



## BARNARD CHEMISTRY DEPARTMENT NEWSLETTER June 2006



Hello once again to alumnae and friends of the Barnard College Chemistry Department. Another academic year is complete and another busy summer of research is underway. As always, we want to share with you some of the news of the college and department as well as news of our accomplished alumnae. We are always glad to hear from you.

### NEWS OF THE COLLEGE

A big event on campus this year was the *Great Writers at Barnard* conference in November. A remarkable collection of alumnae writers participated, including such luminaries as Anna Quindlan '74, Mary Gordon '71, Edwidge Danticat '90, Delia Ephron '66, Erica Jong '63, Jhumpa Lahiri '89, and Susan Stamberg '59. Of special interest to scientists were science journalist Natalie Angier '78, cardiologist Nieca Goldberg '79, and chemistry department alumna Jessica Stern '85 who writes about terrorism.

Each year the Hughes Science Pipeline Project sponsors a Distinguished Woman in Science lecture. This year's speaker was Dr. Helene Gayle '76, a physician who is an internationally recognized expert on HIV/AIDS. Formerly at the Bill and Melinda Gates foundation, she has just assumed leadership of CARE/USA. She gave an inspiring talk to a large Barnard audience about CARE's new initiative on worldwide issues of women and health.

This January some faculty were able to move into Cathedral Gardens, a new combined student and faculty housing facility on 110<sup>th</sup> Street, one block west of Central Park. About 90 upperclass women will move in this fall. Not long ago, this location might have been considered unsafe, but it is a neighborhood that is changing rapidly. A recent memo to the Columbia community from Alan Brinkley, Columbia's Provost, speaks of the very tight situation for Columbia faculty housing, with little recent or on-going construction, so Barnard having its own even limited faculty housing is particularly critical right now.

Plans for the Nexus, Barnard's next major campus construction project, move forward. This multi-purpose building will occupy the site of McIntosh Center, slated for demolition at the end of the 2006-07 academic year. Built together, Altschul and McIntosh share some infrastructure, so some preliminary separation work may begin even earlier. A lot of details --- even just how one will continue to get to and from Altschul --- have yet to be revealed. Although McIntosh's demise will be lamented by few (its design wastes precious space), it will certainly be a challenge to live without it while the construction proceeds.

Three departments, Chemistry, Biology, and Environmental Science, are involved with planning a major proposal to the Mellon Foundation for renovations in Altschul. If funded, this will provide desperately needed space for our department on the 6<sup>th</sup> and 8<sup>th</sup> floors. The college's long-range plans include expansion of our department, but this cannot proceed until there is adequate space for faculty-student research. The proposal also involves renovation of the 9<sup>th</sup> floor general biology teaching facilities, and consolidating Environmental Science's teaching labs onto the 4<sup>th</sup> floor.

## NEWS OF THE DEPARTMENT

Life has been a bit quieter in the department this year with no major construction activities. The 7<sup>th</sup> floor organic labs are being used year round for courses and research and impress many visitors to the college.

Once again the department hosted outside speakers to coincide with our semiannual advising luncheons. In the fall, our speaker was **Prof. Laura Kaufman**, a new Assistant Professor and physical chemist at Columbia, who talked about “Cell Migration in Three Dimensions: A Case Study and Perspectives.” This spring we hosted **Prof. Elizabeth (Betsy) Jamieson**, from Smith College, whose talk was “Investigation of Cr-induced DNA damage: Progress toward understanding Cr(VI) carcinogenesis”. Betsy was eagerly welcomed to the department as friend of Prof. Merrer’s from their undergraduate years at Smith, and as a M.I.T. graduate school colleague of Prof. Doerrer’s.

This year’s medalist at the 100<sup>th</sup> annual Nichols Medal Symposium and Banquet was 2001 Nobel laureate **Prof. Barry Sharpless** of the Scripps Research Institute, known for his development of “click chemistry” and eponymous oxidation reactions. Students and faculty had a wonderful time. A picture taken at the symposium appears on the back of the newsletter.

After a quick three years spent in the department, our Scottish colleague **Dr. David Millar** must (by the new regulations of Homeland Security) return to the highlands, thistles, and haggis of his youth. He will be much missed in Altschul and we wish him and his wife Lee *sealbh ort* (good luck in Scottish Gaelic). In the fall, the department will welcome **Dr. James McGarrah**, who will teach inorganic chemistry and several other courses. James did his doctoral work at the University of Rochester and is finishing up his postdoctoral work at Northwestern.

On a sad note, the Chemistry Department lost a long-time friend this year when **Ms. Gwen Buchanan** passed away unexpectedly in the early fall. A memorial fund at Barnard has been established in memory of Gwen Buchanan and her daughter, Lynn Ann. The fund, “The Lynn Ann and Gwendolyn Buchanan Memorial Fund”, will provide scholarship assistance with preference given to Barnard College women of color majoring in mathematics or natural sciences. If you would like to contribute to this fund, please send your gift to Amy DeRobertis, c/o the Development Office, Milbank 115. Checks should be made out to Barnard College. Please note, either on the memo line of the check or on a separate piece of paper, that the gift is for the Buchanan Fund. The family will be notified of all gifts.

