



Letter from the Chair

Corinne A. Michels, PhD

“ Much to our dismay, many more of you contributed to the College but did not choose to direct your donations to the Biology Department. ”

I am sure all of you have noticed the lengthy hiatus between this issue of *Biology Currents* and the last one. For this, we apologize. The past two years have been very challenging for all of us in the Biology Department. The demands of providing a top-rate life sciences education in the midst of budget constraints, administrative reorganizations, and increased non-instructional responsibilities unfortunately had taken a toll on many activities. Please be assured that we value our alumni greatly and realize that *Biology Currents* is your window into the activities of the Biology Department. Over the next several months, we plan to publish the 2010 and 2011 issues of *Biology Currents* as well to bring us up to date.

This forum is an opportunity for the chair of the Department to review the events of the year. Over the past year, many of the activities at CUNY and Queens College were dictated by the fiscal circumstances of New York State and City. These institutions provide the financial support for the academic mission of the Department. Regrettably, there is a dearth of funds for extracurricular activities such as research and other scholarly pursuits, or for enriching the educational experience of our students beyond the classroom. For these, we rely on extramural grants and on gifts and other contributions. The Biology faculty has been active in applying for grants to support research and student activities, and has been moderately successful in obtaining them. State funds and extramural grants can only be used for the purposes for which they are designated.

Non-restricted individual and corporate contributions are particularly important

to the function of the Department. They provide the much-needed discretionary resources to support many activities, some of which are described below. The Alumni Fund is the most important of such resources for the Department. As an alumnus, I feel that you would be more inclined to support our efforts if you were more aware of how the Department makes use of your donations, and perhaps have some input on how these funds were to be used. In calendar year 2008, 76 Biology alumni, including myself, contributed to the Biology Department Fund. Let me thank all of you who contributed so generously to the Biology Department in 2008. We are aware that the economy began to falter in 2008 and we appreciate your support. Much to our dismay, many more of you contributed to the College but did not choose to direct your donations to the Biology Department. I hope that this letter encourages you to think of us next time. We are doing our best to utilize your donations wisely and productively. I hope you agree.

Use of the Alumni Funds is overseen by a committee which includes three alumni of the Department – Dr. Esther Muehlbauer, Dr. Jon Sperling, and me. This committee develops guidelines, reviews funding applications, and monitors expenditures. A list of approved alumni fund expenditures was first compiled over two decades ago and has since undergone several reviews and major revisions. The current version, detailed here, has our faculty's unanimous approval. Please tell us what you think.

■ In 1999, the Biology Department faculty voted to create the Alumni Endowment Fund using a portion of the funds donated by alumni in previous years. Each

calendar year, 50% of your contributions are transferred to the Biology Alumni Endowment Fund to become part of the principal of a permanent, interest-bearing endowment, which is managed by the Queens College Foundation. The Endowment Fund principal cannot be spent, but the interest earned is available for our use. At the end of 2010, the principal had grown to about \$60,000 and now provides us with a significant source of income that supplements the annual alumni donations.

The interest from the Alumni Endowment Fund, together with your annual alumni donations, supports the student and educational programs listed below.

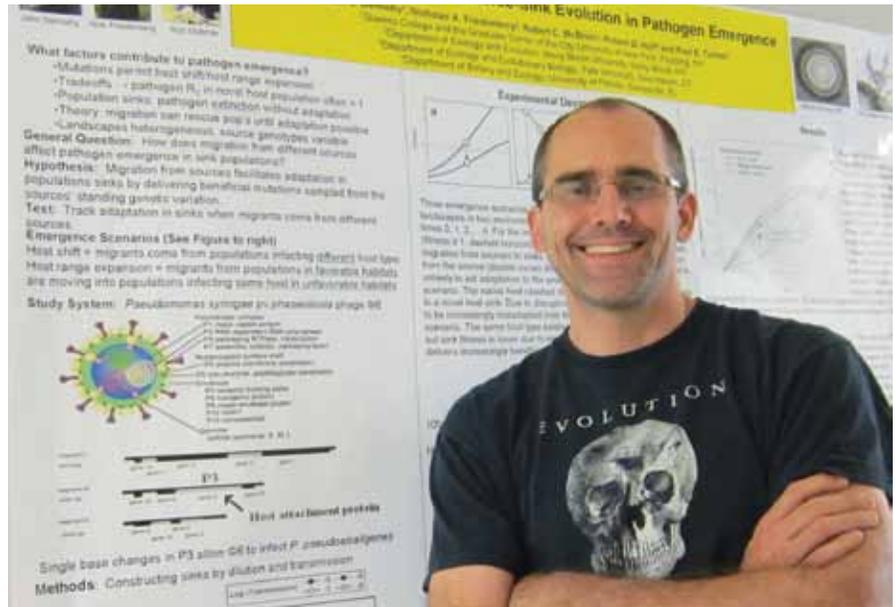
- ▶ Supplementary funds for the annual graduation awards (Lancefield Award, Darwin Prize, Colwin Award, Fiegelson Award) – These awards are funded by endowments established as far back as 1962. The monetary value for most of these endowments is small by today's standards and the annual interest is not adequate. Supplementation, therefore, is appropriate.
- ▶ Engraving of the name plates for graduation award winners – These award plaques can be seen displayed outside the Department office (SB D346).
- ▶ Post-Commencement Reception – For more than 10 years now, the Department has hosted an awards ceremony for its graduating seniors and master's students and their friends and family. The Post-Commencement Reception that follows gives the faculty and families a chance to meet.



