School of





The 2011-2012 school year has been a busy one for the Georgia Tech School of Biology, and it is my pleasure to share some of our activities with you. Some are focused on research like the Biology Graduate Student symposium and Festival of Research in cancer biology, whereas others are focused on education like the teaching awards won by our faculty. The story on the prehealth majors conference (AMSA) describes what we are doing for the career development of our pre-professional students and the story on the Biology alumni lab open house describes how we are engaging our alums. The article on the 2011 BioBash describes our celebration of homecoming and the tailgating piece features the School of Biology's recurring contribution to home game festivities. We hope that you enjoy these snapshots of life in the School and our efforts to educate the next generation of scientists and healthcare professionals. Please visit our website (www.biology.gatech.edu) for more information about research and activities in Biology. I would be happy to hear your comments and suggestions if you are inclined to drop me an email (terry.snell@biology.gatech.edu).

Best wishes,

Terry W. Snell

Professor and Chair School of Biology





School of Biology Graduate Student Symposium

Graduate students in the School of Biology organized a day-long symposium of oral poster presentations of research. Presentations ranged from molecular biology and genetics to ecology and evolutionary biology. Faculty and students spent the







day discussing research results and brain-storming about solving problems, culminating with a reception and prizes for best paper and poster. Participation in activities like these are critical to the development of professional scientists.







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BioBash 2011, the School of Biology homecoming celebration, was a held on October 28. The theme was "Amazonia", and the evening started with a scientific lecture on nutrient flow in the Amazon plume by Professor Joseph Montoya. The Brazilian theme continued with a Capoeira demonstration and Samba class by Capoeira Maculele Decatur and a performance by the Brazilian jazz band, Os Ossos. Attendees also enjoyed visiting with a Boa constrictor from Zoo Atlanta and watching footage of piranha feeding at the Georgia Aquarium projected on the large wall in the Marcus Nanotechnology building.

Thank you to all of our alumni hosts, sponsors, and participants who helped make BioBash 2011 a night to remember!





Pre-Health Conference

This year's 6th annual Georgia Tech American Medical Student Association's Pre-Health Conference was held on February 18, 2012 at the Global Learning Center. About 250 undergraduate and graduate students and alumni attended, comprised of approximately 28 percent Biomedical Engineering, 26 percent Biology and 13 percent Biochemistry majors. Several Tech alumni who are now medical students at Emory and Medical College of Georgia participated in workshop sessions. In addition, there were more than 80 representatives from 70 different professional health and graduate schools, programs and companies. The featured Keynote Speaker was Dr. James Curran, M.D., M.P.H. who is chair of the board on Health Promotion and Disease Prevention of the Institute of Medicine and serves on the Executive Committee of the Association of Schools of Public Health. The conference workshops included a

variety of informative topics ranging from "Different Professions in Healthcare" to "Taking a Gap Year" and mock interviews were held for students currently applying to medical school. Also, new this year were hands on suturing and blood pressure workshops hosted by Tech physicians from Stamps Health Services. Upon conclusion of the workshops, the prehealth school fair, open to the entire university, gave students a chance to explore health programs from around the country. The conference was the perfect opportunity to network with students and health professionals alike, and to gain a panoramic view into the life of a health professional.

Contributors: Amisha Kadiwar (AMSA board member and Biology major student) and Dr. Mirjana Brockett (AMSA Faculty advisor)



Δlumni Mentor Students through "Coreer Conversations "Series

This spring, several School of Biology alumni shared the stories of their careers with our current students during conversations over dinner. Students learned about careers in physical therapy and the biotechnology industry from Curt Bazemore and Larry Lawrence and about medicine and forensics from Tim Helton and Brooke Oliver. These seminars were a great

opportunity for students to hear about the diversity of career paths our graduates take and imagine what life is like after graduating from Georgia Tech. If you are interested in sharing your story with current Biology majors, please contact Dr. Jennifer Leavey (jennifer.leavey@biology.gatech.edu).



Sharing Ideas on Molecular Signatures and Biomarkers

Over two hundred students and cancer researchers from Georgia Tech, Clark Atlanta University and Emory exchanged ideas about cancer biology, early cancer detection and novel methods for treatment at the third Festival of Research Ideas in Cancer Biology and Technology, which was held on November 17 in the atrium of the Petit Institute for Bioengineering and Bioscience at Georgia Tech.

The Festival was hosted by the graduate students and undergraduate seniors taking Cancer Biology and Technology (BIOL 4015 & 8802 and ISyE 8813A),





who presented posters on their ideas for research on biomarkers and molecular signatures for breast, lung, ovarian, pancreatic and prostate cancer.

They were joined by researchers at Georgia Tech and other local institutions who displayed findings from their ongoing studies. The Festival was a great opportunity for students to share their ideas with established scientists, and stimulate new directions for future research.

Photos: Andrew Huang





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Tailgating with the School of Biology

The School of Biology hosts tailgate parties for Biology alums and their guests at Tech home football games. We usually start about two hours before kickoff, weather permitting. Look for a Tech tent with a Biology banner under the big oak tree on the west side of the baseball field. Biology professor Dr. Tom

DiChristina hosts students, faculty and alums on the grounds of the Environmental Science and Technology building, with easy access to bathrooms in the building. We supply some finger foods, but bring your own drinks. Please stop by and say hello.











School of Biology L∆Bs 2pen House for ∆lumni

Biology alumni and their families were invited to a lab open house on February 2nd. We wanted to provide Biology alumni and families a close up look at Georgia Tech research labs and perhaps motivate young people to consider a career in science. The open labs featured two of our most exciting research groups: Professor Meghan Duffy, disease ecologist and freshwater biologist; and of Professor Brian Hammer, molecular microbiologist and cholera expert. Drs. Duffy and Hammer and their graduate and undergraduate researchers gave tours of their labs and explained their research. They described the rationale for the kind of discoveries that they expected to make and demonstrated how they made their observations. They provided hands-on demonstrations of bacterial communication, basis of pathogenicity, and host-parasite interactions, and other attention grabbing processes. Several alums brought their children and we took advantage of their visit to recruit them as future Yellow Jackets. Everyone commented that they enjoyed seeing active biology research and learning about what biologists do at Georgia Tech. We plan to make this type of event a regular occurrence in the School so please look for future announcements by e-mail and on our facebook page.









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School of Biology Awards

The School of Biology is pleased to recognize three of our faculty who won campus-wide teaching awards this year.

Dr. Jennifer Leavey (right) is the recipient of the 2012 Class of 1940 W. Roane Beard Outstanding Teacher award. This award recognizes extraordinary efforts in teaching, inspiration transmitted to students, direct impact and involvement with students, intellectual integrity and scholarship, and impact on post-graduate success of students.

Dr. Linda Green (left) is the recipient of the CETL Undergraduate Educator Award. This award recognizes teaching excellence in large classes, impact on multiple diverse student populations, educational innovations, educational outreach beyond the classroom and a passion for teaching and learning.

Dr. Cara Gormally (middle) received the 2012 Innovation in Co-Curricular Education Award. This award is given to faculty who increase student learning outside the traditional curriculum and help Georgia Tech achieve its strategic goal of graduating global citizens who can contribute to all sectors of society. Dr. Cara Gormally was nominated in particular to recognize her collaborations with the Atlanta Botanical Gardens and the Piedmont Park Conservancy in her Honors Biological Principles and Honors Organismal Biology laboratory courses.

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