

BIOrhythms

Washington University Biology Department Newsletter

April 2018

“Look up at the stars and not down at your feet. Try to make sense of what you see, and wonder about what makes the universe exist. Be curious.”

—Stephen Hawking

Helpful Links

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

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

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Featured in this issue:

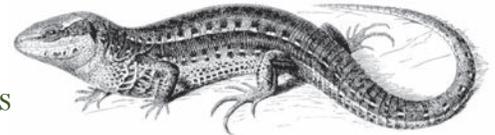
Faculty Spotlight: Jonathan Losos

Course Spotlight: Bio 1811: First-Year Opportunity:
Research and Conservation in Zoos and Botanical Gardens

MedPrep Global Scholars Program: Student Experience

Summer Jobs: Career Center

Calendar: Biology Events and links to event listings



Faculty Spotlight: Professor Jonathan Losos



Dr. Jonathan Losos grew up in St. Louis, MO, where his love of science and lizards began at an early age. Inspired by an episode of *Leave it to Beaver* about a pet alligator, Jonathan begged his parents for a pet caiman, a smaller species of crocodylian, at age 11. He wound up with not one, but two caimans. The fascinating creatures spurred his interest in herpetology, which led him to a lifelong career in the study of behavioral and evolutionary ecology of *Anolis* lizards.

Jonathan spent his undergrad years at Harvard University followed by University of California-Berkeley, where he was housemates with now fellow Wash U Professor Allan Larson. Both received their PhDs in the Zoology program there.

Jonathan moved on to University of California-Davis to complete his postdoc work in the lab of Tom Schoener where he began evolution experiments in nature. Schoener introduced lizards to 14 tiny islands in the Bahamas, where he intended to watch them go extinct, but instead and surprisingly they all survived. Jonathan thought this unintended outcome was an evolution experiment worth investigating, which showed how lizards bearing different characteristics were able to adapt to the environment in one way or another. He uses this approach to this day, now on Abaco Island in the Bahamas, where he conducts research every May. He studies *Anolis* lizards, a rich and diverse group of over 400 species that hail from the Caribbean Islands, Central and South America, and the Southeastern US.

—Cont'd on page 2

WU CAREER CENTER SUMMER OPPORTUNITIES

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 Cen-
ter:** 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 let-
ters, or for quick guidance.

Report Your Plans – Win \$100

Report your summer or
post-graduate plans by
June 15 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 sec-
onds to **report your plans**

*****SEE NEXT PAGE FOR
MORE ANNOUNCEMENTS**

Course Spotlight: Bio 1811: First-Year Opportunity: Research and Conservation in Zoos and Botanical Gardens

An introduction to the world of zoos and botanical gardens. Students will learn of the diverse and cutting-edge ways in which scientists and conservationists study the world's biological diversity and work to conserve it. Taking advantage of two world-class institutions a short distance from the Danforth campus, the class will meet every week at an off-campus site (primarily the Saint Louis Zoo and Missouri Botanical Garden, but also several other institutions) to hear lectures from leading authorities at these institutions, as well touring facilities to see first-hand how research is conducted and how these institutions work to preserve endangered species. Students will write three short papers; each paper will be based upon a class lecture and its associated readings. Must be taken Credit/No Credit. Credit 2.0 units. Fall Semester, Fridays, 2:00PM-5:00PM.

Faculty Spotlight cont'd—Jonathan had his first appointment at Wash U as an assistant professor from 1992 to 2006, then joined the faculty at Harvard from 2006-2017. He is excited to be back at Wash U, where he has the opportunity to be part of a new and special partnership between Wash U, Missouri Botanical Garden and the St. Louis Zoo to create a new academic center dedicated to advancing the study of biodiversity. The Living Earth Collaborative will foster studies of all disciplines including behavior, ecology, evolution and conservation efforts. He is currently working on the challenge of getting his lab set up along with the Living Earth Collaborative and continuing his own research on lizard ecology and evolution in the field in the Bahamas.

He will be teaching Bio 1811: First-Year Opportunity: Research and Conservation in Zoos and Botanical Gardens in fall 2018. This new course will explore the work of MOBOT and STL Zoo through field trips designed to educate and excite freshman students about getting involved. A new summer internship program, also a result of the Living Earth Collaborative, offers paid internships for undergrads at MOBOT and STL Zoo. Applications will be reviewed every spring.

In his free time, Jonathan enjoys hiking, observing animals, playing ice hockey and spending time with his new kitten. To learn more about Jonathan Losos' research, visit <https://lososlab.oeb.harvard.edu/>. Learn more about the Living Earth Collaborative here: <https://source.wustl.edu/2017/09/international-research-powerhouses-join-forces-advance-study-life-earth/>.