Dr. Dennehy at work in his research lab

John J. Dennehy joined the faculty of the Biology Department in September 2007 as an Assistant Professor. His research is in the field of microbial ecology and evolution and his undergraduate teaching responsibility focuses on our majors-level course in microbiology. But Dr. Dennehy has contributed to all aspects of the education and research activities of the Department. Most especially, he spearheaded the development of a new series of courses designed to introduce freshmen to the excitement of scientific research. The courses, entitled Genomics Research Experience I and II (Biology 034/035), were first offered in the 2009/2010 academic year with much success, based on student response and the evaluation by the Howard Hughes Medical Institute, which provided curricular and financial support for the program via their Science Education Alliance grant. We will be describing these courses in greater detail in the 2010 issue of *Biology Currents*. In addition, Dr. Dennehy organized the Day for Darwin in celebration of the 200th birthday of Charles Darwin (reported on in this issue). Dr. Dennehy quickly established an exciting research program that has attracted several undergraduate, masters, and doctoral students, as well as funding from the NSF. As you can see, we have many reasons to be pleased to welcome Dr. Dennehy to Queens College.

Dr. Dennehy reports that, according to his



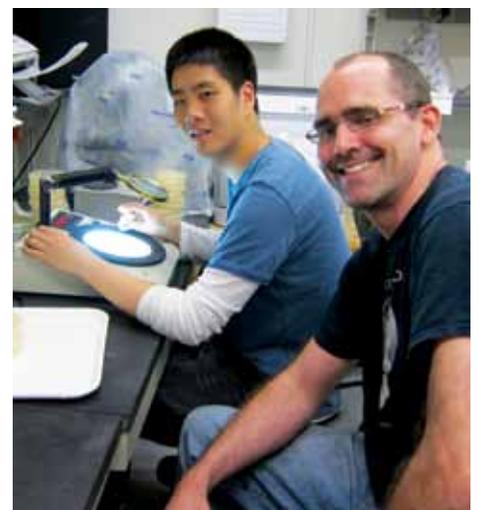
Dr. Dennehy photographed with a recent conference poster

mother, he first showed signs of an interest in natural sciences as a young child. He often went on field trips in the local woods in the small town where he grew up, North Reading, Massachusetts near Boston, and considered himself “a junior naturalist” with collections of all types—shells, fossils, rocks, and more. But it was in 9th grade that he “fell in love with biology.” He was the top student in the introductory biology course at St. John’s Preparatory High School, getting perfect scores on all his exams plus added credit for the extra credit questions. In the end, his grades had to be excluded when constructing “the curve” for the rest of the class. Dr. Dennehy was encouraged by his biology teacher, Mr. Sutcliffe, to consider a career in medicine. He enrolled in every available biology course but none on the subject that was to become his career choice—evolution—as that was not offered at the school.

In 1989, Dr. Dennehy entered College of the Holy Cross as a pre-med student, but family financial difficulties caused him to transfer to a local commuter school, Merrimack College in North Andover, MA. This turned out to be a defining moment in Dr. Dennehy’s life. The pre-med advisor taught a workshop on phlebotomy that Dr. Dennehy took and parlayed into a full-time summer job at nearby Lawrence General Hospital. He disliked the job and the hospital environment. Shifting his focus from

primarily pre-med-oriented courses like immunology and biochemistry, Dr. Dennehy enrolled in ecology and a seminar in evolution. “Suddenly,” says Dr. Dennehy, “it all made sense.” His senior honors thesis topic was “Evaluation of Methods of Estimating Population Size” while working with a population of *Tamias striatus*, the eastern chipmunk. Through this experience, Dr. Dennehy became skilled in proper field studies practices and statistical analysis, knowledge that has served him well to this day.

During his senior year and immediately following graduation, Dr. Dennehy worked in industrial and pharmaceutical settings. At Morton International, he was employed to evaluate the ability of plastics containing



Dr. Dennehy with Honors in Math & Natural Sciences research student Kevin Mu

an antimicrobial compound, Vinyzene, to resist microbial growth under simulated environmental exposure. Then, at Behring Diagnostics, he worked in quality control, testing modules for monitoring the levels of the therapeutic drug theophylline in the blood. At this point, he realized that he enjoyed working in the outdoors far better than in the laboratory and decided to make a career shift. In the winter following graduation, he became an instructor at a center in Minnesota offering the curriculum in environmental education required for high school graduation in this state.

