

# BARNARD CHEMISTRY DEPARTMENT NEWSLETTER

June 1998

Greetings to alumnae and friends. The Barnard class of 1998 has graduated, reunion is over, so it is time to reflect on the 1997-98 academic year and bring you up to date on the college, the department, the faculty, the students, and our accomplished alumnae --- at least those of you from whom we have heard in the last year.

## NEWS OF THE COLLEGE

Times are good for Barnard and Columbia. New York City is "hot" and students seem to be looking for colleges that offer more structured curricula. The Barnard Admissions Office does an excellent job of recruiting good students. Applications are at an all-time high. This year Barnard had more applicants than any other of the seven sisters. Eat your heart out, Wellesley! (Some of you may know that my sister, Diana Chapman Walsh, is President of Wellesley, so I say this in a spirit of sisterly competitiveness.)

Science at Barnard is strong: almost 30% of students now major in science. Much of the extensive renovation taking place around the college benefits science programs. The new Arthur Ross greenhouse on the roof of Milbank is nearing completion, and the biologists, particularly Prof. Ammirato, have been deeply involved with its progress. The biology department has a nice new neurobiology laboratory. The psychology department space is being totally renovated this summer; modern animal care facilities were a principal motivation for the entire project. In January, the environmental science department moved into lovely renovated space in Altschul, with office suites and some laboratories on the 4th floor, and some teaching space on 5 and 6. Chemistry department renovations also continue this summer; more about that below.

Other renovation work continues around the campus. The Julius Held lecture room in Barnard Hall is a beautiful and "smart" classroom. The exterior and entrance hallway of Barnard Hall have been rejuvenated. There are many new dormitory bathrooms, and some public areas of Reid Hall are being worked on this summer. An entirely new HVAC system now sits on the roof of Altschul, with huge pipes installed in the Altschul stairwell and through various tunnels so that the system also serves parts of Barnard Hall. So far this summer the air conditioning has been reliable; in recent years the old system was much less so.

We were pleased that Dr. Mary Good was among the recipients of the Barnard Medal of Distinction at this year's graduation. As you probably know, Dr. Good is a distinguished chemist who has had successful careers in academia, industry, and government. She won the ACS's highest honor, the Priestley Medal, in 1996.

A healthy future for the college requires many things, among them good students, a stable budget, and an attractive and functional physical plant. As a faculty member, I would naturally put a strong faculty near the top of this list. Recently, administrators and faculty have been grappling with a potentially serious problem at Barnard: the shrinking number of tenured faculty. While the reasons may be many and complex, the simple fact is that we are losing more tenured faculty each year than we are tenuring. This year is representative: five senior retirements with only one promotion from the ranks. We know the problem all too well in Chemistry: with only two of six professors tenured, the administrative burdens are severe. My non-Barnard friends ask in puzzlement: "How can you be department Chair *again*?" Standards for tenure are very high, and few argue that they should be lowered, but the problem remains.

## NEWS OF THE DEPARTMENT

We started this year with many new faces (or familiar faces in new places), especially in the organic area. **Prof. Christian Rojas** joined the department as an Assistant Professor this fall. Prof. Rojas is a synthetic organic chemist. He has a B.A. from the University of Virginia, a Ph.D. from Indiana University, and did postdoctoral work with Prof. Julius Rebek, first at MIT and later at Scripps. **Dr. Meena Rao**, who has played many important roles in the department over the years, is now Director of the Organic Chemistry Laboratories. Dr. Rao's Ph.D. is in organic chemistry, and she has excellent teaching and administrative skills, so she is ideally suited to this position. **Dr. Toby Berger Holtz '67** is now our departmental Laboratory Administrator. Her position involves a variety of things: she handles purchasing for the department, keeps track of accounts, and does a lot of the preparation and stockroom work for organic chemistry. She also teaches two lab sections each semester. With help from others, Christian, Meena, and Toby have done a Herculean job of cleaning and organizing the 7th floor laboratories and getting the organic lecture and laboratory courses going.

The department continues the tradition of chemistry luncheons each semester. In the fall, our guest was **Prof. Stacey Bent** of New York University, an experimental physical chemist who studies surface phenomena. She gave a wonderful talk about her research: "Chemistry in two dimensions: studying reactions at a Surface". In the spring, our guest was **Prof. Richard Sheardy**, a biochemist from Seton Hall University, in New Jersey. His talk was "Sequence Specificity in the Binding of Co(III) to DNA". Both talks were well attended and well received.

