

Barnard Chemistry Department Newsletter

October 2000

Greetings once again to alumnae and friends from the Barnard Chemistry Department. We enjoy this opportunity to keep in touch with you and to give you our news, and we hope we can help your keeping in touch with each other. Keep those notes and letters and visits coming!

NEWS OF THE COLLEGE

Barnard continues strong. Applications remain very high, and the quality of the students admitted and enrolling is still what makes this the special school that it is. Renovation and remodeling of space goes on apace. The new Altschul elevators work very nicely and are now taken for granted for the first time in decades. The plaza level between Altschul and McIntosh is now finished, with a multicolored tile design. A completely redone music and lecture room on the fourth floor of Milbank provides an excellent new teaching space. Plans have been drawn up to provide audiovisual capability to many of our classrooms, and a number have been upgraded already. The hallway in the basement next to the swimming pool has been cleaned up, a ceiling installed, and bright new lights put in. The courtyard in front of Milbank has been redesigned yet again, this time with more appropriate tree plantings, and it looks much better. The lobby of Lehman and the computer center next to it have been completely redone. So the college as a whole is looking pretty spruced up.

Upper level McIntosh now boasts an espresso and coffee bar, serving a variety of drinks and pastries. This experiment has so far proved very popular with both students and staff. Organic chemistry plays a large part in this operation, which is primarily an extraction of the alkaloid caffeine, a molecule of great interest for its neuropharmacological properties. Carbohydrates also play a leading role in this café.

Doris Davis, the energetic and talented Director of Admissions, took a new job in admissions at Cornell University. She has been replaced by **Jennifer Gill Fondiller**, Barnard class of '88, who will be called Dean of Admissions. Jennifer Gill Fondiller was a spectacular success in her work in admissions at Eugene Lang College of the New School, and she brings a lot of creativity, energy, and understanding of the job back to Barnard. As an alumna she of course knows the school and its mission very well, and can speak eloquently about them. Professor Lessinger, Chemistry, was one of two faculty members on the search committee, the other being Assistant Professor Jenny Kassanoff of the English Department.

The new 9-category general education requirements are now in place. Every student has to take at least one course in reason and value, historical studies, social analysis, cultures in comparison, literature, visual and performing arts, and quantitative and deductive reasoning, plus a year of one science with laboratory and the equivalent of 4 semesters of language study. Courses in the major can count to satisfy these requirements. The new requirements are easy to understand and keep track of, and are designed in part to encourage faculty members to offer courses particularly well suited to general liberal arts education. Some courses satisfy either of two categories, and the student can choose which one she will use that course for. The list of designated courses will be continually reviewed and revised as needed.

Computerization continues to increase at Barnard, both in teaching and administration. All of us who serve as advisors now check and approve students' programs on line, and we can get their transcripts and degree audits from the registrar's data on line as well. We are going to a system of lab signups directly with the registrar for all courses except the two big ones, introductory and organic I lab, which should cut down some unnecessary paperwork. The faculty in our department and the college as a whole continue to discuss and argue about the role of computers in teaching. Some believe computers will make professors obsolete. We who insist on teaching laboratory courses in which students use equipment know better. We also think lecture courses are an efficient and effective means of instruction, and that there is benefit in the presence of a live instructor in a course. The computer is a great tool, but none of us fears for our job because of it.

NEWS OF THE DEPARTMENT

The biggest, most exciting piece of department news is the installation of our new Bruker 300 MHz NMR instrument, now up and running. This system was purchased for over \$200,000, with \$100,000 paid for by the NSF, and the remainder matched by Barnard College. Three cheers for Profs. Christian Rojas, Ann Shinnar, and Linda Doerrer, who put together the grant proposal! The new NMR can take proton and C-13 spectra, and has multinuclear capability beyond that to look at F and P and other nuclei. A variety of more complicated NMR experiments can be done as well. The usual minor installation snafus were encountered, but the instrument is now being used for teaching and research, and the spectra our students and faculty get are very lovely indeed.

An NSF proposal for a laboratory course in the chemistry and physics of materials was resubmitted by Prof. Lessinger and Prof. Tim Halpin-Healy of Physics, and Barnard was awarded \$65,358, which it has to match at least 1:1. The previous \$50,000 award from Dreyfus will go a long way toward that. We have already purchased an X-ray powder diffractometer, which works very nicely, and makes the NiO crystal structure experiment a breeze to do, which is how it should be. Further experiments using X-ray diffraction will be developed. Part of this course will involve synthesis of inorganic and organic materials, an area of our curriculum we have to increase and improve. This summer, Kiryn Haslinger, a junior, worked with Prof. Lessinger to test and adapt published syntheses of some thermochromic complexes of Cu and Ni. These materials show beautiful color changes, for example, from emerald green to bright yellow, that accompany a solid-solid phase transition. Charli Long, who just graduated, worked out some crystallization experiments as well as a data-base exercise on the binary compounds of vanadium and oxygen.

One thing that has NOT happened is renovation of our organic laboratory space, both for teaching and research. This is a major, costly project, which the college assures us is high on the priority list, but apparently not yet high enough to be planned, targeted funds raised, and the project carried out. This space was not very well designed initially, and every year it becomes increasingly less adequate for modern organic laboratory work, especially in terms of hood space and support for instruments. If you know anyone who has several million dollars extra on hand, and might be convinced that the money would be very well spent to get this centrally important laboratory up to the kind of standards Barnard students and faculty deserve, don't hesitate to inform them of this opportunity to do us a good turn.

In anticipation of audiovisual equipment being installed in Altschul 805, a room no doubt firmly in many memories, we turned the chairs 90° to face west rather than north. Just this slight change makes the space much more attractive, bringing the students closer to the front and improving the flow of traffic in and out of the room. The promised audiovisual equipment installation never happened, though, as this project slipped in priority behind others. We have a screen in the corner of the room now, so it does not cover up any blackboards. Introductory chemistry lab lectures are now given with Powerpoint presentations, with our own projector, and until we get a ceiling projector put in at the correct angle, they look slanted – readable but not ideal. We remain optimistic that the room will be upgraded soon.

Altschul Room 811, which had been used to house the administrative assistant and coordinator of the Centennial Scholars Program, Monica McIntyre, will soon revert to the Chemistry Department. We are in dire need of more office and laboratory space, and are in the process of figuring out just how to use that suite of rooms, in coordination with all the other planned and possible changes in the department.

