April 2009

BIOrhythms
Washington University Biology Department Newsletter

April 2009

“In the spring, at the end of the day, you should smell like dirt.”
— Margaret Atwood

Featured in this issue:

Faculty Spotlight: Dr. Gregory Polites: MedPrep
Student Reviews: MedPrep, PEMRAP, CAREm
Summer Jobs: Career Center and More
Get Involved: Clubs & Volunteer Opportunities
Calendar: Biology Events and links to event listings

PRE-MED Classes in Biology: some things to know...

Registration for pre-med courses occurs after class begins and the process is a little different for each one, making it confusing at times. Typically, forms can be picked up in Plant Growth 105 though some courses are switching to online registration. Consult the particular course’s web page for the latest information.

Some requirements to expect...

FOR ALL PRE-MED CLASSES:
HIPAA training: one-time online training about patients’ privacy rights. You must get an ID and password from the Biology Dept to complete the training.

PPD tests: Two negative PPDs (tests for tuberculosis) are required by Barnes-Jewish Hospital for students to shadow. If you’ve had a BCG vaccination, your test may come back positive, in which case you will need a chest x-ray to prove you don’t have TB. PPD tests must be at least 7 days apart and can be done at student health services or your local doctor’s office. The results are only good for one year.

ONLY FOR PEMRAP or CAREm
CITI Human Studies Training: one-time online training focusing on the protection of the rights of human subjects. When you sign up for either class, you will receive an ID and password to complete this.

The Courses...

BIO 2651: MedPrep—offered Fall, Summer & Spring; instructor Dr. Gregory Polites; Section 1—lecture only, 1 credit; Section 2—lecture and shadowing, 2 credits, pass/fail

BIO 2652: PEMRAP (Pediatric Emergency Medicine Research Associates’ Program)—offered Fall, Summer and Spring; instructors Dr. Jan Luhmann and Dr. Kristine Williams; lecture and shadowing, 3 credits, pass/fail

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**Life Sciences Advising**

**Contact Information**

Pre-med advisors have walk-in hours or can be seen by appointment. To make an appointment with one of these advisors, go to [https://asapps.artsci.wustl.edu/appts](https://asapps.artsci.wustl.edu/appts), login, choose the calendar of the advisor you wish to see and use the password provided below.

**Dean Carolyn Herman**
5-8076, cherman@wustl.edu
- Walk-in hrs @ Umrath Hall, Rm 115, Thursdays 2:30-5:00
- By appointment at 205 South Brookings (password: lifesci)

**Dr. Joan Downey**
5-7997, downey@wustl.edu
- Walk-in hrs @ Cornerstone
  - Thursdays 10:00-11:30
- By appointment @ Cornerstone (password: lifesci)
  - Tuesdays 9:00-5:00

**Dean Jennifer Romney**
5-7969, jromney@wustl.edu
- Walk-in hrs @ Umrath Hall, Rm 115, Mondays 2:30-5:00

**Dean Henry Biggs**
5-6519, hbiggs@wustl.edu
- By appt @ Umrath Hall, Rm 115 (password: research)

**Dean Joy Kiefer**
5-8136, jkiefer@wustl.edu
- By appt @ Umrath Hall, Rm 115 (password: leader)

**Kristin Sobotka**
5-7494, ksobotka@wustl.edu
- By appt @ Umrath Hall, Rm 115 (password: research)

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**Faculty Spotlight: Gregory Polites, MedPrep**

Dr. Greg Polites graduated from Washington University with a degree in business. Little did he know that he would eventually become an attending physician in the busiest Emergency and Trauma Center in the state of Missouri and an Assistant Residency Director for Emergency Medicine at the Washington University School of Medicine. As a business major, Polites planned to work with his father in his steel business located near Belleville, IL where he grew up. After receiving his degree though he decided that business wasn’t the right fit for him; he wanted a career that was more meaningful and challenging. He therefore went back to school to finish the course work required to apply to medical school. After graduating from the University of Illinois College of Medicine in Chicago he completed two years of training in Diagnostic Radiology at Saint Louis University Medical Center before changing to the field of Emergency Medicine. He states, “I didn’t like the idea of being in a situation where someone was in trouble and I didn’t know what to do. I loved the fast pace and undifferentiated nature of Emergency Medicine. I loved having to figure out a problem when time wasn’t on your side.” So, Polites left Saint Louis University and went on to complete a four-year residency in Emergency Medicine at Barnes-Jewish Hospital.

