



BIOrhythms

Washington University Biology Department Newsletter

April 2014

*“The good life
is a process,
not a state of
being. It is a
direction not a
destination.”*

—Carl Rogers

Helpful Links

[Biology Home Page](#)
[Biology Course Listings](#)
[Faculty Listings](#)

*BIOrhythms is a publication of
the Washington University
Biology Department for
Undergraduate Majors*

*Contact Erin Gerrity to submit
articles/info*

Erin Gerrity
Editor-BIOrhythms
Biology Department
Washington University
Plant Growth 105
Campus Box 1137
St. Louis, MO 63130-4899
314 935-5064
gerrity@biology2.wustl.edu

Featured in this issue:

Faculty Spotlight: Philip Osdoby

Course Spotlights: Bio 3110: Vertebrate Structures Lab;
Summer Courses at University College

Summer Jobs: Career Center

Calendar: Biology Events and links to event listings



Faculty Spotlight: Philip Osdoby, Professor of Biology



*Drs. Philip Osdoby and Patricia Collin-Osdoby of
the Osdoby Lab*

Philip Osdoby is originally from a small town outside of New York City. He became interested in science at a young age, spending a lot of time in nature trying to figure out how things work. His family hobby was raising and breeding dogs (Collies), fostering an early interest in developmental biology. He received a BA at Hofstra University in the Village of Hempstead, NY and his master's degree at City University of New York, where he was trained in cell development biology. His master's thesis was on programmed cell death during metamorphosis and understanding tissue remodeling. He received his PhD from Case Western Reserve University in Cleveland, OH, where he continued as a postdoc studying musculoskeletal tissue, specifically bone and its remodeling properties. Dr. Osdoby and his wife Patricia Collin-Osdoby (PhD Case Western) currently conduct research at Wash U focused on understanding select aspects of the cell and molecular interactions that are required for normal bone development as well as those that may contribute to age-associated, inflammatory-mediated pathological bone loss, and the genetic bone disease osteogenesis imperfecta. This latter research looks at matrix mutations and addresses questions about why bones become weak when the disease strikes, and why the bone resorbing cells become overactive and break down the bone. This research has pharmacological applications in the areas of treatment and prevention.

—Cont'd on page 2

WU CAREER CENTER SUMMER OPPORTUNITIES

Locations:

Danforth University Center, Suite 110 with satellite offices in Lopata Hall, Brauer Hall and Steinberg Hall

Main Office Hours in the Danforth University Center: Mon-Fri: 8:30-5:00

Contact Us

Phone: 314.935.5930

Fax: 314.935.5905

Email: careers@wustl.edu

Web: careercenter.wustl.edu

Have a Quick Question?

You can always stop by the Career Center's Quick Question hours in the main office Monday-Friday, 11am-5pm for assistance with CAREERlink, writing your resume and cover letters, or for quick guidance.

*****SEE NEXT PAGE FOR
UPCOMING SUMMER & POST-
GRADUATE OPPORTUNITIES**



Faculty Spotlight cont'd—Dr. Osdoby was originally hired by Wash U as part of the Dental School in 1981. He conducted bone research and also taught anatomy to dental students. He was particularly suited to anatomy teaching due to studies he participated in as an undergraduate summer intern assisting with autopsies in a pathology lab in New York. His experience in the pathology lab led him to teach anatomy to nursing students at Case Western before teaching the dental students at Wash U. His work at the Dental School lasted 9 years before it closed, at which time he moved to the Danforth Campus to continue his bone research and teach Developmental Biology with David Kirk for a couple of years. He designed the course Bio 3151 Endocrinology, offered every spring semester, which shows how hormones, cells and organ systems work together. He also teaches the lecture portion of Bio 3110 Vertebrate Structures Lab, offered every fall semester (see course spotlight article), and is a Bio 500 Independent Study mentor. Undergraduate students interested in working with the Osdoby Lab should contact Dr. Osdoby or Dr. Patricia Collin-Osdoby directly.

