

# BIOLOGY CURRENTS

QUEENS COLLEGE

**APRIL 2003** 

THE QUEENS COLLEGE BIOLOGY ALUMNI NEWSLETTER

VOLUME 6

## LETTER FROM THE CHAIR

Dear Biology Department Alums and Friends:

I hope this has been a productive and fulfilling year for you. The past year has been such for the Biology Department, but it has also brought many changes. These include the retirement of Professor Jeanne Szalay in June 2002 and her relocation to sunny New Mexico. Professor Uldis Roze retired in February 2003, but will maintain a research lab on campus and will continue his porcupine research. We hope to have him teaching part time in the future. I would like to take this opportunity to thank Prof. Roze for the wonderful job he has done producing and editing *Biology Currents* since its first issue in 1997. I very much appreciate his agreeing to edit the current issue, and we will do our best to continue to provide you with the same kind of high-quality, informative newsletter.

The Biology Department has added several new faculty and staff members. Dr. Stephane Boissinot and Dr. Joni Seeling joined our faculty as Assistant Professors in February. More details on their training and research interests can be found elsewhere in this issue. In addition, two new College Laboratory Technicians were hired during the summer of 2002, Xenia Freilich and Michael Tessitore, as well as a new Office Assistant, Jamie Laura. Despite these new additions, the number of full-time Biology faculty members is the lowest since about 1960 and has decreased over 30% since 1995 alone. We hope this trend will be reversed soon, particularly in light of the significant increases in enrollment in Biology courses that have occurred in the past two years.

At present we are actively recruiting a new faculty member in the area of animal physiology and have requested permission to search for 2–3 more faculty members next year in the areas of ecology and organismic biology. During this expansion, we are guided by our commitment to excellence in teaching and research and to maintaining a department with broad-based interests in all areas of biological sciences.

Physically, big changes are underway at Colwin Hall (originally called E-building). The exterior envelope is undergoing a complete facelift and scaffolding has surrounded the building since last summer. First the crumbling stucco surface was carefully restored and will soon be repainted. Work on the windows is currently ongoing.

All the windows are to be replaced by high-quality, new thermopane windows specifically designed to maintain the look and style of the original building. The roof will be the last part of the project. The Spanish roof tiles are to be completely removed, the underlying structure fully repaired, and the original tiles remounted. The project is planned to be completed by the end of 2003. The College has requested funds to restore the interior of Colwin Hall, which is desperately in need of work.

The Science Building has also seen changes, albeit more modest ones. The Biology Computer Center was upgraded and expanded thanks to the newly instituted CUNY Technology Fee. The Center now includes 21 top-of-the-line Dell computers, all online on the newly installed broadband high-speed Queens College network. This semester, for the first time, we are using the Center to teach a course in bioinformatics. Several rooms on the first floor of E-wing have been renovated. Included is new space for our Cellular Imaging and Molecular Biology Core and Dr. Seeling's research laboratory.

Some things have not changed. Biology Department faculty continue to rank among the most highly regarded and dedicated educators at Queens College, and their efforts can be seen both in the classroom and beyond. Some of these are listed in "Faculty notes" and "Biology 2002 publications" in this issue. Others may be found on the Biology web page at www.QC.edu/Biology.

Also unchanged is our dedication to science. Biology faculty members are active participants in the scientific community. Our Department includes several well-recognized scholars and is one of the best-funded departments in the College, receiving grants from the National Institutes of Health, the National Science Foundation, and the March of Dimes. The Science Building, which houses most of our most active researchers, is always abuzz with faculty and students, often late into the evening.

I invite you to visit the Department in person but, if this is not possible, please check the Biology Department website for updated information on the Department as well as contact numbers and email addresses. On behalf of the Department I thank you for your generous support and look forward to hearing from you.

