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NEWS AND NOTES 1991, OCTOBER 4

The Rockefeller University

news & notes

October 4, 1991 Volume 2, Number 5 The Rockefeller University

Robert Reichert

"Marnie" Imhoff invests her persuasive powers in fund-raising.

Paving to end hydrant installation

But watch your step, fresh asphalt poses hazard to shoes

If it doesn't rain this weekend, the 66th St. driveway will be paved, completing the installation of several fire hydrants and returning the entranceway to normal by Monday.

Beginning at 6:00 p.m. today (Oct. 4), the full length of the 66th Street driveway—including the area in front of Flexner Hall, Founder's Hall, Nurses Residence, and the Hospital—will be primed with a thin coat of asphalt. Everyone is cautioned to avoid walking on primed areas as the sticky asphalt can easily ruin a pair of shoes. The 66th St. gate will be closed to vehicles from 6:00 p.m. today to 9:00 a.m. Sun., Oct. 6, 1991. Those who usually drive through the main gate should use the service gate on 68th St.

If it rains, paving will be postponed until next Friday.

Earlier this week workers filled in the four-foot trench dug to house the water lines feeding the hydrants. In addition, they cut away the edges of the driveway—which will turn into small downward slopes after the paving—to help drain the new pavement.

Quick. Get me a pigeon

When Rockefeller employees arrived in Caspary Hall and parts of Bronk Lab on Monday morning, they found themselves working without one of their most useful tools, the telephone.

Workers in a steam tunnel had severed a cable, sending people in the President's Office and other affected departments scrambling to use phones in other parts of the university.

Crews started work immediately to repair service. Telecommunications responded by setting up a system of call forwarding, so that those without phone service could receive messages. By Monday evening, the system had begun to return to normal.

Spotlight: 'Marnie' Imhoff

Making the case for Rockefeller—with flair

Maren ("Marnie") Imhoff, director of development, first demonstrated her talent for fund-raising while a graduate student at Andover Newton Theological School.

"I raised money for the famine relief organization OXFAM-America by soliciting fellow students in the dorms and approaching faculty in the main academic building," Imhoff recalls. "A seminary professor who found himself donating more than he intended suggested that I pursue a career in development."

Not long after, Imhoff landed her first job fund-raising for Union Seminary, a non-denominational theological school in New York City which is known for addressing social justice issues.

"To me, development has always been about helping others make the world a better place," she said. "I see myself raising money to support those doing splendid work."

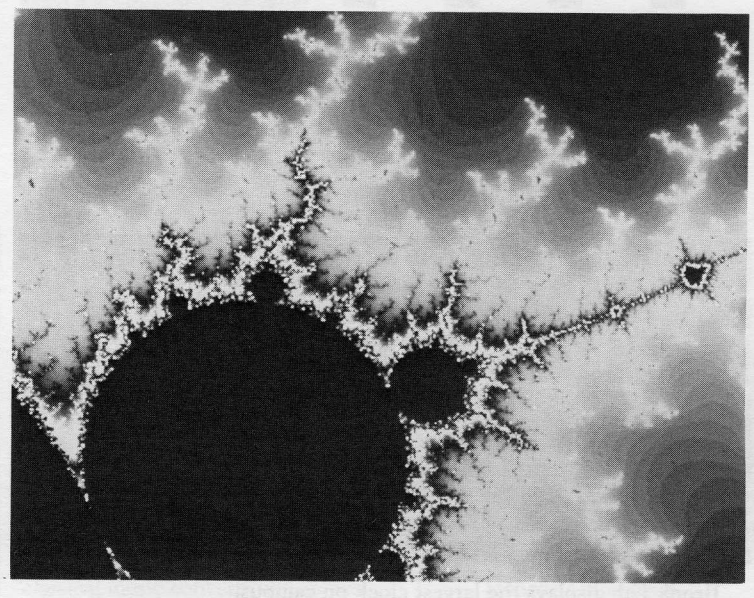
In 1984 Imhoff joined the development staff at Rockefeller. By 1988 she was director, reporting to the vice president for university relations. After observing her run the development program on her own for several months last winter and spring following the resignation of Robert Van Valer, David Baltimore offered her the top job in her own right, and dropped the search that had been started for a successor to Van Valer. Unlike her predecessors who held the title of vice president for university relations, Imhoff will concentrate exclusively on development.

"Marnie was doing an exceptionally good job running the department," says Fred Bohen, executive vice president. "She demonstrated that she was able to work effectively with David Baltimore, the faculty, and the university's trustees, and run the university's development program with flair and confidence."

Imhoff makes a convincing case for supporting Rockefeller University. "I try to communicate to potential donors the value of the basic research done at Rockefeller," she says with enthusiasm. "Basic research really is a smart investment for society in the long run. The philanthropists who fund Rockefeller are those sophisticated and discerning enough to see this."

Later this month, the university will give a progress report on its fund-raising. By all accounts, it will be impressive. Imhoff modestly assigns credit to everyone but herself. "At Rockefeller, development is a real team effort. Dr. Baltimore is a gifted and highly effective fund-raiser. The faculty take an active part in development and play a key role in attracting many of the gifts we receive. Our volunteers on the Board of Trustees, The RU Council, and Committee on Trust and Estate Gift Plans enjoy working with the faculty, administration, and our superb Development Office staff in their efforts to introduce new friends to the university."

