**LETTER FROM THE CHAIR**

Dear Biology Department Alums and Friends:



Many exciting things are happening in the department, much more than I can describe in this brief letter. We are extremely pleased to have attracted four new faculty members to the Department: John Dennehy, Else Fjerdingstad, Michael Hickerson, and Mika Vesanen. You may read more about them at [www.qc.cuny.edu/provost/new\\_faculty\\_2007.htm](http://www.qc.cuny.edu/provost/new_faculty_2007.htm).

For the second year in a row, one of our faculty members received the President's Excellence in Teaching Award for Full-time Faculty, Professor Jon Sperling. Excellence in Teaching Award winners are nominated by their students and the department is proud to say that Dr. Sperling is the most recent in a long list of Biology faculty so honored.

Professor John Waldman's research on cormorants with graduate student Colin Grubel was the featured article entitled, 'Like Ducks and Penguins, with Nervous Stomachs' in the August 22, 2007 issue of the *New York Times*.

During this past year, our faculty received research awards from the NSF and NIH. Most recently, Professor Stephane Boissinot received a prestigious NSF Research Enhancement for Undergraduates Award. Check the Biology Department Web site [www.qc.cuny.edu/Biology](http://www.qc.cuny.edu/Biology) for details and updates on all of our activities, honors, and awards. The department was very pleased to have two alums, Dr. Alan Beyer (class of '74) and Dr. Charles Hennekens (class of '63), visit and meet with our students and faculty. It was a pleasure to welcome them back to campus and show them how we have changed. We would love to see you as well.

I would also like to thank those of you who contributed so generously to the Biology Department during the 2006–2007 Queens College Foundation fundraising drive. Last year was a record year for contributions to the Biology Alumni Fund. These funds are extremely important to us as they provide supplementary resources that significantly enhance our students' college experience. You should also be aware that the department allocates half of each year's contributions to a Biology Alumni Endowment Fund. This fund is an interest bearing account that generates a stable source of funding to support our student and educational programs. When you give, you contribute to the department's future development.

*Sincerely,*  
Corinne A. Michels, PhD (class of '63)  
Distinguished Professor  
Chair of Biology

**Dr. Jon Sperling Wins 2006 President's Award for Excellence in Teaching**

Dr. Sperling and friend in Patagonia  
Photo: Dr. Corinne Michels

Professor Jon Sperling received the President's Award for Excellence in Teaching for 2006. This annual award is a significant recognition because it is given to only one faculty member. Each year, the president invites students to nominate instructors whose teaching has a strong impact on their college experience. A review committee then solicits additional comments from students and faculty members before making a final recommendation to the president.

Dr. Sperling's contribution to the teaching efforts of the department is substantial. He offers a larger number and variety of courses each year (including summers) than any other member of the department. Biology majors can fulfill half of their credit requirements by taking his courses alone. Dr. Sperling has transmitted his contagious enthusiasm for biology to generations of Queens College students. He shows his students that biology is not just information on the printed page; it is the four-dimensional world in which the bumblebee, the muskrat, the snake, and the poison ivy live. He shows them that biology is seeing, touching, listening, smelling, and tasting—yes, tasting. Most of all, he shows them that biology is fun, that it is a part of all of us, and that we are all a part of it.

Dr. Sperling is the fifth biology faculty member to receive this award over the past two decades. He joins Drs. Peter Chabora, Roberta Koepfer, Harold Magazine, and Jared Rifkin in this distinction.

We reproduce here President James Muyskens' proclamation that he read to the Faculty Assembly when the Teaching Award was presented to Professor Sperling: "A 'quintessential natural historian,' your connection with the natural worlds is total: physical, intellectual, and spiritual. The breadth of your knowledge is evident in the range of courses you teach: Mycology, Wetlands Biology, Ornithology, Lower Plants, Higher Plants, North American Flora and Fauna, General Biology, and Food Microbiology. You integrate recent articles, classical texts, and your own writing into the classroom, but your lectures are only the starting point. Your students write:

'Dr. Sperling's unique approach to teaching stems from his love of fieldwork and a desire to introduce his students to a hands-on method of learning. On field trips he climbs up or down any precipice, walks into lakes and rivers, and chases after anything moving slower than he does.

'He hits his messages home with specimens from Atlantic City, Cape May, Cunningham Park, Alley Pond Lake, and even his backyard here in Queens.'

*Continues on page 2*

Continued from first page

Perhaps the highest praise comes from a recent student: 'I never realized how anybody could make algae so interesting and relevant to our everyday lives.'

For inspiring generations of Queens College students who have gone on to teach their own students and for bringing biology science to life right here in Queens, it gives me great pleasure to present you with the 2006 President's Award for Excellence in Teaching."

## RETIREMENT

### Dr. Robert Calhoon Retires



Professor Robert Calhoon retired at the end of spring 2007. He came to Queens College in 1973 after earning a PhD in quantitative genetics from Purdue University. For 34 years, Dr. Calhoon and his inseparable herringbone Irish walking cap were fixtures in the department. He taught a variety of courses relating to his discipline, including Biometrics,

Experimental Design, Genetics, Laboratory Techniques in Genetics, and graduate courses in Quantitative Genetics. Over the years he also taught introductory courses for biology majors and non-majors alike. Dr. Calhoon's fondest teaching memories are of classes that had "resonance" when a critical mass of students was stimulated; the whole class resonated with an energy that propelled it to a higher level. For a number of his undergraduate students, this resonance lasted into graduate or professional school and beyond. Some of these students, now alumni, remain in touch with Dr. Calhoon.