The majors examination is gone forever! Dead and buried, and I am sure unmourned. The senior requirement now can be satisfied in one of three ways: by doing a senior research thesis, which is an honors program to which students are invited by the department; by doing at least one semester of research; or by taking a senior colloquium, focused on some current chemical topic. Prof. Chapman is now working out her version of a senior colloquium, which will be offered for the first time this spring.

A few other curricular changes have been instituted. All intermediate and advanced lecture courses [Organic I and II, Biological Chemistry, Inorganic Chemistry, Physical Chemistry I, II, III] are now given the same 3.5 points credit, and are presented as 3 hours of lecture plus an hour of problem solving. Chemistry majors now have the option of taking Physical Chemistry III, or Biological Chemistry, or Advanced Inorganic Chemistry I, or Advanced Organic Chemistry I. Biochemistry majors are now no longer required to take Physical Chemistry III, which has been put on the list of courses for the elective. They also can choose to take either the full version of the biochemistry lab course, or combine the short version of biochemistry lab with the molecular biology lab course offered by the Biology Department.

Since so many of our students do research during the summer, we now always start the year off in September with a research symposium. We heard from 9 students. Three of them worked with Prof. Ann Shinnar here at Barnard. **Joey Bhautista '99** described her efforts to isolate and characterize a haloperoxidase enzyme; **Sophia Fu '00**, supported by a Howard Hughes Medical Institute fellowship, told about isolation and purification of an antimicrobial peptide from hagfish; and **Joan Shu '01**, who was awarded a Bernice G. Segal fellowship, talked about isolating squalamine from livers of different species of sharks. Both **Cindy Kan '00**, supported by a Council on Undergraduate Research fellowship, and **Christina Ring '00**, supported by a Pew Foundation NYSEP program fellowship, worked with Prof. Christian Rojas here on his program of organic synthesis, developing nitrene insertion reactions to make amino sugars with steric control. **Charli Long '00** put her knowledge of Spanish to good use, and got an NSF summer fellowship to work in the laboratory of Prof. Ana Guadalupe of the University of Puerto Rico, Rio Piedras, doing synthesis. **Jing Lucy Sun '01**, also supported by an NSF summer fellowship, worked at the Rockefeller University, learning molecular biology cloning techniques. **Sarah Tully '00** held an FBI summer internship, working in the FBI Crime Lab DNA Analysis Unit, learning not only forensic molecular biology but how to shoot a gun (mandatory procedure). She looked pretty scary in the photo showing her at the range! **Tarah Pua '00** worked with Dr. Robert Boorstein at NYU, supported by an NSF summer fellowship, doing research on the mechanism of DNA lesion repair.

Last year, five seniors carried out honors thesis research. Each worked on her project throughout the year; some had begun the previous summer. All the thesis students meet with the faculty in a weekly seminar that emphasizes oral and written communication skills, and in which there is a lively exchange of ideas and a lot of questions are asked and answered. Every thesis student, in addition to her formal written work, gives a public oral presentation of her work and defends it in a private oral examination. The thesis projects carried out in 1999-2000 are listed below.

Student	Research Mentor	Thesis Project
Sophia Fu	Prof. Ann Shinnar Barnard Chemistry	Purification and Characterization of a Brominating Enzyme from the Atlantic Hagfish (<i>Myxine glutinosa</i>)
Cindy Kan	Prof. Christian Rojas Barnard Chemistry	Studies of Intramolecular Acyl Nitrene Insertions via Glycal Azidoformates
Charli Long	Prof. Christian Rojas Barnard Chemistry	Amino Sugar Synthesis via Photochemically Triggered Nitrogen Insertions
Tarah Pua	Dr. Robert Boorstein NYU Medical School	Base Excision Repair of 5-Hydroxyuracil by Human Endonuclease III
Sarah Tully	Dr. Yukari Fujimoto, Dr. Nina Berova, and Prof. Koji Nakanishi Columbia Chemistry	The Synthesis and Conformational Study of 11- <i>cis</i> -Locked Cyclopropyl Retinal

As usual, we had departmental luncheons fall and spring, always a nice occasion for all students and faculty to get together, as well as opportunities for students considering a chemistry or biochemistry major to meet us and see what a lively department we are. Our fall speaker was **Dr. Anna Marie Pyle**, Associate Professor of Biochemistry and Molecular Biophysics at Columbia University, who described her fascinating research on ribozymes, folded RNA molecules that catalyze chemical reactions. Our spring speaker was **Dr. Frank DiSalvo**, Professor of Chemistry at Cornell University, very well known for studies in materials science, who talked about challenges and opportunities in solid state chemistry.

A very large Barnard contingent attended the ACS Nichols Medal Symposium and award banquet on 7 April 2000: seniors **Sarah Tully, Charli Long, Sophia Fu, and Cindy Kan**, and staff **Su Qing Liu, Olympia Jebejian, Meena Rao, Linda Doerrer, Christian Rojas, and Leslie Lessinger**. There we met **Prof. Elise Megehee**, formerly at Barnard, now happily working as part of the revitalized chemistry department at St. John's University in Queens. The symposium was terrific. The medal honored Prof. **Barry Trost** of Stanford, a prolific and creative synthetic chemist, who talked on inventing reactions for atom economy, a field in which he was a pioneer. Three other speakers also gave excellent lectures.

Christina Ring '00 could not attend the Nichols Medal Symposium, because she was presenting a poster to the United States Congress on her work with Prof. Rojas, at the Capitol on the Hill poster session attended by science students from all over the country. Also presenting her work with Prof. Rojas to a national audience, at the ACS meeting in San Francisco in March, **Cindy Kan '00** was one of only three undergraduates nationally to win a travel award from the ACS Women Chemists Committee.

On 12 April 2000, all Barnard summer research interns sponsored by the Hughes Science Pipeline Project presented their work at a symposium. Biology, chemistry, physics, environmental science, and psychology were represented. Fourteen students spoke, including biochemistry major **Sophia Fu '00**, who presented her work with Prof. Ann Shinnar on the purification and characterization of a brominating enzyme from the Atlantic hagfish, *Myxine glutinosa*.

On 6 May 2000, Prof. Lessinger took seniors **Sophia Fu, Cindy Kan, and Charli Long** to the 48th Annual Undergraduate Research Symposium of the ACS New York Chemistry Students' Association, held this year at Fordham University. The symposium started with an enthusiastic and inspirational talk by Prof. **Ronald Breslow** of Columbia University: "Chemistry Today and Tomorrow: The Central, Useful, and Creative Science". After a broad general survey of current and future chemical research, Prof. Breslow described some of his own recent work on medicinal applications of chemistry in treating cancer. Our three seniors described their thesis work in the student presentation sessions that followed.