Polites’ growing interest in teaching led him to accept a faculty position here in 2002, immediately after completing his residency. He states, “It was an interesting transition. One day I was a resident. The next day I was an attending.” A year later, he was asked to help with an undergraduate course called EM-STAR. When the instructor left in 2005, Polites was asked to take over the course. In doing so he revamped the curriculum and changed the name. “I looked at the students in the class and thought, “They’re missing something.” MedPrep, as it is now called, has since become the most popular pre-med course at Washington University, with attendance by at least 85% of all pre-med students at Wash U. “My goal was to give students answers that I never had when

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**Pre-med courses continued**

**BIO 2653: CAREm** (Course for Associates of Research in Emergency Medicine)—offered Fall and Spring, instructor Professor Tara Hohn; lecture and shadowing for clinical trials, 3 credits, pass/fail

**BIO 265: Experience in the Life Sciences**—Provides an opportunity to earn credit for non-classroom learning in the life sciences. A wide variety of activities qualify. For example, students might accompany a physician on rounds and prepare a paper on a specific organ system or disease, participate in a field or ecological study and report on the findings, help create a summer biology curriculum for children and report on its effectiveness, etc. Participants must arrange to work with a supervisor with whom they will meet on a regular basis, and commit themselves to at least 140 hours over two semesters. A work plan must be approved prior to registration. Progress report due at the end of one semester, and a final paper due after two semesters. Does not count toward upper division credits required for the major. Credit: 1.5 units per semester, contingent on completion of two semesters. When appropriate, the work may be completed within one semester. Credit/No Credit only

**BIO 2655: Surgery, Pedagogy & Practice**—Not available currently. Administrators hope to find an instructor so the course can be reinstated in the near future. In the meantime, Student Affairs has a list of surgeons that may be interested in mentoring students who want to shadow for credit through BIO 265. Please email Erin Gerrity, gerrity@biology2.wustl.edu, for contact information.
Being part of the Pediatric Emergency Medicine Research Associates Program (PEM-RAP®) was an amazing experience. As a Research Associate (RA), I was able to assist Washington University faculty members who serve as principal investigators (P.I.s) for clinical research studies. My principle duties were to screen patients for various studies. This often involved reading patient’s histories and some physical examination findings. Then, after speaking with the physicians responsible for that patient to confirm eligibility, I would approach the patient and family about the study to explain the goals of the study and obtain informed consent. Depending on the study, more patient contact might be involved in data collection for the studies.

In terms of course requirements RAs work 2, 4-hour shifts anytime from about 8am to midnight 7 days a week. Shift times are flexible around individual schedules and are selected on a 2 week rotation throughout the semester (ie you can fit it to your schedule not fit your schedule to it). New RAs are also required to attend a 2 hour lecture at the Medical School from 1:30-3:30 on Tuesdays given by faculty members. Subjects include introduction to clinical research, study design, inclusion/exclusion criteria, data collection and enrollment techniques of the various studies underway. At the end of the semester, students give a brief presentation on a clinical topic relevant to pediatric medicine.

There is a slight learning curve to tracking and enrolling patients, which many feel they have just begun to overcome by the end of the semester. The best part about PEMRAP® however is that once you take the class for credit you can return as a volunteer (one 4-hour shift a week instead of 2) as long as you keep up with the current studies.

Student Review: PEMRAP by Sonalee Ravi

“PEMRAP enables these students to become an integral and valued part of the health-care team. Not only do they learn about clinical research, but they also have the opportunity to see first-hand how physicians and nurses work in a busy clinical setting.

When not enrolling patients into one of the many clinical trials, students observe emergency procedures such as suturing or fracture reductions.

The combination of clinical research and exposure to pediatric emergency medicine provides a unique opportunity.”