Many will remember Dr. Calhoon as the undergraduate advisor in the department, a responsibility that Dr. Calhoon took seriously and remembers with great pleasure. In this role he has exerted strong and lasting influences on several generations of students. To improve his effectiveness as an advisor, he went through a 15-month supervised practicum in personnel counseling. Academic advisement is much more than just reciting curricular requirements and prescribing a litany of courses for the students. According to Dr. Calhoon, one essential ingredient in effective counseling is the ability to listen. Through listening, the advisor gets to know the students and uncovers the best academic options for them. At the beginning of his advisement sessions, Dr. Calhoon encouraged students to talk about what was important to them, their self-perceived strengths and weaknesses, and their hopes and their fears. Only after listening did he offer practical suggestions to enable students to achieve their aims. He did not shy away from advising students to explore other majors if he felt that biology was not the most suitable option for them. As an advisor, Dr. Calhoon noticed that students needed a greater sense of belonging to the department, and more intimate communication among themselves to exchange ideas on shared goals. To this end, he initiated the Biology Honors Society in 1979, which continues to be an important student organization within the department.

Dr. Calhoon's research interest was in the application of mathematical analyses in biology, particularly in genetics. He has published many articles on biometrics. In 1996, he was awarded a

National Research Service Award from the National Institutes of Health, one of only four awarded nationally that year. The award allowed him to take a year's sabbatical leave to engage in gene hunting at the New York Blood Center.

Many undergraduate and graduate students worked in Dr. Calhoon's laboratory. He served as thesis advisor to two PhD students and served on the dissertation advisory committees of five doctoral candidates, the last of whom graduated in 2001. In keeping with his interest in quantitative biology, Dr. Calhoon, along with the late Dr. Leslie Marcus, was instrumental in bringing computer technology to the department. In 1993, he was a member of a faculty committee that submitted a Howard Hughes Medical Institute grant application. The successful application led to the establishment of the Computational Biology Laboratory, in which many courses are being taught today.

Dr. Calhoon and his wife Jan plan to move to Colorado and look forward to ample fishing and gardening in their new habitat. During a recent biology colloquium, in which the department was treated to a cutting-edge research presentation on an insulin-like receptor in the nematode *Caenorhabditis elegans*, it dawned on him that he may not have to retire, after all. It turns out that inactivation of the insulin-like pathway doubles life expectancy in the worm. If only he could find a way to do that to himself, the department could benefit from another 34 years of Dr. Calhoon's presence as an inspiring advisor, teacher, and researcher!

## PASSING

### Dr. Laura Hunter Colwin Dies



Laura Hunter Colwin, Professor Emerita of Biology, died December 6, 2006 in Miami, Florida at the age of 95. Her passing was preceded by that of her husband Arthur three years earlier. Laura was born July 5, 1911 in Philadelphia. In the 1920s, her parents bought a farm near Downingtown, Pennsylvania, where Laura spent summers and where her early interest in biology may have been awakened.

She graduated from Bryn Mawr College in 1932 and returned to her Alma Mater as a laboratory assistant from 1933–1934. Laura's father was a physician who wanted his daughter to study medicine, but Laura chose instead to undertake graduate studies in biology. She recalled ruefully that after she received her PhD from the University of Pennsylvania in 1938, her father did not consider her a "real doctor." Laura's early interests were in protozoology, and she conducted part of her graduate research at the Marine Biological Laboratories (MBL) in Woods Hole, Massachusetts.

It was during her graduate student days at the MBL that Laura met her future husband, Arthur Lentz Colwin, a post-doctoral fellow from Yale University. There was immediate chemistry between the two, but the couple decided to put off a wedding until Arthur found a permanent job. This happened in 1940, when Arthur was offered a position at the then three-year-old Queens College.

The Queens job offer was not initially extended to Laura—

CUNY regulations on the hiring of family members made a joint appointment impossible. From 1940 to 1943 Laura worked as an instructor at Vassar College, for a salary of \$2,200 a year. At the same time, she and Arthur set up a joint research laboratory at Queens College (with summers spent at the MBL), where the couple embarked on the focused research of their lives—the process of fertilization in animals. Those were the days before federal funding, and Arthur and Laura dipped into their salaries to purchase research chemicals and photo supplies.

Arthur spent the war years in the Air Force, rising to the rank of Captain. In 1948, following his return, the hiring regulations were relaxed, which allowed Laura to be employed at Queens College, but only as an Instructor! It took an additional 20 years, till 1967, by which time Laura and Arthur had co-authored 46 scientific papers, had received major funding from the National Institutes of Health, and had co-chaired an international conference, that the hiring regulations were repealed completely. Laura received a one-step promotion, from instructor to professor.

Every scientific paper that Laura wrote, she co-authored with Arthur. Theirs was a full partnership, but Laura recalled that she and Arthur retained distinct modes of thinking. If there were two ways of doing something, she would do it one way, Arthur the other way. Having survived each other's criticism, the result was a stronger science. With lives so thoroughly intertwined, I will quote an excerpt from Arthur's obituary of three years ago.