We had a special event this March. **Dr. Ruth Lewin Sime '60** was the guest of both the Columbia and Barnard Chemistry departments. As readers of this newsletter may recall, Dr. Sime is the author of the highly-regarded scientific biography *Lise Meitner: A Life in Physics*, published by the University of California Press. Dr. Sime gave a talk about the book in the large lecture hall in Havemeyer, followed by a dinner in the Sulzberger Tower. The Barnard Center for Research on Women co-sponsored the event. They made the arrangements for the dinner, which was a lovely festive occasion. The dinner guests included President Shapiro, Provost Boylan, Dr. Sime and her daughter, selected Barnard and Columbia faculty, and some Barnard students. A splendid time was had by all. Thanks again, Ruth, for coming. I recommend the book to anyone who has not yet read it: it is a fascinating story, told superbly.

Outstanding chemistry students won various awards this year. **Christina Ring '01** won the CRC Press Award for outstanding achievement in first year chemistry. **Cindy Kan '00** won the award for excellence in organic chemistry, sponsored by the ACS PMSE Division. **Anne Runge '99** won the award in analytical chemistry, sponsored by the ACS Analytical Chemistry Division. **Jennifer Montgomery '99** won Barnard's Marie Reimer Prize for the outstanding junior chemistry major. Jennifer is a double major in Biochemistry and Dance.

Two students were awarded Bernice G. Segal internships to do research at Barnard this summer: **Jhoanne Bautista '99**, working with Prof. Shinnar and **Moushumi Paul '99**, working with Prof. Rojas. Three chemistry and biochemistry majors were awarded Hughes summer fellowships: **Sarah Tully '00**, and **Charli Long '00**, working with Prof. Rojas, and **Hannah Storrie '99**, working with Prof. Parkin at Columbia. Several other students are doing research here this summer, including **Olga Fishman '98**, working with Prof. Shinnar, **Fawzia Qazi '00**, working with Prof. Megehee, and **Itsuko Ouchi** (LaGuardia '97) working with Prof. Chapman. **Jamie Geier '99** is starting her senior thesis project with Prof. Bruce O'Gara in Biology.

The senior thesis is an important capstone experience. Some chemistry and biochemistry majors have too many required courses remaining to be done in their senior year, but in recent years about half of each senior class has elected to do a year-long research project, culminating in a written thesis and a formal oral presentation. This year's projects are listed below.

STUDENT	MENTOR	PROJECT
Helen Chen	Elise Megehee Chemistry	Synthesis and Characterization of new luminescent complexes of Rhodium (III)
Noreen Hui-Yun Chen	Elise Megehee Chemistry	Synthesis and Characterization of new luminescent complexes of Rhodium (III)
Marina Feldman	Christian Rojas Chemistry	Synthesis of trans $\alpha,\beta$ -unsaturated Aldehydes via selective reduction of Thiol Ethers
Olga Fishman	Ann Shinnar Chemistry	Purification and characterization of Antimicrobial peptides from Intestines of Sea Lamprey <i>Ammocetes</i>
Claudine Lombardi	Ann Shinnar Chemistry	The Isolation and Purification of Haloperoxidase from the Atlantic Hagfish <i>Myxine glutinosa</i>
Christina Min	Jym Mohler Biology	The interaction between Protein Kinase C and RACK 1 in <i>Drosophila melanogaster</i>

Our tradition continues of taking the thesis students to the Nichols Symposium and dinner. The Nichols Medalist this year was Prof. Ahmed Zewail of Caltech. This year we borrowed a Barnard security department mini-van for the trip to White Plains. It was a great symposium, and we all had fun.

Some of these students started their research projects in the summer of 1997. Other Barnard chemistry and biochemistry majors found interesting research opportunities elsewhere. Some examples: **Hannah Storrie '99** worked at a NIH laboratory in Arizona, **Christina Min '98** at NIH in Bethesda, **Moushumi Paul '98** at Jefferson Medical College in Philadelphia, **Danielle Sapse '98** at Sloan-Kettering, **Fay Xing '99** in Joshua Lederberg's laboratory at Rockefeller, and **Tanuja Goulet '99** in Prof. Ann McDermott's lab at Columbia.

We were notified last fall that **Dr. Thelma Golub Warshaw '44** has made a generous gift to the college which will be used in part to name and upgrade the chemistry student computer room. This room is in almost constant use by students taking a wide range of courses. Spreadsheets are used routinely to analyze data, assignments sometimes require students to find information on the World Wide Web, and simulation and graphics play an increasing role in chemistry pedagogy. Many thanks to Dr. Warshaw for her support!