MedPrep Global Scholars Program: Undergrad Maya Chan's Experience in Shanghai, China

Maya Chan is third-year undergraduate student fulfilling a Biology Major and Anthropology Minor. Last fall semester, she studied abroad in Shanghai, China through the Global MedPrep Scholars Program, designed to provide a unique experience and set of skills that will strengthen students' cultural competency while allowing them to see how medicine is practiced in another part of the world.

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Congratulations 2018 Bunche Scholars!

Congratulations to our biology majors who will be recognized at the annual James E. McLeod Honors and Awards Ceremony as 2018 Ralph Bunche Scholars. The Award is named in honor of Ralph Bunche who was a United Nations mediator and 1950 Nobel Peace Prize recipient. Recognition is given for outstanding academic achievement to undergraduate students of African and African American descent. This Award recognizes the academic achievement of freshmen who have completed at least 14 graded units in the semester and have a cumulative GPA of 3.5 or higher. It also recognizes undergraduates who have completed at least 14 graded units in the semester and have a semester GPA of 3.5 or higher for at least 3 consecutive semesters.

This year's Awards Ceremony will be held on Monday, April 30, 2018 from 3-5pm in May Auditorium in Simon Hall. The Ceremony is a highlight of the spring semester and it will be even more special if you are able to join us to celebrate the exemplary academic achievements of our students. Please RSVP by Monday, April 16, 2018.

Biology

- Geraldine Serwald
- Lauren Slaughter
- Kourtney Benion
- Ifeoma Ifediba
- Devin Patel
- Muhammad Mousa

Biology: Genomics / Computation

- Keirah Jefferson

Biology: Ecology / Evolution

- Maya Samuels-Fair

Biology: Neuroscience

- Odion Asikhia
- Julian Sackey
- Jasmine Brown

Biology: Biochemistry

- Jessica Osaghae-Nosa
- Marta Taye



Minority Association of Rising Scientists Conference 4/14/18

The Minority Association of Rising Scientists (MARS), in conjunction with the Minority Association of PreMedical Students, the National Society of Black Engineers, the National Black MBA Association, and the Black Pre-Law Association, are hosting the second annual Minority Professional Advancement Summit (MPAS).

This half-day conference is scheduled to take place on Saturday, April 14th from 9:30 AM to 2:00 PM. Students can RSVP through the facebook event: <https://www.facebook.com/pg/WashUNBMBAA/events/>. Our goal is to equip WashU undergraduate minority students with the necessary skills for success after graduating, either in pursuing higher education or entering the professional sphere. Additionally, we hope to bring together bright minds to give talks that are idea-focused, and on a wide range of subjects, to foster learning, inspiration and wonder in order to spark conversations that matter.—*Jasmine Brown*

More Career Center Events

April 10: University of Michigan, Grad School Info Session, DUC, Room 234 (Presentation Room), 12 pm

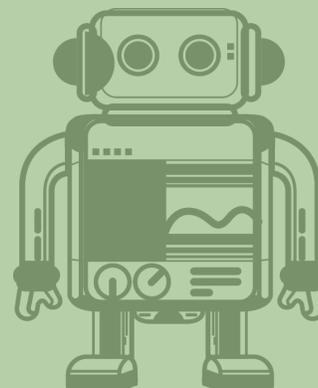
April 11: U.S. Department of Energy Information Session: Minority Educational Institution Student Partnership Program, DUC, Room 248, 6 pm

April 13: Introduction to Consulting and Preparation for Fall Recruiting, Simon Hall, Room 018, 12 pm

April 17: New York University School of Medicine Information Session, DUC, Room 248, 12 pm

April 18: The New England Center for Children Info Session, DUC, Room 241, 6 pm

Check the website for more opportunities: <https://careercenter.wustl.edu/students/events/>



MedPrep Global Scholars Program: Undergrad Maya Chan's Experience in Shanghai, China Cont'd—



When you spend a semester in Shanghai through the Global MedPrep Scholars Program, the entire city becomes a playground for what you learn in the classroom. The fieldwork practices you learn in your medical anthropology classes can be applied to actively

engage with the people around you. The Chinese characters you study animate from strokes on a page into essential tools for communicating with real people in real situations. The history you study of Shanghai's evolution into a globalized, metropolitan hub can be observed as you watch skyscrapers being built in a week.

Undergraduate learning as a pre-medical student is incredibly interesting, yet can also feel somewhat detached. Much of what we learn in undergraduate is to lay solid groundwork for graduate-school learning. It can be difficult to grasp how what we learn can be used in the 'real world'. As a Global MedPrep Scholar, I was empowered to appreciate and explore the novel and unfamiliar things surrounding me, incorporating what I was learning in the classroom.