There was a strong group of 11 graduating senior majors in 2000. Many students did research, either as a senior thesis or in a research course or in a summer program, all activities we wish strongly to encourage. At this time we still do not have a complete listing of what our graduates are doing. If you have any news or updates, write us a line and we will share it with your friends in the next newsletter!

Sophia Fu, a biochemistry major, continued her thesis research for a while during the summer after she graduated, supported by the award of a Bernice G. Segal summer research internship. She received a degree with distinction for her thesis work. Sophia will do some traveling during the summer, then enter New York Medical College and study to become a physician.

Cindy Kan received a degree in chemistry with honors, was elected to Phi Beta Kappa, and won the American Institute of Chemists Prize for the outstanding senior major. She was also awarded the Grace Potter Rice Fellowship for promise of distinction in graduate study in the natural sciences, sharing this college-wide prize with Sarah Tully. Cindy entered the chemistry Ph.D. program at Stanford University, and started research in the summer, before she enrolled, to claim bench space in the Wender group. She wrote in June: "I have moved to the west coast and the sun won't stop shining! I am living

in graduate housing (no, not a trailer) and it is pretty nice. It is a high rise (eight floors) so it reminds me of NYC.”

Charli Long, a chemistry major, was accepted into the Ph.D. program at the University of Pennsylvania, but deferred admission, because she won a Fulbright Scholarship to support a year of chemistry research in Lima, at the Pontificia Universidad Católica del Perú. When she got to Peru, Charli traveled to Cuzco and visited Machu Picchu.

Svetlana Mirkis completed a chemistry major and a mathematics minor. We believe that Svetlana is leaning toward work in computing, but we do not know her plans in detail.

Tarah Pua received a degree in biochemistry with honors, was elected to Phi Beta Kappa, and won the Ira and John Kauderer Prize for a pre-medical student majoring in chemistry or biochemistry. Tarah also won the Alpha Zeta Club Graduate Scholarship, for a student showing promise of distinction in any field and pursuing a graduate degree. Tarah was one of 31 seniors given the Bear Pin Leadership Award for service to the community in her years at Barnard and for outstanding leadership in campus organizations. After a summer vacation in the Philippines, Tarah will enter NYU Medical School.

Christina Ring received her degree in chemistry, in 3 years, and was elected to Phi Beta Kappa. Over the summer she worked for 6 weeks as a volunteer for Operation Crossroads in Kenya, at the Choguria Hospital. She also climbed Mt. Kenya and took a safari in Maasai country. Christina is working at a hospital laboratory in Colorado, doing blood plasma analysis, and next fall will enter the University of Colorado Medical School.

Suzanne Suh received her degree in chemistry, in May 2000, showing outstanding determination to finish our program after a series of interruptions. Congratulations, Suzanne!

Aparna Surendran also displayed great grit in the face of setbacks, finishing her degree in chemistry. Aparna is very pleased to enter a graduate program in journalism / science writing at NYU this fall.

Vy Tran received her degree in chemistry. Vy has not made her future plans known to us.

Sarah Tully received a degree in biochemistry with honors, was elected to Phi Beta Kappa, and was awarded the Grace Potter Rice Fellowship for promise of distinction in graduate study in the natural sciences, sharing this college-wide prize with Cindy Kan. After a summer vacation in Ohio with her family, Sarah will enter a Ph.D. program in organic chemistry at Cal Tech, supported by a three-year National Science Foundation Graduate Research Fellowship.

Alexandra Vasilescu received a degree in biochemistry. Alexandra is studying for a Master of Science degree in Nutrition at the Columbia College of Physicians and Surgeons, a 1-year program, and plans to apply to medical school

Our students won many awards; those given to graduating seniors are listed above, others below. All awardees were recognized at the Barnard Honors Assembly on 1 May 2000. **Rayna Goldstein '03** and **Kseniya Petrova '03** shared the CRC Press First-Year Chemistry Achievement award for their excellent work in introductory chemistry. **Jing Lucy Sun '01** received the American Chemical Society's Division of Polymer Chemistry Award for outstanding work in organic chemistry and the Division of Analytical Chemistry Award for outstanding work in analytical chemistry. Not too shabby! **Lara Crock '01**, a biochemistry major, received the Marie Reimer Scholarship Fund Prize, for an outstanding junior major.

Summer research in the department flourished and was strongly supported. Hughes summer research internships were awarded to two biochemistry majors, **Joan Shu '01** and **Jing Lucy Sun '01**, both working with Prof. Ann Shinnar. Joan did research on isolating squalamine sulfotransferase enzyme from dogfish shark liver, Lucy on cloning the cDNA that encodes antimicrobial peptides in the sea lamprey. **Nazia Quraishi '02** and **Marisa Buzzeo '01** worked with Prof. Linda Doerrer on the synthesis of Co, Cr, and Mn complexes with fluorinated alkoxide rings, Nazia supported by a Pew summer research internship and Marisa by an ACS Fluorine Chemistry summer research award.

NEWS OF FACULTY AND STAFF

Prof. **Sally Chapman** had a very busy fall, as department chair and teaching General Chemistry I. The BC1601x enrollment was up again this year: every slot in the laboratory was filled on the first day. Prof. Chapman was pleased by the positive response of students to the growing course web site. Figuring out what to put on the web and how to do so effectively is a new challenge. Barnard's location in NYC and growing reputation mean that the college is more competitive than ever, and this is clearly seen in the beginning chemistry course: student math SAT scores are significantly higher than a few years ago. But in other ways, some students, even those who come with superb grades, seem less well prepared for college in terms of maturity, commitment, and study skills. Every class presents new opportunities to learn about teaching.

Since January, Prof. Chapman has been enjoying a Senior Faculty Research Leave. She has started a new research project, related to experiments being performed in Prof. George Flynn's lab at Columbia. Among the students doing the experiments is **Natalie Seiser '99**. In her experiment, pyrazine ($C_4N_2H_4$) is excited with a UV laser in the presence of CO gas. An IR diode laser is used to probe the CO after one collision with pyrazine. The laser output is sufficiently narrow that the width of the observed rotational line can be used to determine the translational energy, based on the Doppler effect. Prof. Chapman is using classical trajectories to simulate these collisions. She was assisted in the summer by **Cortney Higgins**, a student at Hendrix College in Conway, Arkansas, who came to New York as part of Columbia's NSF-sponsored Research Experience for Undergraduates Program.

In February, Prof. Chapman enjoyed visiting St. John's University in Queens, where Professor **Elise Megehee** is now a member of the faculty. Prof. Chapman gave a talk about the research done with **Stephanie Lau '95** on the reaction $O^- + HF \rightarrow OH + F^-$.

