Dr. Joan Strassmann is originally from East Lansing, MI but grew up living all over the world, including Mexico, England and Switzerland. Her interest in science and nature sprouted early in childhood, as she believes it does with most children, whose curiosity leads them to explore and connect with their own natural surroundings. Her interest in biology was reignited by an introductory biology course, where she again discovered how much she enjoys the process of finding clear answers to the way things work. She completed her undergraduate degree at University of Michigan, Ann Arbor and PhD at University of Texas, Austin, both in Zoology.

Strassmann and her husband, Dr. David Queller, Spencer T. Olin Professor of Biology, spent more than three decades at Rice University studying and teaching social evolution before joining the faculty at Wash U this summer. They were attracted to the interdisciplinary approach of Wash U’s biology department and the flexibility of the graduate student program. In addition to the exciting research environment at the university, they were enticed by Missouri’s conservation ethic and excellent park system. Strassmann also happens to have been Wash U Professor Alan Templeton’s first PhD student, so it is an added bonus to be working with him again on a regular basis.

The Strassmann/Queller lab’s focus is social evolution, i.e. the biological basis for concepts such as altruism and cooperation. The lab has used social wasps and now the social amoeba Dictyostelium discoideum as models to explore how traits are selected to facilitate this cooperation. Strassmann and Queller studied social wasps in the tropics, Venezuela and Tuscany over the years and discovered many things but...
Course Spotlight: New Course—Bio 4071: Developmental Biology

This new course will provide an introduction to the molecular and cell biology and biomechanics of animal development. The course is divided into thirds, which cover 1) an introduction to the major cell-cell signaling systems used during development and their study in model organisms, 2) molecular studies of early vertebrate development, and 3) application of the principles of solid mechanics to understanding events in tissue and organ morphogenesis including gastrulation, cardiac looping, and brain folding. Prerequisites include: Principles of Biology II (Bio 2970); Calculus II (Math 132); (Physics 117/197). Offered Spring 2012.

Faculty Spotlight: Joan Strassmann cont’d—about social evolution, but ultimately wanted a microbial system that gets at the gene level of behavior. Social amoebae prey on bacteria. When individuals are starved, they aggregate into a multicellular fruiting body. Eventually, 20% of the body dies so that the fruit can be dispersed. In other words, some individuals voluntarily sacrifice themselves to ensure the future of the organism. Social amoebae serve as better models than wasps because the genes can be manipulated to gather more information. Strassmann and Queller study the synergistic advantages of cooperation and this carries over into their professional collaborations with other scientists who bring different skills and talents to the table.

Joan Strassmann will begin teaching in the biology department next year. Her teaching philosophy, like her mentorship and work ethic, focuses on active learning with hands-on experience in real situations. Student work may end up being published in a scientific paper or public forum such as an online blog. Every student should be prepared to revise his or her work until it meets industry standards and have fun doing it! For example, in a previous project, Strassmann conducted Saturday Science workshops during which undergrads had the opportunity to design and teach science programs to high school children. Her methods are based simply in the ideas that people work best for themselves and biology is wonderful. Guiding students to be effective researchers and writers is a joy that makes her job fun.

Joan Strassmann is also the president of the Animal Behavior Society and keeps three online blogs. Her latest blog, new for Wash U, is called Sociobiology http://sociobiology.wordpress.com/. It’s a place for sharing research processes and results to give people an idea of what’s involved in being a scientist. Her Goodbye —cont’d on page 3
Synapse (formerly CO-SIGN) is our neuroscience student group on campus. The group organizes shadowing opportunities for undergrads with neurosurgeons, neurologists or psychiatrists. It also hosts events including: MD Panel, Grad Students Panel, Researcher Panel, journal clubs, med-school lectures, anatomy lab workshops, brain dissections, and cadaver dissections. Volunteering programs include dancing Tango with Parkinson’s patients and teaching fun, interactive neuroscience-demonstration lessons to elementary schools around St. Louis.

If you want to get involved or have any questions, visit cosign.wustl.edu or email wusynapse@gmail.com!

Faculty Spotlight: Joan Strassmann cont’d—Houston blog http://goodbyehouston.wordpress.com/ is more personal and eclectic, including anything from environmental writing to recipes. Her blog on slow birding http://slowbirding.wordpress.com/ ties field observations with current research on birds, much of which is written by undergrads.

In their free time, Strassmann and Queller enjoy hiking, bird watching, cooking, and spending time with their three grown children. For more information about the Strassmann/Queller lab, visit the lab’s website at: http://strassmannandquellerlab.wordpress.com/.

Student Clubs: Biology Club, IPS & Synapse (previously CO-SIGN)

The Bio Club is an outlet for the WU community to share its interest in biology. Our goal is to expose members to academic and career opportunities in Biology through fun and relaxing club events. For event alerts, simply send your name and email to wubioclub@gmail. Our next event: Cold Springs Harbor presentation about summer internships and graduate school to members (and non-members) of the Bio Club on Tuesday, November 8th at 5pm, Rebstock 322.

International Pre-Health Society (IPS) is a new student group that promotes opportunities relevant to pre-health students, including info sessions, fundraising and service with a global perspective. Our group welcomes ALL Wash U undergrads, with some events tailored for international students (i.e. non-U.S. citizens and non Green Card holders).

Looking for a mentor for advice about getting into medical school? Want to discuss undergrad experiences with medical students? Need help with MCAT or interviews? Or are you unsure of pursuing medicine in general? If so, apply to become a part of the Pre-med Peer Mentoring Program (PPMP), hosted by the International Pre-health Society (IPS), as a mentee paired up with a WUSM medical student mentor! Key highlights include two free catered dinners in the fall and spring. If you are interested, please apply at http://ips.wustl.edu/ under the link PPMP. Application deadline is Friday, September 30th.

Synapse (formerly CO-SIGN) is our neuroscience student group on campus. The group organizes shadowing opportunities for undergrads with neurosurgeons, neurologists or psychiatrists. It also hosts events including: MD Panel, Grad Students Panel, Researcher Panel, journal clubs, med-school lectures, anatomy lab workshops, brain dissections, and cadaver dissections. Volunteering programs include dancing Tango with Parkinson’s patients and teaching fun, interactive neuroscience-demonstration lessons to elementary schools around St. Louis.

If you want to get involved or have any questions, visit cosign.wustl.edu or email wusynapse@gmail.com!
Biology Department Calendar

Links to General Calendars and Regular Events:

Washington University Record Calendar: http://record.wustl.edu/calendar

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/dbbs/website.nsf/SDN

October 2011

14th  Fall Break, Friday, October 14th—NO CLASSES

21st  Parent and Family Weekend, Friday, October 21st-23rd

22nd  Summer Undergraduate Research Fellows (SURF) will present the results of their summer research from 12:00–4:00 pm in Olin Library

31st  Advising Period Begins, October 31st—November 11th

November 2011

8th  Cold Springs Harbor Presentation, 5:00pm, Rebstock 322

15th  Spring 2012 Online Registration Begins—Undergraduates 90+ Units

16th  Spring 2012 Online Registration—Undergraduates 57+ Units

17th  Spring 2012 Online Registration—Undergraduates 24+ Units

18th  Spring 2012 Online Registration—Undergraduates <24 Units

23rd  Thanksgiving Break, Wednesday, November 23rd-27th—NO CLASSES