service during Alternate Spring Break



BAHS students joined their peers from across the PA State System of Higher Education at the Wallops Island Marine Science Center for "Alternate Spring Break." Students worked together to paint, move furniture, build a fire pit and educational trails, and clean a beach. This was all part of a community service weekend on Mar 4-7 2011 to help the Marine Science Center prepare for the new season. BU students pictured at center are: **Uri Anderson, Ashley Cameron, Leslie Cope, Dave Francavilla, Kristy Guzman, Katherine Keeney, Laura Laidacker, Cara McCusker, Erica Meola, Maureen Miller, Grace Ordonio, Nicole Polaski, Heather Ressler, Katrina Rhor, and Caitlin Tunkel** (not shown).

Reception for all Graduating Seniors and Masters Students



Friday, April 29, 2011

Location: Area outside 265 to 270 Hartline, West Wing

Time: between 12:00 p.m. to 3 p.m.

We hope to see you there to say good bye and wish you well!

Food! Door prizes! Bring your cameras! Hosted by Tri-Beta Honor Society.



BAHS Summer College Offerings

Session 2, six weeks, May 23 to July 1, 2011

Course Offerings: Concepts in Biology 1 (Biology 114), Anatomy and Physiology 1 (Biology 173), Introduction to Nutrition (Biology 205), Microbiology (Biology 242), Immunology (Biology 343), Dendrology (Biology 459/559) (second three-weeks, 13 – 30 June, but registration is at the beginning of the session (23 May), Ecology and Evolution (non-majors) (Biology 102).

Session 3, six weeks, July 6 to August 12, 2011

Course Offerings: Anatomy & Physiology 2 (Biology 174), Ecology (Biology 351), and Cells, Genes, and Molecules (non-majors) (Biology 100).

Attention BS/BA Biology majors: Ecology will NOT be offered in the spring of 2012. If you are planning on graduating in spring 2012, you must either take ecology summer 2011 or fall 2011.

Summer Chemistry and Physics Offerings

The Chemistry Department at Bloomsburg University plans to offer the following courses this summer: Introductory Chemistry (52.101), Chemistry for the Sciences I (52.115), and Chemistry for the Sciences II (52.116). The Physics Department will offer Intro. Physics I (54.111) during Session II and Intro. Physics II (54.112) during Session III.



SEMESTER AT THE SHORE: Summer Classes at the Marine Science Center

Summer classes at the Marine Science Center are a great way to both take some unique courses not offered on campus and get ahead or catch up on number of credits earned, depending on your situation. **Courses at the MSC 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 last three weeks and meet morning, afternoon, and sometimes evening as needed for the course content. You would only take one course in three weeks.

New Facilities at the MSC: new dormitories and classrooms at the MSC are comfortable and air-conditioned.

General Education Courses: If you want a unique general education course that fits with your interest in science, look at the **Introduction to Literature** course taught by Shippensburg University faculty. This course has an emphasis on creative works on the subject of environmental biology and would count as a Group A general education course. This course is a two-week course.

Science Courses: Most of the science courses at the MSC are not offered at BU and count as biology electives. Here is your chance to take: Marine Biology, Marine Ecology, Marine Geology, Biological Oceanography, Marine Molecular Biology, Coastal Environmental Oceanography, Marine Ichthyology, and Field Methods in Oceanography,

Need more information? Please see Drs. Klinger (tklinger@bloomu.edu) or Hranitz (jhranitz@bloomu.edu) for more information. Directions for signing up for MSC courses can be found at the BU registrar's office: <http://www.bloomu.edu/summer/msc/> Complete information on the MSC can be found at their website: <http://msconsortium.org/#/registration-information/4536272159>

FALL SEMESTER 2011 Electives

Elective offerings for fall semester 2011 are:

Bio 212 Vertebrate Zoology Dr. Hranitz

Bio 233 Human Genetics Dr. Hansen

Bio 332 Genetics, Dr. Ardizzi

Bio 333 Molecular Biology, Dr. Davis

Bio 334 Molecular Biology Lab, Dr. Brubaker

Bio 343 Immunology, Dr. Brubaker

Bio 430 Evolution, Dr. Chamuris

Bio 432 Micro. & Molec Genetics, Dr. Ardizzi

Bio 452 Limnology, Dr. Rier

Bio 489 Current Topics, Dr. Hranitz

Note: you may only take Current Topics twice.

Biology 489 Current Topics:

EVOLUTIONARY DEVELOPMENTAL BIOLOGY

(acronym: Evo-Devo). MW 6-7:15 pm., **Dr. Hranitz**

It is obvious to even the casual observer that form and function different organisms are intrinsically linked. We can all summon many examples, such as the beak of a woodpecker versus an eagle. Closer inspection reveals a suite of differences in bone structure, musculature, tongue anatomy and other traits associated with beak form and function. How did these differences arise? The interesting answers have been emerging from a relatively new field of biology, Evolutionary Development Biology. This seminar-style course will examine the molecular mechanisms by which development creates novel adaptations in organisms. We will discuss evolution of morphology, embryos, physiological adaptations, and organ systems in diverse organisms, with applications for biology and health science majors.