Dr. Dennehy found teaching very rewarding, but soon realized that he needed an advanced degree if he ever were to head his own research team at an academic institution. He enrolled in the master's program in the Zoology Department of the University of Idaho in Moscow, ID, where he did thesis research with Dr. John Byers

on the relationship between diet quality and dominance status among female pronghorn antelope. Master's degree in hand, Dr. Dennehy joined Dr. Todd Livdahl's laboratory at Clark University, Worcester, MA as a research associate doing studies on mosquito egg hatch delay across clines of precipitation and temperature on the eastern United States. He soon entered the doctoral program with Dr. Livdahl as his mentor with a thesis project where he used experimental evolution of a free-living nematode, *Caenorhabditis elegans*, to test hypotheses regarding the evolution of sexual reproduction.

Dr. Dennehy received his PhD in 2003. Wanting to continue experimental evolution studies, he was awarded an NSF Postdoctoral Fellowship to work with Dr. Paul Turner at Yale University. It was there that Dr. Dennehy began his current research program, which uses bacterial viruses as model systems to

test evolutionary and ecological theory. Following a brief second postdoctoral position with Dr. Ing-Nang Wang of SUNY Albany, Dr. Dennehy came to Queens College.

Those of you who have never met John Dennehy would never suspect from this dynamic life story that Dr. Dennehy was born profoundly deaf. His parents chose to mainstream him from the time he entered grade school. He learned to lip-read and now hears with the help of a hearing aid. Dr. Dennehy lectures to classes of 80+ students without problem. He attends conferences and gives oral presentations and invited seminars regularly. It should be clear that his disability has never interfered with achieving his career goals. Dr. Dennehy is a central player in the academic life of the Department and an excellent role model for all our students.

DARWIN DAY



Participants (left to right): Jeffrey Schwartz, Patricia Wittkopp, John Dennehy (meeting organizer), Susan Foster, Peter Chabora (opening remarks), and Paul Turner

February 12, 2009 marked the 200th anniversary of the birth of Charles R. Darwin, the English naturalist who articulated the theory of evolution via natural selection. Darwin published *On the Origin of Species* on November 24, 1859, arguably the most significant book of biological science. This landmark work is only one of the extraordinary publications from this prolific scientist and author (list available at <http://darwin-online.org.uk/>). Darwin devoted his life to accumulating evidence in support of his ideas and, a century and a half later, his homage to evolution still resonates. "There is grandeur in this view of life," he wrote, that "from

so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved."

The Biology Department honored Charles Darwin's transformational contribution to biology by celebrating "A Day for Darwin." The event, organized by Assistant Professor John Dennehy, was held on Friday, February 13, 2009 in LeFrak Concert Hall on the Queens College campus. It was broadly advertised and students, faculty, alums, and friends from throughout the college and New York City were invited. The Day for Darwin was truly a fitting tribute to one of the great men of science.



Melissa League reading her essay on evolution and natural selection

President James Muyskens introduced the Day for Darwin program. Prof. Peter Chabora of the Queens College Biology Department gave the opening

remarks, reviewing Darwin's mark on the field of the life sciences. He was followed by seminars given by four internationally renowned biologists chosen to highlight distinct aspects of current evolutionary thought.

■ Susan Foster spoke first on "Adaptive Radiation: From Darwin's Finches to Tinbergen's Stickleback." Dr. Foster is a professor of biology and holds the Warren Litsky Endowed Chair in Biology at Clark University, the President-Elect of the Animal Behavior Society, and editor of the books *The Evolutionary Biology of the*

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Three-spine Stickleback (with Michael Bell) and *Geographic Variation in Behavior: Perspectives on Evolutionary Mechanisms* (with John Endler). Dr. Foster's research focuses on the evolution of reproductive and antipredator behavior, color, morphology, and life history of the three-spine stickleback fish.

■ Jeffrey Schwartz spoke on "150 Years of Evo-Devo," the interplay of evolution and development. Dr. Schwartz is a professor of biological anthropology at the University of Pittsburgh and president of the World Academy of Art and Science. Dr. Schwartz's books include *The Red Ape: Orangutans and Human Origins*, *What the Bones Tell Us*, and *Sudden Origins: Fossils, Genes, and the Emergence of Species*. As a systematist working with skeletal biology and dentition, Dr. Schwartz is interested in the research and theory underpinning our understanding of the origin and significance of morphological novelty.

■ Paul Turner presented studies on "Darwin and Disease." Dr. Turner is an associate professor of ecology and

evolutionary biology at Yale University and chair of the American Society for Microbiology's Division R. Dr. Turner is the recipient of the Top Ten Emerging Scholars Award from Diverse Issues in Higher Education and a Career Enhancement Fellowship for Junior Faculty from the Woodrow Wilson National Fellowship Foundation. He is interested in the ecology and evolution of infectious diseases and the use of laboratory populations of microbes as models to address these topics.