Corinne A. Michels

## **NEW FACULTY**

Stephane Boissinot joined the QC Biology Department



in February 2003, nine years after attaining his Ph.D. at the University of Montpellier in France. Though Queens is his first formal academic appointment, he has already had 3 scientific careers, with substantial accomplishment in each. The common theme linking them is evolution-

ary genetics, played out in different organisms, and in different biological settings.

Dr. Boissinot's Ph.D. thesis analyzed the population genetics of the house mouse, *Mus musculus*. An eastern subspecies and a western subspecies meet in Europe, forming a very narrow hybrid zone and showing significant reproductive isolation from each other. Dr. Boissinot showed that patterns of inheritance based on the Y chromosome (males) showed discordant phylogenetic patterns from those shown by mitochondrial DNA (females).

He then traveled to the University of Texas at Houston where he held a postdoc position in the lab of Dr. Wen-Hsiung Li and undertook a study of the evolutionary genetics of color vision in New World primates. The Old World primates, to which our own species belongs, have 3 genes for color vision. One gene (blue-sensitive) is autosomal; the other two (red- and green-sensitive) are X-linked. One consequence is that human males have a higher incidence of red-green color blindness than females.

In most New World primates (Cebidae), color vision is organized differently. There is still an autosomal gene for the blue-sensitive pigment, but red- and green-sensitive pigments are coded for by 2 alleles of a single X-linked gene. As a result, Cebid males and many females experience only a dichromatic color vision. How old is the New World system? Do trichromatic females experience greater biological success than males or dichromatic females? What kind of selection maintains the diversity of the X-linked pigment systems? These and related questions are explored in 6 publications Dr. Boissinot has authored in journals such as Evolutionary Biology, The Journal of Molecular Evolution, and Proceedings of the National Academy of Sciences.

Pursuing a second postdoctorate, Dr. Boissinot traveled to the National Institutes of Health where he worked in the laboratory of Anthony Furano. The NIH postdoctorate was focused on LINE-1 retrotransposons in the human genome. These are repetitive elements which make up some 30% of the human genome. Does this pool of DNA reflect a battle between the human genome and a molecular parasite, or does it convey some selective advantage? What do the LINE-1 elements say about human evolutionary history? How are the LINEs distributed in other mammal species? Dr. Boissinot has published 4 scientific articles on such topics, with 3 more in press, and a review article

freshly started.

At Queens, Dr. Boissinot will continue his LINE-1 work, but he has embarked on yet another line of investigation: the West Nile Virus (WNV). This virus is part of the Flavivirus group, which includes the yellow fever virus, the dengue virus, and other dangerous viruses. The Borough of Queens is a kind of Ground Zero for WNV in North America: the first human infection was discovered here. However, Dr. Boissinot's study organisms will be neither humans nor birds, which have been heavily impacted. Rather, he will return to an earlier study organism: the house mouse and its relatives. The house mouse, whose genome has been completely decoded, carries a multi-allelic gene for WNV resistance. With the help of 7 graduate and undergraduate students, Dr. Boissinot will study the diversity of the resistance locus in different Mus musculus strains, and will do comparative sequencing.

Dr. Boissinot's involvement with biology began with a teenage interest in lizards and reptiles. While his attention today has widened to include both the very large-scale biology (evolution) and the very small scale (molecules), he has not lost sight of the magical intersection of the two — the animal. Thus perhaps in time, the ground zero for WNV attack in North America will become the ground zero for its treatment.

Joni Seeling joined the QC Biology faculty in February



2003. In science as in any other field, an employment change can bring its share of uncertainty and stress. Her 6-month-old baby needs day care and a pediatrician. (Her biologist husband is serving as temporary caregiver.) Her future lab is now a construction site with raw Sheetrock walls and lab

benches on order. The family's previous house in Utah must be sold.

Only when she talks about her work do the uncertainties give way and clear purpose emerges. Dr. Seeling is a molecular biologist who is studying the role of the Wnt pathway in development and tumorigenesis. Wnt is a growth factor that signals its effect in the organism through a complex cascade of interacting proteins. She is focusing on one of these: the protein phosphatase 2A (PP2A). Dr. Seeling is first author of a 1999 *Science* article that shows that the B56 subunit of PP2A directly inhibits Wnt signaling and reduces transcription of Wnt-responsive genes.