In addition to teaching and research, Dr. Osdoby is serving and has served on National Institute of Health grant review committees and has been involved with the American Society for Bone and Mineral Research since 1983, where he currently serves as an advisor to the educational porthole on the society's website. He helps make decisions about the materials, topics, webinars and other items that are placed on the site.

Course Spotlights:

Bio 3110 Vertebrate Structures Laboratory

Dr. Osdoby has been teaching the lecture portion of Bio 3110 Vertebrate Structures Lab since fall of 2006. The lab portion of this course is taught by Dr. Tammie Keadle. The lecture and lab are designed to provide an integrative framework for how vertebrate form and function evolved. Weekly lectures emphasize development and the relationship between the structural and functional design of organ systems, the importance of these relationships in maintaining homeostasis while providing opportunity for adaptation, and examples of how vertebrate organ systems communicate to accomplish functional and physiological integration. 1.5 hr lecture and 5 hrs lab each week. Prereq: Bio 2970.

Summer Courses at University College

Did you know that you can take some popular undergrad courses during summer through University College? Many students elect to take them then because the demand is lower, therefore chances of getting into the courses are higher. Here are a few examples...

Bio 2651 and 2654: MedPrep I and MedPrep II

Any student interested in these courses knows how difficult it can be to get into MedPrep II due to limited space during spring and fall. It usually fills with postbacs and seniors on the first day of registration. Juniors and sophomores have a much better chance of enrolling during summer due to the lower demand. Another major advantage of taking MedPrep in the summer is that you can take I and II concurrently. (MedPrep I is a prerequisite for MedPrep II during fall and spring.)

MedPrep I (Bio 2651) is a unique lecture series taught by a physician, medical school course master, and member of the Committee on Admissions for the School of Medicine. Through a twice weekly 2-hour lecture, this course gives students accurate, honest, and detailed information regarding every step of the application and admissions process to

—Cont'd on page 3

Course Spotlight cont'd—medical school, the entire educational process including medical school and residency training and pros and cons of life of a physician. MedPrep I is useful for any undergraduate premedical student or for post-baccalaureate students returning to school with the plan of applying to medical school. This course reviews the common pitfalls encountered by unsuccessful applicants to medical school and outlines the steps to take before and during the application process to be successful. There is no outside course work and no exams. Attendance at all classes is required. For more information please see the MedPrep website at pages.wustl.edu/medprep. Pre-registration is done through the MedPrep website and registration is done through the University College registration page.

MedPrep II (Bio 2654) offers students a real world, behind-the-scenes experience of a life in medicine. For three hours every other week, students shadow physicians in the Charles F. Knight Emergency and Trauma Center of Barnes-Jewish Hospital, the main teaching hospital of the Washington University School of Medicine. In addition to the shadowing, there is a weekly required class session every Wednesday from 5:00-6:00 pm. Shadowing every week is permitted, space permitting. Because of the orientation material presented, excused absences will not be granted for the first two sessions for any reason whatsoever, including illness or emergency. There is no outside course work and no exams. HIPAA training and PPD testing are required. For more information please see the MedPrep website at pages.wustl.edu/medprep. Pre-registration is done through the MedPrep website and registration is done through the University College registration page. Successful completion of Bio 2651 and sophomore standing or above are required to take this course, however, during the summer semester students may take both MedPrep I (Bio 2651) and MedPrep II (Bio 2654) concurrently.

Bio 437: Laboratory on DNA Manipulation

This course provides investigation-driven research on experimental manipulation of DNA and RNA molecules. This includes the construction, isolation and analysis of plasmids, RNA, PCR products and DNA sequencing. Molecular cloning (genetic engineering), gene knockout (mutants), RNA isolation, RT-PCR, and microarray projects are performed. Course will count for the biology major for WUSTL undergraduates. Prerequisite: Bio 2970.