"In their study of the fertilization process, the Colwins' test organisms were marine organisms, in particular the annelid *Hydroides* and the hemichordate *Saccoglossus*. For these, they depended on the facilities of the Woods Hole MBL. During the fall spawning season, the weekly rhythm of work consisted of teaching and lab work at Queens, followed by weekend travel to the MBL. Typically, only Arthur would be teaching on Friday afternoons. Laura would leave the campus early on Friday to prepare sandwiches for the trip. She would return as the afternoon laboratory was finishing, pick up Arthur, and immediately start the drive to Woods Hole. In pre-interstate days, they drove along the slow U. S. 1 coastal road, stopped for midnight coffee at a diner near Providence, and reached Woods Hole in the morning hours. They would be in their laboratory at 9 am on Saturday."

The Colwins used the newly invented electron microscope to study the process of fertilization in *Hydroides*, *Saccoglossus*, and other marine organisms. Their discoveries led to a fundamental change in the understanding of the fertilization process. They disproved the then-prevailing view that the sperm penetrates the egg during fertilization and demonstrated instead that the membranes of sperm and egg undergo a complex fusion process. Membrane fusion during fertilization has been shown to occur in almost every animal studied to date.

After the war, the Colwins were awarded an NSF grant to install the first electron microscope in their basement laboratory in the former E Building. In 1953–54, they spent a sabbatical year at the Misaki Marine Biological Station near Tokyo, Arthur on a Fulbright, and Laura on an American Association of University Women Fellowship. They went there at the invitation of Dr. Katsuma Dan, co-discoverer of the mitotic spindle and later President of Tokyo Metropolitan University, and his wife Jean Clark Dan, known for her work on the acrosomal reaction. It was at the same venue in 1960 that the Colwins chaired a symposium on fertilization, held under the auspices of the International

Institute of Embryology. Here they presented their EM studies of the fertilization process; the results were published the following year in the *Journal of Biophysical and Biochemical Cytology*, now *The Journal of Cell Biology*.

The Colwins' professional lives revolved around the twin poles of Queens College and the MBL. While living modestly, they made generous gifts to both institutions following their QC retirement in 1973. At Queens College they endowed the Colwin Prize, an annual award given to a graduating biology major with substantial achievement in academics and research. At the MBL, in 2003, they established the Colwin Endowed Summer Research Fellowships, which are used to support the full summer laboratory fees of young investigators.

Queens College honored the couple in May 1993 by renaming the former E Building the Laura and Arthur Colwin Hall. The MBL honored them by electing each to the MBL Board of Trustees, and later Trustees Emeriti. Laura is survived by two cousins, Mary Cleary of Vero Beach, FL, and William Stewart of Allentown, PA. Following her wishes, Laura is buried in the Woods Hole Cemetery next to her husband and lifelong partner.

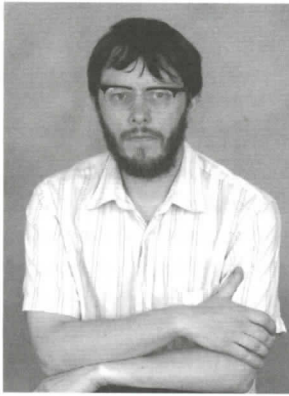
—Uldis Roze

### *A personal note on the passing of Laura Colwin*

It is with great sadness that we note the passing of Laura Colwin. She was a role model of a professor that all of us who knew her could admire, but few of us could ever dream to emulate. She had a kind and gentle manner in both her university and private life. In many ways she was a "people person." She always cared about the welfare of her students. She was an enthusiastic teacher, always probing and questioning, while at the same time giving her audience a high comfort level. She infused her intellectual curiosity and keen mind into her teaching. What a memory she had!! Decades after the fact, she reminded one of us (JJL) about the discovery of a very rare platyhelminth I had made in Alley Pond Park on an Invertebrate Zoology class field trip. Her joy of scholarship and discovery inspired me to pursue a career in academic biology. She kept in contact with us as we went to graduate school and enthusiastically encouraged us to give her progress reports. As one of us (JJL) neared completion of his PhD degree at NYU, Laura encouraged us to come to Queens College to fill in for two successive sabbaticals taken in the Biology Department. Our first child arrived a few months after I started teaching at QC. On the first morning after Judy came home from the hospital, who was on the doorstep of our garden apartment only a few blocks from QC? It was Laura. She never let us forget that she had adopted us as a family. We saw Laura and Arthur frequently in Woods Hole. The baby that Laura first cradled in her arms more than 40 years ago now has grown daughters of her own. Time execrably marches on. Her warmth, kindness, friendship and inspired intellectual curiosity endure in our memories of her.

—John and Judy Lee, Class of 1955

*Editor's note: John J. Lee is Distinguished Professor in the Department of Biology at City College of CUNY. He is a marine microbial ecologist working mainly on symbiosis in "living sands" (giant foraminifera) and microbial and protistological problems related to mariculture.*



## New Faculty Member Dr. Michael Hickerson

Dr. Michael Hickerson joined the Department of Biology in January 2007. He came to us from the University of California, Berkeley, where he was a post-doctoral fellow for several years. Dr. Hickerson received his Bachelor of Science degree from Evergreen College in Olympia, Washington, and his Master's degree in Ecology from Western Washington State

University in Bellingham. After a three-year stint as a surveyor for the Washington State Department of Natural Resources, he joined the Doctoral Program at Duke University in Durham, North Carolina. For his doctoral dissertation, Dr. Hickerson examined the biogeographic history of intertidal fishes in the North Atlantic and North Pacific, as well as developed analytical techniques for marine biogeographic inference.