Prof. Chapman continues to serve on two American Chemical Society committees: the Committee on Professional Training, which, among other activities, approves undergraduate chemistry programs, and the Advisory Board of the Petroleum Research Fund, which gives grants for fundamental research. She is chair of the latter. She has also joined with a small group of women academic chemists who are working on ways to help advance the careers of women in chemistry departments. This group, COACH, was initially funded by the Dreyfus Foundation, but now has support from the Department of Energy. Prof. Chapman attended a very interesting workshop at the National Academy of Sciences in June, entitled "Women in the Chemical Workforce". In July, Prof. Chapman gave a talk about mentoring at Bell Labs, and repeated it for the Columbia chemistry REU students.

Prof. **Leslie Lessinger** was on sabbatical leave in the fall of 1999, working hard on his advanced general chemistry textbook (acid-base chemistry came in for special attention), and also on developing course materials in connection with his NSF grant for a new course on the chemistry and physics of materials. **Charli Long '00** helped prepare some basic exercises on crystal structures, based on the chemistry of vanadium and oxygen, as well as trying out various experiments in crystallization. **Kiryn Haslinger '02** worked in the summer on experiments synthesizing thermochromic complexes of Cu(II) and Ni(II).

In the spring, Prof. Lessinger took over as department chair, as Prof. Sally Chapman eagerly got back to doing research on her senior faculty research leave. Prof. Lessinger taught Physical Chemistry III lectures, ran the senior thesis seminar, and also taught in the Centennial Scholars program. He acted as a mentor to **Katherine Aaron '00**, an economics major, who did an amazing interview / travel / writing project that examined the question "What is the Good Life?" Two senior Centennial Scholars did science-related projects: **Sarah Tully '00**, a biochemistry major working in the laboratory of Prof. Koji Nakanishi of Columbia University, carried out organic syntheses to answer important questions about the chemistry of vision, and **Christina Martinez-Smith '00**, a biology major, worked in a laboratory at Columbia College of Physicians and Surgeons on a new biochemical approach to cancer therapy.

This fall, the Chemistry Department will be involved in two faculty searches, as detailed below.

We report with regret the impending departure of Professor **Daniel Robie**, who will be serving his final year at Barnard during 2000-2001. Prof. Robie's teaching has been a mainstay of our physical chemistry program. Last year he taught thermodynamics and kinetics, quantum chemistry, and both semesters of the physical chemistry laboratory course. In the laboratory, Prof. Robie incorporated a substantial amount of work with the sophisticated molecular modeling program Spartan, to which the students are introduced in the quantum chemistry lecture course.

Prof. Robie worked this year on finishing a project funded by an ACS-PRF grant, to measure cross sections of weak absorptions by cavity ring-down spectroscopy, and also the work begun at NIST during his Special Assistant Professor leave. In June 1999 he talked about his work on the detection of the 3-0 quadrupole overtone band of hydrogen at the International Symposium on Molecular Spectroscopy, held at Ohio State University, and in October 1999 he gave a seminar on cavity ring-down spectroscopy of diatomic molecules at St. John's University in Queens.

We also suffered the departure of Prof. **Julian Sachs**, who left to take a position at MIT. Prof. Sachs was in Environmental Science, and he wanted to work in a more heavily research-oriented environment. He shared teaching responsibilities with chemistry, and he had done a very nice job teaching the Modern Techniques of Organic Chemistry Laboratory. Organic chemistry this year is being taught in part by temporary replacement faculty. Dr. **Sharon Goldsmith '94** is teaching the lectures, and seems to be well liked and doing a nice job. She is a Barnard graduate with a degree in Biology, who was inspired by the organic chemistry teaching of Marco Pagnotta. She has just received her Ph.D. from the Albert Einstein College of Medicine, and did very nice thesis work on the structure of fimbrin, an actin-binding protein. Working in the laboratory in place of Prof. Sachs is Dr. **Hyosun Lee**, a recent Columbia Ph.D. with training in organometallic chemistry and organic chemistry. This is a difficult job to do, since there are really two separate courses running in parallel, and a lot of equipment is used. But the pleasure of using the new NMR alone seems to outweigh any minor problems, as always arise in any lab course. The modern techniques course has of course been worked out in great detail already, as all our courses are, but it has to change a bit every year as well, to deal with the new and the unexpected.

To replace Robie and Sachs, the Chemistry Department and the Environmental Science Department will be running joint searches, for two chemists, one an experimental chemist, field of specialization broadly defined, the other an environmental chemist, either organic or analytical. We hope to hire the best pair of applicants to simultaneously suit our teaching and research requirements. Wish us luck!

Prof. **Ann E. Shinnar** continues to teach biological chemistry lectures, biochemistry laboratory, and the second semester of general chemistry to the small group of students choosing that option. Biochemistry lab now has an ultracentrifuge, funded by the generous gift of **Dr. Helen Ranney '41**. Isolation of DNA from bacteria can now be carried out, in a new laboratory experiment implemented by Prof. Shinnar.

Several of Prof. Shinnar's research projects are on a roll. Funding from the NSF's Professional Opportunities for Women in Research and Education Program has given a big boost to the lamprey intestinal antimicrobial peptide studies. Dr. Shinnar purchased an ultracold freezer (-80° C), which is now in the renovated biochemistry lab, and hired a part-time research technician, **Rachel Mandell '96**. After graduating from Barnard as an anthropology major, Rachel worked for several biotechnology companies in the San Francisco area. Her experience at Shaman Pharmaceuticals provided both technical skills and a strong interest in natural product isolation. Rachel started work on the project in December 1999 and is making significant progress in purifying a family of peptides in order to determine their amino acid sequence. Using molecular biology, **Jing Lucy Sun '01** has embarked upon cloning the genes that code for the lamprey intestinal antimicrobial peptide. Stay tuned for the actual primary structures, based on Edman degradation, mass spectrometry, and cDNA sequencing.

Based on her previous research at Magainin Pharmaceuticals Inc., Dr. Shinnar co-authored a paper in the *Journal of Natural Products* **63** (2000) on 7 new aminosterol compounds isolated from dogfish shark liver. **Joan Shu '01** is now trying to isolate the enzyme involved in sulfation of these steroids. The gift of **Helen Ranney '41** enabled the purchase of an ultracentrifuge, which is extremely helpful for these enzyme purification projects as well as in the biochemistry teaching laboratory. In June, Dr. Shinnar attended the American Society for Biochemistry and Molecular Biology meeting in Boston, where she presented a poster with co-authors **Jhoanne Bautista '99** and **Sophia Fu '00** on enzymatic bromination.