Construction has been a constant headache this year. Drilling through the concrete floors in the stairwells sent noise reverberating through the building, and somehow the worst noise always seemed to occur when students were trying to concentrate on an exam. The vibrations were hard on the joints of glass piping throughout the building, so several floods ensued. The more powerful fans for the new HVAC system were turned on without warning in the middle of a weekday afternoon, and thirty years of accumulated soot blew out of the vents. Certain labs were especially hard hit: when I went to inspect the cries of distress from the general chemistry lab, it looked like the aftermath of a coal mine disaster: soot-smearred faces, blackened books, and very unhappy students. Soot continued to rain down for months; we still have cheesecloth draped around many of the vents. A team was brought in to try to clean the ductwork. Whether they improved things is debatable, but they lost a passkey to the building, so all the locks in the building had to be changed! We are all hoping that next year will be free of such disruptions.

Phase II of the sixth floor renovations take place this summer. Phase I last summer created a new teaching lab for introductory Environmental Science (room 616) and renovated Prof. Megehee's research lab (room 603). In phase II, Prof. Shinnar's research lab (room 604) and our large teaching lab (room 615), used for both physical and biochemistry, are being renovated. An old set of fume hoods will be replaced and a new set added. New bench space will expand the useful work area. A new equipment alcove is being created from the old balance room and hallway. This spring we had to pack the entire contents of this lab: **Mrs. Su Qing Liu** did a wonderful job. The construction is scheduled to be completed by mid-July, so we hope to be comfortably resettled by the beginning of the academic year.

### NEWS OF THE FACULTY

**Prof. Sally Chapman** has been busy with teaching and administrative responsibilities this year. In the fall, she taught BC3253x, "Structure, Bonding and Spectroscopy", otherwise known as quantum chemistry. One innovation this year was the use of the molecular modeling software package, *PC-Spartan*. Prof. Chapman attended an NSF sponsored workshop in June 1997, where she was able to try out various packages. Spartan was selected for its impressive graphics and its ability to carry out a range of methods, from empirical to *ab initio*, in a PC-based product. Using funds available from the Howard Hughes Medical Institute grant to the college, we purchased two new Pentium 200 MHz computers (the fastest available, a year ago) and two copies of Spartan. Each student in the course was asked to select three molecules: one small, one intermediate, and one large. In the course of the semester, students became familiar with the various calculation methods available on Spartan, and studied some aspect of each of their molecules. Written and oral reports were made at the end of the semester. This project gave the students a feel for how modern computational chemistry actually makes use of quantum methods, perhaps helping to motivate some of the more difficult mathematics. The students seemed to enjoy their projects. Next year, we will continue on an expanded scale.

In the spring, Prof. Chapman and Mrs. Jebejian again taught the Quantitative and Instrumental Techniques lab ("Chem 40"). We are developing and testing experiments for the new Atomic Absorbance spectrometer. Students tried out analyses of various substances, including milk, beer, and wine. (They verified that skim and whole milk have equivalent calcium, and learned that alcohol content is important in preparing reference standards for beer and wine.)

In May, Prof. Chapman was part of a Barnard delegation to a conference of colleges and universities participating in the Women and Scientific Literacy Project, funded by NSF and the American Association of Colleges and Universities. **Prof. Laura Kay** in the physics department is the Principal Investigator for the project. Activities at Barnard related to the project have included monthly faculty seminars and a new, very popular Women and Health course.

Prof. Chapman is active with two ACS committees, as Chair of the Advisory Board to the Petroleum Research Fund and a member of the Committee on Professional Training. In April, she was part of a team evaluating the Chemistry Department at Franklin and Marshall College. Most recently, she just finished Jury Duty, a frequent task if you live in Manhattan.

**Prof. Leslie Lessinger** continues to work on writing a high level introductory chemistry textbook, in collaboration with Heidi Reese. Our aim is to create an interesting, clear, modern successor to Prof. Segal's book, which has just gone out of print. The style of presentation in chemistry texts has changed significantly, but the need for coherence and clarity is as great as ever. Visual material must add to students' knowledge and interest, not just be a distraction.

Since Prof. Chapman resumed the position of chair of the department, Prof. Lessinger gladly took up teaching the large introductory course, Chem 1601, again last fall. Class enrollments were down from the previous year, perhaps indicating that pre-medical interest has declined somewhat. Prof. Lessinger put more emphasis on weekly problem-solving, giving it greater weight in the students' grades, and asking students to explain more and apply general concepts as well as work out numerical answers.