Interest in chemistry and biochemistry runs strong: 24 sophomores declared majors in chemistry and biochemistry this spring, the largest class in recent years. Twenty students are doing research in the department this summer. **Mira Atanassova '08** has a summer internship at Merck and Co. We anticipate a large introductory course this fall: at present 95 rising sophomores are pre-registered, along with a handful of juniors and seniors.

*Departmental Prizes*

CRC Prize for excellence in General Chemistry

**Shenjuti Chowduri '09 and Alexandra Jen '08**

ACS-PMSE Prize for excellence in Organic Chemistry

**Denise Napolitano '08**

ACS Prize for excellence in Analytical chemistry

**Denise Napolitano '08**

Marie Reimer Prize: junior chemistry major

**Molly Weiner '07**

American Institute of Chemists Prize: outstanding senior

**Marina Khrapunovich '06**

Ira and John Kauderer Prize: premedical student majoring in chemistry

**Rachel Steinman '06**

Segal Summer Internships (2006)

**Sarah Bernard '07 and Jacqueline Foreman '07**

Hughes Summer Internships (2006)

**Jessica Anand '07 and Denise Napolitano '08**

Our majors also distinguished themselves by winning college-wide prizes: **Diana Jose '06** received the Grace Potter Rice graduate fellowship, **Marina Khrapunovich '06** the Alpha Zeta Prize, and **Molly Weiner '07** the Eleanor Elliot Prize for an outstanding junior.

Fifteen chemistry and biochemistry students graduated this year. Ten wrote senior theses. Their research advisors and topics are listed below.

Student	Advisor	Topic
Luna Alammar	Diana Caspar (Montefiore)	The Effect of Pulsed Electromagnetic Fields on Brain Immunology and Dopaminergic Neurons
Rebecca Hayoun	Linda Doerrer	Synthesis and characterization of Au polypyridyl double salt complexes
Marina Khrapunovich	Dina Merrer	Mechanism of Singlet Carbene Addition to <i>trans</i> -bicyclo[n.1.0]alkanes
Anna Landau	Jack Norton (CU Chem)	Studies of Insertion Kinetics of Zirconaaziridines
Kate Liberman	Brian Gibney (CU Chem)	Characterization of Delta7-DKNY - a Synthetic Heme Binding Protein
Sevan Ozcetinkaya	Jeanne Poindexter (Biology)	Identification of Caulobacter cell surface receptors for $\phi$ Cd1 and $\phi$ Cb13
Aimée Peck	Etah Kurland (P&S)	A Novel Relationship between Serum Leptin Levels and Bone Mineral Density among Men with Idiopathic Osteoporosis
Rachel Steinman	Rudolph Leibel (P&S)	The Identification of a Type 2 Diabetes Susceptibility Gene Using ENU Mutagenesis
Kim Sogi	Christian Rojas	The Effects of Conformation on the Stereochemistry of Amidoglycosylation Reactions

This year's graduates are moving on to work and study this fall. **Luna Alammar** is entering the PhD program in biochemistry at Johns Hopkins. **Sherisse Butler** plans eventually to go to medical school, but in the meantime is entering divinity school, probably at Union Theological Seminary. **Rebecca Hayoun** and **Diane Zhong** are both entering the chemistry PhD program at the University of Washington. **Diana José** is entering the PhD program in biochemistry and molecular biology at the Weill Graduate Program in the Medical Sciences at Cornell Medical College. Diana was also elected to  $\phi\beta\kappa$  this spring. **Marina Khrapunovich** is entering the M.D/PhD program at Einstein, and was elected to  $\phi\beta\kappa$  last fall. **Anna Landau** is applying to medical school for entry in fall 2007. In the meantime, she is back in Tucson, AZ, working on the congressional campaign of Gabrielle Giffords and volunteering with "No More Deaths", an organization which provides humanitarian aid to those crossing the US-Mexican Border. Since 79 people have died just this year from dehydration in the desert, it is important work. **Leah Lebowitz** will be teaching high school math. Best of luck, Leah.

**Kate Liberman** is working at Mt. Sinai Hospital. She is looking forward to living on the East Side, and having free time for recreational reading and enjoying the city. She plans to go to medical school after a year or two. We don't know **Yevginiya Monisova's** plans. **Sevan Ozcetinkaya** is starting Medical School at Stony Brook, and **Aimée Peck** is starting Medical

School at Dartmouth. **Kim Sogi** is entering the PhD program in Chemistry at the University of California, Berkeley. **Rachel Steinman** will be working at Montefiore Hospital for 2006-2007, doing clinical research with developmentally disabled children. She will enter the University of Rochester School of Medicine in August 2007. Rachel was also elected to  $\phi\beta\kappa$ .