Full time day school undergrads are allowed to take one course offered by U College per semester as part of their regular full-time course load. Students are charged for all summer courses, regardless of whether they are L or U courses. However, a large number of bio students, especially those in the pre-health program, take courses in the summer anyway because it's less expensive than during the fall and spring, they can focus on some of the more difficult courses, and they can take certain ones without the usual long waitlists. Both of these new 1-credit courses are only offered in the summer. Students should consult their advisors on whether or not these courses count toward their majors. To learn more about Summer School at University College, visit: <http://summerschool.wustl.edu/>.

The St. Louis Zoo is looking for pathology volunteers. The commitment is 4 hours a week and will be supervised by two veterinary technicians. This is a great opportunity for students not just interested in veterinary medicine but also those with a general interest in biology or biology-related fields. Please note that this is not a clinical- or research-based volunteer position.

At the Zoo, tissue samples are taken from endangered animals post-mortem. These tissues are then packaged and preserved for future research endeavors. Volunteers will help sort and catalogue tissue and slides in addition to being responsible for helping with preservation of these samples. If you are interested, please email Sarah O'Brien at obrien@stlzoo.org.

Upcoming Internship and Full-time Job Opportunities

Report Your Plans – Win \$100

Report your summer or post-graduate plans by June 1 for a chance to win \$100!

Whether you're traveling, taking classes, starting an internship or full-time job, or planning on attending graduate school, we want to know! Please take 30 seconds to report your plans for summer 2014 or after graduation before the contest ends June 1.

Upcoming Internship and Full-time Job Opportunities

Maternal and Child Health Internship-*International Rescue Committee*

Apply here – Deadline April 23

Research Intern-*Philips*

Apply here – Deadline April 26

Research Associate-*Health Capital Consultants*

Apply here – Deadline April 28

Performance Improvement Coordinator-*Lucile Packard Children's Hospital Stanford*

Apply here – Deadline April 30

Computational Chemistry and Biology Opportunities-*D.E. Shaw Research, LLC*

Apply here – Deadline May 21

For more upcoming opportunities, visit [CAREERlink](#).

Biology Department Calendar

Links to General Calendars and Regular Events:

Washington University Record Calendar: <http://news.wustl.edu/Pages/Calendar.aspx>

Biology Department Seminars, Mondays, 4:00pm, Rebstock 322, check the website for topics/schedule: <http://wubio.wustl.edu/events?tid=8>

Evolution, Ecology, & Population Biology Seminars, Thursdays, 4:00pm, Rebstock 322, check the website for topics/schedule: <http://wubio.wustl.edu/events?tid=3>

History & Philosophy of Science Seminar Series: <http://wubio.wustl.edu/events?tid=12>

Plant Lunches: most Tuesdays at noon (1st Tuesday of month @ DDSPC, others @ McDonnell 212): <http://wubio.wustl.edu/events?tid=10>

Donald Danforth Plant Science Center (DDPSC), Weekly Seminar Series—Wednesdays, 3:45pm, AT&T Auditorium, check the website for topics: http://www.danforthcenter.org/the_center/events/seminars_symposia/

Division of Biology and Biomedical Sciences (DBBS), all lectures and seminars: <http://dbbs.wustl.edu/Pages/Events.aspx>



April 2014

- 15th Fall 2014 online registration for undergraduates in the graduation class of 2014 or earlier (times assigned by lottery)
- 16th Fall 2014 online registration for undergraduates in the graduation class of 2015 (times assigned by lottery)
- 17th Fall 2014 online registration for undergraduates in the graduation class of 2016 (times assigned by lottery)
- 18th Fall 2014 online registration for undergraduates in the graduation class of 2017 (times assigned by lottery)
- 28th Spector Prize Seminar

May 2014

- 14th Honors Reception for Students, Mentors and Families
- 15th Arts & Sciences Recognition Ceremony
Biology Major Graduates Celebration
- 16th **COMMENCEMENT**
- 19th First Summer Session Begins