Elucidation of the Wnt pathway has important medical and biological consequences. This is because more than 90% of colon cancers, the second leading cause of cancer deaths in the United States, are caused by deregulation of Wnt signaling. The National Institutes of Health was so impressed with Dr. Seeling's work that it funded a million-dollar RO-1 grant she wrote while she was a postdoc at

the University of Utah. Unfortunately, NIH rules prevent her from bringing the grant to Queens College.

Dr. Seeling is a Phi Beta Kappa graduate of Iowa State University, where she fulfilled a double major in chemistry and biochemistry and co-authored her first scientific publication while still an undergraduate. She stayed at Iowa State for her Ph.D. studies, focusing on the RAS protein Rho1p in yeast. She then took two postdocs at the University of Utah. It was here that she identified the inhibitory role of PP2A:B56 in Wnt signaling. The protein had not previously been recognized as part of the Wnt pathway. Besides her *Science* article, she is senior author on 3 other articles on the same topic, most recently in the *Proceedings of the National Academy of Sciences*.

Dr. Seeling comes from a large family — she has 5 siblings. She was the first in her family to earn an advanced degree, and her example may have inspired the others to careers in education, law, and science. Dr. Seeling's own inspiration came from her undergraduate research experience at Iowa State. At Queens College, she plans to keep at least some spots in her lab open to undergraduates.

## 2002 GRADUATE

Anita Heinz, winner of the 2002 Biology Department



Lancefield Award, is musing about some of the changing scenery of her life. Born into a German-Hungarian family in Romania, she spoke German at home and Romanian in school. She now speaks flawless English, thinks herself an American, and seldom has a chance to practice her German. Having grown up

on a farm where animals were raised to be slaughtered, she is planning a career in conservation biology to protect animals from extinction. And coming from a family where no one had ever finished college, she has graduated Queens with a 3.9 GPA and plans to pursue a Ph.D. degree. But she reports her mother wants to know when she will get a real job!

Anita was able to come to the U.S. at age 7 because of a "ransom" paid by her grandparents. The grandparents, who had left Romania earlier, paid cash to the Communist government to release Anita and her family. Anita's eyes sparkle as she recalls that she cost less than her brother did — boys were considered more valuable. Unfortunately her father, a trumpet player in a Romanian band, was not accepted for settlement in the U.S. and the family split up. He settled in Bavaria; his wife and children joined Anita's grandparents in Westchester, N.Y.

Queens was not Anita's first college. She completed a B.A. at C. W. Post College in computer science and mathematics. She came to Queens for a second B.A. in Biology when she realized that what she really loved was nature

and animals, a love fed by camping and hiking trips to the northern Catskills.

Anita reports she enjoyed Queens College a lot and she found her professors "amazing — really good as teachers." She even enjoyed her chemistry courses, a discipline she had not expected to like. Like all Queens students, Anita commuted to school, traveling by bicycle in good weather. She admits the commuter experience at Queens made it harder to form close friendships. Yet she feels she got a better education at Queens, and has particular praise for Dr. Sperling's field courses.

Since graduation, Anita has been working as an animal keeper at the Bronx Zoo. She held a similar position previously at the Central Park Zoo, where she had an opportunity to do original research on a penguin colony, applying the statistical techniques she had learned at Queens.

Anita's dream is an academic career. She has almost finished a Biology M.A. at Queens, and is applying to Ph.D. programs in Conservation Biology. Her plans received an emotional reinforcement when she became a T.A. in a Biology 107 lab this spring. The teaching experience is a delight, and her students have expressed their appreciation. There should be many more such experiences for Anita.