■ Patricia Wittkopp discussed "Evolution in Color: Using Pigmentation to Discover Evolutionary Mechanisms." Dr. Wittkopp is an assistant professor of ecology and evolutionary biology at the University of Michigan and a recipient of an Alfred P. Sloan Research Fellowship, a March of Dimes Basil O'Connor Starter Scholar Research Award, and a Damon Runyon Cancer Research Foundation Postdoctoral Fellowship. She is interested in understanding the genetic basis of development, evolution, and disease, with an emphasis on the molecular mechanisms controlling gene expression.

A lively panel discussion followed, moderated by Prof. Chabora. Questions and comments were invited from the audience, to which the four speakers responded. A final highlight of the day was an essay reading by Melissa League, an English major and former student in Dr. Muehlbauer's Biological Evolution course for non-science majors (Biology 025). Ms. League's central theme is that Darwin's thesis "leads to an inevitable conclusion: that human beings are subject to the same laws that govern all organic life, namely that of evolution and natural selection.... Darwin's findings remind us subtly of one simple fact: that the human race is part of nature, not elevated above it."

A Day for Darwin was made possible by financial support from the Biology Department's Alumni Endowment Fund, the Division of Mathematics and Natural Sciences, the Division of Student Affairs, the MARC U-Star NIH Award, the NSF Undergraduate Research Mentoring in Ecology, Evolution and Behavior Award program, and Oxford University Press.

SYMPOSIUM 2009

On January 23, 2009, a new Biology Department tradition was established: a department research retreat day that we are calling the Annual Biology Department Symposium. The retreat was conceived and organized by Prof. Cathy Savage-Dunn as a way for all the members of the department, faculty and students alike, to find out more about each other's science—more than can be communicated by brief meetings in the hallway or mailroom. One representative from each laboratory group was invited to speak at the all-day gathering. More than 60 people participated, including many undergraduate research students. It was a very full day with 15 presentations and lunch and coffee breaks, supported by the Alumni Endowment Fund. To encourage participation from students and faculty alike, the retreat was held on campus in the Rosenthal Library amphitheater.

Six faculty members made presentations: Mitchell Baker (The behavioral ecology

of resistance to insecticides); Karl Fath (Characterization of nonmuscle myosin II at the Golgi complex); Nathalia Holtzman (And the beat goes on: role of cardiac contractions in making the heart); Corinne Michels (The role of Aha 1 cochaperone in the regulation of *Saccharomyces MAL*-activator); Paul Munding (Behavioral neurogenetics of canary song); and John Waldman (A (mostly) underwater tour with Waldman et al.). Tomo Haremakei, a postdoctoral fellow from Daniel Weinstein's lab, spoke on the role of eIF4A3 in *Xenopus* early development. Several doctoral students presented updates on their thesis research: James Carpino, from John Dennehy's lab (Bacteriophage evolution); Terry Demos from the Hickerson lab (Mammals on mountaintops: Comparative phylogeography and species distribution modeling of African small mammals); Thilini Fernando from the Savage-Dunn lab (ADAMTS

ADT-2 regulates body size in the nematode *C. elegans*); Jeff McLean from the Zakeri lab (To die? How to die? A cellular dilemma); Peter Novick from the Boissinot lab (The causes and consequences for the diversity and evolution of transposable elements in the genome of the lizard *Anolis carolinensis*); and Alex Ruck from the Meléndez lab (Autophagy in *C. elegans*). Two master's students also presented their research: Margaret Corley from the Fjerdingstad lab (Evolution of queen mating strategies in the ant *Lasius niger*—genetic studies on populations from Ireland and Southern France), and Diana Ramroop from the Ma lab (Vertebral abnormalities in the silverside (*Menidia beryllina*) in Flushing Meadow Lake).

The Symposium was a resounding success. Next year's will again be organized by Dr. Savage-Dunn with Dr. Hickerson as co-organizer, who will take over in 2011 with another co-organizer.

Two Adjuncts Receive President's Award for Excellence



DR. ARETI TSIOLA
2008 Teaching Award

Queens College President James Muyskens presents awards to the college's most talented teachers. The Biology Department's almost unbroken record of awardees continues in years 2008 and 2009. Dr. Areti Tsiola, director of the Biology Department's Core Facilities for Imaging, Cell, and Molecular Biology, began teaching at Queens College in 2003 soon after receiving her PhD in neurobiology from Columbia University. She soon became a pillar of the department's adjunct faculty, and is highly regarded for her majors-level course in Neurobiology and her Human Physiology course for non-science majors. In December 2008 Dr. Tsiola was invited to be a member of a QC Center for Teaching and Learning panel to discuss teaching methodologies. The event was organized by, and mainly aimed at, junior faculty members.

