



BIOrhythms

Washington University Biology Department Newsletter

November 2013

“What lies behind us and what lies before us are tiny matters compared to what lies within us.”

—Ralph Waldo Emerson

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: Dr. Ram Dixit

Course Spotlight: BIO 334: Cell Biology

Neuro Week: Synapse Event in January

JCUBES: Inside Look at Research

Career Center: Upcoming Events

Calendar: Biology Events and links to event listings



Faculty Spotlight: Dr. Ram Dixit



Dr. Ram Dixit is an Assistant Professor in the Biology Department at Wash U. He spent his childhood in Bombay, India. His father was an engineer, so he was no stranger to the sciences at home while growing up. A high school biology teacher inspired him to become interested in biology, with a more specific focus on plants. He completed his bachelor's degree at the State University of New York in Stony Brook, and his PhD, focused on the understanding of how cells communicate in plants, at Cornell University in Ithaca, NY. His postdoc work was completed at Penn State and the University of Pennsylvania, where his research focus shifted to understanding how plant cells acquire shape, the foundation for his lab research at Wash U today.

Dr. Dixit teaches three courses at Wash U. His major teaching focus is Bio 334: Cell Biology, a survey of topics in cell biology, offered every spring semester. He also teaches a module on plant cell biology and imaging for the graduate level course BIO 4025: Current Approaches in Plant and Microbial Research, and co-teaches a course in the Architecture program ARCH 529E: Cellular Transformations. The architecture course teaches art and architecture students to design objects based on principles underlying cellular architecture. In addition to teaching, Dr. Dixit is a Biology and Molecular Biology and Biochemistry Track major advisor and a Bio 200/500 mentor.

The major research goal of the Dixit Lab is to understand how the cytoskeleton and its associated proteins control plant cell form and function. The research team is particularly interested in the mechanisms that control patterning of the cortical microtubule cytoskeleton —cont'd on p. 2

WASHINGTON UNIVERSITY CAREER CENTER

Locations:

Danforth University Center,
Suite 110 with satellite of-
fices in Lopata Hall, Brauer
Hall and Steinberg Hall

Main Office Hours in the
Danforth University Center:
Monday-Friday: 8:30-5:00

Contact Us:

Phone: 314.935.5930

Fax: 314.935.5905

E-mail: careers@wustl.edu

Website: 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 let-
ters, or for quick guidance.

UPCOMING CAREER CENTER EVENTS

Career and Internship Con- nections (CIC): Jan 6 – 10

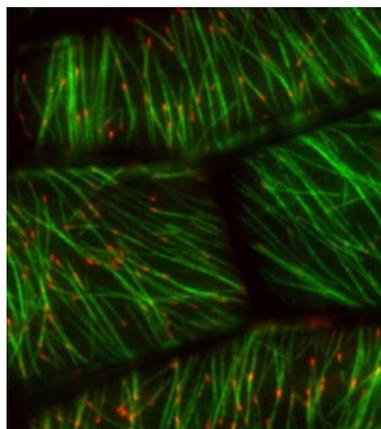
These off-campus events
held in Boston, Los Angeles,
New York, and Washington,
D.C. are an excellent oppor-
tunity to network and inter-
view face-to-face for entry-
level jobs and internships
with a variety of employers.
Submit your resume via the

—CONT'D ON NEXT PAGE

Ram Dixit cont'd— because this process regulates plant cell morphogenesis. The Dixit lab is also very interested in the motor protein, kinesin, which transports cellular material in a directional manner along microtubule tracks. Currently, the best way for an undergrad to get involved in the Dixit Lab is to apply for Bio 200/500 and do research in the lab for course credit under the mentorship of Dr. Dixit. Students who are interested in interdisciplinary research incorporating computer modeling, microscopy, biochemistry, and molecular biology are especially suited to working in the Dixit Lab.

When Dr. Dixit is not teaching and doing research, he spends time reading and doing fun activities with his family. They especially enjoy hiking in Castlewood Park, the Lewis and Clark Trail and other beautiful places in the surrounding area. To learn more about Ram Dixit and the Dixit Lab, visit: <http://pages.wustl.edu/dixit>.

Course Spotlight: BIO 334: Cell Biology



plant microtubule cytoskeleton

BIO 334: Cell Biology, taught by Dr. Ram Dixit, focuses on eukaryotic cell structure and function viewed from the perspective of modern cell biology. The goal of the course is to emphasize cellular processes that are necessary to the life of cells and organisms, in particular how dynamic they are. The course looks at molecular mechanisms, studying not just what is happening, but how it is happening. It is the only undergraduate level cell biology course and it employs undergraduate TAs, students who took it a previous semester and had a strong grasp of the material. (Prerequisite: Bio 2970. Enrollment: 200 students, lecture style course, offered every spring semester.)

NeuroWeek: January 27th to January 31st

Synapse, the premier neuroscience interest WU undergraduate organization, will be hosting the 2nd annual NeuroWeek, which began as a week-long event to publicize the neuroscience community. Now we seek to not only promote awareness of the growing and ever-changing field of neuroscience, but to also provide, as one past participant remarked, more “fun, science-oriented events going on around campus to bring students together who care about science and research”. This year, we offer the following:

Monday, January 27th

🔪 Surgery Screening from 6-8pm in College Hall: Neurosurgeons from the School of Medicine will be presenting and discussing a recording of one of their recent operations, as well as the pre- and post-operation care of the patient.