Biogeography is the study of how geography and climate determine the distribution and evolution of the world's organisms. Dr. Hickerson's particular foci are the fishes and invertebrates of the Northern temperate regions, with an emphasis on the North Atlantic. Instead of limiting himself to the distribution of single species, he is attempting to elucidate principles that govern the assembly of entire communities. Dr. Hickerson understands that just like a model organism genomic project, or a tree of life systematics study, a project of this magnitude can only be undertaken through large-scale collaboration. Furthermore, he practices what he preaches—his roster of 21 collaborators to date stretches from Japan to Australia to the Smithsonian Tropical Research Institute in Panama. No doubt many more will be recruited as his colossal project unfolds.

Dr. Hickerson began to promote his interest in Biogeography as soon as he arrived at Queens College, teaching a graduate seminar on this subject during his first semester. With the retirement of Dr. Robert Calhoon, Dr. Hickerson will take over the Biometrics course as well. In keeping with his geographical leaning, he is planning to incorporate field trips in this course. He has spent much of the last several months setting up his computational biology laboratory, and has already taken on a doctoral student, an undergraduate research student, and a post-doctoral fellow. He also found time to complete three manuscripts for publication, and is working on three others. Furthermore, he organized a summer "hackathon" in collaboration with biologists from Alaska and Boston and his own undergraduate research student. The goal is to create new software that uses an innovative statistical framework well-suited for the task of testing models of community assembly: hierarchical approximate Bayesian computation.

In another life, Dr. Hickerson is a musician. He grew up at the epicenter of the Washington, D.C. folk scene, and his father, Joe Hickerson, is an accomplished folklorist and folksinger. The younger Hickerson is interested in many genres, but his passion is in old-time clawhammer banjo. While he was in college in Olympia and in graduate school in Durham, he moonlighted as a disc jockey on radio stations on weekends. As soon as he arrived in New York, an old friend invited him to join a jug band, in which he now plays the banjo.

Dr. Hickerson traces his current interest in biogeography to

his boyhood experience growing up in a rural section of southern Maryland. Neighbors and family friends trained falcons and were naturalists, and the young Michael collected crayfish, fossils, arrowheads, and snakes. He also remembers spending a lot of time staring at and learning the features of maps. From a childhood love of biology and geography, Dr. Hickerson now engages in research that combines both disciplines. At Queens College, he will have an opportunity to draw new kinds of maps, superimposing the temporal dimension and dynamics of biological processes on space and contours. We hope his enthusiasm for biogeography is contagious and that he will enjoy teaching students about his unique field of study.

## FACULTY NOTES 2006

**Stephane Boissinot** received a \$230,000 award from the National Institutes of Health to study the *Molecular Evolution of Flavivirus-Resistance in Mouse*.

Dr. Boissinot also gave three special lectures:

1. *Selection against LINE-1 retrotransposons in human*, FASEB summer research conference on Mammalian Mobile Elements, Tucson, Arizona, June 2005.
2. *LINE-1 retrotransposons: molecular evolution and interactions within the human genome*, Department of Biological Sciences, University of Idaho, Moscow, Idaho, October 2005.
3. *LINE-1 retrotransposons: molecular evolution and interactions with the human genome*, Department of Biological Sciences, Fordham University, Bronx, New York, October 2005.

**Corinne Michels** and former graduate student Dr. Nidhi Gadura attended the First Conference on "Genetic Analysis: Model Organisms to Human Biology" sponsored by the Genetics Society of America held in San Diego, California. She also attended the Third Conference on "The HSP90 Chaperone Machine" held in Monastery Seon in the countryside near Munich, Germany.

**Uldis Roze** presented his work "Geophagy and natriphagy in the porcupine," at the June 2006 meeting of American Society of Mammalogists at Amherst, Massachusetts.

**Cathy Savage-Dunn** was an invited speaker at two institutions in Sweden in March 2006. At the Karolinska Institute, she presented her work on *Control of cell growth and patterning by TGF/BMP-related signaling in C. elegans*. At Umea University, she discussed *Transcriptional regulation by TGF/BMP-related signaling in C. elegans*.

In July 2006, Dr. Savage-Dunn presented a talk on *Control of cell growth and patterning by TGF/BMP-related signaling in C. elegans* at the Gordon Conference on Growth Factor Signaling.

**John Waldman** led an effort to have Queens College and CUNY added as members of the North Atlantic Coast—Cooperative Ecosystem Studies Unit, which led to a contract to prepare a Research Opportunities Catalog for the Jamaica Bay Unit of the National Park Service and for a Bioblitz held in September, 2007.

## ALUMNI PROFILE: FRANK SUPOVITZ



For Frank Supovitz (BA Biology, '79), the long road to the National Football League runs through the Department of Biology at Queens College. Who would have thought thirty years ago that Frank would not be wearing a white coat and sporting a stethoscope, or peering into a Petri dish, but instead supervising 20,000 staff members and 8,000 volunteers nationwide in orchestrating some of the greatest sporting events in this country? As Senior Vice President, Frank oversees all events for the NFL. His duties include organizing the Super Bowl, the Pro Bowl, the NFL Draft, and the NFL Season Kickoff—some of the most eagerly awaited moments in American culture.