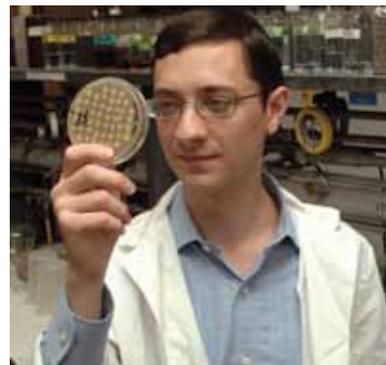


DR. PETER NOVICK
2009 Teaching Award

Dr. Peter Novick came to Queens College in fall 2000 as a doctoral student in Dr. Stephane Boissinot's laboratory and began teaching the next semester. He did research on the molecular evolution of transposable elements while honing his teaching skills in a variety of courses. Despite international recognition and praise for his research, it soon became clear to Dr. Novick that he wanted a career in college-level teaching. After obtaining his PhD in 2010, Dr. Novick lectured in Queens College Biology courses on Evolution, Bioinformatics, and Genome Research II, our exciting new freshman-level course that introduces students to original research.

Both Drs. Novick and Tsiola recently joined the faculty of the Queensborough Community College of CUNY in the Biology & Geology Department as Assistant Professors. We look forward to continuing close ties with these talented teachers by fostering joint QC-QCC student research programs.

Yehoshua Laker Wins The Goldwater Scholarship



YEHOSHUA
at work in the laboratory

For the second time in three years, a Biology major was awarded the prestigious Goldwater Scholarship. Yehoshua Laker is a Biology and English double major. He conducts research in yeast genetics under the supervision of Department of Chemistry & Biochemistry professor Wilma Saffran.

In addition to his academic pursuits and research, Yehoshua writes a technical column for and is a copy editor of the *Knight News*, the Queens College student newspaper. And if these are not enough, Yehoshua is also a runner on the Queens College track team.

Yehoshua's longer-term goal is to attend medical school and pursue a career in biomedical research, particularly in the areas of biochemistry and cell biology. He is currently a student at the School of Medicine of Pennsylvania State University.

The Goldwater Scholarship was created by the U.S. Congress in 1986 in honor of the late Arizona senator and one-time U.S. presidential candidate Barry Goldwater. The scholarship recognizes distinguished undergraduate students who intend to pursue a career in science, mathematics, or engineering. The scholarship program and its funds are managed by the Goldwater Foundation, which solicits and reviews nominations from institutions across the country. Each institution may advance only two nominees of sophomore or junior standing.

FACULTY NOTES 2009

Biology Department faculty members actively participate in the scientific community. They attend conferences, serve as conference and workshop organizers, are invited to speak at various venues, and serve on grant review panels. As a sign of the quality of the research programs, many of the faculty are supported by grants from federal agencies and private foundations. Their students at all levels are integrated into these research activities, which elevate their educational experience and contribute to their development of critical thinking skills.

Mitchell Baker gave two research talks at the Meeting of the Entomological Society of America Symposium on his work on the Colorado potato beetle, insecticide resistance, and migration patterns as these relate to agricultural management. His doctoral students Karyn Collie and Kathleen Schnaars-Uvino presented posters describing progress in their thesis research.

Dr. Baker received a grant from the U.S. Department of Agriculture to study dispersal and insecticide resistance in the Colorado potato beetle.

Stephane Boissinot and his doctoral students Peter Novick and Mark Tollis attended the Annual Meeting of the Society for the Study of Evolution in Moscow, ID; the Society for Molecular Biology and Evolution annual meeting in Iowa City, IA; and the *Anolis* Symposium held at Harvard University. They presented talks and posters on their research on the population genetics and evolutionary dynamics of transposable elements in natural populations of the North American green anole, *Anolis carolinensis*.

Dr. Boissinot renewed for another two and one-half years the NSF URM grant entitled “Mentoring Urban Undergraduate Students in an Integrated Ecological Research Experience,” for which he is the principal investigator and program director.

John Dennehy gave talks entitled “A bacteriophage model for research on emerging infectious diseases” at the Biology Department of Fordham University, NY; the Department of Ecology and Evolutionary Biology, Stony Brook University, Stony Brook, NY; and the Department of Biology, Clark University, Worcester, MA. He also participated in the Darwin Day Celebration at Revolution Books, NY, discussing “Why evolution matters: a microbiologist’s perspective.” He spoke on his research at the Annual Meeting of the Society for the Study of Evolution, Moscow, ID, and presented posters at the Gordon Research Conference: Microbial Population Biology, Andover, NH and at the Center for

Biodiversity and Conservation Milstein Science Symposium on Exploring the Dynamic Relationship between Health and the Environment at the American Museum of Natural History, NY.

Dr. Dennehy received a Research Initiation Grant from the NSF for his studies of the “Genetic and Molecular Basis of Bacteriophage Life History.”

Michael Hickerson was invited to organize a Workshop on Statistical Phylogeography at Brigham Young University, UT and also spoke at the Department of Biology, Brigham Young University, on “LGM climate change impacts.”