Congratulations to Graduating Seniors

All the best to our graduating seniors. We will miss you! Stay in touch and be sure to check out *Biosynthesis* online.

Spring Semester 2011

Joelle Bittner, B.S. Health Sciences, pre-physician assistant
Michael Brabander, B.S. Biology
Wendy Bunting, B.A. Biology
Michael Busada, B.S. Biology, pre-medical sciences
Samantha Bussanich, B.S. Biology, pre-medical sciences
Cassandra Carns, B.S. Biology
Amanda Caso, B.S. Biology, pre-medical sciences
Nicole Chinnici, B.S. Biology
Kyle Correll, B.S. Biology, pre-medical sciences
Megan Dager, B.A. Biology, pre-physician assistant
Melanie DiMartino, B.S. Health Sci., pre-physical therapy
Mollie Erb, B.S. Health Sciences, pre-physical therapy
Chardei Eshleman, B.S. Biology, pre-medical sciences
David Francavilla, B.A. Biology, pre-physical therapy
Ashley Geringer, B.A. Biology
Melissa Goff, B.S. Health Sciences, pre-physical therapy
Gina Grasso, B.A. Biology, natural history
Nathan Hale, B.S. Medical Imaging
Kristin Hein, B.A. Biology
Ryan Harris, B.A. Biology, B.S. Secondary Education
Dustin Hunsinger, B.S. Biology
Christine Huntingdon, B.A. Biology, Secondary education
Ghaith Ibrahim, B.S. Biology
James Kearns, B.S. Biology, pre-medical sciences
Jacquelyn Koren, B.S. Health Sciences, pre-physician asst.

Summer 2011

Christopher Arbogast, B.S. Medical Imaging
Maci Jo Aumiller, B.S. Medical Imaging
Katie Behler, B.S. Medical Imaging
Debon Berger, B.S. Clinical Lab Science
Kelsey Castle, B.S. Medical Imaging
Jillian Kida, B.S. Medical Imaging
Kyle Concini, B.S. Medical Imaging
Kelli DeSanto, B.S. Medical Imaging
Laura Gedman, B.S. Clinical Lab Science
Vivian Khalil, B.S. Health Sciences, pre-physician asst.
Ryan Larum, B.S. Biology, environmental biology
Jessica McFee, B.S. Medical Imaging
Mia Morgan, B.A. Biology
Rose Novinger, B.S. Medical Imaging
Gary Oster, B.S. Medical Imaging
Meghan Rudy, B.S. Medical Imaging
Zachary Silver, B.S. Medical Imaging
Desalegn Tefera, B.S. Biology, pre-medical sciences
Victoria White, B.S. Medical Imaging
Jessica Whitenight, B.S. Medical Imaging
Sonya Wolfe, B.S. Medical Imaging
Cory Worgen, B.S. Medical Imaging

Laura Laidacker, B/S/ Biology
Matthew Maun, B.S. Health Sciences, pre-physical therapy
Ashley Mawhinney, B.S. Biology
Stephanie McGaw, B.S. Medical Imaging
Andrea Miller, B.S. Health Sciences, pre-physical therapy
Tina Nguyen, B.S. Health Sciences, pre-physical therapy
Jason Nolt, B.S. Health Sciences
Justine Okurowski, B.S. Health Sci., pre-physician assistant
Michael Parks, B.S. Health Sciences, pre-physician assistant
Jenelle Petresky, B.A. Biology, B.S. Secondary Education
Brandon Petrone, BS. Biology
Tim Plisiewicz, B.A. Biology, natural history
Monica Po, B.A. Biology
Michael Quintans, B.S. Health Sciences, pre-physical therapy
Paige Ricci, B.S. Biology, molecular biology
Julia Rush, B.S. Health Sciences, pre-physical therapy
Amy Schultz, B.S. Biology, pre-medical sciences
Megan Scully, B.S. Health Sciences, pre-physical therapy
Christopher Sierotowicz, B.S. Health Sci., pre-phys. therapy
Jamie Smith, B. S. Biology, environmental biology
Michelle Stipanovic, B.S. Biology
Neil Sullivan, B.S. Health Sciences, pre-physician assistant
Caitlin Tunkel, B.S. Health Sciences, pre-physician assistant
Michael Volchansky, B.S. Health Sci., pre-physical therapy
Thanh Vu, B.S. Health Sciences, pre-physician assistant
Taylor Washburn, B.S. Medical Imaging
Emily Whisel, B.S. Biology, pre-medical sciences
Krysta Whitmoyer, B.S. Health Sciences, pre-physical therapy
Melanie Yodock, B.S. Biology, pre-med. sci. & Anthropology

Spring 2011 Honor Graduates

Summa cum laude: **Rose Novinger**.

Magna cum laude: **Joelle Bittner, Kyle Corell, Chardei Eshleman, Jillian Kida, Jason Nolt, Michelle Stipanovic, Taylor Washburn, Cory Worgen**.