While Frank loves his job, he admits that at times, it can be intense. The logistics of preparing for an event like the Super Bowl are enormous—planning begins four years ahead of the game, involving not just the Bowl itself but the organization of accompanying festivities throughout the week, as well as housing and transportation for thousands of employees and fans. Frank does not get to take a vacation afterwards, either. According to him, “Within hours after the game is over, the majority of our staff has boarded airplanes for Hawaii to finish staging the Pro Bowl seven days later. [And] it’s not just the Super Bowl. I’m also talking about the Bush-Clinton Katrina Fund Telethon we staged on Monday Night Football with 10 days of lead-time, or the Reopening of the Superdome last September.” The Bush-Clinton Katrina Fund Telethon helped raise millions of dollars for the Hurricane Katrina relief effort.

Frank chose his major because he loved science, particularly biology. He recalls that “running around the American Museum of Natural History was my idea of a great weekend as a kid. So, I studied what I loved, and wouldn’t change that for anything.” Although he did not go on to a career in the sciences, Frank does not regret his decision to major in biology in the least. In fact, he finds himself putting to good use skills that he learned in this department in his current endeavors. “I learned about experimental design while a student at Queens College and how changing one variable at a time helps test out a hypothesis. You won’t hear that from too many event organizers, I’ll bet, but it’s true. Right now, it’s helping me creatively tinker with the Pro Bowl to increase its television viewership. Change too many things at once, and you can’t tell why something worked or didn’t.”

Frank remembers fondly many of his classes and professors at Queens College. “I really admired my professors—they were all incredibly dedicated, smart and demanding.” His favorite professor was Dr. David Alsop, who “... had a passion for his work and sense of humor that transcended anyone’s opinion. I never saw anyone love cockroaches the way he did. I thought of him a lot when I moved into my first apartment.” Another class that Frank enjoyed was Animal Histology and Microtechniques, taught by Dr. Florina Minutoli. “We learned practical skills in sectioning, staining and mounting tissue samples. It was near impossible to get an ‘A’ on a slide. It may have looked good to me, but it wasn’t good enough for a professional, and that was a good life lesson.”

With a degree in hand, Frank initially intended to go to graduate school and pursue a career in research; Clemson University had accepted him into its zoology program. He decided to work for a year before returning to school. He was then offered a management position at Radio City Music Hall where he had worked part-time during high school and college. While at Radio City, “. . . I met the most wonderful woman in the world. My career continued to advance, and [I] went back to school at Baruch to get some business courses so I could keep going. I’ve never looked back.” He was promoted to director of Special Events and Special Projects, which proved to be the first step towards a lifelong career devoted to planning and managing large entertainment and sporting events. He left Radio City Music Hall with two co-workers to start *Eventures*, a mega-event production agency that was responsible for, among many other festivities, the “Operation: Welcome Home” after the 1991 Persian Gulf War, the opening ceremonies of the Goodwill Games in Seattle, and the U. S. Olympic Festival. In 1991, the National Hockey League offered Frank a position running their events department, and Frank was able to combine the skills he had gained with his love of sports and sports-related functions. He worked at the NHL for thirteen years, during which he organized and managed the NHL All Star Game, Stanley Cup Finals, and other events. In January of 2005, he joined the NFL.

Frank managed to find time within his busy schedule to write two books on the subject of events management, the first with co-author Joe Goldblatt. His second, *The Sports Event Playbook: Managing and Marketing Winning Events*, is described by one Amazon.com editorial reviewer as “a helpful resource [that] offers both first-time planners and seasoned organizers expertise and framework for staging top-quality sports events at any level from the community to the global stage.”

For current undergraduates, Frank offers the following advice: “If you study what you love, and end up doing something you love, even if they are not the same thing, you are living The Dream. Plot your course and be open to the possibilities there’s a lot of world out there.” Frank Supovitz is indeed living his dream.

—Isadora Ritter

## ALUMNI NEWS

**Heidi Zapata '00** successfully defended her PhD thesis on *Varicella zoster* virus and the cellular MAPK pathways. Sitting in the audience at SUNY Upstate Medical Center were her parents, her sisters Keila '04 (psychology) and Cindy (currently a freshman at Queens College), and three friends from the HMNS program at QC: Eli Ron '00, now a post-doctoral fellow in organic chemistry at Florida State University; Steven Rodriguez '01, now in the Graduate Program in Neurobiology at Cornell University; and Sandy Thomas '01 (psychology), now a resident at Case Western Reserve University. Also present was Dr. Uldis Roze, Heidi’s research mentor at QC. Heidi is pursuing a joint MD/PhD degree at Syracuse and has published her first paper: Zapata, H., M. Nakatsugawa, and J. Moffet (2007). *Varicella zoster* infection of human fibroblast cells activates the *c-Jun* N-terminal kinase pathway. *J. Virology* 81(2):977-990.

**Diana Kreutzer, '81**, earned her MSED degree from Elmira College in 1991. She is teaching 7th grade science at Trumansburg Middle School. She lives on twenty acres of meadow and woods in the Finger Lakes Region of New York with her husband, Al,

and their two daughters. Al is a firefighter/EMT. The family volunteers for the Humane Society of Schuyler County and various other community organizations. They recently returned from visiting Kenya. Diana would love to hear from her old Queens College biology schoolmates. She can be reached at <krefoo@fltg.net>.