## **ALUMNI**

Peter Cannell, Ph.D. '86, died May 21, 2002. Peter wrote his thesis on songbird systematics under Max Hecht at Queens and Wes Lanyon at the American Museum of Natural History. He became the Director of the Science Division of Smithsonian Institution Press and also became the editor of the Smithsonian Series in Comparative Evolutionary Biology. He died at age 47; the cause of death was a brain tumor.

Monica Eichhorn '98 was accepted by UMDNJ Medical School, but declined. She is currently teaching science to eighth graders in a Queens Middle School. Email: monica\_eichhorn@msn.com

Arlene F. Hoffman '62 got her Ph.D. in 1966 from the Downstate Medical Center, SUNY. She did a postdoc in immunophysiology at Stanford University Medical School, and got a DPM from the California College of Podiatric Medicine in 1976. She is still most grateful to her QC Biology professors: Drs. Marien, Aaronson, Hecht, and the Colwins. She is teaching, doing research (with over 34 publications), and maintaining a clinical practice that promotes nonsurgical treatment of her patients. She has been with her domestic partner for 15 years. Her home phone is 415-383-7873.

Jose Murga '98 got an M.Phil. in Biology from CUNY Graduate School in 2001. He is currently a research scientist at Novartis Pharmaceuticals in NJ, where he de-

signs cell-based assays for development of antidiabetics. At the same time, he is enrolled in the graduate program in Computational Biology at the NJ Institute of Technology. Email: j\_murga@yahoo.com.

Imelda Oliva '83 got a DPM from New York College of Podiatric Medicine in 1988. She is married and has a 10-year-old son. She has 13 years of Army service and is a Reserve Major in a medical unit in Chattanooga, TN. After spending 10 years living across the USA, she is back in New York, with a private practice in Jamaica, NY, and teaching at the New York College of Podiatric Medicine, as well as adjunct teaching at Touro College School of Health Sciences. Email: ioliva@nycpm.edu.

Otto Sabando '92 got his D.O. from New York College for Osteopathic Medicine in 1998. He finished a residency in emergency medicine and is currently practicing at NY United Hospital in Port Chester, NY. He is married and has a 2-year-old daughter, Alyssa. Email: drottomaria@msn.com.

Alexander E. Weingarten '76 received his M.D. from SUNY Upstate Medical Center in 1980. He is now a board-certified anesthesiologist with a subspecialty degree in pain management. He practices in New Hyde Park and Jericho. With his wife Meryl, he is the proud parent of two sets of twins. Email: weingartencpm@aol.com.

### THE RETIREES

Sheldon ("Corky") Aaronson celebrated his 80th birthday in December 2002. Two weeks previously, he was observed selling books at the Friends of the Library book sale. (Corky is past president of Friends of the Library.) When not occupied with these activities, he goes folk-dancing with his wife (once a week), attends a class in clay and stone sculpture (twice a week), and spends the remaining time working on a book about the uses of algae and fungi as natural foods.

Laura and Arthur Colwin have endowed the "Laura and Arthur Colwin Summer Research Fellowship Fund" at the Marine Biological Laboratory (MBL) in Woods Hole, MA. The endowed fellowship will provide full support for independent researchers at MBL in the fields of cell biology and developmental biology. The endowment will cover the costs of laboratory rental, housing, travel, and other expenses. The Colwins are past members of the Board of Directors of the MBL and remain MBL Corporation members. During their tenure at Queens, they maintained a year-round laboratory at MBL and did much of their classic work on sea urchin fertilization there. Arthur and Laura still spend their summers at Woods Hole, escaping

the Florida heat and keeping in touch with young scientists.

Andrew Greller is President-elect for 2003–2005 of the Torrey Botanical Society, the oldest botanical society in America. Andy was president of the Society in 1988–1989, during which time the New York Metropolitan Flora project was initiated under his aegis. Andy also collaborated on a research project with his former graduate student, Dr. D. Siril S. Wijesundara. Siril is now the Director of the Sri Lanka National Botanic Garden, located in Peradenya, near the mountain "capital" of Kandy.