In the spring, Prof. Lessinger taught the third semester of physical chemistry. As part of the unit on solids and crystallography at the end of the course, students were asked to write brief summaries of current research papers, of their choice, and also to present the results of the research to the class. This mini-symposium worked very well, and we heard interesting work on molecules such as diphtheria toxin, HIV-1 protease, the tobacco mosaic virus double disk, and a model structure for the collagen triple helix.

Professor Lessinger had no senior research thesis students himself this year, but he very much enjoyed hearing of the work of the six students who did thesis work, and he served on the examination committees of five of them.

Continuing as co-director of Centennial Scholars Program, with Prof. Helene Foley of Classics, Prof. Lessinger was very proud of the work of an outstanding group of senior Centennial Scholars who presented their projects this year. The one science-related project was by **Corinne Quinn '98** (major in Pan-African Studies), who examined the pre-natal health care delivery system in the Dominican Republic.

The Committee on Instruction, of which Prof. Lessinger is a member, managed to develop a proposal for the revision of Barnard's general education requirements. The new system is very promising, but still needs modification. Serious work in laboratory science and in mathematics is still strongly supported by the Barnard faculty, and the only change proposed in that area is to require that the science requirement and the mathematics requirement be satisfied by separate courses. Prof. Lessinger wrote the rationale for strengthening the mathematics requirement, and he emphasized that, for many students, calculus or related mathematics is not appropriate or the best choice, and that these students would be better off learning statistics, or group theory, or topology, or taking some new quantitative and deductive reasoning courses that he hopes to encourage faculty to develop.

**Prof. Elise Megehee's** teaching this year included two lecture courses, Inorganic and Intermediate General Chemistry, and two labs, General and Physical. She supervised the senior thesis work of two seniors, **Helen Chen '98** and **Noreen (Hui-Yun) Chen '98**. Prof. Megehee gave a poster presentation of her work last summer at the Gordon Research Conference on Inorganic Chemistry: "Synthesis and Characterization of Diimine (Dialkyldithiocarbamate) Rhodium(III) Complexes". **Noreen Chen '98**, **Man-Hoi Wong '96**, and **Rebekah Adams '95** were co-authors. Prof. Megehee plans to attend the same Gordon Conference this summer.

Prof. Megehee served on the Chemistry for Pollution Prevention review panel for a new EPA and NSF grants program "Technology for Sustainable Environmental Research." Prof. Megehee's two daughters, Laura and Victoria, continue to keep her life busy at home.

This year, **Prof. Dan Robie** continued work on the 1601 lab, the fall physical chemistry laboratory, and the thermodynamics lecture course. The thesis work of **Natalie Seiser '97** continues to reverberate. Dr. Robie presented that research at the Conference on Dynamics of Molecular Collisions in Minnesota. In the fall, he was invited to give a talk at a special symposium on cavity ring-down spectroscopy (CRDS) at a meeting in California of the Society for Applied Spectroscopy. In January, the work was published: N. Seiser and D.C. Robie,

“Pressure broadening in the oxygen  $b^1\Sigma_g^+(v' = 1) \leftarrow X^3\Sigma_g^-(v'' = 0)$  band measured by cavity ring-down spectroscopy”, *Chemical Physics Letters* **282**: 263-7 (1998).

Dr. Robie runs into Natalie about every week, since she has joined Prof. Flynn’s research group in the Columbia chemistry department. She has just finished her first year of graduate school, so most of the class time is over, and she can spend a lot more time in the lab.

In the summer, **Bonnie Koo '99** worked with Dr. Robie to improve the data acquisition software for his experimental apparatus. Also, a new cell is under construction that should dramatically improve the sensitivity of the system.

During the meeting in California, Dr. Robie arranged to visit the groups at the National Institute for Standards and Technology (NIST; formerly the National Bureau of Standards) doing CRDS, and was invited to give a talk there in the spring. During the 1998-9 academic year he is taking a sabbatical, during which he will be doing more CRDS experiments at NIST. They have some really neat laser systems there!

**Prof. Ann Shinnar** continues to focus her research in two main areas: 1) isolation and characterization of antimicrobial peptides from primitive fish, and 2) purification of an enzyme that brominates tryptophan. Working with larval stage sea lamprey, **Olga Fishman '98** succeeded in purifying one antimicrobial peptide; a sample has been sent for sequencing by chemical and mass spectrometry. In another senior thesis project, **Claudine Lombardi '98** worked on improving the purification scheme for haloperoxidase from hagfish intestine.