### NEWS OF THE FACULTY AND STAFF

We bring you the unhappy news that **Prof. Leslie Lessinger** was recently diagnosed with pancreatic cancer. He says he is fortunate that some malignant cells migrated, forming a tumor in his bile duct, allowing an earlier diagnosis of this normally asymptomatic cancer. He also describes himself as lucky because only a small percentage of bile duct tumors are operable. He had major abdominal surgery at Cornell-New York Hospital in mid-May, and is now at home in Brooklyn. He reports that he is happy to be alive and is recuperating slowly. Prof. Lessinger has been on leave this year, working on his general chemistry textbook.

**Prof. Sally Chapman** has been especially busy as department Chair. Searching for new faculty, full and part-time, is a time-consuming task, and we will have at least five new faces in the department this fall. Prof. Chapman taught General Chemistry (BC2001x) in the fall, and Thermodynamics and Kinetics (BC3253y) in the spring. Ten Columbia biology PhD students were in the thermo course this year, along with 20 Barnard chemistry and biochemistry majors. She also coordinated the Senior Thesis Seminar. She has also just completed a three year term as a faculty representative to Barnard's Board of Trustees, an interesting assignment.

Prof. Chapman continues to work on issues of women in academic chemistry. She is a charter member of the board of COACH, and is P.I. on an NSF ADVANCE project now in its third year. This project is based on site visits to 30 university chemistry departments, assessing the climate for women. These visits are complete, the data is being analyzed, and the remaining major task is dissemination of results. In October, Prof. Chapman participated in a meeting of the Board on Chemical Sciences and Technology of the National Academy on "Envisioning the Future." Twice this year she met with the ACS Committee on Professional Training to consult on guidelines revision. In January she participated in an NSF-NIH-DOE-sponsored workshop on Women in Academic Chemistry Departments. Prof. Chapman reviewed the book "Success Strategies for Women in Science: A Portable Mentor", Peggy Pritchard, Ed. in *J. Chem. Ed.* (2006), **86**, 848.

Three students from **Prof. Christian Rojas's** research group, **Kimberly Sogi '06**, **Ritu Gupta '07**, and **Sarah Bernard '07** traveled to the Atlanta ACS meeting to present a poster, "Stereo- and Chemoselectivity in Nitrenoid Amidoglycosylation Reactions of Glucal 3-Carbamates," at a session sponsored by the ACS Division of Organic Chemistry. Also at the Atlanta meeting, Prof. Rojas gave an invited talk as part of a symposium celebrating the American Chemical Society's Award for Research at an Undergraduate Institution. The award was presented to Charles Beam of the College of Charleston (South Carolina).

Three Barnard students, **Ritu Gupta '07**, **Yetta Levine '08**, and **Simran Buttar '09**, are working with Prof. Rojas this summer, supported through his current NIH grant and with a generous housing allowance from the Provost's Office.

Prof. Rojas taught the introductory organic chemistry lecture courses, BC3231y and 3230x, in Fall 2005 and Spring 2006, respectively. During the spring he also co-taught the Advanced Organic Chemistry course (BC3280y) with Prof. Merrer to an enthusiastic group of five students. Topic covered during Prof. Rojas's half of the course included cycloadditions, oxidations, reductions, diastereoselective synthesis, and asymmetric reactions.

A recent publication from the Rojas group includes four Barnard student co-authors (in bold): **Bodner, R.**; **Marcellino, B. K.**; **Severino, A.**; **Smenton, A. L.**; Rojas, C. M.;  $\alpha$ -N-Acetylmannosamine (ManNAc) Synthesis via Rhodium(II)-Catalyzed Oxidative Cyclization of Glucal 3-Carbamates, *J. Org. Chem.* **2005**, *70*, 3988–3996.

Christian's wife Christine is finishing the gardening certificate program at the New York Botanical Garden in The Bronx, Sidney Rojas, 7, and Alice Rojas, 5, will both be at P.S. 75 in the fall (2nd grade and kindergarten), and Lewis Rojas (21 months) will start at the Barnard Toddler Center. All send greetings to former students and other friends.

**Prof. Linda Doerr** returned to teaching Inorganic Chemistry this fall (BC3271x) and taught the second offering of BC1002y, "Molecules and Matter", designed for students with little or no background in chemistry. The class has proven to be a good segue into BC2001x (formerly BC1601x) for 15-20 students each year.