## 2002-03 RETIREMENTS

Jeanne Szalay retired in September 2002, after a 30-



year career at Queens College. Dr. Szalay received her B.A. from New York University and her Ph.D. in 1966 from Columbia University. Subsequently she pursued postdoctoral studies in the Department of Anatomy at Columbia, and then at Albert

Einstein Medical College, where she used electron microscopy to study ultrastructure and permeability characteristics of newly formed ocular blood vessels during wound healing and inflammation. In 1972 she joined the faculty at Queens College where she continued with her research, joined the doctoral faculty, and became heavily involved in research and teaching.

At the undergraduate level Dr. Szalay taught the introductory course for nonmajors, now called Bio. 11. She then began to teach histology, the new course of cytology, and cell biology lecture and laboratory. At the graduate level she taught Cell Biology and a series of seminars. Dr. Szalay was active at the Graduate Center, and for many years was Deputy Chair of Graduate Studies at the Biology Department. She also served as Biology Master's adviser for many years.

Dr. Szalay maintained an active research lab which relied heavily on student participation. She enjoyed mentoring many undergraduates, as well as Master's and Ph.D. students. Dr. Szalay and her students developed and characterized ocular models for the study of metastasis of melanoma and adenocarcinoma in mice and rats, and elucidated the regulatory mechanisms of these tumor metastases. Subsequent studies examined the role played by protein kinase C (PKC) during melanoma metastasis. Work with mouse cell lines overexpressing wild type and mutated PKC- $\partial$  is still ongoing and forms the subject of Jennifer Adjodha's Ph.D. thesis. This work establishes the important regulatory role of PKC as well as its multiple modes of action during tumor metastasis.

Dr. Szalay's work has been supported by the NIH, the Elsa U. Pardee Foundation, and numerous grants from PSC-CUNY. She spent her sabbatical year of 1980 at Monash University in Australia, learning new applications of electron microscopy while her anthropologist-husband studied marsupial fossils.

With her husband, Dr. Szalay was an avid sailor who sailed the Caribbean as well as the Mediterranean. The couple have sold their house in New Jersey and have moved to New Mexico. In the absence of seaports in that state, Dr. Szalay is happily involved in pottery, ceramics, and gardening. Her students and colleagues can reach her at Jeanneszalay@hotmail.com.



**Uldis Roze:** I came to Queens College in 1964, with a Ph.D. from Washington University in St. Louis. I was 26 years old, 1 year younger than the College, and remember thinking to myself as I walked into my first teaching lab, "These people look the same as I do — will they know I'm the

teacher?" For my second lab, I wore a suit and tie.

I was given a research space in the basement of B Building — a small room I shared with John Berech. A faculty office did not come until years later. I had been trained as a biochemist and, for the first years, I continued the enzymology research of my Ph.D. thesis. One time, the experiment ran late and I emerged from my lab after midnight. When I got to the Kissena gate, I found it chained and padlocked. All the guards had gone home. I considered the barbed wire atop the high gate, considered a night on a hard lab bench, and decided to climb. Being young and supple, I reached Kissena Boulevard without snagging my pants, and caught a late bus to Flushing.

My job at the College proved a two-way experience. I was teaching the students, but at the same time my students and colleagues were teaching me. The questions of my students made me realize the limitations of my own knowledge. And the field trips of my colleagues, particularly Andy Greller, made me aware of the broad horizons of biology beyond the lab bench. I remember the shock of pleasure at seeing an *Arethusa* orchid and the curly-grass fern in a dusky green Pine Barrens bog. I became an ecologist and environmentalist. With my ecology students and the Campus Environment Committee, we planted trees on campus. I wrote an environmentally oriented text of introductory biology. With Andy Greller, we fought environmental battles in the city.

Then I discovered the porcupines. My wife and I had bought 80 acres of land on a Catskill mountainside, on which we built a cabin. Porcupines came out of the woods to visit us, and chew the cabin. A literature search

revealed that little in fact was known about these familiar animals. We split a sabbatical year between the Catskills and the Biology Department at SUNY-Albany, where I wrote my first porcupine research paper.

