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Faculty Spotlight: Arpita Bose, Assistant Professor of Biology

Arpita Bose grew up in New Delhi, India, where her father was a mathematician and political scientist, applying math to national and global politics. Her parents could see her interest in science at an early age and encouraged her to explore it by exposing her to museums and other educational outlets. She completed her undergraduate degree in microbiology at the University of Delhi, citing her first exposure to microbiology in 9th grade as the catalyst for her educational path to the research she conducts now. She was fascinated by the fact that we are surrounded by a whole world of microbes that we can’t see yet they play important roles in all of our lives. During her graduate work and post-doctoral research, she used genetics, biochemistry and molecular biology to understand microbial metabolism.

Dr. Bose earned her master’s degree at the All India Institute of Medical Sciences in New Delhi, where her research dealt with understanding the physiological response of Mycobacterium tuberculosis to hypoxia. She decided to study abroad to complete her PhD in the lab of William Metcalf at the University of Illinois at Urbana-Champaign. At this point she changed her research focus from immunology & microbial

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Bose cont'd — pathogenesis to microbrial physiology, specifically methanogenesis, performed by the poorly understood archaea. During this period she took, and subsequently taught, the Microbial Diversity Summer course at the Marine Biological Laboratory in Woods Hole, MA that exposed her to a wide range of microbial capabilities. She was particularly fascinated by phototrophic bacteria and decided to pursue research on them in the lab of Dianne Newman at MIT.

Following this research experience she transitioned to Peter Girguis’ lab at Harvard University, where she used a combinatorial approach to study microbial metabolism at the environmental level.

The Bose Lab’s research focuses on understanding various microbial metabolisms and leverages that information to find sustainable solutions to issues such as the energy crisis, climate change and environmental pollution.

In addition to her lab research, Dr. Bose will be teaching Bio 349 for undergrads and developing a future workshop on Geomicrobiology. For more information on Bose Lab’s research and opportunities for undergrads to get involved, visit the website at: https://sites.google.com/site/arpitaboselab/home.

Course Spotlight: Bio 349: Microbiology

This four-credit lecture course focuses on the molecular biology of bacteria, archaea, and viruses. Topics include: the bacterial cell cycle, gene regulation, stress response, cell-cell communication, viral and bacterial pathogenesis, microbial ecology, and metabolic diversity. Friday tutorials stress analysis of the primary literature with an emphasis on current research related to material covered in lecture. Prerequisites: Biology 2960, and 2970, or permission of instructor.
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 2015 or after graduation before the contest ends June 1.

Upcoming Internship and Full-time Job Opportunities

Medical Scribe
St. Anthony’s Medical Center
Apply here – Deadline May 1

Memorial Hospital Scribe
MedAmerica, Inc.
Apply here – Deadline May 1

Computational Chemistry and Biology Opportunities
The D.E. Shaw Group
Apply here – Deadline May 9

Part-time Blood Lab Technician
American Red Cross
Apply here – Deadline May 15

Clinical Information Manager (CIM) / Medical Scribe
Emergency Medical Associates
Apply here – Deadline June 1

For more upcoming opportunities, visit CAREERlink.

Spector Prize Winner: Will Pierson

Pierson worked in the lab of Hani Zaher, PhD, assistant professor of biology. His thesis was titled “Release Factor Methylation: a Mechanism for Kinetic Uniformity in Translation Termination.”

After graduation, Pierson will work in technical services at Epic Systems Inc. in Madison, Wisconsin.

Stalker Award Winner: Adam Schefkind

Adam Schefkind has been selected to receive the 2015 Harrison D. Stalker Award from the Department of Biology in Arts & Sciences at Washington University in St. Louis.

This year, Will Pierson has won the prize.

The Spector Prize, first awarded in 1974, recognizes academic excellence and outstanding undergraduate achievement in research. Students are nominated by their research mentors for outstanding research that has made substantial contributions to a field.

The award is given annually to a graduating biology major whose undergraduate career combines outstanding scientific scholarship with significant contributions in the arts and humanities.

Schefkind, a biology major with minors in public health and in jazz studies, all in Arts & Sciences, also plays the alto saxophone in small jazz ensembles. This year, he became the first student to headline Jazz at Holmes.
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

May 2015

13th  Honors Reception for Students, Mentors and Families

14th  Arts & Sciences Recognition Ceremony
      Biology Major Graduates Celebration

15th  COMMENCEMENT

18th  Summer Session I begins

25th  Memorial Holiday-NO CLASSES