The Doerr Group's work was communicated to the outside world through two publications this year: "Thalophilic Interactions in Aryloxy Compounds: the  $\{Ti_2(\mu_2-OAr)_4\}$  Structural Motif in  $(TiOAr)_4$  and  $Ti_2Cu(OAr)_4$  Compounds", *Inorg. Chem.* **2006**, *45*, 3864-3877 and "Synthesis and structural characterization of Groups 10 and 11 mononuclear fluoroaryloxy complexes", *Polyhedron* **2005** *24*, 1803-1812. **Sherisee Butler**, '06, **Rebecca Hayoun**, '06, **Diane Zhong**, '06, and Dr. **David Millar** presented their work at the Washington, D.C. (August 2005) and Atlanta (March 2006) ACS meetings. In July 2005, the Columbia NSEC (Nanoscale Science and Engineering Center), of which Barnard is a member, was granted a five-year renewal by NSF and is providing research support for several students in the summer of 2006. A second offering of the Saturday Science Seminars by members of the Barnard science faculty was successful. The Doerr contribution was entitled "Challenge Your Chemical Assumptions." This program is designed to expose enthusiastic high school juniors to the possibilities of research with faculty at Barnard and encourage them to apply.

Sad news for our department is that **Prof. Linda Doerr** is leaving. While very much enjoying teaching and doing research at Barnard, Prof. Doerr decided that she wanted a position that would allow a greater portion of her time for research. She has accepted a position at Boston University. As she prepares to pack up her equipment and leave, she continues to work with a large group of Barnard summer research students: **Eman Bataineh** '07, **Rebecca Trachtman** '07, **Kiana Jannesari** '09, **Alexandra Roudenko** '09, **Kathryn Woolard** '09, and **Bing Na Zang** '07. We wish Linda the very best at BU. We will miss her. But we are proud that her independent academic career had a strong beginning at Barnard.

**Prof. Dina Merrer** taught a couple of courses for the first time this year: Modern Techniques lab in the fall and Intermediate General Chem in the spring. She also taught Advanced Organic with Prof. Rojas in the spring. Modern Techniques was a particularly fun experience, with a wonderful (and large) group of students. On the research front, Dina and her group continue their joint experimental and computational mechanistic investigations of singlet carbene additions to strained C-C  $\pi$ - and  $\sigma$ -systems. **Marina Khrapunovich** '06 finished an illustrious 3-year stint in the Merrer lab with her senior thesis on the mechanism of halocarbene additions to *trans*-bicyclo[6.1.0]nonane and to cyclooctyne. Many thanks to Marina for all of her high-quality research and contributions to the group. **Chantel Nicolas** '07 continued her summer 2005 research on carbene additions to benzyl[1.1.1]propellane throughout 2005-06, presenting her work at the ACS meeting in Atlanta in March. A recent publication: Merrer, D. C.; Rablen, P. R. Dichlorocarbene Addition to Cyclopropenes: A Computational Study, *J. Org. Chem.* **2005**, *70*, 1630-1635.

The mysteries of the carbene world have apparently hooked both Chantel and **Denise Napolitano '08**, who also worked in the Merrer lab last summer, as they're both returning for another summer of carbene fun in 2006. Joining them are **Sarah Bernard '07**, **Sonia Ortiz '08**, and **Kaitlyn Suski '08**. Hopes are high that this talented and robust group will crank out lots of interesting (and publishable!) results. Dina also received a 2006 Gladys Brooks Junior Faculty Teaching Award, an honor she proudly shares with her past and current students. Finally, Dina sends congratulations to the Class of 2006 and greetings to all Chem/Biochem alums. Drop a line to say hello!

**Prof. Matthew Birck** joined the department this past fall, as our new biochemist. Prof. Birck's B.S. is from Rose-Hulman Institute of Technology in Indiana, his PhD from the University of Michigan, and he did postdoctoral research at the Albert Einstein College of Medicine, in the group of Vern Schramm. This year he taught the biochemistry laboratory courses in the fall and the biochemistry lecture course in the spring. With the help of Mrs. SuQing Liu, he is revising the Biochemistry lab course significantly to better reflect the use of modern techniques. Prof. Birck thoroughly enjoyed his first year at Barnard. In addition to his teaching courses, he has started his research program looking into the chemical mechanisms of two enzymes associated with bacterial programmed cell death. Immediately after Prof. Birck joined the department, several students expressed interest in his research. Four students, **Jessica Anand '07**, **Afreen Hoque '07**, **Rebecca Israel '08**, and **Jacqueline Forman '07**, are in his laboratory this summer. We are very happy to report that Prof. Brick was awarded a Start-up grant from the Dreyfus Foundation.

**Dr. Joanna Goodey Pellois** is leaving Barnard after four years as a Visiting Assistant Professor. Prof. Pellois' husband, Jean-Philippe, has completed his postdoctoral work at Rockefeller, and they are moving to College Station, Texas where they have faculty positions at Texas A&M. At Barnard, Prof. Pellois ably taught general, analytical, and inorganic chemistry. We wish Joanna, Jean-Philippe, and their son Max great success and happiness in Texas.