Cum laude: **Debon Berger, Michael Brabander, Melanie DiMartino, Melissa Goff, Laura Laidacker, James Kearns, Justine Okurowski, Julia Rush, Sean Scubelek, Melanie Yodock, Jesseca Whitenight, Krysta Whitmoyer**.

H HOSPITAL Allied Health Updates

20th Annual Health Sciences Symposium Examines the Effects of Digital Technology and Multi-tasking on Brain Function

Thanks to all of you made the 20th Annual Health Sciences Symposium a huge success. The keynote speaker, Dr. David Strayer from the University of Utah, delivered a timely message about the negative impacts of multi-tasking on cognitive function. We learned that talking on the cell phone while driving decreases reaction time 20% and increases the likelihood of a crash by four times, an important message for us all. The symposium also included student posters and a wellness fair. Many BAHS students participated in the event. Special thanks to the cheerful poster hanging committee from Dr. Kipe-Nolt's Microbiology class and the amazing clean-up committee from Anatomy and Physiology II. Special thanks to **Julia Rush** and **Joelle Bittner**, BAHS student poster judges. Congratulations to student poster winners from Anatomy and Physiology II pictured below. First prize winners are **Morgan Harman, Joshua Nguyen, and Erin Long**, shown at left with their entry "Forgetting Yesterday." The second prize poster, "The Integumentary System and the Impact of Burns" was prepared by **Maura Rosemary Whipple, Ellen Lurwick, and Sherry Romanoskie** (at right).



LOOK IMPORTANT NOTICE FOR MI AND CLS STUDENTS

ALL CLS and MI students who applied for clinical programs this year must see Dr. Kipe-Nolt before the end of the semester if you have not yet done so. This includes those who have been accepted into clinicals and those who have not.

BAHS Students Accepted to Clinical Programs:

So far, the following students have signed-up (completed paperwork):

Abington Memorial Hospital: **Alyssa Rubin (R)**

John Hopkins: **Jessica Albright (S), Jacklyn Cross (R) , Traci Hoon (NM), Lindsay**

Kida (R, CT), Caitlin McFarlane, (R, CT), Daniel Wetzel (R, CT), Victoria Williamson (S).

Memorial Medical Center: **Lindsey Gulmy (R).**

College Misericordia: **Alissa Heimbach (S), Lauren Shive (S).**

Reading Hospital & Medical Center: **Darcy Gilmore (R), Katilyn Meck (R), Corey Pappas (R)**

Trinity Health Hospital: **Morgan Cioffi (R).**

University of Pennsylvania Hospital: **Lindsay Hopkins (R), Candice Massina (R), Shaina Selner (R), Jordan Stefanide (R), Amy Swanson (R), Angela Worley (R).**

York Hospital: **Jordan Shrader (R), Brandi Thompson (R), Thompson Brooke (R). Sarah Fogleman (CLS),**

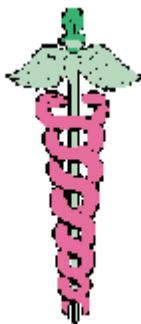
Geisinger Medical Center: **Torie Brillhart (R), Lauren Horst (R), Erica Jurgensen (R), Corey Scheeler (R), Brittany Shevock (R), Sean Sterner (R), Kisten Tarlecki (R), Melissa Welkom (R).**

Robert Packer Hospital: **Alaina Egger (CLS)**

Susquehanna Health System: **Amber Kolk (CLS)**

Key: R = Radiography; CT = computerized tomography; S = sonography; NM = nuclear medicine; CLS= Clinical Lab Science; MR = Magnetic Resonance Imaging.

Good luck as you begin this new chapter in your education!



Pre-Professional Committee News

JAN PLAN Participants Gain an Insiders View of Medicine

Geisinger Medical Center's Jan Plan brings students into the hospital for an intensive 9-day experience that provides a first-hand look at the medical profession. Participating in Jan Plan this year were, pictured from left to right, biology majors **Amanda Pulsifer**, **Nicholas Faino**, and **Darrin Doran** and chemistry major,

David Yovic. Jan Plan provides opportunities for students to interact with medical students, residents, and physicians during rounds, case study discussions, and observations while rotating through various medical departments. Amanda found Jan Plan to be a great experience and found that it broadened her view of medical practice. She was surprised by how much she enjoyed being in the operating room, especially the explanations provided by the surgeons. In the emergency department she had the opportunity to try CPR and intubations on a simulation dummy. Dave found the knowledge he gained to be valuable and reports that his participation in Jan Plan solidified his desire to pursue a medical career. This sentiment was echoed by Darrin, who also gained new insights as to the specialties he may want to pursue in residency. Darrin has always been interested in neuroscience and he particularly liked the neurology, neurosurgery, and neuro-ophthalmology rotations. Nick found the observation hours with emergency medicine physicians, neurosurgeons, oncologists, and ophthalmologists to be valuable. Among the highlights of his experience were his time viewing surgeries and observing the care provided in a trauma case. After spending the day in the dentistry department, Nick concluded that this is the career that suits him best. All participants highly recommend the Jan Plan program to any student considering a career in the medical sciences.



