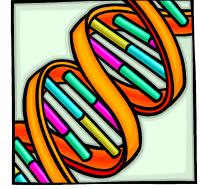




BUILDING A STUDENT COMMUNITY NEWS



May/June 2005

Biology Club News

The Club's final event of the semester is a picnic at Ritter Park, Saturday, April 30, beginning at 4 p.m. To be added to the Club's email list, send your name and email address to Advisor Frank Gilliam at gilliam@marshall.edu. In late April, the Club elected new officers for the next academic year, and they are already planning new activities for *you* to enjoy!

BSC Research in Progress

Olivia Boskovic is a graduate student working on her Master's degree with **Dr. Eric Blough**. Here is what she says about the research topic she is working on, and why she chose it:

"Since the completion of my B.S. degree at the University of Nis in Yugoslavia, I had been working at universities in Wisconsin and West Virginia for a few years. I joined Dr. Blough's lab in the Department of Biological Sciences as a research assistant about a year ago, and soon after I decided to go back to school and get my masters degree.

"The focus of my research is the muscle protein **dystrophin**, as it is altered with aging. Dystrophin plays an essential role in maintaining the stability of the skeletal muscle membrane, providing the muscle with protection against contraction-induced injury. Dystrophin is absent in Duchenne Muscular Dystrophy, a severely degenerative, lethal genetic disorder. The most typical manifestations of Duchenne Muscular Dystrophy are progressive muscle weakness and severe muscle wasting. Age-related muscle atrophy results in impaired mobility, increasing disability, and morbidity, leading to muscle deterioration similar to the degeneration observed in dystrophic cells. We hypothesize that the aging process induces alterations in dystrophin similar to those observed in muscular dystrophy.

"I enjoy working on my research project because it gives me an opportunity to expand my horizons while reading and learning about aging, Muscular Dystrophy, and dystrophin in skeletal muscle. Muscular dystrophy has attracted my attention due to the fact that there is still no cure for muscular dystrophies despite the extensive research efforts in this area. The results we have obtained so far are preliminary data, suggesting that there are morphological changes associated with aging that are similar to those commonly seen in dystrophic muscle. We will repeat the experiments to confirm this data, and we will perform other experiments needed to complete the project.

"In the meantime, Allison Webb (another M.S. student in Dr. Blough's lab) and I went to Los Angeles in March, where I gave an oral presentation at the American Physics Society March Meeting 2005 about my research in connection with nanotechnology (which is the breakthrough method that we are using). This work is being done with Dr. Vaseashta, from Physics. The title of the presentation is *The role of nanobiotechnology in the study of dystrophin and beta-dystroglycan in membrane stability of aging skeletal muscle*.

"I strongly believe that data generated by this research may be useful in future pharmacological attempts to prevent age-related atrophy and other muscle wasting states. I plan to continue exploring this area of research even after graduating from Marshall University."

Reminder – BSC Majors Can NOT Use BSC 104/105 for Credit Within Major

Starting this fall, a student may not use credit from BSC 104 or 105 to count as a replacement for BSC 120 or 121. The majors' courses contain much different material that is critical as a base for the BSC core courses and upper-level courses.

Brag Box - an abbreviated list of recent BSC student and faculty accomplishments:

- Undergraduates **Masayasu Hirano** and **Obianuju Dike** presented research done with **Dr. Simon Collier** as a poster entitled, "Cell shape determines epithelial patterning in the embryonic epidermis" at the 46th Annual *Drosophila* Research Conference in San Diego, CA, March 30th - April 3rd.
- **Masayasu Hirano** also gave a talk based on research done with **Dr. Simon Collier**, entitled "Imaging late embryogenesis using confocal and scanning electron microscopy" at an undergraduate workshop during the 46th Annual *Drosophila* Research Conference in San Diego.
- BSC M.S. student **Mike Bartholomew** and **Dr. Jagan Valluri** presented the paper *Production of Biomass and Bioproducts in a Hydrodynamic Focusing Bioreactor (HFB)* (co-author, Dr. Steve Gonda) at the NASA Cell Science Conference in Galveston, Texas, held February 22-25, 2005. Undergraduate capstone students **Todd Derreberry**, **Kris Reynolds**, and **Curtis Moriarty** also attended the conference. These students saw and heard presentations by scientists from NASA centers and universities, and had a great experience participating in this conference featuring cutting-edge science and innovation for human exploration of space. The research and travel to the conference were supported by a NASA-USRA grant and the WV Space Grants Consortium.
- In February, **Dr. Jim Joy** was an invited speaker at the Mid-Atlantic Mosquito Vector Control Association meeting in Charlotte, NC. In March, he presented a paper on spatial and temporal distribution of La Crosse encephalitis vectors in West Virginia at the American Mosquito Control Association's international meeting in Vancouver, British Columbia. In April, Dr. Joy participated in a symposium at Davis & Elkins College, with a presentation on the competitive exclusion of indigenous mosquito species by the newly introduced (to the United States) Asian tiger mosquito. Dr. Joy and **Nichelle Graham**, BSC M.S. '04, have submitted a manuscript detailing their recent work in West Virginia to the Journal of the American Mosquito Control Association.
- **Dr. Suzanne Strait** has received a supplement from the National Science Foundation's Research Experience for Undergraduates program to help support student research in her lab.
- **Dr. Suzanne Strait** has been appointed as a Research Associate to the Museum of Paleontology at the University of California at Berkeley.
- **Heather Marcum**, BSC MS, 2001, graduates in May from Alderson-Broadus College (Phillipi, WV) as a Physician's Assistant.

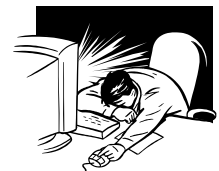
It's True: The blue whale can produce sounds up to 188 decibels. This is the loudest sound produced by a living animal and has been detected as far away as 530 miles. A new born blue whale measures 20-26 feet (6.0 - 7.9 meters) long and weighs up to 6,614 pounds (3003 kg).

Job Opportunities – details at MU's Career Services Center, 5th Avenue at 17th Street

- <http://www.usajobs.opm.gov> is an extensive listing of Federal job openings.
- Don't forget to check out Marshall's **Career Services Center**. They have listings for permanent jobs, summer jobs, and internships. They'll also help you develop your resume, and practice with you so you may improve your interview skills. Contact Career Services at www.marshall.edu/career-services/, or email them at career-services@marshall.edu.



Good luck on finals, and get some sleep!



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