**Jason Schneider**, '95, is currently a district director within the Learning for Life Program, Boy Scouts of America. He writes: "The most memorable, difficult, time-consuming, and interesting class [at Queens College] was *Invertebrate Zoology* with Dr. David Alsop. Part of being a district director in the Learning for Life Program, which is a non-traditional program of the Greater New York Councils of the Boy Scouts of America, is that I teach Life Science at the elementary and secondary school levels. Dr. Alsop is a great example of how to teach with energy and excitement, which helps students to learn and experience science. By far the best lecture and laboratory ever experienced." Jason may be contacted through e-mail at <schneider\_jason@ecoisp.com>.

## Scholarships and Awards

### Akash Sookdeo Awarded Victor Jules Scholarship.

The Victor Jules Scholarship is for a biology major of Caribbean origin or ancestry. The award is based on overall academic excellence and a demonstrated interest in undertaking post-graduate training. This year's recipient was Akash Sookdeo. Akash and his family arrived in the U.S. from Trinidad and Tobago in 1994. He was interested in biology before coming to QC and started research with Dr. Stephane Boissinot the summer after his freshman year. Akash is studying L1 elements, a group of retrotransposons (genetic elements that can replicate and increase their frequency within genomes) that make up 17-21% of human DNA but are either purely parasitic or a source of genetic variation available for adaptation. Dr. Boissinot described Akash's independence and ability as "superior to the productivity I would expect from a graduate student or a post-doctoral fellow."

**Christie Lech, Leah G. Rothman, and Evelyn Teran Awarded**

### Adele Gottschalk Scholarship.

The Adele Gottschalk Scholarship is designated for a female student planning to attend medical school. The award is based on overall academic excellence and exemplary character, as exhibited through volunteerism or the assistance in the care and nurturing of others. The award this year was shared among Christie Lech, Leah G. Rothman, and Evelyn Teran.

**Christie Lech's** great-grandparents arrived from Poland in the beginning of the last century. She was involved in research in high school on perception and autism and developed her work into a neuropharmacology project with Robert Ranaldi. She's been working with a volunteer ambulance corps since high school and, at Queens College, as an active member, secretary, and president of the Biology Honors Society, in which she organized tutoring programs and several other events for biology majors. Under her leadership the Society has had a renaissance, with increased participation and higher quality tutoring, as well as several special programs to help students succeed in science coursework and look for careers outside of traditional medical and academic paths.

**Leah Rothman** is both an outstanding student and a successful researcher and has a rich and varied set of service experiences at Mt. Sinai and Queens hospitals in medical and service positions, tutoring, and working with children with behavioral difficulties. Leah's mother is a New Yorker, but her father moved here from Mexico at the age of 15. She got her start in research in Dr. Robert Engel's laboratory in the Department of Chemistry with the encouragement of her introductory chemistry instructor. She has been working on synthesizing ionic liquids that can function as more environmentally benign solvents in forensic testing.

**Evelyn Teran's** family came to the U.S. from Ecuador in 1987, and, happily, Queens College is closer to home than Stony Brook. The Honors in Mathematics and Natural Sciences and the Minority Access to Research Career programs introduced her to research. She has been working in the laboratory of Dr. Joni Seeling for two years on cell signaling in *Xenopus* development, focusing in particular on a pathway that has been implicated in colon cancer.

**BIOLOGY ALUMNI FUND** Between 1/1/06 and 12/31/06, 99 alumni and friends donated a total of \$12,139.17 to the Department of Biology. At a time of budget crunch, these gifts fill an important niche in the department. They are an important source of discretionary funds that are used for departmental enhancement, faculty recruitment, to support student and faculty research and student travel to scientific conferences, and to supplement scholarship awards to students. We are deeply grateful for this support.

### LIST OF DONORS

#### \$500+

Eileen C. Frey  
Michael Gottlieb  
Julius G. Mendel  
Hilda A. Satran  
Judith S. Steinman

#### \$200-499

Allen I. Berliner  
Lawrence V. Caronia  
Marc D. Citrin  
Rosalind E. Cohen  
Robert E. Ettliger  
Barbara Filner  
Ronald M. Gembarowicz  
Stanley M. Kalter  
Arthur D. Kay  
Elissa Koff

Robert Madden  
Corinne A. Michels  
Joseph N. Muzio  
Samuel M. Paskin  
Barry J. Ratzkin  
Alfred M. Sils  
Richard S. Sobel  
Carol Strahler  
Harris Taylor

#### \$100-199

Arnold Alfert  
Walter Baigelman  
Francoise M. Costa  
Fabienne M. Danies  
Neil P. Dreyer  
Lee Ehrman  
Howard Elson  
Domenick J. Falcone

Marie I. George  
Carol E. Gohari  
Lloyd E. Granat  
Merritt D. Halem  
Jerome S. Haller  
Kenneth H. Jones  
Steven E. Klein  
Victor R. Klein  
Lester J. Krasnogor  
Mannie Levi  
Stewart B. Levine  
Evelyn C. Link  
Ted E. Listokin  
Lynn Mark  
Rhoda Mongul  
Lynne B. Pace  
Eileen G. Peers  
Peter Sacks