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Pre-Med Students Catch March Madness!

Pre-medical science students headed over to the Science and Health Science Living Learning Community in Columbia Hall for three Mondays in March to attend workshops sponsored by the pre-professional committee. Pre-professional students attended sessions on the application process, resume writing, and preparing a personal statement. **Amy Schultz** and **Stacy Brussell** shared their first-hand experiences with the application process. Students who are applying for admission to begin professional school in Fall 2012 should see **Dr. Ardizzi** as soon as possible to begin their pre-professional portfolio. The deadline to have all materials submitted for early consideration by the pre-professional committee is July 1, 2011. The fall deadline is September 15, 2011. You are encouraged to apply as early as possible to maximize your chances for success. Delays affect competitiveness in the application process.

Congratulations!

The pre-professional committee sends its heartiest congratulations to students who successfully gained admission to professional schools in medical fields. You did it! Congratulations to **Stacey Brussell** who will attend The University of Minnesota Veterinary School; **Kyle Correll** who will attend University of South Florida; **Emily Barkanic** and **Jason Nolt** who will attend medical school; and **Kyle Bartol** who will attend the Philadelphia College of Osteopathic Medicine. We hope to hear more good news and details when decisions are finalized.

Pre-Medical Science Club Updates

The Pre-Medical Sciences Club kept busy this semester. In addition to attending March Madness, the group had a Valentine's bake sale fundraiser. The club is purchasing MCAT review books to be placed on reserve at Andruss Library. The Pre-Medical Sciences Club recently met to elect officers for next academic year. Leading the way are President, **Eliza Reed**; Vice President, **Jessica Willis**; Secretary, **Steven Paliswiat**; Treasurer, **Ashley Cameron**; and Public Relations, **Samantha Oakes**.

Summer MCAT

The MCAT is a standardized exam required for admission to allopathic, osteopathic, and many veterinary schools. The exam assesses mastery in biology, general and organic chemistry, physics, scientific problem solving, critical thinking, and writing skills. Summer MCAT exams are offered **May 7, 20, 21, 24; June 16; July 6, 16, 28, 29; August 5, 6, 12, 18, 19, and 23**. To register go



Meet our Outstanding Seniors

Outstanding Biology Senior: Michele Stipanovic

Michelle Stipanovic will graduate in May 2011 with a B.S. Biology degree. She is the student vice president of the honor society Phi Kappa Phi and a member of the biology honor society Beta Beta Beta. Michelle conducted research on the role of G-proteins in cellular senescence at the Weis Center for Research at Geisinger Medical Center and presented her work at the College of Science and Technology's Research Day. She participated in Geisinger's JAN Plan program for pre-medical students. Michelle served as vice-president of the Biology and Allied Health Sciences Club. She participated in Haiti Disaster Relief efforts and volunteered at the Ronald McDonald House. She has served as a peer tutor in biology and calculus. Michelle is currently exploring various options for further education and research for a biology career.



Outstanding Allied Health Senior: Joelle Bittner

Joelle Bittner, a B.S. Health Sciences, pre-physician assistant major, will graduate in May 2011. A dean's list student, Joelle is a member of Phi Kappa Phi Honor Society and Tri-Beta Biology Honor Society. She has conducted an internship at Parkway Neuroscience and Spine Institute. She has shadowed at Cumberland Valley Women's Group, Mercersburg Family Medicine, and White Oak Pediatric and Adult Medicine. Joelle is a peer tutor. She has volunteered at Chambersburg Hospital. Joelle will enter the physician assistant program at Lock Haven University's Harrisburg campus.

James E. Parsons Scholarship in Clinical Lab Science/Microbiology Awarded

Sarah Fogleman, a Clinical Lab Science major from Mountain Top, PA is the recipient of the James E. Parsons Scholarship. This scholarship has been established in honor of emeritus faculty member, Dr. James Parsons. Dr. Parsons taught microbiology courses and served as the Allied Health Coordinator at Bloomsburg for many years. Anyone interested in contributing to Parsons Scholarship Fund, please contact Mr. John Karas, Development Office, jkaras@bloomu.edu, 570-389-5144. Sarah (pictured at right with a Clinical Microbiology book!) is a member of the Biology and Allied Health Club and the BU Women's Lacrosse Club. She is a member of Phi Sigma Sigma Fraternity and has volunteered at the Health Sciences Symposium.



BAHS Scholarship

Kelsey Matthews (at left), a sophomore from McClure, PA, received the BAHS scholarship. Kelsey, a B.S. Biology, pre-medical sciences major, participates in the Honors Program and has been named to the dean's list. She is a member of the BAHS Club and the Pre-medical Sciences Club. She has logged over 40 hours as a volunteer in the Helping Others Club.