—Jan D. Luhmann, M.D., an assistant professor of pediatrics and a PEMRAP co-director who started the program in 2002.
SUMMER JOBS

FIND A JOB: CAREER CENTER

Locations
110 Danforth University Center
324 Lopata Hall
005 Steinberg Hall

Hours
Monday-Thursday: 8:30am-7pm (DUC only)
Friday: 8:30am-5pm

Contact Us
Phone: 314.935.5930
Fax: 314.935.5905
Email: careers@wustl.edu

Wash U’s Career Center and its website can help you find a summer opportunity in many ways:

1) Our data base of jobs and internships, CareerLink, has a number of current opportunities that fall into these industries:
   - 42 health care products
   - 85 health care services
   - 527 non-profits
   - 38 pharmaceuticals
   - 51 biotech
   - 13 agriculture


3) Career Center Web site - "link to web resources" for lots of great sites www.careers.wustl.edu

4) Environmental organizations: all career advisors have a list of orgs and their websites in the following categories (Please contact the Career Center and set up an appointment with an advisor for more info):
   - Arboretas & Botanical Gardens
   - Theme Parks
   - Landscape Management
   - Production or Retail Nurseries
   - Turfgrass
   - Gov’t & Institution Internships
   - Job Boards

### Student Review: CAREm by Patrick Carrera

CAREm is a great course that introduces students to the details behind clinical research. Patient rights, past and present clinical studies, and even how research gets approved are some of the topics that are covered. Outside of the class students have two 4 hour weekly shifts in the emergency department at Barnes-Jewish Hospital. There they contribute to ongoing clinical research by enrolling eligible patients into research studies. For pre-med students this is a great opportunity. While the eight hour commitment may be difficult with a heavy schedule, the experience you get out of the course is amazing. Working in emergency I got to know physicians, practice talking to patients and learn about clinical research firsthand. My best memory of the course was just being in the emergency department. Whether it was a slow or fast paced day I enjoyed being in the hospital for the environment. This course is pass/fail, has little outside coursework, and is available to all students with different backgrounds in research. Please feel free to contact me if you’d like more information about CAREm: pacarrer@artsci.wustl.edu.

### Faculty Spotlight: Dr. Gregory Polites, MedPrep continued

themselves ‘pre-med’ while not having a realistic idea about what a life in medicine was really like. It’s all about planning, focusing and staying on target. The students here are incredibly bright. All they need is the right information—information that is unbiased, accurate and very honest. If you give them that, they will make the right decisions.”

As an Assistant Residency Director, Polites helps direct the education and training of 48 resident physicians in their four years of post-graduate training in the field. In 2005 he was awarded the Golden Stethoscope Award for Outstanding Clinical Teaching—an award voted on by the residents themselves. But in addition to teaching at the undergraduate, medical school and residency levels, Polites serves as an active member of the medical school’s admissions committee, meets with the pre-med deans on a bi-weekly basis, serves as an advisor to 15 medical students, works regular shifts in the Emergency and Trauma Center, and serves as the emergency physician for the St. Louis Rams. His job involves everything from tiring, mundane paperwork to exciting, adrenaline pumping work in the Trauma Critical Care section of the Emergency Department. “Next to actually treating patients, seeing students and residents achieve their goals may be the most rewarding aspect of my job. It really is more fun than you can imagine.”

### Student Review: MedPrep by Amanda Little

As a sophomore I remember hearing all the buzz about MedPrep. Friends were claiming that it changed their lives, that Dr. Polites was amazing, that the earth moved by the mere existence of this class. However, there was only one claim that pulled me through the classroom doors: the possibility of finally figuring out if medicine was for me. At a school full of pre-meds, all seemingly 100% sure that they are going to be a physician, it can easily become overwhelming for those of us still questioning. MedPrep works to answer your questions. You’re provided with the opportunity to shadow in one of the best ERs in the country, interacting with both patients and doctors. Furthermore, the class is composed of lectures that deal with the ins and outs of medicine today. You will learn everything you ever wanted to know about the application process, medical school, as well as be exposed to debates on topics such as medical ethics, malpractice, and universal healthcare. For me, MedPrep was the tipping point in my decision to become a doctor. I’m not going to say I liked everything I heard (I’m still not over the 80 hour work weeks during residency), but at least now I have the facts; turns out, medicine is still what I want to do.
GET INVOLVED: Clubs and Volunteer Opportunities

Biology Club: PEMRAP Panel Lunch

Have you ever wanted an insider’s perspective of working in a hospital environment? To communicate with patients and play an active role in bettering health? To participate and contribute to real, nationwide clinical studies? On Tuesday, February 17, the Biology Club hosted Ms. Belinda Davis and Dr. Janet Luhmann, two of the coordinators of PEMRAP (Pediatric Emergency Medicine Research Associates Program), a biannual semester-long course held at the medical school. Apart from enjoying delicious catered Panera sandwiches, the participants discussed a really awesome opportunity for any students broadly interested in medicine or biomedical research. PEMRAP participants (referred to as Research Associates) become an important functional part of the health care team in St. Louis Children’s hospital and work closely with doctors and researchers in as many as 8 clinical studies per semester.