This summer Dr. Shinnar’s research lab is being renovated. In the meanwhile, her two summer students, **Jhoanne Bautista '99** and **Olga Fishman '98** work around the corner in Altschul 616, the new Environmental Sciences Lab. Jhoanne is working on the haloperoxidase project, pioneered by several earlier students: **Jennifer Walker '96**, **Li-Min Yang '97**, and **Claudine Lombardi '98**.

After renovation on the 6th floor of Altschul is completed, Dr. Shinnar plans to set up her research lab in 604 (again!) and actually work at the lab bench on various projects. She is scheduled to take a Special Assistant Professor Leave (SAPL) for fall '98. She will resume teaching Biological Chemistry (3282) and General Chemistry II (1602) in spring '99.

**Prof. Christian Rojas** has made an excellent start at Barnard. He recruited a research student his first semester: **Marina Feldman '98**, a psychology major who loves organic chemistry and decided to write a thesis in chemistry. Marina was a great help to Prof. Rojas in setting up his laboratory. Marina presented their research results at two conferences this spring: the 12th Annual National Conference for Undergraduate Research in MD in April, and the ACS New York Chemistry Students Symposium at NYU in May. **Charli Long '00** did an independent research project with Prof. Rojas this spring: “Reductive Elimination in 2-Sulfonyl-1,3-Propane Diol Cyclic Thionocarbonates: a Route to Optically Pure Allylic Alcohols”. She continues this project this summer.

Prof. Rojas was recently awarded a grant by The Research Corporation: “Directed Nitrogen Insertion Reactions for the Preparation of Amino Saccharide Derivatives: Application to the Synthesis of Enzyme Inhibitors”. **Moushumi Paul '99** and **Sarah Tully '00** are working on this project this summer. Prof. Rojas has had two papers accepted for publication, and will be attending the Gordon Research Conference on Heterocyclic Compounds in RI this summer.

Profs. Lessinger and Chapman were pleased to attend Prof. Rojas’s wedding this March, to Christine Mailey. It took place in a chapel in Riverside Church, followed by a lovely reception.

**Mrs. Olympia Jebejian** continues as Director of General Chemistry laboratories. With large enrollments in General Chemistry, she spends a good deal of time ensuring that the experimental part of this course is well planned and organized. During the fall semester, she also taught the special problem-solving help class and a laboratory section. During the spring semester, Mrs. Jebejian was in charge of the overall set-up and preparations for the Quantitative and Instrumental Techniques and the General Chemistry II laboratories.

Mrs. Jebejian is a key player each summer in the Higher Education Opportunity Program. HEOP students participate in a rigorous six-week program in preparation for the fall semester, when they join Barnard as first-year students. She finds teaching in this program very rewarding and challenging. Mrs. Jebejian serves as an official academic adviser to first-year and sophomore students. Informally, she advises many more students, who trust her support and good judgement. Mrs. Jebejian's daughter Maria (BC'97) works in the Barnard Admissions office.

**Mrs. Su Qing Liu** assists in the physical chemistry lab both terms, in the Biochemistry lab in the fall, and in the quant lab in the spring. She also has been busy taking courses both to improve her English and to become more familiar with computers.

**Dr. Colette Levi** teaches in the two introductory labs: general and organic chemistry. **Dr. Frances Feerst** teaches in the General Chem lab in the fall, and escapes to Florida for the cold winter months. Several new lab Associates joined the department this year; **Mrs. Jarka Paruchova** and **Dr. Mandy Bennett** will be returning next year. Both will be teaching both general and organic chemistry. Mrs. Paruchova, a native of the Czech republic, is living in NYC while her husband is a student here. Dr. Bennett, a native of England, now lives in New Jersey. We thank them for the excellent job they did this year.

#### NEWS OF FORMER FACULTY AND STAFF

We were very pleased that **Dr. Jim Carter** was able to attend graduation ceremonies at Barnard this year. He has been off chemotherapy for some months, and has grown a new (and, for the first time, curly) head of hair.

**Dr. Jean Donahue** accepted a faculty job at Bronx Science in August 1997. A full-time position with better pay, this job also is closer to her home and family. Finally, there are not those late lab sessions! Jean had taught biochemistry lab and had been a lab Associate in Organic chemistry in recent years. We appreciate everything she did at Barnard, and hope she will send us good students from Bronx Science!

