

BIOrhythms

Washington University Biology Department Newsletter

March 2015

*“Support bacteria,
it’s the only culture
some people have.”*
— Bumper sticker

Helpful Links

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

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Featured in this issue:

Faculty Spotlight: Dr. Joshua Blodgett

Course Spotlight: BIO 3491: Microbiology Laboratory

Student Groups: JCUBES and Synapse Spring Events

Calendar: Biology Events and links to event listings



Faculty Spotlight: Dr. Joshua Blodgett, Assistant Professor of Biology



Joshua Blodgett grew up on a small Black Angus cattle farm in rural Connecticut. When he was young, the hayfields were converted to a Christmas tree farm of 8000 trees, so he spent much of his free time in the woods, fostering an early interest in biology. He completed his undergraduate degree in Biology at the University of Connecticut, where he was deeply influenced by bacteriologist Edward Leadbetter’s teachings in microbial diversity. He went on to the University of IL: Urbana-Champaign to complete his master’s degree and PhD at in the Metcalf Lab where he worked on reduced -phosphorous antibiotic biosynthesis.

Dr. Blodgett completed his postdoctoral work in small molecule metabolism with Jon Clardy Lab at Harvard Medical School. He was the only biology PhD in this chemistry lab, where he enjoyed learning more about the chemical logic underlying biological phenomena from group members of diverse backgrounds and perspectives, and with different areas of expertise. He joined the Wash U Biology Department as an Assistant Professor in fall 2014. The Blodgett Lab, which is near completion, looks at the biosynthesis of small molecules, pathway regulation and chemical ecology. Currently the lab employs one undergraduate and one graduate, with the potential for more when setup is complete.

—cont’d on page 2

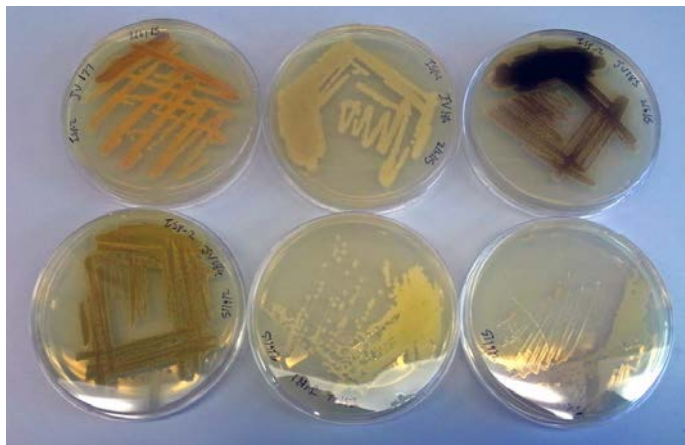
Biology Student featured in Popular Mechanics



Blake Marggraff's startup company T-Rex's product BetaBox Mobile Prototyping Lab featured in article on "The 14 Best Startup Cities in America".

...On a revitalized corner of Washington Avenue, lined with new trees and granite curbs, a shared work space and startup hub called T-Rex has almost finished renovating a landmark 1898 building. The city and its chamber of commerce are behind T-Rex, which now offers 80,000 square feet of office space for fledgling companies. Sample tenant: Betaversity, the brainchild of Washington University biology student Blake Marggraff, 22, and two of his associates. The company's main product is the BetaBox Mobile Prototyping Lab, a work space with 3D printers, laser cutters, CNC routers, and more—all cleverly wedged into a shipping container.

CONT'D on next page



Actinomycete bacteria, and the bioactive molecules they produce, are central to the studies carried out in the Blodgett lab.

Faculty Spotlight cont'd— Dr. Blodgett is developing, and will be teaching, an upper level microbiology lab-based course. This will combine the influences of both the Woods Hole Marine Biological Laboratory summer program and Edward Leadbetter's Microbial Diversity course at University of Connecticut (the same one that influenced Blodgett's path to his current research interests). The course will incorporate hands-on research on campus, with possible sample collection at Tyson Research Center as well. Students will be able to work on their own microbes which they'll personally gather, providing a start-to-finish educational experience. In addition to teaching this course, Dr. Blodgett is a Bio 500 Independent Research mentor.