Prof. **Christian Rojas** taught the organic chemistry lecture courses last year, finally recognized as a full teaching load in itself, because of the large numbers of students, the intensity of the instruction, and the heavy burden of grading. The class now has a web site with all course information, assignments, problem set solutions, and an archive of old exams and solutions. An electronic bulletin board complements the web site and lets students cooperate in their studies. Both innovations have been very well received by students. Christian was nominated for the Emily Gregory Teaching Award for his efforts in last year's Organic I and II lecture courses, but lost out in the final selection.

Prof. Rojas is very proud of the achievements of the senior thesis students, Charli Long and Cindy Kan, who worked with him. He is writing a paper on nitrogen insertion reactions for amino sugar synthesis for publication in the ACS journal *Organic Letters*. Barnard students Cindy Kan, Charli Long, Moushumi Paul, Christina Ring, and Sarah Tully, all of whom contributed to the project, are co-authors. Research on directed nitrogen insertion continued with grant support from the Research Corporation. Prof. Rojas also received a two-year grant of \$25,000 from the Petroleum Research Fund of the ACS, for synthetic studies using acyl azides.

The progress made in Prof. Rojas's synthetic work was presented at many forums: the Northeast Regional meeting of the ACS in Potsdam, NY, June 1999, the ACS National meeting in New Orleans, LA, August 1999, the Hunter College Chemistry Department, NY, November 1999, the ACS National meeting in San Francisco, CA, March 2000 (poster presented by **Cindy Kan '00**), and the Gordon Conference on Organic Reactions in Bristol, RI, July 2000.

As Principal Investigator on the Chemistry Department's NSF grant for a new NMR spectrometer, Prof. Rojas supervised installation of Barnard's Bruker Avance 300 MHz system. The new instrument has already proved extremely useful in his research, and Christian looks forward to incorporating high field NMR extensively in the advanced organic chemistry laboratory in the coming year. After his successful third year review, Prof. Rojas will be on leave from teaching for the 2000-2001 academic year, and will be busy doing experiments, writing, and reading. He will be giving a talk at the ACS National Meeting in San Diego this spring, so be sure to look him up if you are going to that conference.

1999-2000 was Prof. **Linda Doerr**'s first year in the Barnard Chemistry Department, and she enjoyed it immensely. Linda taught Introduction to Inorganic Chemistry, CHE BC3271, in the fall and Quantitative and Instrumental Techniques, CHE BC3338 and 3340, in the spring, working with Mrs. Olympia Jebejian and Dr. Su Qing Liu. In the fall, Linda got her laboratory mostly set up, including the centerpiece of her synthetic equipment, a large dry box and solvent system. In the spring Linda had two undergraduates from Columbia College, **Matthew Pellow** and **Richard Moy**, working in her lab. **Charli Long (BC '00)** also did a mini-project on the conductivity of some new transition-metal based perfluorophenoxide salts. Over the summer of 2000, Matthew Pellow stayed on to do further research, and he was joined by **Marisa Buzzeo (BC '01)** and **Nazia Quraishi (BC '02)**. All three students joined Linda at the 220th meeting of the American Chemical Society in Washington, D.C. in late August.

Mrs. **Olympia Jebejian** continued to work as Director of General Chemistry laboratories. With continuing large enrollments in general chemistry, accommodating all students in the laboratory and supervising the overall setup of experiments kept her very busy. She supervised all the notebook grading and taught laboratory sections as well as the special problem-solving help class for this course. During the spring term, Mrs. Jebejian was in charge of overall preparation for General Chemistry II laboratory and Quantitative and Instrumental Techniques laboratory. She taught the analytical course together with Prof. Linda Doerrer, for whom it was a new course, and they both were assisted by Mrs. **Su Qing Liu**, our laboratory associate. Mrs. Jebejian acts a teaching mentor for new faculty in unassuming, subtle, but very effective ways. Her long experience and knowledge of individual students are invaluable to us.

In the summer, Mrs. Jebejian continues to teach chemistry in two different programs: the Higher Education Opportunity Program (HEOP), where students participate in a rigorous six-week program in preparation for the fall semester, when they join Barnard as first-year students, and the Science and Technology Entry Program (STEP), in which high school students study science on a more in-depth level than they previously had in high school. The STEP program always concludes with a science fair, where colorful demonstrations are presented by the students and coordinated by Mrs. Jebejian.

On a personal note, Mrs. Jebejian's son **Serko Jebejian** was married to **Maral Diratzouian '93**, a dentist. The wedding was held in St. Vartan's cathedral in Manhattan, the reception at the Conservatory in the Bronx Botanical Gardens. Music, dancing, and happiness all around.

Mrs. **Su Qing Liu**, who was trained in China, primarily as an analytical chemist, has become an indispensable laboratory associate. She works to prepare the biochemistry solutions and the setups in the fall, teaches in the physical chemistry lab throughout the year, and assists in the analytical laboratory in the spring. Su Qing is very willing to learn new techniques, and has become very versatile.

Continuing their superb work in the department were **Dr. Frances Feerst**, who has limited herself to the introductory general laboratory in the fall; **Dr. Toby Berger Holtz '67**, **Dr. Colette Levi**, and Mrs. **Ying Xie**, all three teaching introductory general and organic labs. Another great help in the organic chemistry laboratory was **Andrea Gay**, a graduate student at Teachers College.

Dr. Meena Rao was a tremendous asset to the department again last year, working as the Director of Organic Chemistry Laboratories. She had to break in a new instructor in the advanced organic laboratory, Professor Julian Sachs, and unfortunately will have to do the same again next year, in all likelihood. Dr. Rao also organizes all aspects of teaching in the introductory organic laboratory.

Please note that we are often looking for new laboratory associates. If you are in the greater New York City area, and would be interested in a part-time teaching job in the chemistry department, please tell us. We would be happy to keep your name on file. These jobs are often available on short notice. Part-time academic jobs unfortunately do not pay very much for the skill and dedication that our laboratory associates typically demonstrate; we can, though, offer a congenial department and excellent students!

Abigail Ahing, who has a degree in chemistry from Smith College, continues her very able work as the departmental administrator, handling orders and receiving, cryogenics for the NMR, accounting and budget, chemical inventories, and all sorts of other tasks related to the teaching and research functions of the department. As the duties of the department chair continue to increase and become more complicated, Abigail's assistance is a real life-saver. Our departmental luncheons and seminars are now presented with a polish for which she must receive a large measure of credit.