**Dr. Grace King** visits the department from time to time. She is enjoying having the time for concerts and other cultural activities.

**Dr. Marco Pagnotta** teaches at the Dwight-Englewood School, in Englewood NJ.

I spoke to **Prof. Emma Stecher** recently. She lives in Queens, and is doing well.

**Dr. Shelley Weinstock** is leaving Montclair State University. She is pleased to hear from Barnard alumnae. Her e-mail address is sbw2@aol.com.

Although many years have passed since she taught here, **Dr. Clara Wu's** connections with Barnard continue. A Professor at LaGuardia Community College, she is important in helping to recruit excellent students for the Intercollegiate Partnership (ICP), a summer program at Barnard that is part of Barnard's Howard Hughes grant. We enjoy seeing Clara when she comes to consult with Prof. Paul Hertz of the Biology department, who coordinates the Hughes program.

#### NEWS OF ALUMNAE

*Class of 1998*

We had twelve senior majors in Chemistry and Biochemistry this year. Some of their plans for next year are definite, others tentative. Some plan to work for a year or so before further studies.

**Helen Chen** is returning to Taiwan, where she will look for work.

**Noreen (Hui-Yun) Chen** is planning to work, but hopes to resume her studies soon.

**Olga Fishman** graduated with departmental honors in biochemistry. Olga is entering the M.D./Ph.D. program at SUNY Downstate.

**Inessa Gendlina** won the American Institute of Chemists Award for the outstanding senior chemistry major. She was also elected to ΦBK. Having graduated from Barnard in three years, Inessa is taking some time to catch her breath before deciding on the next step.

**Joanna Hodges** is entering the Ph.D. program in biology at NYU, planning to focus on biochemistry.

**Vicky Lin** is entering the graduate program in Nutrition at Columbia Physicians and Surgeons. Vicky has been doing research there for some time, including a Chemistry BC3598y (external research) course this spring.

**Claudine Lombardi** won the Ira and John Kauderer prize for the outstanding senior premedical student, and also won the college's prestigious Rice Fellowship. Claudia graduated with departmental honors in biochemistry and was elected to ΦBK. She is going to medical school at Albert Einstein Medical College.

**Christina Min** graduated with departmental honors in biochemistry and was elected to ΦBK. She is going to medical school at UMDNJ.

**Danielle Sapse** is going to Benjamin Cardozo Law School.

**Suzanne (Unryoung) Suh** is looking for work.

**I-Ting Wu** is moving to California to join her husband. I-Ting, who transferred to Barnard after participating in the summer Barnard-LaGuardia Community College Intercollegiate Partnership, was featured in the Spring 1998 *Barnard Alumnae Magazine*.

*Classes of 1990 through 1997*

**Rebecca Begley '97** is working in the developmental biology department at Stanford University. She reports that its "definitely different and definitely not biochemistry :). It is good to get experience here, but I am applying to biochem programs!"

**Christine Dunham '97** is enjoying graduate school in chemistry at UC San Diego. She is taking courses in Advanced Quantum Chemistry and Advanced Organic, and is a TA for General Chemistry. She wrote in October that she was surprised at how much she was enjoying the organic. While she is still doing lab rotations, she may decide to work in a group that looks at protein folding.

**Janice Lansita '97** has been working at Mt. Sinai, doing research in the Community Medicine Department. She writes: "My research involves looking at the correlation between pesticides and breast cancer. I deferred my admissions to Columbia's School of Public Health and their School of Nutrition because I did not want to jump into something I was not really sure about. I am glad I did." Janice will be entering the Ph.D. program in toxicology at MIT this fall. Congratulations!

**Jane Pan '97** called recently. She was applying for a job at NY Cornell Medical Center. She took MCAT's this summer, and will apply for medical school starting in the fall of 1999.

A year ago, we reported that **Larisa Ravitskaya '97** was still hoping to hear from medical school. Soon thereafter, she was accepted into New York Medical College.

**Katerina Nestoras '97** is getting a degree in Pharmacy at Long Island University.

**Sheng-Ching Wang '97** writes that she is doing o.k. in graduate school at Johns Hopkins. She says that classes are hard, but she is learning a lot, and has met some great friends.

**Bonnie Woo '97**, studying for MCAT's and applying to medical school, worked in the Barnard Chemistry department this year. She taught two sections of 1601x lab in the fall, and was in charge of the General Chemistry II lab in the spring. She did a superb job, carefully trying out each experiment before doing them with the students. Bonnie will start medical school this fall.