James Cole Scholarship

Sarah Lech (at right) is the recipient of the James Cole Scholarship. Dr. Cole is a retired professor who taught the freshmen biology course for majors for many years, served as department chairperson and allied health coordinator, and was instrumental in developing allied health programs at BU. Sarah is a sophomore medical imaging major from Weatherly, PA. She is a member of the BAHS Club.

First Annual Margaret Till Physiology Award presented to Jason Nolt

Dr. Margaret Till, faculty emerita, has established a physiology award to be granted to a junior or senior who is currently enrolled or has successfully completed at least one senior physiology course and integrated physiology lab. Candidates wrote an essay describing the impact of physiology on their career or on their perception of biology. Dr. Till, a former BAHS chairperson, spent much of her career teaching physiology courses. Dr. Till, pictured at upper right with President Soltz, reflected upon her physiology career in remarks at the recent COST honors symposium.

Biology is a broad discipline, covering aspects of life from subcellular to supraorganismal. We biologists come with varied motivations, some to pursue the medical sciences for the benefit of mankind and some of us, like me, simply came because we enjoyed digging in the mud of a creek bank and finding salamanders and crawfish. Regardless of our initial motivation, we had to eventually find that part of biology that brought "it all together," that which made the minutiae as well as the over arching principles fall together for us. For Dr Chamuris that is evolution, for Dr Wood it is ecology, but for me that is physiology.

I took my first physiology course my last term as an undergraduate. It changed my life literally; I was on the path to graduate studies in entomology at that point. By midterm, my allegiance had switched and there in tells the tale of the next 42 years. Physiology in 1968 was simpler in the sense that little was known at the cellular, let alone subcellular levels, but it was not easy. The lack of specificity and logical explanations at these levels made it more difficult. Over the next 42 years, physiology never became easy. It always demanded my best efforts, my full attention, and I grew to love it more. After finishing my PhD in physiology in 1980, you might have thought the study portion was over – NO – teaching physiology meant even more study – to stay up with new findings and to design strategies to help students understand this beautiful science.

Hence my belief that excellence in the pursuit of physiology deserves recognition and reward. This year the first Margaret Till Physiology Award is presented to Jason M Nolt who in his understanding of the role physiology will play in his career and his in-depth understanding of the interactions of function within an organism exemplifies the best characteristics of a new generation of physiologists.

Jason Nolt (pictured at lower right) will graduate magna cum laude in May 2011 with a B.S. in Health Sciences. He is a member of Tri-Beta Biology Honor Society and Phi Kappa Phi Honor Society and has been named to Who's Who. Jason has conducted research on anaerobic digestion of cheese whey and on iron transporters in plant roots with Dr. George Davis. He participated in the Jan Plan experience at Geisinger Medical Center, where he shadowed physicians and observed surgeries. He has conducted an internship in family practice medicine at Geisinger's Reichart Road Office. Jason was a member of the varsity tennis team and has been named a scholar athlete. He has served the community by assisting with flood relief, Special Olympics, the Grantham Retirement Home, and basketball and tennis clinics with area youth. He will attend medical school in the fall.

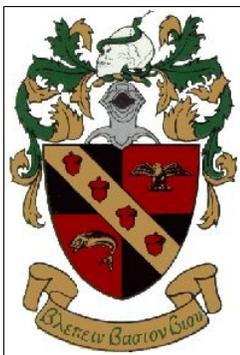


BAHS students inducted into Phi Kappa Phi

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. Only the top 7.5% of juniors and the top 10% of seniors are eligible to join the society. The following BAHS students were inducted on April 10 at a ceremony attended by faculty, administrators, and family members: **Jessica Albright, Melanie DiMartino, Darrin Doran, Meghan Duell, Brandon Dunbar, Alaina Egger, Chardei Eshleman, Melissa Goff, Larissa Johnson, James Kearns, Amber Kolk, Laura Laidacker, Sarah Monaco, Amanda Pulsifer, Lauren Sosnoski, Christine T. Winn, and Melanie Yodock.** BAHS students who were inducted previously include: **Joelle Bittner, Kyle Correll, Ryan Dorkoski, Jason Nolt, Michelle Stipanovic, Krysta Whitmoyer, Jina Ji Hyun Jung, Jeffrey Smith, and Mary Street.**

BAHS Scholar Athletes Recognized

Five BAHS students were among those honored at the recent Scholar-Athlete Luncheon for their excellence on the field, in the pool, on the court, and in the class room. Congratulations to **Michael Busada**, a biology major and a member of the swim team; **Kelsey Harm**, a health science, pre-physical therapy major and a member of the cross country and track team; **Lindsay Kupferschmidt**, a pre-physical therapy major and lacrosse team member; **Julia Rush**, a pre-physical therapy major and field hockey team member; and **Ryan Stuart** pre-physician assistant major, and member of; the football team. Congratulations to all our scholar-athletes!