Nathalia Holtzman was awarded a research grant from the NIH entitled “Origins and Patterning of the Epithelium.”

David Lahti chaired the National Evolutionary Synthesis Center Working Group on Relaxed Selection and Trait Loss in Evolution. He was invited to speak at the Asa Gray Biological Society and Department of Biology, Utica College, Utica, NY on “The evolution of bird eggs and songs,” and spoke on “Why humans discover” at Discovery as an Event—An International Symposium organized in connection with the Meeting for Friendship among Peoples, San Marino.

Cathy Savage-Dunn was invited to speak at the FASEB Conference on The TGF- β Superfamily: Signaling in Development and Disease in Carefree, AZ. Doctoral student Sheng Xiong presented a poster on her work with Dr. Savage-Dunn on phosphatases that regulate TGF- β signaling in *C. elegans*. Dr. Savage-Dunn and her students attended the Northeast Regional Meeting of the Society of Developmental Biology, Woods Hole, MA where Dr. Savage-Dunn spoke on the regulation of body size in *C. elegans* and her doctoral student Thilini Fernando presented as a poster on *C. elegans* cuticle development and body-size regulation. Dr.

Savage-Dunn also spoke at the Biology Department of Brooklyn College, CUNY on her research on the signaling pathways controlling growth and differentiation in *C. elegans*.

Dr. Savage-Dunn was awarded a grant from the NIH to continue her research on “Body Size Control and TGF- β Signaling in *C. elegans*.”

John Waldman spoke on his fish conservation research at the World Bank Workshop on Caspian Sea Sturgeon Conservation, Trabzon, Turkey and at the North American Benthological Society meeting. Dr. Waldman gave a lecture onboard the sloop *Clearwater* for Journalists and Scientists on the Hudson: A Day on the River in Troy, NY, and participated in a panel discussion on “The Hudson Since Henry—A Natural and Unnatural History” at the World Science Festival of the New York Historical Society. Dr. Waldman spoke on “Global Weirding” at the Yale Environment 360 conference and about his book *Heartbeats in the Muck* at the meeting of Friends of Glen Cove Library. Dr. Waldman’s doctoral student Colin Grubel won the best student poster award at the annual meeting of the New York Marine Sciences Consortium and doctoral student Tiffany Medley presented a poster on her studies on the Hudson River wild oyster population at the Baykeeper Oyster Restoration Conference in New York.

Dr. Waldman wrote two book reviews for the *Quarterly Review of Biology* on books describing fishery ecosystems and the development, management, and evaluation of fisheries programs. Along with other researchers, he submitted a final report to the National Park Service on “Assessment of natural resources and watershed conditions for Fire Island National Seashore.”

Dr. Waldman received an award from the Hudson River Foundation to carry out a “Genetic Mixed-Stock Analysis of Coastal American Shad Fisheries.” In

FACULTY NOTES 2009

addition, his joint research program on “Geochemical Markers in Otoliths to Aid in Stock Identification and Conservation” was supported by a subcontract from his collaborators at SUNY Syracuse.

Daniel Weinstein spoke to the Laboratory of Cell and Developmental Signaling of the National Cancer Institute in Bethesda, MD on his work on the role of Ctr1 in early embryonic development.

Dr. Weinstein received renewed support from the NIH for his research on “Signaling Mechanisms Coordinating Cell Fate Determination and Morphogenesis.”

Zahra Zakeri was co-organizer of the Second International Symposium of Molecular Technology on Biotechnology and Progress on Basic and Clinical Aspects held in Tehran, Iran and, with others, wrote a meeting report that appeared in *Gastroenterology and Hepatology from Bed to Bench*. Dr. Zakeri also was co-organizer of the 9th International Cell Death Society Symposium on Cell Death in Infectious Diseases and Cancer held in Johannesburg,

South Africa. At this meeting, she gave two oral presentations entitled “To Die, Not to Die, How to Die: A Viral Dilemma” and “Cell death and differentiation.” She also presented several posters with doctoral students Jeffrey McLean, Demetrius Mattasov, and Anna Wudzinska; master’s students Fiorella Tapia-Ortiz and Alireza Shirazian; and undergraduate students from the MARC U-Star Program Emmanuel Datan and Guy Surpris on their research on cell death and autophagy in the response to cell stresses such as influenza A infection.

Dr. Zakeri was invited to chair the 17th ECDO Euroconference on Apoptosis entitled “Destruction, Degradation and Death” at the Institut Pasteur, Paris. She also was invited to speak on her research on cell death and differential responses to cellular stresses such as viral infection in the following venues: Peach State Conference, Atlanta, GA; the Annual Biomedical Research Conference for Minority Students (ABRCMS) in Phoenix, AZ; Catholic University of Leuven, Leuven, Belgium; the Department of Biological Sciences, St. John’s University, NY; and other seminars

in Stockholm, Sweden, Sassari, Italy, and Bodrum-Mugla, Turkey.