Dr. Luhmann and Ms. Davis gave an overview of the program, shared stories of past Research Associates, and even talked a bit about their own experiences in medicine. The two beamed with enthusiasm as bio club members listened intently, asked questions, and eagerly chatted in a relaxed atmosphere. If you are even slightly interested in life science, meeting really interesting faculty members, or being exposed to exciting biology research and programs at our own university, we highly encourage you to come out to one of our events. The lunch is always free, the door is always open, and you never know who might be joining us. Our next lunch will be with Dr. Ursula Goodenough in April, and rumor has it that we are even planning a trip to the Missouri Botanical Gardens! For event alerts, simply send your name and email to <wubio-club@gmail.com>. —Dan Feng

Do You Have…

An announcement you’d like to make?

An interesting story or fun fact you’d like to share?

A professor or course you’d like to suggest for a spotlight?

We want your input! Send ideas and information to:
gerrity@biology2.wustl.edu

Summer Jobs continued

Science Outreach—Camp Counselor, June 14-26, 2009: Like working with kids? Want to earn $900 in two weeks? The Bernard Harris Summer Science Camp is a free, two-week academic residential camp designed to boost middle school students’ interest and skills in math and science. Activities incorporate problem solving, math, and communication with biology, chemistry, and physics. Each counselor will be responsible for six campers, and will travel with them through daily events, meals, and activities. Counselors will stay in double occupancy rooms on the same dorm floor as their campers. Applicants should have strong interpersonal skills, and experience working with K-12 students. Also looking for high-school age junior counselors (FT or PT-volunteer), and teaching assistants (PT-paid).

Application Deadline—April 18. Required training will be held on April 25, 10 a.m.-3 p.m. contact Chris Mohr by phone (314) 935-8271 or e-mail <mohr@wustl.edu>.

Gardener: Part-time: flexible 5 hrs/week, spring, summer & fall. Must love gardening/yard work, be dependable and hard-working. Located in walking distance of Wash U. Learn from the experts! Contact Dr. Memory Elvin-Lewis, 5-6059, elvin@biology.wustl.edu

More Biology Jobs on Department Website: http://www.nslc.wustl.edu/research.html

Volunteer Opportunities: subscribe to the Community Service Connection, an email newsletter: http://www.communityservice.wustl.edu/csconnection/
Biology Department Calendar

Links to General Calendars and Regular Events:

Washington University Record Calendar: http://record.wustl.edu/calendar

Biology Department Seminars: Mondays, 4:00pm, Rebstock 322, check the website for topics/schedule: http://www.biology.wustl.edu/seminars/seminar.html

Evolution, Ecology, & Population Biology Seminars, Thursdays, 4:00pm, Rebstock 322, check the website for topics/schedule: http://www.biology.wustl.edu/seminars/evpop.html

Bioforum, alternating Fridays, 4:00pm, McDonnell 361, check the website for topics/schedule: http://www.biology.wustl.edu/seminars/biologyforum.html

Plant Lunches: most Tuesdays at noon (1st Tuesday of month @ DDSPC, others @ McDonnell 212) Contact Professors Tuan-hua David Ho or Mark Running for topics/schedule.

Donald Danforth Plant Science Center (DDSPC), Weekly Seminar Series—Wednesdays, 4:00pm, AT&T Auditorium, check the website for topics: http://www.danforthcenter.org/opportunities/seminars.asp

Division of Biology & Biomedical Sciences (DBBS), all lectures & seminars: http://dbbs.wustl.edu/dbbs/website.nsf/SDN


April 2009

3rd  Last Day to Drop & Last Day to Change Grade Option on a Course to “C”

14th  Online Registration for Fall 2009 Begins

24th  Last Day of Classes

27th  April 27th through 29th: Reading Period

30th  April 30th through May 6th: FINAL EXAMS

May 2009

14th  Arts & Sciences Recognition Ceremony

15th  COMMENCEMENT

18th  Summer Session 1 Begins