

Chemistry Connections

Volume 1, Issue 2

Spring 2006

A newsletter from the Chemistry Department
at Bloomsburg University of Pennsylvania

Miscellaneous

- ☞ New Forensics Course:
Dr. Michael Pugh, Chairman of the Chemistry Department, will be teaching an "Introduction to Forensic Science" course this fall.
- ☞ Dr. Joseph Larkin will join the BU chemistry department this fall. Dr. Larkin recently completed his Ph.D at the University of Georgia and a fellowship program with the National Institutes of Health in Bethesda, MD.
- ☞ Dr. Toni Bell and her husband Robb are the proud parents of a baby boy, Ryan Marshall Bell, born on April 19.
- ☞ Visit the Chemistry department website for more information about us: <http://department.bloomu.edu/chem/Default.htm>
- ☞ You can contact the chemistry department at Bloomsburg University several ways:
570-389-4895 (main number)
Dr. Pugh, Dept. Chair:
570-389-4144
Sharlene Pollock, secretary:
570-389-5159



Area Schools Participate in Science Iditarod

Eighty students from eight different high schools participated in the second annual Science Iditarod at Bloomsburg University. Twenty teams of four students competed in rounds of biology, chemistry, geoscience and physics questions. Held in the new wing of the Hartline Science Center, the laboratories with computers and projection screens made it quite easy to set up this game-style competition.

After a big lunch at the Scranton Commons, it was a face-off between the two leading teams: Danville and Wyoming Area high schools. The students from Wyoming Area walked away with the first place trophy. Individual rounds were won by:

- ☞ Biology - Danville Area High School
- ☞ Chemistry - Danville Area High School
- ☞ Geosciences - Wyoming Area High School
- ☞ Physics - Bloomsburg High School

It was a fun day for everyone involved, and a great learning experience for the students. The University is looking forward to hosting the Iditarod again next year!



Iditarod Champions: The winning team from Wyoming Area High School with their teacher. All four students have been offered a \$1500 scholarship to attend B.U.



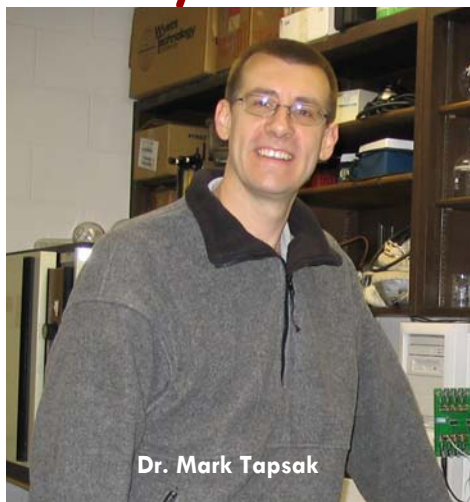
Students used hand-held "buzzers" to ring in their answers during the Iditarod competition.

The Iditarod is made possible through the volunteer efforts of BU College of Science & technology faculty & students, including Dean Marande, and funding from the President's office.

Research Day

The College of Science & Technology at B.U. hosted their annual "Research Day" on May 4th. This is an opportunity for COST students to present results of research they worked on throughout the semester. During the past academic year, seven chemistry faculty members supervised 16 students on a wide variety of research topics. During the Research Day presentations, seven chemistry and biology juniors & seniors explained their chemistry projects to the audience members. Presenters were: Chris DeVore (*Muncy*), Mike Pennell (*Shamokin*), Chris Endress (*Bloomsburg*), Heather Pursel (*Southern Columbia*), Saad Amin (*Central Columbia*), Matt Corridoni (*Pittston*), Tim Brockman (*Bridgewater, NJ*) and Mike Giano (*Hunterdon, NJ*). (*high school attended*)

Faculty Profile



Dr. Mark Tapsak

Dr. Mark Tapsak joined the B.U. Chemistry department in the fall of 2004. Mark grew up in Minnesota and attended St. Cloud State University, a state school similar in size to B.U. He began as a Photographic Science major, but later changed majors to eventually graduate Cum Laude with a B.E.S. in Chemistry. He continued on to receive his Ph.D. in polymer chemistry in 1995 under Professor William P. Weber at the University of Southern California.

Mark then worked in the biotech industry for 9 years before joining the Bloomsburg chemistry department. In his first industry position with Medtronic Inc., he helped to develop

novel polyurethane and silicone-based biomaterials to be used in Medtronic's implantable medical devices. In his second industrial appointment with DexCom Inc., he developed numerous manufacturing processes for a fully implantable amperometric glucose sensor. Those processes included the production of a multilayer polyurethane membrane that incorporated an immobilized glucose oxidase, and multiple epoxy and silicone adhesive steps in the fabrication of the device. Mark has been able to incorporate his research from industry into student research projects at Bloomsburg University. He currently has three students assisting with his research projects, developing a disposable creatine / creatinine sensor and controlled drug delivery materials.

Mark teaches Physiological chemistry, Introductory chemistry and freshmen chemistry courses at B.U. He and his wife, Karena, make their home in Orangeville with their four young boys.

Elementary Students Visit B.U.

Fourth grade students from Bloomsburg Elementary School paid a visit to Bloomsburg University in April. The B.U. Chemistry Club hosted the class, and conducted a variety of really cool experiments with the kids, like creating play dough and slime.

The Chemistry Club organizes several activities throughout the year focused on getting children excited about science. Dr. Eric Hawrelak, the Chemistry Club advisor and B.U. chemistry professor, oversees the activities. According to Dr. Hawrelak, participating in hands-on experiments with "cool" college students is a fun way for young children to see first-hand how exciting chemistry can be, and encourages them to consider a career in the science field. If these pictures are any indication, this field trip has inspired a bunch of future scientists!

Chem Club volunteers were: Jamie Houseknecht (*Columbia-Montour Vo-Tech*), Evan Thursby (*Benton*), Tim Brockman (*Bridgewater, NJ*), Jessica Pursel (*Danville*), Colin Roberts (*Emmaus*), and Heather Pursel (*Southern Columbia*).



He's been slimed!!



Pictured above, Evan Thursby, B.U. Chemistry Education major and Benton High school graduate, shows this groups of students how to put out a candle without using their breath

ALUMNI NEWS

Melinda Hill, a graduate of Southern Columbia Are High School, graduated from B.U. with a BS in Chemistry in December of 2002. The following month, she began work toward her Ph.D. in Macromolecular Science and Engineering at Virginia Tech. Melinda's graduate research has focused on the development of fuel cells as an alternative energy source. In the summer of 2003, Melinda traveled to New Mexico to collaborate with researchers at Los Alamos National Lab. During the summer of 2005, she had the opportunity to travel to Italy to study at the University of Perugia with Professor Giulio Alberti.

Melinda was awarded her Ph.D. on March 31, 2006. After graduation in May, she will return to Los Alamos National Lab for a two-year post-doctoral research appointment.