In Fall 2005, **Olympia Jebejian** enjoyed having Dr. Jacob Alexander join her as a co-Director of the General Chemistry Laboratories. As in previous years, maintenance of the five lab sections kept her quite busy. She continued to work hard to set up the experiments to run smoothly besides teaching in the lab and supervising the overall instruction of the five sections. Additionally, she supervised the grading of the over 120 laboratory notebooks. In the spring semester, Ms. Jebejian was in charge in the overall preparation of the General II laboratory and taught in the Quantitative and Instrumental Techniques course (BC3338 and B3340) with Prof. Joanna Pellois and the assistance of Mrs. Suqing Liu. The enrollment in this two-part course was high, yet the teaching was very enjoyable with such capable rising majors. Olympia continues to be an academic adviser to first-year and sophomore students.

In the summer, Mrs. Jebejian teaches chemistry in the Higher Education Opportunity Program (HEOP). HEOP students participate in a rigorous six weeks of class work in preparation for the fall, when they start at Barnard as first-year students. Olympia Jebejian feels very rewarded when some of these students come back and take chemistry during the academic year and do well. On a personal note, Olympia and her husband Shahe feel blessed to see their son Sarkis and daughter-in law Maral (BC'93) and daughter Maria (BC'95) and son-in law Bryan happily married. Their four grandchildren, two from each couple, joyfully keep them quite busy during the weekends!

We were very pleased to welcome **Dr. Jacob Alexander** to the department this year. "Dr. J" comes to us from Syracuse University via a postdoctoral assignment at the Hebrew

University in Jerusalem. His research interests are in inorganic chemistry, X-ray crystallography and chemical education. Last fall, he was very busy assisting Mrs. Jebejian with the many facets of the 2001x General Chemistry lab, from supervising the students to overseeing the notebook reports you all remember with such love. In the spring, he was involved with teaching the 2002y General Chemistry course and greatly enjoyed interacting with yet another wonderful group of students. This summer, he is already working to prepare the lab for a new batch of 2001x students but still will find time to work in Professor Linda Doerrer's lab investigating exciting new transition metal compounds, as well as to (hopefully) cheer his St. Louis Cardinals to victory in the World Series!

Dr. J writes "I am simply overwhelmed by my first year as a member of the Barnard Chemistry family. All of my wonderful students and good friends I have made have made this a spectacular experience for me. I can't wait for this fall to get here to begin anew...without all of you here the college is a lonely place, indeed!"

**Dr. Toby Berger Holtz '67** continued to teach the General Chemistry lab in the fall term and the introductory Organic Chemistry lab in the spring term, in addition to grading notebooks, giving office hours, doing organic lab prep both semesters, and advising first-years and sophomores. She is also the departmental "Fire Chief" in her capacity as Safety Officer. She writes that teaching in the newly renovated organic lab is even more enjoyable after last year's shakedown cruise. Two recent articles by Toby appear in Vol. 2 of *Encyclopaedia Aethiopica*.

On the home front, her son, Shalom, just received his PhD in Assyriology from the University of Pennsylvania and is an Assistant Professor at Yeshiva U. in NYC starting in the fall. He and his wife have just had their first child, a son. Toby's daughter Miriam, her other son Mordecai, and his wife Sari and are all completing Master's degrees this summer. Toby's other daughter Razelle BC'01, received her M.A. from Teachers College in 2003, and teaches first grade at P.S. 173 in Washington Heights.

**Dr. Meena Rao** reports that the beautifully renovated organic chemistry labs have made it possible to introduce a variety of new experiments and techniques into the organic lab courses. Since every student can work in a fume hood, choice of reagents is no longer limited by inadequate ventilation. And the bright cheerful lab is a wonderful working environment. **SuQing Liu** works with faculty in the biochemistry, analytical, and integrated (physical/inorganic/instrumental) laboratory courses. At the same time, she continues her graduate studies at CCNY. She and her husband have recently purchased a house in CT, nearer his workplace. **Ying Xie** works with faculty in the organic and general chemistry labs. She returns to China each summer to visit family and friends.

We welcome **Dorothy Brand**, who has been the Administrative Assistant for Chemistry and Physics/Astronomy since late fall. Dorothy has taken on the task of organizing department records, helping coordinate searches, and has reorganized and rejuvenated the department's web site. Take a look: <http://www.barnard.edu/chem/>. Dorothy is serving on a jury this month.

**NEWS OF FORMER FACULTY**

**Grace King** still lives in the neighborhood and drops by the department from time to time. We are always happy to see her.

While he was studying for his doctorate at Teachers College, **Steve DeMeo**, worked for many years in our first-year labs. He is now on the faculty at Hunter. He wrote last summer: "juggling the family and work is so challenging and so time consuming (and I only have one little one). I am trying to spend as much time with my daughter, Sophia Shivanni, as possible. She is an amazing little creature, bouncing on the couch, doing cartwheels, and demanding her "organic" low-fat milk to be just at the right temperature. She is almost 5 and on her birthday in February, I will enroll both of us in Kung Fu. Pamela is working at a nearby middle school teaching health, and we try to dovetail our schedules so that we do not have to depend on daycare."