Dr. Zakeri successfully renewed for 5 years (2009 - 2014) the NIH Minority Access to Careers in Research - Undergraduate Student Training in Academic Research (MARC - USTAR) award for which she is the principal investigator and program director.

The following faculty members of the Biology Department received 2009–2010 PSC–CUNY intramural grants:

Stephane Boissinot
John Dennehy
Karl Fath
Else Fjerdingsstad
Michael Hickerson
Nathalia Holtzman
Pokay Ma
Corinne Michels
Paul Munding
Cathy Savage-Dunn
Joni Seeling
Timothy Short
John Waldman
Zahra Zakeri

ALUMNI FUND DONORS 2008

In calendar year 2008, 79 of our alumni generously donated \$12,162.50, including contributions from three corporations with matching funds policies (Pfizer Inc., Abbott Laboratories Fund, GlaxoSmithKline). While this does not meet the record amount of donations received in 2007, we very much appreciate your commitment to us in this time of economic downturn.

\$1,000

Michael Gottlieb
Andrea Scheidt

\$500

Barbara Filner
Richard S. Sobel

\$200–499

Rosalind E. Cohen
Robert H. DeBellis
Linda Dollard
Donald A. Glasel
Kenneth H. Jones
Elissa Koff
Robert Madden
Corinne A. Michels
Samuel M. Paskin
Peri Petras
Barry J. Ratzkin
Judith S. Steinman
Vilma A. Turner

Alfred G. Williams
Bruce D. Zik

\$100–199

Arnold Alfert
Walter Baigelman
Margaret Blum
Betty Borowsky
Henry Chien
Michael N. Cosenza
Christopher M. Criscuolo
Samuel Daniels
Fabienne M. Danies
Neil P. Dreyer
Howard J. Edenberg
Lee Ehrman
Domenick J. Falcone
Lorna D. Georgalas
Marie I. George
Elisa Giglio-Siudzinska
Carol E. Gohari

Raziel S. Hakim
S. Robert Hilfer
Stanley M. Kalter
Martin E. Kessler
Lester J. Krasnogor
Richard Lange
Stewart B. Levine
Evelyn C. Link
Lynn G. Mark
Jeffrey R. Mollin
Joseph N. Muzio
Eileen G. Peers
George Redlich
Peter Sacks
Hilda A. Satran
Jack A. Schmetterling
Janet A. Schneller
Paul Shaman
Carol Strahler
Frank A. Supovitz
Marie V. Tangredi

Andrew A. Wallman
Gary R. Weine

\$5–99

Leticia H. Aquino-Morris
Virginia M. Bailey
Phyllis L. Baskin
John J. Foti
Louise J. Grabell
Alan J. Guber
Rosalynd W. Klipper
Arthur H. Kopelman
Elliot M. Levine
John C. Morris
Ronald M. Pross
Marian G. Schwartz
Dewey A. Sehring
Leslie N. Simon
Barbara Soloway
Virginia Tartaglione
Anne S. Zeger

BOOKS

Roze, U. (2009) *The North American Porcupine*, 2nd Edition, Cornell University Press, Ithaca.

BOOK CHAPTERS

Lahti, D. C. (2009) The correlated history of social organization, morality, and religion. In *The Evolution of Religious Mind and Behavior*, E. Voland and W. Schiefenhövel (eds.), New York: Springer-Verlag, pp. 67–88.

Podos, J. and **D. C. Lahti** (2009) Bird radiations. In *Encyclopedia of Islands*, R. Gillespie and D. Clague (eds.), Berkeley: University of California Press, pp. 105–111.

Meléndez, A. and B. Levine (2009) Autophagy in *C. elegans*. In *WormBook*, The *C. elegans* Research Community (eds.).

Lin, L.,^D C. Penalzo,^D Y. Ye,^D R.A. Lockshin, and **Z. Zakeri** (2009) Detection of apoptosis in mammalian development. In *Methods in Molecular Biology* (Apoptosis Second Edition), P. Erhardt and A. Toth, (eds.), Humana Press, pp. 259–272.

PEER-REVIEWED PUBLICATIONS

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CLASS TRIP ETHIOPIA 2009



2009 BIOL380/680 FIELD BIOLOGY STUDIES STUDENTS

(left to right) Lauren Alvarez, Yoon Choi, Carolina Mendiguren, Stephane Boissinot, Cesar Castillo, Margaret Corley, Xenia Freilich, Rose Chan, Carla Canales, Rita Monfort, and Johanna Navarro.

Summer 2009's class schedule included something new and very exciting, an opportunity to travel to Ethiopia and get course credit in BIOL380/680 Field Biology Studies! Prof. Stephane Boissinot led a group of adventurous undergraduate and master's students on an international expedition to three Ethiopian national parks. The students traveled by open truck with armed guards, camped out at sites with no electricity or running water, and worked in temporary laboratories

enduring extreme conditions in order to experience firsthand what it is like to be a field biologist.

