



BUILDING A STUDENT COMMUNITY NEWS



November 2004

Biology Club News

The Club's upcoming meetings will be Mondays November 8 and 22, at 4 p.m. in S382. If you'd like to be added to the Club's email list, send your name and email address to Advisor Frank Gilliam at gilliam@marshall.edu. New members are always welcome, and even if you are unable to attend the meetings, you will receive email updates about other activities you may be able to fit into your schedule.

Job Opportunity - Fossil Mammals

Excellent opportunity for students looking for laboratory experience. Be the first one for 55 million years to touch these fossils! The lab work consists of picking small fossil fragments (teeth, bones, scales, etc.) from dirt collected in Wyoming. The dirt is very concentrated with fossils. A small amount of dirt (10mL) takes about an hour to pick through. It takes a little while to get an eye for the fossils, but there are many people around in the lab who can answer your questions. It is a fun work environment and hours are flexible so you can schedule between classes. After basic training other job/research opportunities are possible. No experience necessary, will train. Job skills include: patience and attention to detail. The pay is \$6.00/hour. Freshman and sophomores are especially encouraged to apply. For more information contact Dr. Strait (straittho@marshall.edu), 696-2425, or come by S263.

A Course to Consider: Muscle Physiology

This spring, Dr. Eric Blough is offering a 3-credit course, **BSC 481/581 Special Topics: Muscle Physiology**. The course is divided into three parts. The first part covers the structure and development of skeletal muscle from both the microscopic and macroscopic levels. Various tools used to examine muscle-tendon structure and functions are discussed. In the second portion of the course, selected topics related to the structural/functional/adaptability characteristics of multi-muscle systems are considered. These include muscle force potentiation during a stretch-shortening cycle, fatigue, and motor control issues. The adaptability of muscle is considered in the third part of this course. The structural changes that occur as a result of the natural aging and maturation processes are explored along with their functional significance. Muscle tendon responses to exercise and disuse are presented. Also considered is the healing response of muscle after injury.

This is a discussion-based course where students are required to present and participate. Enrollment is limited. Primary literature (published in professional journals) is used throughout the second and third parts of the course. This course is recommended for graduate students and seniors who have had BSC 661 and BSC 422 (animal physiology)

A Course to Consider: Genes and Development

This spring, Dr. Simon Collier is offering **BSC481/581 Special Topics: Genes and Development**. This a three-credit course, being held **MWF 3:00-3:50 p.m.**

We all begin life as a single fertilized egg cell and increase in size by multiple cell divisions. Yet somehow we develop into a functioning human being rather than just a large ball of cells. Theoretical models of how the growth and patterning of cells and tissues are regulated to produce functional organs and organisms have been around for decades. However, it has only been in the last twenty years that many of the molecular genetic mechanisms that underlie pattern formation and cell fate

decisions have been characterized. How well does our molecular understanding match the traditional models? How have the pre-existing models influenced the way we interpret molecular events?

The Genes and Development course will consider aspects of the genetic control of multi-cellular organization from slime molds to humans. The first half of the course will be lecture based and will focus primarily on the fruit fly *Drosophila*, as it remains the best model for eukaryotic development. The second half of the course will be student led and will identify common development themes in a wide range of organisms through discussion and criticism of current literature and student presentations.

It's True: A giant leaf 60 feet across would have sufficient sunlight-capturing area to produce enough starch to feed a person for a year. To produce the oxygen a person uses on a given day, a leaf 18 feet across would be necessary!

Interested in Studying Abroad?

There will be a Study Abroad Fair on November 15 and 16, in the Memorial Student Center. The Office of Study Abroad is located in the Center for International Programs at 320 Old Main. To make an appointment to discuss studying abroad, contact Dr. Clark Egnor, Executive Director, Center for International Programs, at 696-2465 or contact the office by email at cip@marshall.edu. You may also visit their website at <http://www.marshall.edu/cip/studyabroad/>

College of Science Website for Pre-Health Care Professions:

For information on the Pre-Health Care professions, visit <http://www.marshall.edu/preprof>

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

- 2004. **Strait, S. G.** Small, smaller, smallest: A case for dwarfing in small-bodied Wa-0 mammals. Society of Vertebrate Paleontology 64th Annual Meeting, Denver, CO. (Invited talk in symposium).
- 2004. Penkrot, T. A., Zack, S. P., and **S. G. Strait**. New postcrania of Macrocranion (Eutheria: Amphilemuridae) from the early Eocene, Bighorn Basin, Wy. Society of Vertebrate Paleontology 64th Annual Meeting, Denver, CO.
- 2004. **Williamson, C. A., S. G. Strait**, P. Holroyd. Rodents from a catastrophic assemblage in the early Eocene main body of the Wastch Formation, Washakie Basin, Wyoming. Society of Vertebrate Paleontology 64th Annual Meeting, Denver, CO (poster session). **Carrie Williamson** is a BSC undergraduate working in Dr. Strait's lab.
- 2004. **Smith, N., B. Sang** and **S. G. Strait**. Marsupial diversity and abundance from the earliest Eocene of Wyoming. Society of Vertebrate Paleontology 64th Annual Meeting, Denver, CO (poster session). **Brian Sang** is a BSC undergraduate, and **Nick Smith** is a BSC graduate student.

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.

Selected BSC Contact Information			
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