Steve continues: "Last year I was awarded tenure (thanks to your support!) and now I have my sights on the next promotion. I am doing a lot of writing and hopefully with a sabbatical next year I can get a book out on how students solve stoichiometry problems. From a questionnaire I sent, I learned that teachers are very passionate about using either proportional reasoning or dimensional analysis (but not both). The change-over in textbooks from PR to DA occurred somewhere in the 1950's, so the history can be explored.

"This year I am in charge of re-vamping the freshman labs at Hunter. Many of the activities I developed at TC are being used (you might remember my love for zinc and iodine). The first half of the year is well developed and experiments have been tested and re-tested. They are quite different from traditional labs. I found a way to bring in inquiry within the confines of giving students a detailed but necessary procedure. The second half of the lab program is coming along, and will be formalized in a year or so."

**ALUMNAE NEWS***Classes of 2000-2005*

**Pam Cole '05** wrote in March: "It's hard to believe that it's almost been a year since graduation. Right after commencement I began work here at the Hospital for Special Surgery doing Lupus research, basically a lot of immuno-genetics. It has truly been a wonderful experience so far." Pam went on to pass on some (always appreciated) job information for this year's graduates.

**Martha Low '05** dropped a note to Prof. Rojas: "Veterinary School [at Illinois] is as I expected: super hard! But I enjoy the material and I suppose the Midwest is treating me well."

**Bridget Marcellino '05** was accepted into two Medical Scientist Training Programs, MD/PhD programs fully funded by the NIH. We believe that she will attend Einstein. Well done, Bridget!

**Lillian Seu '05** has been working with Dr. Geoffrey Pitt in the Department of Pharmacology at Columbia this year, continuing work she started while at Barnard. Her primary project, "Inhibition of high voltage activated calcium channel trafficking via the small GTPase gem". Lillian gave a paper on this work at the Society for Neuroscience in Washington DC in November. She deferred her admission for UCSF for one year and will be matriculating this fall, in the department of Pharmaceutical Sciences and Pharmacogenomics.

**Katherine Nguyen '05** will be starting medical school this fall at Thomas Jefferson in Philadelphia. She has been working at Columbia P&S in the Pitt lab along with Lillian Seu.

**Kiley White '04** stopped by for a visit this fall. She is living and working in Queens. Working in a lab at the city's Department of Environmental Protection, she mostly tests samples related to the huge water tunnel project. She says the work is repetitive, but that she is enjoying being out of school, on her own, without assignments pressing. She is starting the PhD program in chemistry at the University of Pittsburgh this fall. She is particularly interested in their interdisciplinary materials science emphasis.

**Leah Roberts '04** stopped by this fall. She had just completed her Masters in Human Nutrition from Columbia. She has enjoyed this degree program very much, and recommends it to students who are trying to decide between a research and medical career. Leah has decided to go into medicine, and will be attending Drexel University in Philadelphia this fall. In the meantime, she has worked as a person trainer at Equinox on Broadway in the 90's. She has also become an avid and accomplished triathlete, traveling around the world to compete and raise money for charity.

From Linda Hsieh-Wilson's Web page at Caltech, we read that **Sarah Tully '00** has finished her PhD, and will be a post-doctoral student at the Glycobiology Institute at Oxford University with Profs. Pauline Rudd and Paul Wentworth. She has been awarded a National Science Foundation International Research Fellowship. Congratulations, Sarah; have a great time in Oxford.

**Charli Long '00** completed her PhD in chemistry at the University of Pennsylvania and will be working starting the fall at the FDA in Rockville, MD, reviewing new animal drug applications. This spring Charli completed her third marathon, this time as a member of Team Teal, to benefit the Philadelphia chapter of the National Ovarian Cancer Coalition. Way to go, Charli!

#### *Classes of the 1990's*

Having finished her chemistry PhD at Northwestern, **Hannah Storrie '99** has been a postdoctoral fellow in the Harvard department of Bioengineering for about a year, working in the group of Prof. David J. Mooney. She visited the department recently; we enjoyed hearing about her adventures with promoting nerve growth, studying samples using a confocal microscope.

**Moushumi Paul '99** wrote last July: "I have finally finished my PhD [at Illinois-Urbana] and have taken a post-doc position at the University of Wisconsin in Madison. I started my job last Tuesday and so far it's been pretty quiet, but nice. I like my new boss quite a bit and the new group seems pretty normal."

**Jhoanna Bautista '99** is entering medical school this fall, at Washington University in St. Louis.

**Bonnie Koo '99** wrote recently "I just finished up my 2nd yr at P&S and I am now busy studying for Step 1 ("boards"). I'm taking them in early June. We start 3rd yr on June 19th (so long summer vacation). I honestly cannot believe medical school is half-way over; it has seemed to fly by. I may however, do a year of research after 3rd year, but we shall see."

**Anne Runge '99** wrote last fall: I "am working as a postdoc in the lab of Prof. Hiroshi Matsui at Hunter College here in Manhattan. The research is in the area of synthesizing nanoparticles on peptide templates and characterization with a range of AFM techniques. I've been here about a month and so far it's interesting and very different from the research I did at Arizona, which is a nice change. I am still thinking about teaching in the future, but this is keeping me busy for now." We hope the work continues to go well.