Ms. **Gwen Buchanan** continues her excellent work as faculty secretary for the science departments housed in Altschul, dealing very ably, among other things, with all the correspondence involved in searches. In the fall of 2000 the Chemistry Department will be involved in two searches, one for an experimental chemist to replace Dr. Robie, but who will probably not be a physical chemist but rather another organic chemist, to adjust for a better balance in the department. The second position is in Environmental Science, with teaching responsibilities in chemistry. That new person is likely to have training in analytical chemistry, but this remains to be seen. Gwen makes it possible to keep the huge flow of paperwork involved in a search under control, setting up and keeping up to date all the file folders, so department members can assess each candidate's qualifications.

NEWS OF FORMER FACULTY AND STAFF

Dr. James Carter died 29 Feb 2000, after a very long and determined struggle against lung cancer. Jim had been treated with a chemical regimen including taxol, and had survived with his serious cancer an unusually long period. He leaves his wife, Elizabeth. Prof. Lessinger gave a memorial minute for Dr. Carter at the faculty meeting on 2 May 2000. He noted that Jim had essentially created the position of Director of Organic Chemistry Laboratories, now held by Dr. Meena Rao, which has become an essential part of the department's organizational structure.

Dr. Grace King continues to enjoy retirement, and maintains her interest in the department, visiting us occasionally to chat and see how things are going.

BERNICE G. SEGAL MEMORIAL FUND

Prof. Segal established a fund at the college in her lifetime, and assigned a share of the proceeds of her textbook to it. She believed strongly that undergraduate summer research was a wonderful opportunity, and was concerned that financial need sometimes kept students from availing themselves of this chance. The fund was set up to provide generous summer research fellowships at Barnard for particularly able students, first in chemistry, but also, when funds are sufficient, in other sciences. After her death, the Bernice G. Segal Memorial Fund was created. Bernice G. Segal Fellowships supported **Joan Shu '01**, in summer 1999, and **Sophia Fu '00**, in summer 2000, both doing research with Prof. Ann Shinnar.

The Bernice G. Segal fund continues to grow. The department and the students are deeply grateful to those of you who have helped to create these opportunities for our outstanding students. If you wish to contribute, you may do so by sending a check to the Barnard Development Office, payable to Barnard College. *Please indicate that your gift is specifically for the Bernice G. Segal Memorial Fund.*

EDWARD J. KING MEMORIAL FUND

Established to honor Professor Edward J. King, chair of the Chemistry Department from 1960 until his death in 1973, the Edward J. King fund provides research assistance for non-tenured Barnard faculty in any field. This past year, a grant of \$3,600 to Prof. **Ann Shinnar** was crucial in moving along her project on cloning genes for lamprey intestinal antimicrobial peptides. Research support is increasingly hard to find, so this fund can be critical in the career of a young scholar. It is a fine tribute to Prof. King that the fund in his memory plays an important role in the intellectual life of the college.

Many worthy projects have been supported in recent years, and the needs are expanding, so the fund can always use a financial boost. Dr. Grace King, the Chemistry Department, and the whole Barnard faculty are grateful to all who have contributed. If you wish to make a donation to this fund, you may do so by sending a check to the Barnard Development Office, payable to Barnard College. *Please indicate that your gift is specifically for the Edward J. King Memorial Fund.*

ALUMNAE NEWS

We rely mostly on you to provide us with news about your doings, but we also find out about you from newspapers and journals, friends and acquaintances, accidental circumstances and happy chances. If you write to us you are guaranteed to get in the newsletter! If anything we report is incorrect, please accept our apologies, and send us the right information so we can correct it in the next newsletter. An excellent way to contact us is by email. You can send messages to Professor Lessinger at llessinger@barnard.edu. Reach us any way you like, but let us know about yourself and the alumnae you keep in touch with.

Classes of the 1990s

Jhoanne Bautista '99 won a National Science Foundation Graduate Research Fellowship to support her studies for the Ph.D. in chemistry at MIT.

Jamie Geier '99, studying for a Ph.D. at Berkeley, wrote "I'm really enjoying myself here... one class, Advanced Molecular Biology and Biochemistry, has been a real eye opener. We're learning stuff that isn't in the text books yet and I'm realizing I should have taken more biology at Barnard – but I'm doing just fine. I like having so much freedom here, I've taken long weekends off.... then to make up for it I'll spend long hours in the lab, last night I was here until 2:30 in the morning doing something that probably won't work. I haven't gotten much to work yet but each time I do an experiment things get a little bit closer to working. I'm continually having to find new patience."

Tanuja Goulet '99 writes: "I'm here at work in Environmental Engineering at UC Berkeley, where I work with soil DNA in a bioremediation laboratory. I like my job very much, and I will probably stay here for graduate school and begin in 2001."

Bonnie Koo '99 wrote in late summer 1999: "I started [work at Morgan Stanley] August 3rd.... I am still in London, just another 3 weeks. What can I say, working is VERY different than being a student. Although this training program has been kind of like school, I'm getting paid for it. I've been learning a lot of things: Perl programming, Windows NT administration, Unix administration, Sybase/SQL, and networking. We just started the process of job placement, so I've been meeting a lot of managers about openings. There are a lot of Columbia alumni at Morgan Stanley, which helps a lot.

I'm not sure yet if I'm cut out for the business world. I think I will end up staying at MSDW for a few years, but my heart is still set on going to Medical School / being in the sciences. It's very different being with a group of people who don't know science, or rather don't find it very interesting. I miss that. I've been able to do some traveling, which was nice: Paris, Amsterdam, Bath, Stonehenge, and Madrid."

Returning to NYC in December (and happy to be home), Bonnie is now working at MSDW's main information technology office on 49th Street and 7th Avenue as a Unix systems administrator, her first choice. She lives on West 105th Street, and has been seen in the neighborhood several times.

Moushumi Paul '99 wrote last fall: "I just wanted to drop a line and say hello. Illinois is interesting and weird, but I am slowly adjusting. The program is amazing, with so many well-established chemists. I am enjoying my classes, but they are extremely challenging, sometimes frustrating. I am taking organic mechanisms and a spectroscopy class as well as undergraduate biochemistry. I know I am learning a lot. I recently joined a research group, actually two, doing a joint project on NMR structure determination of a peptide. I just did my first stint of lab work this week and it felt really good to be back in a lab.

With all the course work, they don't expect me to get a lot done before next summer, but I want to spend as much time doing research as I can. The advisor selection process was hellish, but I guess that's

normal at a school this large. I was talking with Hannah Storrie as we were both going through it, and it seemed a lot easier for her. She and I spend a lot of time together. It's nice to have her so close by."