Tri-Beta Updates

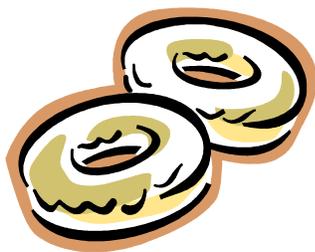
Tri-Beta, the biology honor society, had a busy and productive semester. The group continued weekly tutoring sessions for students in introductory biology courses at ABLE. Thanks to all Tri-Beta members who volunteered their time to tutor. Wasn't it fun to revisit some of those good ol' topics like meiosis, diffusion, and genetics? Tri-Beta celebrated Saint Patrick's Day with a successful bake sale fundraiser in Hartline lobby. Tri-Beta delighted youngsters at Kehr Union during the Siblings' and Children's Weekend Carnival with an obstacle course based on the theme Magical Kingdom. See photos at right. Congratulations to all who participated in building the obstacle course and working at the carnival. Special thanks to **Amy Schultz** for leading the way with her vision, enthusiasm, and organization!

This semester, our BU chapter was represented at the annual regional convention of Tri-Beta. The meeting was held in March at Lincoln University and was attended by **Ghaith Ibrahim, Megan Dager, Neil Sullivan, Dr. Hess** and **Dr. Surmacz**. Ghaith and Megan presented their research results (see page 10). Next year's regional convention will be hosted at Bloomsburg University in late March 2012.

Tri-Beta will sponsor a reception for all graduating seniors on Friday, April 29 from noon to 3 pm in the area outside the second floor biology offices. Tri-Beta will continue their "Free Coffee and Donut Fest" during the first two days of final exams to help wake everyone up and to relieve the stress! Please stop by the biology conference room (178 Hartline).

All Tri-Beta members are reminded to pick up their honor cord for graduation from Dr. Surmacz. T-shirts, featuring a mitochondrion (since Tri-Beta is the powerhouse of BU), will be available to Tri-Beta members by the end of April. Special thanks to our wonderful group of outgoing officers **Kyle Correll, Megan Dager, Mike Brabander, Neil Sullivan, and Amy Schultz**. Thanks to **Amy Schultz**, Tri-Beta has entered the age of social networking and has its own facebook page! Leading Tri-Beta next year are President, **Meghan Duell**; Vice-President, **Heather Love**; Secretary/Historian: **MaryKate Gallagher** and **Sarah Monaco**; and Treasurer, **Brandon Dunbar**.

For more information about Tri-Beta, check out the bulletin boards opposite 99 Hartline or check out the organization's website <http://orgs.bloomu.edu/betabetabeta> Membership invitations to juniors and seniors will be sent by the end of September.



FREE COFFEE and DO-NUTS
for **COST Students and Faculty**
Finals Week
Tuesday and Wednesday,
May 3 and 4
in the morning



BAHS Club

The BAHS Club invites everyone to get involved in the club next academic year. Leading the club will be: President, **Heather Ressler**; Vice President, **Heather Kinney**; Secretary, **Stephen Paliswiat**; Treasurer, **Katrina Rohr**; Public Relations, **Meghan Duell**; Historian, **Sam Kiernan** Drs. **Hranitz, Corbin**, and **Brubaker** are the club's advisers.



Tri-Beta at Children's and Siblings' Carnival



Attention Graduating Seniors

All graduating seniors who are majoring in biology or health science must take the Major Field Test. Please remember to attend your scheduled session.. The test will be given on Friday, April 29 from 3 to 5 pm and Tuesday, May 3 from 5 to 7 pm. Please see **Dr. Wood** if you have any questions.

Thanks to all of you who helped to make this academic year a successful one! That includes our departmental secretary, student secretaries, work study students, lab assistants, members of our clubs and organizations (Biology and Allied Health Club, Pre-Medicine Club members, and Tri-Beta Honor Society), numerous volunteers (Science Iditarod and the Health Sciences Symposium), graduate assistants, research students, and all of you who make this a great place to teach and learn!



BAHS Students Present Research on the Road!

Tri-Beta Regional Conference at Lincoln University

Tri-Beta members **Ghaith Ibrahim, Megan Dager, and Neil Sullivan** and **Drs. Hess and Surmacz** left Bloomsburg in the dark, very early one Saturday morning to head to Lincoln University for the regional convention of Tri-Beta, the biology honor society. The group had the opportunity to meet with members of other Tri-Beta chapters from throughout the mid-Atlantic region. The keynote presentation by Dr. Robert Sikes from the University of Delaware offered great advice about careers in science for young (and old) scientists. Ghaith presented a talk entitled “Expression of EphB4 and ephrin-B2 in highly aggressive and poorly aggressive human melanoma tumor cells. Megan and Ghaith presented a poster entitled “Assessing cellular stress in a bioindicator: establishing procedures for measuring Heat Shock Protein 70 in *Lumbriculus variegatus*.” Both Megan and Ghaith were recipients of Tri-Beta research grants. Bloomsburg University will host the 2012 regional meeting next year at the end of March.