**Alaunde Copley-Woods '95**, a biochemistry major and Centennial Scholar at Barnard, is now an accomplished concert flutist. She is a member of the Greely CO philharmonic orchestra, and has performed chamber music throughout the world. She also teaches and composes.

**Ogei Yar '94** stopped by for a visit in April. Following completion of her MD at Oklahoma, Ogei did an internal medicine residency at UAB in Birmingham, followed by a cardiology residency at Emory in Atlanta. She is now at the NIH in the National Heart, Lung, and Blood Institute (NHLBI), working on developing cardiovascular interventional MRI. While MRI has come a long way in medical imaging, much more can be done. She is enjoying combining her medical knowledge with things she learned in spectroscopy long ago. At a fellows' meeting she ran into **Rebecca Lipsitz '95**, a chemistry postdoc at NIH. Ogei is looking for a permanent position, either creating or joining an existing cardiac MRI program. Since the equipment is costly, it is a challenge for hospitals to enter into this area.

#### *Classes before 1990*

**Robin Gross '89** stopped by for a brief visit in July 2005, accompanied by her husband and two daughters (the elder was looking at colleges and considering Barnard.) She was impressed with the new organic lab but agreed that the 8<sup>th</sup> floor lab looks just the same as when she was here.

**Laurel Boone '88** came back to Barnard last November for an informal career night. Students were very interested to learn how her career as a Patent Attorney evolved and how she combines career and family. Laurel has a PhD in chemistry and a law degree. Barnard's Career Development Office arranges a number of these intentionally small and informal group discussions each year, designed to foster open conversation. We are grateful for the alumnae who participate in these events.

**Inna E. Goldberg '87**, who received her MD from Harvard in '91, is Assistant Professor of Radiology at Tufts University School of Medicine. She also practices at the Lahey Clinic in Burlington MA.

While teaching chemistry at Yeshiva University, **Gail Horowitz '87** is studying for her doctorate in Chemical Education at Teachers College. She and Prof. Chapman enjoyed talking about issues of women in science over a recent lunch.

**Karen Goldberg '83** won a 2006 Outstanding Woman Scientist award from the NYC section of Association for Women in Science (AWIS). Prof. Chapman was pleased to introduce Karen at the ceremony, also attended by Karen's mom and her sister Naomi, BC'83. Karen is Professor of Chemistry at the University of Washington in Seattle. Karen gave a nice talk about the challenges and rewards for women in academic chemistry, acknowledging several people who had a special influence on her career, including Prof. Bernice Segal. Karen encourages you to vote for Bruce Burstein, her postdoctoral mentor, for ACS President.

**Brenda A. Wilson '81**, who has a PhD in Chemistry from Johns Hopkins, is Associate Professor of Microbiology at the University of Illinois - Urbana. She studies bacterial protein toxins, their interaction with host cells, their effects on intracellular signal transduction, and development of novel alternative anti-toxin therapeutics.

**Barbara Ellen Scanley '80**, who has an MD/PhD in Pharmacology and Physiology from the University of Chicago, is Assistant Clinical Professor of Psychiatry at Yale. She works in magnetic resonance imaging and substance abuse research.

**Daniela S. Gerhard '76** worked for a number of years at the Washington University Medical School in St. Louis but is now Director of the Office of Cancer Genomics at the National Cancer Institute at the NIH. Her distinguished scientific research has focused on identifying genes that cause a predisposition to various forms of cancer.

**Saswati Datta '74** and her 13-year-old daughter, Rashmi, visited Barnard in March. After finishing her PhD at Columbia, Saswati worked for many years for IBM, in New York and California. About eight years ago, her husband, who worked for Proctor and Gamble, was transferred to Cincinnati, P&G's home. Saswati moved to P&G, where she enjoyed setting up a laser lab from scratch to explore possible applications to products of interest to P&G. More recently, she has moved into management, and is section head of the Beauty Technology Division. She was impressed by the many changes in Morningside Heights since her last visit.

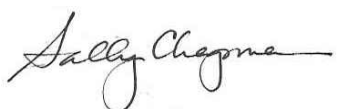
**Liane Reif-Lehrer '56** wrote last summer: "My husband of 40+ years (Sam) and I both turned age 70 in 2004. The 4th (and last) edition of my book, *Grant Application Writer's Handbook*, was published this year (Jones and Bartlett, Sudbury, MA, 2005) and is adorned by a beautiful cover based on a painting by our son, Damon, the artist (MA, Boston University; see <http://damonlehrer.com/>). Damon was married in May and lives with his wife in an artist's community in Providence. Our daughter, Erica, got her PhD in Cultural Anthropology in 2005 from the University of Michigan at Ann Arbor and is currently back in Poland, the site of her thesis project. She is starting a post-doctoral fellowship at University of Illinois at Urbana in September. Sam and I are trying to finish numerous much-needed repairs and painting of the suburban Boston house in which we have lived since 1967. I am winding down on the work front and have started reading some fiction which I have not had time to do during my working years. Sam is still doing research. We still travel a fair amount, ride our tandem (I'm on the back!), and do some ballroom dancing whenever a suitable occasion presents itself."