Thalia Robakis '99 worked for a year doing cellular neurobiology research at Mt. Sinai, and will attend Columbia College of Physicians and Surgeons this fall.

Danielle Sapse '99 stopped by for a visit in April. She is enjoying her studies at Benjamin Cardozo law school, says that being a chemistry major is good training for law school: you learn to work hard!

Hannah Storrie '99 wrote in the fall: "I really like Northwestern and would strongly suggest it to other Barnard students, especially if they are interested in inorganic chemistry. It is a very friendly department that does some incredible research. Plus, the program is set up really well and puts a big emphasis on getting you into the lab, and going on research."

Hannah visited Barnard in May. She decided to join the research group of Prof. Sam Stupp, who "just came from Illinois and has a triple appointment, in chemistry, materials science, and medicine. He has this awesome project to grow bone in the lab on a titanium foam matrix". Hannah quips: "Anything related to self-assembly interests our group". She is very excited about this work.

Fay Xing '99 wrote in September: "I spent two months in Japan and China, and I just got back two days ago. I will be going to Stanford medical school this coming fall (not NYU as stated in the news letter). If anyone wants to visit or interview with Stanford, I will be more than happy to talk with her."

Noreen Chen '98 reports: "After graduation, I worked as a research technician at Albert Einstein College of Medicine for about a year and a half. I found it very interesting to do biomedical research, and have decided to pursue a career in it. I recently moved to Albany. I plan to find a research technician position in the area and prepare for graduate study in the field of biomedical engineering."

Claudine Lombardi '98 visited us in February. She is enjoying medical school at Albert Einstein, and enrolled in a course at Barnard this spring, for some liberal arts enrichment: Professor of Physics Laura Kay's course on Women and Science.

Two recent papers on the effects of drugs on the pharyngeal muscles of the leech, written by Prof. **Bruce O'Gara**, formerly of Barnard's Biology Department, include as co-authors his chemistry thesis students: **Jamie Geier '99** on one paper, and **Ali Abbasi '97** on both.

Prof. **Jeanne Poindexter** of the Biology Department returned from a recent trip to California, where she managed to visit with **Rebecca Begley '97**. Rebecca is starting graduate school at Stanford this fall.

Eileen Doyle '97, a graduate student in the laboratory of Prof. Edward Arnold at Rutgers, is working on her thesis proposal. She wants to try to make AIDS vaccines by presenting HIV-like mimics on the surface of live human rhinovirus (common cold virus) to generate an antibody response that might be protective in people. Eileen was married this past summer, 4 Sept 2000, to Darren Bayman, in a lovely ceremony at St. Paul's chapel, Columbia University. Prof. Lessinger and Prof. Shinnar attended.

When senior Cindy Kan '00 was visiting prospective graduate schools, she enjoyed meeting and talking to **Danielle Lehsten '97**, who is now a graduate student at UC Irvine.

Camay Chiu '96, studying medicine at SUNY Brooklyn, dropped by, and sent a card. She says: "I'm interviewing for both Prelim Medicine and Anesthesiology positions for 2000 and 2001. My plans are to stay in the city for my training. Four down, fourteen more to go."

Erin Fown '96 sent us a lovely card from Connecticut: "I recently left my last job and joined Price Waterhouse Coopers, doing consulting work. My present client is Hewlett-Packard, a company going through many changes. It's exhausting work, but very interesting to see how large companies are switching gears to be able to compete with little start-ups. I am continuing classes at NYU and love it." Erin was on campus in February to recruit for her firm.

Man Hoi Wong '96 wrote last summer: "I have just finished my first year at NYU. Everything is going fine. I'm going to join a biochemistry lab. My new boss will be Prof. Nadrian (Ned) Seeman. The research concerns DNA nanotechnology." Prof. Seeman is a longstanding leader in this field, which has been written up in many places recently, and is a very hot area of research.

Sin Chun Hwang '95, who received her Barnard degree in Chemical Physics, has completed her M.D. and started her residency in radiology at Long Island Jewish Hospital.

Prof. Chapman was sorry to have missed **Stephanie Lau '95** when she visited last summer. Stephanie left a note bringing us up to date on her activities. Having worked in a laboratory at Albert Einstein for four years, she started medical school there in September. We hope your year has gone well!

Rebecca Lipsitz '95 wrote this spring: "I'm just finishing my fifth year in grad school at UCSD and am hoping to finish in the fall. At the moment I'm trying to choose among a number of post-doc options. Chances are I'm going back to NYC for a couple of years. I'm going to be in New York for the summer in an internship program. I will be working at Scientific American, I hope writing a few articles." Rebecca has arranged for the summer to continue some computations associated with her thesis work, using computers in the laboratory of Prof. **Ann McDermott** at Columbia, who works in a related area.

Charlotte (Chuckie) Pooley Deckhart '92 wrote a few months ago: "I am writing specifically to solicit any students interested in careers in industrial medicinal/organic chemistry research. At Ligand, we plan to hire associates over the next few months and I thought I would send the news your way in case there were any takers at Barnard this year. We have an ad currently listed in C&E news. Anyone interested can send a resume and cover letter directly to me to avoid Human Resources: Charlotte Deckhut, 10275 Science Center Drive, San Diego, CA 92121, or send email to: cdeckhut@ligand.com.

On a personal note, we expect our second child this May. Nicholas will be 18 months - so the transition for him should be minimal. While pregnant I have been in charge of the reorganization of the corporate database - specifically restructuring the libraries of compounds that we have purchased over the years for *in vitro* screening. When I return [to the laboratory] at the end of the summer I plan to begin work on a metabolic disease project involving design and synthesis of novel retinoid type compounds."

Tracy Brobyn '90 and **Claudia Melendez '90** attended the Barnard corporate fundraising dinner at the Waldorf Astoria in March. Tracy now has both a son (3½) and a daughter (1½); Claudia is godmother to both. Tracy, who has an M.D., looks forward to finishing her military obligation this year, and is hoping to find a position involving some teaching. She has been stationed in New Jersey where she practices family medicine. Claudia is very happy to be using her nursing skills in an East Harlem facility. Prof. Chapman was pleased to see them both!

Classes of the 1980s

Dr. Simone Kahn Griff '88 is living in Boca Raton, Florida, and practices radiology with a subspecialty in mammography at Boca Community Hospital. She has two children, Zachary, 6, and Jessica, 3.