Gilbert R. Scalone  
Jack A. Schmetterling  
Karen Schneider  
Paul Shaman  
Marie V. Tangredi  
Ephraim K. Zackson  
Bruce D. Zik

#### \$10-99

Antoinette Abballe  
Virginia M. Bailey  
Margaret Blum  
Kenneth Bronston  
Shunman W. Chu  
John H. Chung  
Barry M. Deitch  
Eileen Drutz  
Michael C. Ebe  
John J. Foti  
Frank T. Fritz  
Lorna D. Georgalas  
Eliza Giglio-Siudzinski  
Joel Gonchar  
Alan J. Guber  
Michael R. Gutman  
Jeremy S. Hoffman

Bruce E. Howard  
Donald B. Kinsler  
Stanley Klapper  
Arthur H. Kopelman  
Diana Kreutzer  
Erwin London  
Alfred Mann  
David O. Mintz  
Jeffrey R. Mollin  
Esther Muehlbauer  
Michael P. Puleo  
George Redlich  
Eva Rifkin  
Alan L. Rosenberg  
Edward F. Rosenfeld  
Frances Roth  
Kenneth S. Rowin  
Janet A. Schneller  
Marian G. Schwartz  
Dewey A. Sehring  
Barbara Soloway  
Gerald Soslau  
Alexander E. Weingarten  
Ann Zeger  
Naida Zucker

## SELECTED 2006 BIOLOGY DEPARTMENT PUBLICATIONS

### BOOK

Levinton, J.S., and J. R. Waldman (2006) *The Hudson River Ecosystem*. Cambridge University Press, New York, 471p.

Waldman, J., K. Limburg, and D. Strayer (2006) *Hudson River Fishes and their Environment*. American Fisheries Society Monograph 51, 365p.

### JOURNAL ARTICLES, CHAPTERS, AND REVIEWS

Witherspoon, D. J., E. E. Marchani, W. S. Watkins, C. T. Ostler, S. P. Wooding, B. A. Anders, J. D. Fowlkes, S. Boissinot, A. V. Furano, A. R. Rogers, M. A. Batzer, and L. B. Jorde (2006). Analysis of human population genetic structure and diversity comparing polymorphic L1 (LINE-1) and Alu insertions. *Human Heredity* 62:30–46.

Boissinot, S., J. Davis, A. Entezam, D. Petrov, and A.V. Furano (2006). Fitness cost of LINE-1 (L1) activity in humans. *Proceedings of the National Academy of Science USA* 103:9590–9594.

Graham, T. and S. Boissinot (2006). The genomic distribution of L1 elements: the role of insertion bias and natural selection. *Journal of Biomedicine and Biotechnology* 2006:1–5.

Khan, H., A. Smit, and S. Boissinot (2006). The evolution of human LINE-1 retrotransposons since the origin of primates. *Genome Research* 16:78–87.

Fath, K. F. (2006) Roles of the actin cytoskeleton and myosins in the endomembrane system. In *Advances in Molecular and Cell Biology*. E. Bittar, [ed.]. Elsevier 37:119–134.

Fjerdingstad, E. J. and R. H. Crozier (2006) The evolution of worker caste diversity in social insects. *American Naturalist* 167:390–400.

Hickerson, M. J., E. Stahl and H. A. Lessios (2006) Test for simultaneous divergence using approximate Bayesian computation. *Evolution* 60: 2435–2453.

Hickerson, M. J., C. W. Cunningham (2006) Nearshore fish (*Pholis gunnellus*)

persist across the North Atlantic through multiple glacial episodes. *Molecular Ecology* 15:4095.

Stoeck, M., C. Moritz, M. J. Hickerson, D. Frynta, T. Dujsebaveva, V. Eremchenko, J. R. Macey, T. Papenfuss, and D. Wake (2006) Evolution of mitochondrial relationships and biogeography of palearctic green toads (*Bufo viridis* subgroup) with insights into their genomic plasticity. *Molecular and Physical Evolution* 663–689.

Hickerson, M. J., C. Meyer, and C. Moritz (2006) DNA-Barcoding will often fail to discover new animal species over broad parameter space. *Systematic Biology* 55:729–739.

Hickerson, M. J., G. Dolman and C. Moritz (2006) Phylogeographic summary statistics for testing histories of co-distributed taxon-pairs. *Molecular Ecology* 15:209–224.

Gadura, N., L. C. Robinson and C.A. Michels (2006) Yck1,2 casein kinase type-1 signals to Glc7-Reg1 protein phosphatase to regulate the transport activity and glucose-induced inactivation of *Saccharomyces* maltose permease. *Genetics* 170:1427–1439.

Gadura, N. and C. A. Michels (2006) Sequences in the N-terminal cytoplasmic domain of *Saccharomyces cerevisiae* maltose permease are required for vacuolar degradation but not glucose-induced internalization. *Current Genetics* 50:101–114.

Rifkin, J. L. and R. R. Goldberg (2006) Effects of chemoattractant pteridines upon speed of *D. discoideum* vegetative amoebae. *Cell Motility Cytoskeleton* 63:1–5.

Roze, U. (2006) Smart weapons. *Natural History* 115:48–53.

Morgan, E. C., J. A. Sperling, and L. K. Leon (2006) Variation in the Traditional Uses of *Dracontium* in the Vicinity of Iquitos, Peru. *Aroideana* 29:152–157.