Pennsylvania Academy of Science Conference at Penn State—Altoona

BAHS sent a large contingent to the Pennsylvania Academy of Science meeting to meet with scientists from across the state and to present research results. In attendance were: **Jonathan Busada, Michael Busada, Diana Pierce, Lauren Lowenberger, Ghaith Ibrahim, Megan Dager, Dr. Hess, Dr. Corbin, Dr. Hranitz, and Dr. Surmacz**. The group takes a moment to pose by the nittany lion (at left). Diana prepares for her presentation (center), while Mike is captured in action (at right)!



The following talks and posters were presented by the BAHS contingent:

“Investigating the effects of EphA2/ephrin-A1 signaling on aggressive melanoma metastatic characteristics.” **Busada, Jonathan** and **Angela R. Hess**.

“Analyzing new methods to measure cellular proliferation rates in human melanoma cells.” **Busada, Michael A.** and **Angela R. Hess**.

“Comparative expression profiles of Eph receptors and ephrin ligands in the human keratinocytes and melanocyte.” **Pierce, Diana H.** and **Angela R. Hess**.

“Establishing standard conditions for the measurement of stress responses in the bioindicator *Lumbriculus variegatus*.” **Dager, Megan, Ghaith Ibrahim, John Hranitz, and Cynthia Surmacz**.

“Extending learning beyond the classroom: creating a biology learning community in a residence hall.” **Surmacz, Cynthia, Angela Hess, John Hranitz, Clay Corbin, Gary Wassmer, Zareen Amin, Carl Hansen, Karl Henry, Barry Nolt, Steven Rier, Margaret Till, Jennifer Venditti, and Marianna Wood**.

“Bluebird skeletal morphology: a phylogenetic thrush or a functional flycatcher?” **Corbin, Clay E.** and **Lauren Lowenberger**.

CoST Research Day: Support Student Research!

BAHS Student and faculty research will be on display at the upcoming College of Science and Technology Research Day on Friday, April 29, 2011 in 2303 McCormick. At right, graduate student **Jon Busada** is featured on the BU website as one of the presenting researchers. Below is a schedule of talks and posters. Everyone is welcome!



April 29, 2011 2303 McCormick

10:00 Dean's Welcome.

10:30 Michael Busada, "Analyzing new methods to measure cellular proliferation rates in human melanoma cells." Mentor: Dr. Hess.

11:15 Oran Tansey, "The Role of Transcriptional Cofactors Ada2 and stb5 in *Candida albicans* dimorphism." Mentor: Dr. Henry.

11:45 Dustin Hunsinger, "Development and Optimization of a Plate Assay for Thrombin Activity." Mentor: Dr. Crawford.

12:00 Neil Sullivan, "Genetic structure of native and non-native populations of the invasive leaf-cutting bee (*Megachile apicalis*)." Mentor: Dr. Hranitz.

12:15 Paige Ricci, "Characterization of microsatellite primers for the invasive leaf cutting bee (*Megachile apicalis*)." Mentor: Dr. Hranitz.

12:30 Meghan Duell, "Honey Bee Stress: Behavioral and Physiological Effects of Varosop" Mentor: Dr. Hranitz

12:45 Jonathan Bobek, "Honey Bee foraging groups show diverse color preferences." Mentor: Dr. Hranitz.

1:15 Ghaith Ibrahim, "Expression of EphB4 and ephrin-B2 in highly aggressive and poorly aggressive human melanoma tumor cells" Mentor: Dr. Hess.

1:45 Emily Whisel, "Probiotics: Evaluation of Weight Gain Benefits to Calves" Mentor: Dr. Kipe-Nolt.

2:15 Jonathan Busada, "Investigating the effects of EphA2/ephrin-A1 signaling on aggressive melanoma metastatic characteristics" Mentor: Dr. Hess.

2:45 Diana Pierce, "Comparative expression profiles of Eph receptors and ephrin ligands in the human keratinocytes and melanocytes." Mentor: Dr. Hess.

Poster: Megan Dager, Ghaith Ibrahim, "Assessing Cellular Stress in a Bioindicator: Establishing Procedures for Measuring Heat Shock Protein 70 Levels in *Lumbriculus variegatus*." Mentors: Drs. Hranitz & Surmacz

Poster: Lauren Lowenberger, "Bluebird skeletal morphology: a phylogenetic thrush or a functional flycatcher?" Mentor: Dr. Corbin.



STUDENT RESEARCH GRANTS AVAILABLE

RABB AWARD: The Donald D. Rabb Biology Research Award provides funds for undergraduates to purchase supplies for conducting research in the Department of Biological and Health Sciences at Bloomsburg University. The award is named in honor of Dr. Rabb, faculty emeritus and former BAHS chairperson, who retired in 1984. To be eligible, you must be pursuing a major in biology or health science. There are no minimum credit requirements. Student applicants do not need to enroll in research for biology credit in order to receive funding. However, students must have a BAHS faculty member as a research mentor. Up to \$200 may be awarded and can be used to purchase research supplies and travel required to conduct research. Travel to present research at scientific meetings will not be considered. For additional information and an application, please contact your research mentor. The deadline to submit applications for summer or fall grants is May 2, 2011, the last day of classes for spring semester.