Everyone had a wonderful and enlightening trip, particularly those few who had never previously been outside the United States, much less to Africa. The trip was very productive. Participants collected organisms from frogs to ferns and brought back data that will be used for thesis projects and student research programs. One successful achievement of the trip was

opening a collaborative relationship between field scientists at Queens College and the University of Addis Ababa that will encourage future trips to the area.

The class was organized with the help of the Queens College Travel Abroad program and with partial support by the National Science Foundation URM grant to Dr. Boissinot. Future trips are planned.

- ▶ *Biology Currents* production costs.
- ▶ Supplement expenses for the Biology Colloquium series – The Biology Colloquium is offered as a class for juniors, seniors, and graduate students, and is regularly attended by faculty. It is an opportunity for students to hear top-rate biologists discuss their research. Alumni funds help pay for refreshments, lunch for speakers and their host, and travel costs and honoraria for speakers.
- ▶ Funding for special events and seminars – Two such special events are highlighted in this issue of *Biology Currents*: the first annual Biology Research Symposium, and A Day for Darwin.
- ▶ Partial support for undergraduate and master’s student travel to present their research at scientific conferences – This is a new funding area and will be used for students whose mentors are unable to fund their travel expenses from other sources.

- ▶ Scholarships for travel expenses associated with research or short courses/field courses on specialized topics related to undergraduate and master’s student research – Funds were provided to partially supplement the Ethiopia field study course described in this issue.
- ▶ Funding to support projects undertaken by the Biology Honor Society – The Biology Honor Society members volunteer as tutors for students in Biology and other science classes, mostly in introductory courses. They use a conference room in Colwin Hall to meet with students on an open basis and these funds are available to them to purchase texts, supplies, and computers.
- ▶ Travel, lodging, meals for new-faculty-search candidate interviews – Conducting a national search for top-rate new faculty is critical for the maintenance of an outstanding faculty. We used alumni funds to supplement the funds provided by the college for this purpose.

We have made it easier for you to contact us. Please check us out on the Department’s website at <http://qcpages.qc.edu/Biology/>. Follow us on the Department’s Facebook page (<https://www.facebook.com/pages/Queens-College-CUNY-Biology-Department/133250930074226?v=wall>). Become a Facebook friend. Email me at Corinne.Michels@qc.cuny.edu but be sure to put “Biology alum” in subject line. Or send me a note by U.S. mail. We would love to include articles about you, our alums, but we need to hear from you. We want your perspective on what we are doing. If you like what you see in *Biology Currents*, let us know. What concerns do you have? WE WANT TO KNOW!!! Your input is welcomed and much appreciated.

Sincerely,
Corinne A. Michels, PhD
Class of ’63
Distinguished Professor
Chair of Biology

GRADUATION

HONOREES

Laura H. and Arthur L. Colwin Prize

Brian Estevez

Darwin Prize

Forough Yassi

Muriel and Philip Feigelson Award

Svetlana A. Mushayev

Lizbeth Nuñez

Donald E. Lancefield Award

Jignisha B. Patel

Zahava Rubel

Beta Delta Chi Honor Society

Heather Nicole Drake

Saida A. Joarder

Stella Lam

Svetlana A. Mushayev

Jignisha B. Patel

Zahava Rubel

Akash Sookdeo

Vincent Trivigno

GRADUATES

Faizzan Ahmad – Honors

Lam Dang – Honors

Heather Nicole Drake – Honors

Brian Estevez – Honors

Sheryl Ferreira – Honors

Mark Floumanhoft – Honors

Yelena Fuzaylova – Honors

Geeta Grover

Sai Kappagantula – Honors

Zoya Khalid – High Honors

Rehana Latif

Shahrakur Mahmud

Farnaz Moallemi – Honors

Nader Moallemi – Honors

Heberth Morán – Honors

Aleisha Murdock

Svetlana Mushayev – Honors

Lizbeth Nuñez – Honors

Jignisha Patel

Alexander Pinchas – High Honors

Terrence Rohan

Carlos Romero – Honors

Zahava Rubel – High Honors

Tahira Sayed – Honors

Avigayil Schwerd – High Honors

Akash Sookdeo – Honors

Bruce Sun

Fiorella Tapia-Ortiz

Vincent Trivigno – Honors

Forough Yassi – High Honors

ALUMNI QUESTIONNAIRE

We want to keep in touch! If you just wish to say hello, or tell us what is new in your life, please fill in the information below and return to: Distinguished Professor Corinne Michels, Department of Biology. Alternately, just provide the information below in an email (Corinne.Michels@qc.cuny.edu) and be sure to write "Biology alum" in the subject line.

Name _____

Address _____

Home Phone _____

Bus. Phone _____

Email _____

Make address/telephone available to Alumni? yes no

Education/Employment History

Personal Highlights and Comments

Please make a note of all new email addresses in this Newsletter for faculty, and college-wide, addresses.