Another interesting thing about Dr. Blodgett is that he also has experience working in the Biotech industry. He worked at WarpDrive Bio, LLC in Cambridge, MA, where he was amongst the first members of the company's scientific team. He is always happy to talk with students about the nuances and differences of working in academia vs. industry, and to give firsthand impressions on startup company culture and entrepreneurial science. For more information on Joshua Blodgett and the Blodgett Lab's research, visit the webpage at <http://wubio.wustl.edu/people/joshua-blodgett>.

JCUBES: The Journal Club for Undergraduates in Biological Engineering and Sciences

As Wash U's undergraduate journal club, we meet about every other Thursday evening to talk about life sciences research. All are welcome to join us at 5:30 PM in Life Sciences 310. Free pizza and refreshments are provided generously by the Departments of Biology and Biomedical Engineering. Check out our blog www.wustljcubes.wordpress.com or email us for more information at wustljcubes@gmail.com

Date:	Presenter:	Field:
Feb. 19	Kenny Kim	Neuroscience and Computer Science
March 5	Stefanie Shahan	Cancer Biology
March 19	Anna Noronha	(TBD)
April 2	Joanna Luo	Neurobiology
April 9	Jennifer Hsu	Biochemistry and Microbiology
April 16	Ron Nwuneh	Protein Chemistry

BIO 3491: Microbiology Laboratory

After introducing students to the basics of bacterial growth and maintenance, this laboratory class employs genetics, cell biology, and genomics to explore various aspects of bacterial physiology, identification, gene structure and mutational analysis of physiological pathways. One hour lecture and five hours of laboratory per week. Fulfills the upper-level laboratory requirement for the Biology major. Prerequisite: Bio 2970, Bio 349 recommended. Offered every semester, 3 units, Instructor: Maggie Schlarman

History & Philosophy of Science & Medicine Seminar Series Spring 2015

Noon – 1:30 pm, Life Sciences Building, Room 202 (except Hall Lecture)

Wednesday, April 8

Kevin Amidon, Associate Professor of German Studies, Department of World Languages at Iowa State University

Wednesday, April 15

Jordi Cat, Associate Professor of History and Philosophy of Science at Indiana University

Tuesday, April 28: Thomas Hall Lecture, 4:00pm, Rebstock 215

Kenneth Ludmerer, Professor in Department of History and Department of Medicine, Mabel Dorn Reeder Distinguished Professor in the History of Medicine at Washington University School of Medicine—“Residency Training in the United States: Past, Present and Future”

Wednesday, April 29

Kenneth Ludmerer, Professor in Department of History and Department of Medicine, Mabel Dorn Reeder Distinguished Professor in the History of Medicine at Washington University School of Medicine

For further information email Carl Craver, Department of Philosophy ([ccraver@wustl.edu](mailto:crcraver@wustl.edu)) or Anya Plutynski, Department of Philosophy (aplutyns@artsci.wustl.edu)

This series is generously supported by the Office of the Dean of Students in Arts and Sciences; Soft drinks are provided courtesy of the Department of Biology

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

Margraff cont'd—

"Our company has been around for about 11 months and served 22 clients, which is pretty crazy," says Margraff. "We've been renting out BetaBoxes up and down the East Coast." -*Read more in Popular Mechanics*

SYNAPSE STUDENT GROUP EVENT

Are you interested in networking with Washington University graduate school neuroscientists while volunteering at the Amazing Brain Carnival? The ABC is on March 7th (during Spring Break), and is held during NeuroDay at the St. Louis Science Center! It's an opportunity to meet some great scientists while helping out at a table of prepared neuroscience demonstrations to teach the public a little about neuroscience. If you are interested, please email Cassie Parks at: [cas428@gmail.com!](mailto:cas428@gmail.com)



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 Wednesdays 12:00-1:00 in McDonnell 412:
<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/index>

March 2015

9th Spring Break: March 9-15

30th Advising Period Begins

April 2015

13th Registration Begins

24th Last Day of Spring classes

30th Final exams begin

May 2015

14th Arts & Sciences Recognition Ceremony

15th Commencement