CPUB AWARD: The Commonwealth of Pennsylvania Biologists (CPUB) is awarding grants of up to \$400 to undergraduate and graduate students to fund equipment and supplies for research. To apply, students must submit a cover letter, a detailed proposal, a resume, and a supporting letter from the faculty research mentor. Proposals must be written by the student and must include an introduction, materials and methods, references, and a budget. The deadline is early September 2011. Application materials are available on the CPUB website <http://academics.sru.edu/cpub>

Graduate Student Research

Congratulations to **Ryan Stetz** for successfully defending his M.S. thesis entitled: "Optimization of an anaerobic digester utilizing cheese whey as a substrate." **Dr. Nolt** is his advisor. The following graduate students recently presented thesis proposals to the department: **Lauren Lowenberger, Megan Kopec, Andrew Ackerman, Diana Pierce, Tye Patchana, and Ryan Dorkowski**. We look forward to hearing the results of your thesis research.

Dr. Hess honored as Outstanding BAHS Faculty Member

Dr. Angela Hess received an Outstanding Faculty award at the recent College of Science and Technology Honors Symposium. Dr. Hess, shown at right with Dr. George Chamuris, department chairperson, is in her fourth year in the Department of Biological and Allied Health Sciences. Dr. Hess was recognized for her excellence in teaching, research, and service. Dr. Hess teaches Anatomy and Physiology I and II and Animal Cell Physiology. Her research investigating human melanoma has resulted in several publications and national grants and was featured in the *Bloomsburg* magazine. She has involved numerous undergraduate and graduate students in her research. Dr. Hess received her undergraduate degree from Penn State University and her doctoral degree from the University of Iowa.



Alumni Share Experiences as Healthcare Professionals

CoST Students recently had the opportunity to meet with alumni who have pursued careers in healthcare. This informative panel discussion and question and answer period was hosted by The BU Alumni Society. The following alumni took part::



Dr. Matthew Thran '84 – Anesthesiologist, Rhode Island Hospital – Jamestown, RI
 Dr. J Douglass Thran '77 – Orthodontist, J. Douglas Thran, DMD – Dalton, PA
 Dr. Kathy Baylor '83 – Doctor, Bloomsburg Family Care Associates – Bloomsburg, PA
 Dr. Fred Maue '76 – Owner/Psychiatrist, Maue Health Inc. – Danville, PA
 Mrs. Kathleen Riley '81 – Audiologist, Delaware Sch. for the Deaf – Wilmington, DE
 Mr. Joseph Agostinelli '04 – Strength and Conditioning Specialist, Pro Rehabilitation Services – Dickson City, PA
 Mrs. Annette Shalongo '83 – Infusion Nurse Case Manager, Vitaline Infusion Pharmacy Services – Danville, PA
 Mrs. Peggy Snyder '84 - Clinical Supervisor and Speech Pathologist, Bloomsburg University – Bloomsburg, PA



BAHS Students Moving On!

Congratulations to all of our graduating seniors and master's students. We are proud of you! Here's what some of our graduating students and recent graduates have planned. For those of you who are not certain of your plans, please send an e-mail to Dr. Surmacz in the future so we may share your good news!(csurmacz@bloomu.edu)

Maci Aumiller will take her Ultrasound Physics boards exams and will seek employment,
Joelle Bittner will enter the physician assistant program at Lock Haven University's Harrisburg Campus.
Stacy Brussell will pursue a degree in veterinary medicine at the University of Minnesota
Jonathan Busada will begin a Ph.D. program in Anatomy and Cell Biology at East Carolina University.
Shannon Carper will enter the physical therapy program at Temple University .
Kyle Correll will attend medical school at the University of South Florida..
Megan Dager will work at Teleflex Medical in Reading, PA.
Melanie DiMartino will enter Thomas Jefferson university's doctoral in physical therapy program.
Melissa Goff will pursue her doctoral degree in physical therapy from Thomas Jefferson University.
David Kalb will work at Connective Tissue Gene Tests in Allentown, PA. Dave and **Debon Berger** plan to get married in August.
Amanda Kaehler will enter the doctoral program in physical therapy at Thomas Jefferson University.
Laura Laidacker will enter Shenandoah University's physician assistant program.
Matthew Maun will attend Drexel University to pursue a doctorate in physical therapy.
James Noll will pursue his doctorate in physical therapy at Daemen College in New York.
Jason Nolt will attend medical school.
Mike Parks will train for his EMT-B certificate and will continue shadowing at St. Josephs Medical Center in Reading, PA in preparation for applying to physician assistant programs.
Kelly Pidgeon will enter the physician assistant program at Arcadia University.
Sarah Rush will enter the doctoral program in physical therapy at Thomas Jefferson University,
Michael Quintans will enter the University of the Sciences in Philadelphia in the doctoral program in physical therapy.
Kyle Reid will pursue a doctoral degree in physical therapy at Thomas Jefferson University.
Sarah Rush will enter the doctoral program in physical therapy at Thomas Jefferson University.
Dana Tavares will enter the combined program in occupational therapy at Thomas Jefferson University.