Tuesday, January 28th

🔪 Anatomy Lab Tour at the Medical School: Co-hosted by SIGN, the Neuroscience Interest Organization at the School of Medicine, undergraduates can RSVP to join a student-led tour of the Anatomy lab. Time TBA

🔪 How to Get a Z+ in Sleep Efficiency – Sleep and College Crash Course: from 6-7pm at Urso's Fireside: Sleep experts from the School of Medicine will encourage various methods for students to maximize their sleep efficiency and effectiveness. Dinner will be provided.

—cont'd on p. 3

JCUBES: Offers an Inside Look at Research



Dr. Kelly Monk of the Department of Developmental Biology Leads a JCUBES tour of the new zebrafish facilities at Washington University School of Medicine, the most advanced in the world. Automation allows Dr. Monk's group to perform massive forward screens in these organisms twice as fast as was previously possible.

of Dr. Bruce Carlson. School of Medicine principal investigator Dr. Kelly Monk, Dr. Zi Chen of the Biomedical Engineering department, and genomics expert Robert Fulton of the Washington University Genome Institute have recently made appearances at JCUBES to advise students and provide insight into the resources available at Washington University.

JCUBES works closely with its sponsoring academic departments, which include the Office of Undergraduate Research, Biomedical Engineering, and the Department of Biology, and collaborates with other research-related student groups like Frontiers pre-health journal and the Collider research review to further enrich the undergraduate research experience. The JCUBES blog at wustljcubes.wordpress.com offers updates and student takes on new research and technology developments relevant to young investigators. Students should send questions to: wustljcubes@gmail.com. JCUBES encourages all students involved in or interested in undergraduate research to attend biweekly JCUBES seminars on Tuesday evenings!

JCUBES (Journal Club for Undergraduates in Biological Engineering and Sciences) offers undergraduates an inside look at ongoing research at Washington University through seminars, tours, and guest faculty talks. Started during the summer of 2012, JCUBES recognizes that participating in research can be daunting for undergraduates, especially at a research-focused institution like Washington University. By facilitating peer mentorship and fostering an interdisciplinary community among undergraduate researchers, JCUBES builds confidence and provides exposure to new fields and resources, inspiring undergraduates to think about and pursue independent projects.

In addition to bi-weekly talks featuring undergraduate researchers, JCUBES has recently invited its members on tours of the Donald Danforth Plant Science Center, the new advanced zebrafish facility at the School of Medicine, and the electric fish collection in the laboratory

Career Center Upcoming Events cont'd—CIC website by December 2 to be considered for interviews. Students are still encouraged to attend if they do not register by that date. Password token: 'cic2014'. Read more: <http://career-center.wustl.edu/events/Pages/Making-the-Most-of-Your-Winter-Break.aspx>

Spring 2014 All-Campus Internship & Job Career Fair: Jan 29

The fair will take place from 3 to 7 p.m. in the Athletic Complex. Students can view registered organizations, research positions, and sign up for employer-hosted information sessions by logging into CAREERlink. Read more: <http://career-center.wustl.edu/events/Pages/Making-the-Most-of-Your-Winter-Break.aspx>

For more upcoming events, go to: careers.wustl.edu/events

Neuroweek cont'd—

Wednesday, January 29th

☪ Mind Melt from 6-7:30pm in DUC Tisch Commons: We are encouraging mental relaxation and stress relief through backrubs by Stressbusters, relaxing live music, and free make-your-own hot chocolate bar and Dough-to-Door cookies.

Thursday, January 30th

☪ Neurolympics from 4:30-5:30pm in DUC 276: Our second campus-wide competition where contestants will test their learned neuroscience knowledge for the chance to win \$75 and \$50 gift certificates. Refreshments will be provided.

We will also continue to fundraise and raise awareness about our chosen philanthropy, Hope Happens, which seeks to improve the lives of people with neurodegenerative disorders by promoting collaborative, translational research with the potential to fast-track new cures. We invite you to come join us in what is becoming one of the cornerstone events for both Synapse and the undergraduate community of Washington University!

Do You Have...

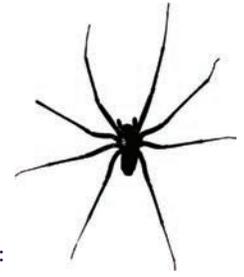
An announcement you'd like to make?

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

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>

Evolution, Ecology, & Population Biology Seminars, Thursdays, 4:00pm, Rebstock 322, check the website for topics/schedule: http://wubio.wustl.edu/events?field_event_tags_tid=18

History & Philosophy of Science Seminar Series: <http://pages.wustl.edu/hpbm/events>

PMB Super Group: most Tuesdays 9:00-10:00 in McDonnell 362: <http://wubio.wustl.edu/events/pmb-supergroup-seminar-series>

Donald Danforth Plant Science Center (DDPSC), Weekly Seminar Series—check the website for event details and topics:
<http://www.danforthcenter.org/events/scientific-seminars>

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

December 2013

6th Last day of classes

12th FINAL EXAMS begin

January 2014

6th Spring 2014 courses available to students on Blackboard

13th First day of classes

20th Martin Luther King Jr. Holiday—NO CLASSES

27th Neuro Week: January 27-31

28th Last day to add/wait/change Spring 2014 courses

29th Last day to drop/D courses for Spring 2014

February 2014

3rd Last day to change Spring 2014 courses grade option to Pass/Fail or Audit