A highlight of the program is the opportunity to shadow at hospitals and Traditional Chinese Medicine clinics around Shanghai. Once a week I would shadow at a 'Western-Biomedicine' Hospital, which more closely resembled those in America, and later that week would shadow at a Traditional Chinese Medicine clinic. With differences in nearly every aspect, it was hard to believe that the Western-Biomedicine hospital and the Traditional Chinese Medicine clinic both centered around care of the body. In the TCM clinic, hundreds of drawers of herbs and minerals and flowers lined the walls. Doctors suction-cupped glass bulbs onto patients' body to draw 'bad blood and qi' to the surface, and skillfully placed dozens of needles into acupuncture points on the back, shoulder, arms, etc. Yet, while Traditional Chinese Medicine seemed an ancient practice rooted in an entirely different perception of the human body, its threads could be found woven both in 'modern biomedicine practice' as well as the everyday lives of Shanghai locals. Shanghai- a rapidly globalizing and modernizing city, still grounds itself in TCM tenets. Classmates who grew up in a modern, futuristic Shanghai also recognized the importance of drinking warm water and protecting yourself from the wind, whose entrance

into the body can cause serious illness (one Shanghai classmate explained that if a woman's back is exposed to wind while she is breastfeeding, she will have back pain as an older woman). It was fascinating to observe the interplay between Shanghai's dynamic modernization and strong ties to beliefs passed down for thousands of years.

Learning about Traditional Chinese Medicine was only one example of how I was encouraged to challenge my own deeply rooted beliefs and assumptions. When you grow up and live within a culture, it's easy to forget that it is just that, a culture. It may seem that the way we think, feel, and act are the same as everyone else in the world. And when you are introduced to other lenses through which to view the world, they may seem distorted and incorrect ("you think that's why she has back pain?"). It isn't until you are plopped right down in the middle of something that looks entirely different, that your 'normal' is challenged and grows.



Culture shock often gets a bad rap. Unfamiliarity, unavailability, scary transitions. And it can be all those things. If we are happy with our own 'familiar,' it is a natural tendency to want to stay within that bubble. Yet, culture shock is also humbling and empowering. It means growth, and newfound appreciation. It means entertaining the possibility that the way you grew up thinking and moving throughout the world isn't the only way. It was also through delving into culture shock that I found myself befriending street vendors, making mooncakes with locals in the community garden, waking up at 6 am to take a 3-hour Tai Chi class, dancing in the park besides Chinese grandmas and grandpas, and taking a 1-hour train ride to Shanghai's most famous soup dumpling restaurant (where I ate at least 20 dumplings!). All of this to say that my semester in Shanghai is an experience I cherish more and more each day. Its profound influence continuously shapes how I grow as a student and as a person, who lives in an enormous world filled with infinite unknowns to be approached with open curiosity. Feel free to email me at chan.m@wustl.edu with any questions about the program!—*Maya Chan*

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>

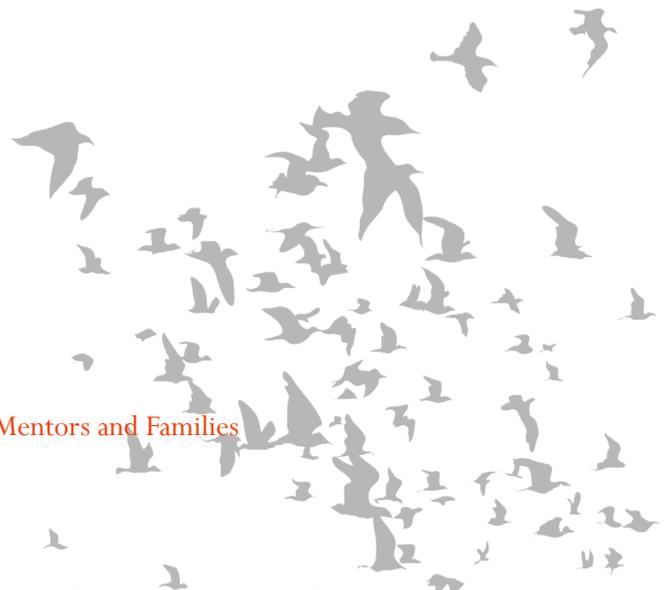
Plant and Microbial Biosciences Lunch: most Wednesdays 12:15-1:00 in Life Sciences 311: <http://wubio.wustl.edu/events/pmb-supergroup-seminar-series>

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>

April 2018

- 13th Undergraduate Research Symposium, 4:00-7:00pm
- 16th Registration begins for fall 2018
- 27th Last Day of Classes
- 30th Spector Prize Seminar and Reception for Students, Mentors and Families



May 2018

- 16th Latin Honors, Research Emphasis in Biology, Stalker Award, Quatrano Prize and Spector Prize Ceremony
- 17th Arts & Sciences Recognition Ceremony
Biology Major Graduates Celebration BBQ

 18th **COMMENCEMENT**