**Stephanie Gluck Witkin '96** works at Merck and Co. in Rahway NJ, and is studying part-time for her M.A. at Rutgers-Newark. She recently brought us up to date on her busy life: "This year has been so hectic for me! I took thermodynamics and kinetics last semester, then this past semester I took Chemical Structure Determination and Advanced Organic which I really enjoyed. I learned a lot and had a lot of fun. But it was just very tiring to work full time and take two classes which required a lot of work. The good news is that my husband Zalman and I are expecting a baby at the end of August! We are very excited and I am feeling fine.

"In terms of career/school, things will be on hold for a little bit. I will definitely take a little time off to spend with the baby and then I might go back part time for the rest of my allowed leave (6 months). And then it is back to work. So many women have babies here all the time that it is really no problem. In fact they encourage you to take the full 6 months off. But I don't know about that yet. I will be taking the next semester off from school because between having the baby and the Jewish holidays I would end up missing about half of the classes (night classes only meet once a week, but they are 3 hours long). But I took two classes this semester so it really isn't a big deal. Merck is really great. I am learning a lot and really enjoying it. I would certainly encourage any Barnard student to come here for the experience."

**Rebekah Adams '95** sent news by e-mail to Prof. Megehee last summer. "I'm starting 3rd year at Mt. Sinai. It's exciting to be starting the clinical phase of my training. For the summer I have a fellowship to educate patients and the community about domestic violence; the project is interdisciplinary among medicine, social work, and community health education. I find it very gratifying. Last year I was awarded an Air Force Health Professions Scholarship. That means that I've joined the Air Force as a second lieutenant, and they pay for my medical education. In return, I do some of my elective time in 4th year at their teaching hospitals and go on active duty for 3 years after residency. It's not a path I would have expected for myself, but I'm happy so far.

**Sin Chun Hwang '95** sent a Christmas card from Korea, where she was visiting, after an eleven year absence. Sin Chun is in medical school at Stony Brook.

**Amy W. Law '95** is at Pharmacy School at the University of Maryland Baltimore County. She wrote last fall: "Everything has been going pretty well. They keep us pretty busy though. We have one, sometimes two, exam(s) every week... So far, I have enjoyed my student life very much... I like the fact that I'm living in a city again. I have also found a part-time job at an institutional pharmacy. The reason that this job is great is that I can get both institutional and retail experience in one job. This is just a terrific opportunity for me."

Quite a few members of the class of 1994 are completing medical school. **Emily Chai '94** has graduated from NYU, which she enjoyed very much. She has decided to go into internal medicine, and wrote this winter that she was hoping to stay in NYC for her residency. She reports that **Vanthanh Ly '94** and **Preeti Kansal '94** are also going into medicine.

**Tara deJesus '94** stopped by for a visit this year. She is enjoying medical school at Rush in Chicago. She says she misses things at Barnard, particularly the supportive atmosphere.

**Aliya Hasan '94** has also just completed NYU Medical. Aliya is planning a surgical internship at Montefiore Hospital, although she is not yet sure whether this will be her final specialization.

**Saraswati D. Dayal '94** wrote last winter: "Currently, I am a senior in Howard Medical College. I have been doing extremely well here in the medical school (my rank is #2 and I have been inducted into the honor society of medical school)." Sara will be doing an internship in general surgery at UMDNJ in Newark. Congratulations Sara, and all the new Barnard M.D.'s!

**Karen Fliegelman '93** is studying at the SUNY College of Optometry.

**Lei Meng '94** joined Merck and Co. this year. Lei received an M.A. in Chemistry from Harvard.

**Nathalie Blachere '90**, with a Ph.D. in immunology, is starting a postdoc at Harvard.

**Tracy Brobyn '90** and **Claudia Melendez '90** dropped by the department for a visit this spring. Tracy is an M.D. and an Army Officer, practicing family medicine at Fort Dix in New Jersey. She looks forward to completing her military obligation, and entering civilian practice. Tracy's son accompanied them: Claudia is his proud godmother. Claudia is in nursing school. It was great catching up with them both, and seeing that this Barnard friendship is still so strong!

#### *Classes of the 70's and 80's*

**Virginia Estevez '87** works for a biotech firm in the Boston area. She is married to a fellow synthetic organic chemist, Harvard professor Eric Jacobsen. **Danielle Lehsten '97** is a Ph.D. student in Prof. Jacobsen's research group.