#### CLOSING REMARKS

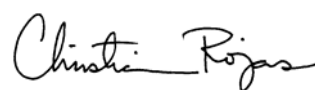
As usual, we take this opportunity to remind you of two important funds. **The Edward J. King Memorial Fund**, which honors Prof. King, chemistry Chair from 1960 to 1973, provides research assistance for junior faculty throughout the college. This year's recipients were Assistant Professors **Eshkol Rafaeli** (Psychology) and **Kristen Shepard** (Biology) for grants to support their research projects during their Special Assistant Professor Leaves. The **Bernice G. Segal Memorial Fund** provides summer research fellowships for science students at Barnard. Prof. Segal recognized what is very much true today: without competitive stipends, financial pressures prevent needy students from availing themselves of important research opportunities. Our need for summer research stipends seems to grow every year. To donate to either fund, or to support other department priorities, please send a check to the Development Office, payable to Barnard College. *Please specify clearly the purpose to which you wish your gift applied.*

Keep in touch. We enjoy hearing from you and sharing your news. Barnard faculty e-mail addresses are (initial-name)@barnard.edu, e.g. [schapman@barnard.edu](mailto:schapman@barnard.edu). Regular mail and phone calls are always welcome (Chapman: 212-854-2098; Rojas 212-854-5480; others are in the directory on Barnard's web page). Please accept our apologies if any news above is outdated or incorrect: we sometimes assemble information from incomplete sources and our not always reliable memory. Please write: we will happily make corrections or add more personal details.

With warmest regards,



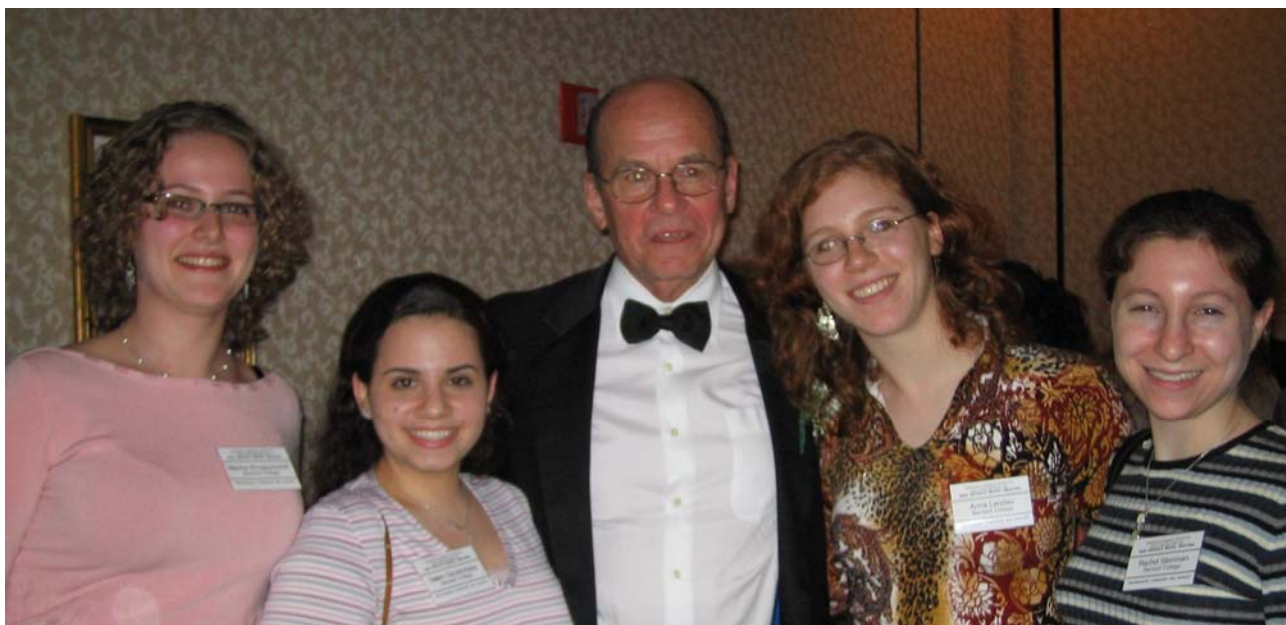
Sally Chapman, Professor  
(with contributions from the entire department)



Christian Rojas, Associate Professor

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**2006 Nichols Medalist (and 2001 Nobel Laureate) Prof. Barry Sharpless  
of the Scripps Research Institute with Barnard Chemistry seniors  
Marina Khrapunovich, Sevan Ozcetinkaya, Anna Landau, and Rachel Steinman**