Les Marcus introduced me to the American Society of Mammalogists and to mainstream mammalogy, in which I had no background. But I discovered my origins in biochemistry could be an asset, allowing new kinds of questions to be considered. I teamed with Dave Locke in Chemistry, and we were able to show that porcupine quills carried an antibiotic coating. Some further digging revealed the interesting ecological underpinnings of this fact: porcupines often fall out of trees, and suffer selfquilling. The resulting paper generated newspaper articles and radio interviews across the world: in London, Manchester, Cape Town, Ottawa, St. Louis, Chicago, and New York. There was even a science comic strip on the topic in the Boston Globe. This was followed by my book "The North American Porcupine," which was warmly reviewed and was a featured selection of a science book club. With my colleagues and coworkers, I hope to continue exploring new dimensions of the porcupine and other animals.

Looking back at 38 years at Queens College, the word that comes to mind is "adventure." Very little has turned out as I expected — it has turned out far better! The College has gradually built an infrastructure that proclaims it as a serious place of learning. The faculty, in which 100% turnover has occurred since my arrival, has continued to attract minds that stimulate each other and do honor to their professions. The students have been like the grass that springs up in cracked concrete, thriving and growing despite the most unfavorable of environments. And my own education, begun in years of undergraduate and graduate experience, has been furthered by my students and colleagues, in surprising and enriching ways. What a wonderful place, what a wonderful job!

#### **GRADUATE STUDENTS**



James Watson (center) with Biology graduate students Marie McGovern (I.) and Toni Panarelli (r.) at the DNA 50th Anniversary celebration in Cold Spring Harbor.

## **FACULTY NOTES**

David Alsop received the President's Award for Teaching Excellence in 2002, based on his outstanding work in the development of course guides and resource materials for Invertebrate Biology and Parasitology.

PoKay Ma was awarded a Faculty-Mentored Undergraduate Research Award to work with undergraduate students to organize and characterize a collection of several hundred fish specimens donated to him by the Smithsonian Institute. The project began in the summer of 2002 and is continuing this year. The results to date can be viewed at the Biology Department website at http://www.qc.edu/Biology/fish/fishcollection.htm.

Corinne Michels attended the Yeast Genetics and Molecular Biology Meeting held at the University of Wisconsin at Madison. She was accompanied by her graduate students Nidhi Gadura and Xin Wang. Corinne gave a plenary session oral presentation on the role of the Hsp90 chaperone complex in MAL gene induction. Her students each gave a poster pre-sentation.

Uldis Roze gave the keynote address at the annual meeting of the Catskill 3500 Club in Kingston, NY on April 6. His talk was titled "The lives of the Catskill porcupines." He also served as reviewer for Western North American Naturalist.

Cathy Savage-Dunn attended the Gordon Research Conference on peptide growth factors, held 8/4 to 8/9.

Tim Short was co-PI (with Zahra Zakeri, M. Cervantes and M. Patwary) on a \$74,988 CUNY grant entitled "Advanced plant

growth incubators ... for the model fern *Ceratopteris richardii*." He was also co-PI on a \$14,000 grant awarded by the American Society for Cell Biology, and the PI on a \$2,000 PSC-CUNY grant to study photomorphogenesis in *Ceratopteris*. He was also mentor (with Zahra Zakeri ) on an NIH Bridges grant to Queensborough Community College. Tim attended the 13th Annual Conference on *Arabidopsis* Research at Sevilla, Spain in June 2002. With his graduate students, he gave two poster presentations at the meeting, the first on novel proteins in *Arabidopsis* light signaling, the second on a novel mutant deficient in light signal transduction.