E. C. Morgan and J. A. Sperling (2006) Changes in the Bryophyte Flora of Cunningham Park and Alley Pond Park, Queens County, Long Island, New York. *Evansia* 23:56–60.

Waldman, J. R., C. Grunwald and I. Wirgin (2006) Evaluation of the native status of sea lamprey *Petromyzon marinus* in Lake Champlain based on mitochondrial DNA sequencing analysis. *Transactions of the American Fisheries Society* 135:1076–1085.

Wirgin, I. and J. Waldman (2006) Bioaccumulation and toxicities of aromatic hydrocarbon contaminants at different trophic levels of the Hudson River Ecosystem. In *Environmental and Occupational Medicine*, 4<sup>th</sup> Edition, W. N. Rom [ed.], Lippincott-Raven Publishers, pp. 1552–1568.

Waldman, J. R. (2006) The diadromous fish fauna of the Hudson River: life histories, conservation concerns, and research avenues. In: *The Hudson River Estuary*, Cambridge University Press, J. S. Levinton and J. R. Waldman [eds.], pp. 171–188.

Limburg, K., J. Waldman, A. Kahnle, and K. Hattala (2006) Fisheries and fisheries management of the Hudson River estuary. In: *The Hudson River Estuary*, Cambridge University Press, J. S. Levinton and J. R. Waldman [eds.], pp. 189–204.

Waldman, J. R., K. E. Limburg, and D. L. Strayer (2006) The Hudson River environment and its dynamic fish community. American Fisheries Society Symposium Series 51:1–7.

Waldman, J. R., T. Lake, and R. E. Schmidt (2006) Biodiversity and zoogeography of Hudson Estuary Fishes. *American Fisheries Society Symposium Series* 51:129–150.

Dunning, D. J., J. R. Waldman, Q. E. Ross, and M. T. Mattson (2006) Dispersal of Age-2+ Striped Bass Out of the Hudson River. *American Fisheries Society Symposium Series* 51:287–294.

Lin, L., Y. Ye and Z. Zakeri (2006) p53, Apaf-1, caspases-3 and -9 are dispensable for Cdk5 activation during cell death. *Cell Death and Differentiation* 13:141–150.

## GRADUATES • SEPTEMBER 2005 – JUNE 2006

Abramchayeva, Elina, *Honors*  
Agarwala, Pranjali  
Balakumar, Thayaparan  
Boado, Jessica, *Honors*  
Boles, Kristian  
Chin Hong, Rose  
Chohan, Ayesha N.  
Chong, Isaah Francel Hwang., *Honors*  
Dang, Lam  
Drozda, Agata, *High Honors*  
*Beta Delta Phi*  
*Donald E. Lancefield Award*  
Dvora, Shira  
Eze, Samuel O.  
Ferguson, Shamia R.  
Fernandez, Karen Michelle, *Honors*  
Jung, Youn H., *High Honors*  
Kaur, Rupinder P., *Honors*  
*Beta Delta Phi*  
Kongoli, Dorian

Lech, Christie A. *High Honors*  
*Phi Beta Kappa*  
*Beta Delta Phi*  
*Charlotte S. Garfinkel Memorial*  
*Alumni Scholarship*  
*Muriel and Philip Feigelson Award*  
Macmanus, Allison Lou, *Honors*  
*Beta Delta Phi*  
Matadin, Shannon  
Mehta, Kamini  
Nadler, Steven, *Honors*  
*Alpha Sigma Lambda*  
*Beta Delta Chi*  
Onyewuenyi, Sylvia Chinwe., *Honors*  
Paccione, Katherine Bryna., *Honors*  
Qaderi, Roya  
Reglas, Sotiria  
Schnur, Rachel S., *High Honors*  
*Phi Beta Kappa*  
*Beta Delta Phi*  
*Beta Delta Chi*

*Paul Klapper Scholarship*  
*Darwin Prize*  
*Laura H. and Arthur L. Colwin Prize*  
Silva, Collins  
Tchah, Eunice *Honors*  
*Beta Delta Phi*  
To, Winola S.  
Usman, Ayesha, *Honors*  
Velasco, John Paul A., *Honors*  
Wiesman, Chana E., *Honors*  
*Beta Delta Phi*  
Wong, Andrew, *Honors*  
*Beta Delta Phi*  
Wudzinska, Aleksandra Marie, *Honors*

### MA GRADUATES, 2006

Chrisoula Kalogiannis  
Doreen Kendall  
Melissa Maggio  
Timothy Mohl  
Sharon Oliveri  
Kalpana Soni

## BIOLOGY CURRENTS

**Editor:** PoKay Ma  
[www.qc.cuny.edu/Biology/](http://www.qc.cuny.edu/Biology/)

**Acknowledgments:** The editor wishes to thank Mitchell Baker, Robert Calhoon, Esther Muehlbauer, Corinne Michels, Isadora Ritter, Uldis Roze, Jon Sperling, and John Waldman for their assistance in the production of this newsletter.

QUEENS COLLEGE, CUNY  
DEPARTMENT OF BIOLOGY  
65-30 KISSENA BOULEVARD  
FLUSHING, NY 11367 USA

FIRST-CLASS  
MAIL  
US POSTAGE  
**PAID**  
FLUSHING, NY  
PERMIT NO. 48