



BUILDING A STUDENT COMMUNITY NEWS



October 2004

Biology Club News

The Club's meetings are scheduled for every other Monday at 4 p.m. in S-382; the next meetings will be **October 11 and 25**. 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.

NASA Space Grant Scholarships Available

Grants of \$1,000 are available for students interested in a career in science, mathematics, health care, engineering, science education, or working on a NASA-related science or teaching research project. Email Dr. Marcia Harrison at harrison@marshall.edu for an application form. **ELIGIBILITY:** Students receiving a NASA scholarship must 1) be a US citizen and WV or Metro resident, 2) be a science/engineering/math student at Marshall University, and 3) present the NASA-funded project at the 2005 Sigma Xi Research Day. Students will be evaluated based on GPA or ACT/SAT scores, project proposal, and recommendation from faculty sponsor. **DEADLINE: October 18, 2004.**

Now Is The Time to Plan Your Spring Capstone or Independent Study!

If you're planning to pursue a research-based capstone or independent study during the spring of 2005, your proposal is due by **November 15, 2004**. If you are requesting funding for your research, the Department needs to evaluate a detailed proposal that you prepare with the guidance of the faculty member in whose lab you will be working. Limited funds are available to purchase research materials, but to receive the materials in time, your proposal must be approved the semester before you undertake the research. Funding forms for **independent study** are available in the BSC office, S350. To enroll in **capstone**, you must complete the form at www.marshall.edu/biology.

TA Applications for Spring 2005 due by November 15

Applications for Graduate Teaching Assistantships that may be open for **Spring 2005** are due **November 15, 2004**. Application forms are available in the Biology office, room 350, and completed applications should be returned to Vickie Crager in the Biology office.

New Pre-Med Organization on Campus

This semester a new organization is available to pre-medical students at Marshall. The American Medical Student Association (AMSA) is the nation's largest and oldest independent organization of physicians-in-training. This student-run organization includes approximately 50,000 pre-medical and medical students, residents, and practicing physicians. AMSA works to ease the transition from student to physician, and lobbies for causes that are important in our future field of work. Through its four strategic priorities- Universal Healthcare, Disparities in Medicine, Diversity in Medicine, and Transforming the Culture of Medical Education- AMSA actively campaigns for positive changes in the healthcare system on national, state, and local levels. Membership in AMSA includes a free subscription to AMSA's magazine, *The New Physician*, and discounted travel and insurance deals. Members can also take advantage of discounted MCAT prep courses and textbooks in addition to advice and career planning information. Whether you are interested in Advocacy, Community and Public Health, Global Health, Health Policy, Humanistic Medicine, or the Structure of Medical Education, there is an Action Committee championing the cause. Through Marshall's AMSA chapter,

you will also be able to meet with administrators and students from the medical school and find out valuable information about medical school admissions and student/resident life.

To be eligible, you need only an enthusiasm for medicine and a desire to make a difference. Regardless of your specific interests in medicine, there is something for you at AMSA! For more information contact President George Velasco at velasco2@marshall.edu or Shannon James at shannonj35@hotmail.com or visit our bulletin board on the second floor of the Science Building for meeting announcements. We look forward to seeing you!

A Course to Consider: Parasitology (BSC 424/524)

Here's what Dr. Jim Joy has to say about his Spring 2005 Parasitology course:

Parasitism is the dominant feeding mechanism among animals and, "...parasitic organisms far outnumber non-parasitic ones. Humans, for example, host over a hundred kinds of eukaryotic parasites alone" (*Science* 24 June 1994). Not only do we, as *Homo sapiens*, provide a "habitat" for a large and diverse number of organisms, some of those organisms cause serious diseases. The World Health Organization provides a listing of the world's 6 most devastating human diseases, 5 of which are caused by parasitic organisms (3 of them with protozoan etiologic agents).

Parasites may be responsible for staggering financial losses to countries. Malaria, a chronic, debilitating (and sometimes disabling) disease represents a huge drag on the economies of many countries due to lost labor productivity coupled with the health care costs associated with treating malaria patients. In Ghana, West Africa, the costs associated with controlling snail populations responsible for vectoring a blood worm infection (schistosomiasis) once approached the gross national product of that country.

The extent of parasitic infections and the resultant potential pathologies are seldom critically examined in wildlife populations although such infections can dramatically effect human and domestic animal health. There are two main reasons why the nearly ignored parasitic infections in wildlife should be studied: 1) wildlife animals may serve as "reservoirs" for human pathogens; and 2) if we're genuinely interested in endangered species, we should also be interested in the diseases such populations may be subjected to. If biologists haven't provided information on the disease status of an endangered or threatened species, they have ignored a critical component relative to making informed decisions regarding that population.

In Parasitology, you'll learn something about human disease, how invertebrate vectors interact with their vertebrate hosts, and how pathogen, vector, and host have evolved in their relationships to each other. You'll learn about laboratory diagnoses, epidemiologic principles, a bit of immunology, human demographics, economics, and animal ecology -- in addition to protozoology, helminthology, and nematology. Enroll now and eat as much sushi as you can between now and spring because we'll look at fish "reservoirs" of nematode infection and...well, if you knew sushi like I know sushi....

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

- Several members of **Dr. Eric Blough's** lab will present research posters at the American Physiological Society meeting October 6-9 in Austin, Texas. **Kevin Rice**, **Sreevani Uddemari** (both MS students), **Devashish Desai** (Ph.D. student), and **Randy Kinnard** (laboratory supervisor) will present research that relates to muscle signal transduction with aging.
- Dr. Donald Tarter, Professor Emeritus in the Department of Biological Sciences, is the senior author of a paper accepted for publication in *Entomological News* (September/October issue): *A checklist of the stoneflies (Plecoptera) of the Daniel Boone National Forest in Kentucky, USA.*

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