I was pleased to encounter **Leorah Ross '87** at the reception in honor of Jackie Barton's receiving the Weizmann Woman in Science Award. Leorah has an M.D. and Ph.D. from Einstein, but did some of her studies at the Weizmann. She is completing a clinical residency in renal medicine at Mt. Sinai. She commented that renal medicine is especially interesting to chemists: it is all about acids and bases, just as she learned from Prof. Segal in General Chemistry! Leorah will be doing a research postdoc next year, hopefully also in NYC. She kindly offered to talk to students who are thinking about M.D. vs. M.D./Ph.D.

**Linda Peteanu '84** gave a talk on her work, "Using Stark Spectroscopy to Probe Environmental Effects on Photochemically Active Molecules" at Columbia in November. Linda is in the chemistry department at Carnegie-Mellon University.

The work of **Karen Goldberg '83** was mentioned twice in *Chemical and Engineering News* in October 1997. The October 13 issue had a short report on her activation of C-H bonds with platinum complexes. The October 27 article described at greater length her work and others on C-H bond activation. Karen is an Assistant Professor at the University of Washington in Seattle.

**Zenta Batarags Hayes '81** wrote recently: "Brian and I had a boy on March 8. His name is Jekabs Gints Hayes. Jekabs was my father's name; it's Latvian for Jacob. THEN, on April 1 -- remember the fluke snowstorm? -- we lost electricity, and were heating the house with our fireplace. The wall that the fireplace was in caught fire. Only that wall was damaged by fire but the living room was drenched by the firefighters. Everyone is ok. Jekabs and I have been living with my mom in Yonkers. Brian has been working on our home and we are starting to move back in this weekend. I've been back at work [at Seagrams] since May 8. Some days are more stressful than others!"

Our condolences to **Polly Gregor '79**, whose father died recently. Prof. Harry Gregor was an emeritus member of the Columbia Chemical Engineering department.

**Jackie K. Barton '74** was recently awarded the Weizmann Institute's Woman in Science Award. This prestigious award was presented at a very nice ceremony at the New York Academy of Sciences. I was pleased to represent Barnard at this event. In her acceptance

speech, Jackie mentioned Bernice Segal as one of the people who always held very high expectations for her.

### *Before 1970*

After a long illness, **Libby Halpern Miller '60** died on August 29, 1997. In her memory, her husband, Dr. Alan Miller, has decided to endow a scholarship at Barnard, with a strong preference for Chemistry majors. This is a lovely tribute to Libby, who is fondly remembered as a student, a faculty member, and a friend of the department.

**Gertrude F. Neumark '48** sent us a pre-publication copy of an lovely article describing her remarkable career in the spring '98 edition of the *Columbia Engineering News*. Dr. Neumark is a Professor of materials science in the Henry Krumb School of Mines. She worked for many years in industry, and came to Columbia in 1982 as a NSF Visiting Professor. Liking the academic life, she returned as a regular faculty member in 1985. She comments: "In my prior industrial position, I was off in a corner, but when I came to Columbia, my work just took off". She has two recent patents in doping wide bandgap semiconductors. Congratulations to this distinguished alumna who celebrates her 50th reunion this year!

### CLOSING REMARKS

As usual, I would like to take this opportunity to remind you of two important endowed funds at the college. **The Edward J. King Memorial Fund**, in honor of Prof. King, who chaired the department from 1960 to 1973, provides research assistance for junior faculty, filling a critical need in the intellectual life of the college. **The Bernice G. Segal Memorial Fund** originated with a fund set up by Prof. Segal in her lifetime, assigning a share of the proceeds of her textbook. It continues as a memorial to her. The fund provides generous summer fellowships for science students to do research at Barnard. Prof. Segal recognized what is only more true today: without generous stipends, financial pressures prevent needy students from availing themselves of important research opportunities. Both endowments continue to grow, thanks to your generosity. If you wish to make a donation to either fund, please send a check to the Development Office, payable to Barnard College. *Please specify clearly the fund to which you wish your gift applied.*

Keep in touch. We enjoy hearing from all of you. If you wish to reach any faculty at Barnard by e-mail, our addresses are (initial-name)@barnard.columbia.edu, e.g. mine is schapman@barnard.columbia.edu. We hope to set up departmental and some personal pages on the world wide web by the end of the summer.

My apologies if any of your news reported above is incorrect: we sometimes cobble together information from conflicting sources. Please write, and I will happily make corrections.

Yours very truly,

Sally Chapman  
Professor and Chair