Zahra Zakeri was co-PI on a CUNY grant to study Ceratopteris (see above), and QC Coordinator and mentor on an NIH Bridges grant (see above). She received a QC Faculty-Mentored Undergraduate Research Award to work with undergraduate students on cell death during development. She was also recipient of a \$5,450 PSC-CUNY grant on the role of CDK5 in cell death. She served on 6 grant review panels for the NIH, the Alzheimer's Association, and the American Federation for Aging Research. She also served on the York College Advisory Board for MBRS/SCORE. She was an invited speaker and section Chair at the 10th Euroconference on Apoptosis held at the Institut Pasteur, Paris, Oct. 2002, and an invited speaker at the Second Coast Workgroup meeting on "Natural compounds and apoptosis" in Bergen, Norway, July 2002. She was the organizer of the 4th International Cell Death Symposium on "The Mechanisms of Cell Death" in Noosaville, Australia, May 31-June 3, 2002. And she was an invited speaker at the Morehouse School of Medicine in Feb. 2002.

## BIOLOGY ALUMNI FUND

Between 1/1/02 and 12/31/02, 88 alumni donated a total of \$12,150 to their home department. At a time of budget deficits, these gifts fill an important niche in the Department. They are used for departmental enhancement, to support student and faculty research and student travel to scientific conferences, and for course development. We are deeply grateful for this support.

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\*corresponding author

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## **ALUMNI**

We want to keep in touch! If you just want to say hello, or tell us what's new in your life, please fill **OUESTIONNAIRE** in the information sheet below and return to: Prof. Corinne Michels, Dept. of Biology, Queens College, Flushing, NY 11367 • Tel.: 718-997-3400 • Fax: 718-997-3445 • E-mail: corinne\_michels@qc.edu

Name:	Degree: Year: Institution:
Address:	В.А. 🗆
	M.A. $\square$
	Ph.D. 🗆
Telephone:	M.D. $\square$
Home:	Other degree
Bus.:	Personal highlights and comments:
E-mail:	
Make address/telephone available to Alumni?  ☐ yes ☐ no	

## **GRADUATES 2002**

## Biology 2002 B.A. Graduates

Allen, Mary Louise, Honors in Biology

Blijden, Ibiyemi

Breen, Collin, Honors in Biology; commissioned as 2nd lieutenant in Marine Corps

Brletic, Josip; planning to attend P.A. program at Downstate Medical Center

Budny, Sabina

Calin, Milena

Campana, Christian

Chauhan, Priyanka

Cohen, Paul; enrolled in M.A. program at QC

Desmornes, Julner; applying to medical schools

Eizik, Rivka, Darwin Award, High Honors in Biology

Farah, Andrea; currently a medical student at the Medical School of the Pontificia Universidad Católica de Chile Fishov, Margo, Honors in Biology Heinz, Anita, Lancefield Award, High Honors in Biology; enrolled in M.A. program at QC, applying to Ph.D. programs in conservation biology Hyams, Hennifer

Jaigobind, Natasha; married, had a baby girl

Khan, Sadia, Honors in Biology; currently an intern in dietetics program at QC

Khelawan, Hansraj

Khiyaev, Yury, Honors in Biology; enrolled in M.A. program at QC

Kim, Eunjoo

Knower, Christine

Kowerska, Malgorzata, Honors in Biology

Matecki, Michael

Nekmard, Farid

Persaud, Pria, Honors in Biology;

Applied to medical schools

Porcheddu, Jennifer, Honors in Biology Ramu, Andrea

Sahota, Arvind, Feigelson Award, Honors in Biology; applying to medical schools

Smatana, Maureen, Honors in Biology

Tingling, Janet

Weissman, Michael, Honors in Biology; currently enrolled in M.A. program at QC

Yamamoto, Yoshihiro; returned to his native Japan last summer

## Biology 2002 M.A. Graduates

Menezes, Marianna

Panagakos, William; working as a Research Assistant with Paul Mundinger in the Department

Ramonetti, Gary

Salamatbad, Michael.; attending School of Osteopathic Medicine in Erie, PA

Seudath, Oral

Vincent, Daniel

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