Virginia Estevez '87 wrote last summer: "My husband Eric Jacobsen [Professor of Chemistry at Harvard University] and I started dating in the fall of '95 and got married in May of '97. My job was a little more mobile, so I decided to leave Novartis to join ARIAD Pharmaceuticals in Cambridge, MA in the summer of '96. There I worked on designing inhibitors for SH2 domains using both modeling and combinatorial chemistry, as well as traditional medicinal chemistry. It was a lot of fun and my work resulted in a couple of publications and a milestone payment from one of our partnerships. I decided to take a very long leave of absence to care for my new baby girl, Adriana Maria Jacobsen, born September 13, 1998, and an absolute delight. But I had no idea she would be this much work. My Ph.D. thesis and postdocing for K.C. Nicolaou were a vacation in comparison. At least I could have my coffee in peace!

We live in the Back Bay of Boston. I can't believe I married a chemist! That's not the only thing Eric and I have in common. We both grew up in Manhattan (I on the Upper West Side, Eric on the Lower East Side), went to college in Manhattan (Eric to NYU), and are children of immigrant parents (Eric's are Cuban, mine are Dominican). Can you imagine our parents' delight? Neither of us had ever dated a Latin American before and we end up marrying one! We both speak Spanish and are determined to pass this on to our children. We are even both Catholics! The list goes on. It's a match made in heaven."

The New York Times in April featured the wedding of Kanan Shridharani to Stephen Jacobson, and quoted the bride's friend **Yasmin Khakoo '86**. Yasmin is a pediatric oncologist in New York.

Gabrielle Yen '84 called in September. She lives and works in Long Island. She is involved in quality assurance in the pharmaceutical industry, and works with regulatory and technical documentation.

Elaine Friedman Alt '83 wrote in response to last year's newsletter. She reports that she is an anatomic pathologist at Quest Diagnostics Incorporated. Elaine earned her M.D. at NYU and trained at Einstein. Elaine and her husband have five children, four girls and a boy.

Research in catalysis done by **Karen Goldberg '83**, Professor of Chemistry at the University of Washington, in which molecular oxygen inserts into a platinum(IV)-hydride bond, was featured in the Science/Technology Concentrates section of Chemical & Engineering News in December 1999.

Georgia Arvanitis '82, Professor of Chemistry at The College of New Jersey (formerly Trenton State), writes: "Things are fine with me. As usual, summer is good for catching up on research and writing papers. I have two students in the lab with me. It's so much more fun now that we have other faculty here who also do research. The place is constantly busy... not like when I started here."

Jill Horowitz '80 reports: "I recently moved back to the NYC area from Maryland. All is well with me. It seems that every other woman in my new neighborhood (New Rochelle/Scarsdale) is a Barnard grad. We moved back to NY because my husband, Gary Swergold, became a faculty member at Columbia Medical School. In fact, he's in the same department, Medicine, as a classmate of mine, **Alessandra Pernis '81**. After working at the NIH, I was lucky enough to land a job at Wyeth Lederle Vaccines, Pearl River, as a Project Director. I am really enjoying this new job, it's very fast-paced and I have a great project team. We are developing live viral vaccines for respiratory infections caused by respiratory syncytial virus and parainfluenza viruses. I thank the Barnard Chemistry Department for teaching me to think and organize my thinking so that I could ultimately learn to lead a project of this size and scope.

Gary and I have 3 adorable kids, girl (4), girl (7), and boy (10). I have kept in touch with **Mandy Milgram (Burkhoff) '80** and am happy to see her more now that we are both in the same place."

Classes before 1980

Two Barnard chemistry alumnae, **Jackie Barton '74** and **Judith Herzfeld '67**, were among the new Fellows of the American Association for the Advancement of Science, as announced in March, 2000. Congratulations!

Babette Horn '72 wrote a nice note after receiving last year's newsletter. "The most inspiring teacher I ever had was Bernice Segal, and I am grateful for my college education and how much it helped in my career. After college and medical school, I completed two residencies, one in pediatrics and the other in anesthesiology. I work at Children's Memorial Hospital in Chicago. We have residents and fellows rotating on our programs, so I have an opportunity to teach as well as practice medicine. In addition, along with two of my colleagues, I dabble in research - we've looked at different breathing circuits traditionally used in adult anesthesia and tried to figure out how best to use them in children. I am impressed by the breadth of opportunities available to the current chemistry majors. The Department has come a long way and everyone should be proud of that." Thank you, Dr. Horn, for your kind words.

An article in Chemical & Engineering News, “An Enzyme Movie 10 Years in the Making”, described work done at Brandeis, in the laboratories of **Dagmar Ringe '63** and Gregory Petsko.

An article in Chemical & Engineering News, “Lifting the Lid on X-Ray Data”, featured **Helen Berman '64**, a faculty member at Rutgers, who directs two important databases, the Protein Data Bank and the Nucleic Acid Database. Helen received the Distinguished Service Award in 2000 for service in the field of biophysics from the Biophysical Society. She was also honored by the New York Chapter of the Association for Women in Science at a reception at the New York Academy of Sciences, 11 Nov 1999.

Murrie Weinger Burgan '61 wrote: “After graduating from Barnard in 1961, I received a Ph.D. in biochemistry from Boston University. For more than 25 years, I've been a science editor and writer, first at the National Academy of Sciences and then, since 1981, at The Johns Hopkins University Applied Physics Laboratory. In May 1999, I was elected a Fellow of the Society for Technical Communication.”

Edith Richmond Schwartz '52 reports “Page 24 of the June 28, 1999, issue of Chemical & Engineering News reviews a symposium that I organized on Biomaterials and Women's Health. I left academia more than 10 years ago and since then have worked for the private sector (Upjohn Company and Innogenetics in Belgium), spent some time in the Government (FDA, NIST), and now am a consultant specializing in strategic partnerships, policy, and scientific evaluation.”

Thanks again for all your letters, cards, phone calls, e-mail messages, and especially visits. Please keep in touch. You can reach any Chemistry Department faculty or staff member by email, using the same form <initial-name>@barnard.edu, for example, llessinger@barnard.edu, or ojebejian@barnard.edu. The department has a web site as part of the general college site at www.barnad.edu.

I apologize for the delay in getting this newsletter put together and sent out. The October date is pretty much an average between the time I had hoped to get it done and the time it was actually finished. Historians of Barnard and archivists will just have to live with that bit of fuzziness.

Yours very truly,

Leslie Lessinger
Chair, Chemistry Department



Nichols Medal reception. Back: Sarah Tully, Charli Long, Prof. Lessinger, Sophia Fu, Prof. Megehee.
Front row: Mrs. Su Qing Liu, Prof. Linda Doerr, Mrs. Olympia Jebejian, Cindy Kan, Dr. Meena Rao.

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