Imhoff is ready to achieve ambitious goals. "We plan to increase gifts and grants from individuals," she says. "In fact, we plan to announce targets much higher than contemplated in the past. And I for one am confident that, with everyone working together, we will achieve them."



Anthony M. Popowicz

The fractal, a shape like a coastline or a fern, which looks the same no matter how closely or distantly it is viewed, is among the illustrations in the updated *Scientific & Educational Programs* which comes out next week. **See Page 2.**

Collaborating with computer scientists

by Peter H. Sellers

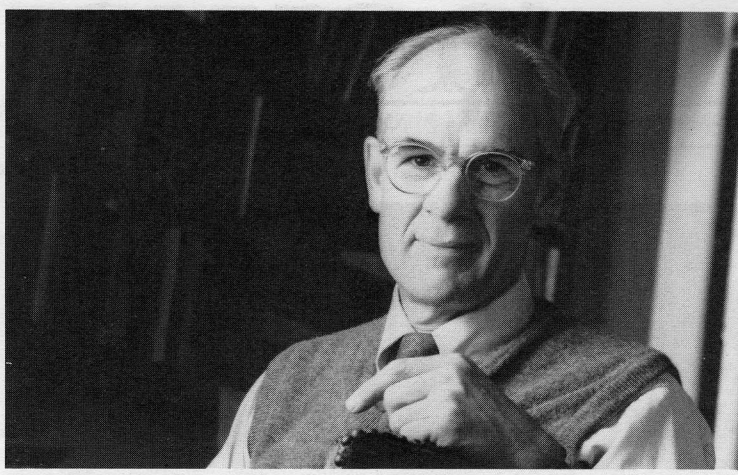
Mathematicians and biologists are apt to undervalue computer science, not realizing the profound influence it now exerts on their fields. Algorithms, the theoretical substance of computer programs, are pervading mathematics, and biologists have shown an insatiable need for "computer packages" and "data bases" to cope with the vast amounts of information that they wish to have at their fingertips. But to benefit from these developments mathematicians and biologists must increasingly share ideas with computer scientists. My experience this year with Gadi Landau, Harriet Schmidt, and their co-workers at Polytechnic University shows how easily collaboration among these disciplines can be achieved and how beneficial the results can be.

As a mathematician at Rockefeller specializing in algorithms, I am aware of the need for computer scientists to bridge the gap between theoretical work and its potential applications in the laboratory. Therefore, when my Rockefeller colleague Vincent Fischetti told me about a computational problem arising out of his work on M-proteins (proteins which cling to the surface of a cell), I described the problem to several computer science groups. Eventually Gadi Landau and Harriet Schmidt offered to collaborate with us.

The problem can be stated in general terms as follows: Can a computer program scan a protein data bank and identify segments with a "coiled-coil" structure by their sequences of amino acids? And can it do so in an acceptably short time? Specifically, the program would have to scan the data bank in "linear time," that is, in time proportional to the amount of data. Taking advantage of the periodic structure of "coiled-coil" proteins, I was able to solve the problem mathematically by determining an appropriate algorithm; but until Landau and Schmidt joined us early this year we had not been able to make progress developing a program. They visited Rockefeller with other members of their department to learn the biological background of the problem. By summer, after I had left on vacation, I learned that their search program had been completed, it had run successfully, and Fischetti had announced the results of its first application at a symposium in Helsinki!

The program has the potential to be of great use to biologists. It can be used find new proteins with the same function as known proteins. Moreover, it can search rapidly for periodic structures in sequences of any kind.

A collaboration such as ours may take longer for a biological laboratory to achieve than hiring a programmer to implement a known algorithm, but it benefits all the disciplines involved and may well produce results beyond those anticipated. Although collaboration with other groups is nothing new at Rockefeller, Landau and Schmidt come from a discipline that has not become well-recognized until very recent years. I wrote programs all through the 1960s without any idea that I was practicing a new science, and even now many scientists do not realize the extent to which computer science has matured. It is a discipline in its own right, no longer a subsidiary of the various disciplines from which it originated, including logic, mathematics, and the study of intelligence in living organisms. I believe the time has come for greater collaboration between computer science and biology, and that this presents a great opportunity for Rockefeller University.



RU's Peter Sellers wants to bridge the gap among the disciplines.

Robert Reichert

Bronk Lab displays the largest clock on campus.

Updated *Scientific & Educational Programs* catalog, now an annual, debuts next week

Scientific & Educational Programs, forevermore to be known as "New SEP," comes out with an all-new look next week. It is a key ingredient in the administration's effort to improve campus communications.

New SEP has these features:

- It will come out annually, instead of every two years as in the past.
- It has been streamlined, particularly in the case of research summaries, which are short and easy to understand. Longer lists of tabular information have been removed.
- It has more features, including essays about the university and doing research in New York.
- It has been dressed up in a brighter format and design from the new graphic design department, headed by Corrine O'Neill.

New SEP has been painstakingly produced by Steve Baeck of the Rockefeller University Press, under the supervision of Enid Goldberg, editor of publications. The makeover was done to focus the publication more directly on the needs of its primary users: candidates for positions as members of the faculty, postdoctoral fellows, students, and technicians. It will also be used in a variety of other ways, from fund-raising to providing complete, accurate information.

SEP will be mailed interoffice to all lab and department heads. Anyone else who would like a copy may pick one up at Photographic Services on the first floor of Bronk, or at Public Affairs on the second floor of Nurses Residence. Dates and times for picking them up will be announced in next week's *News&Notes*. Labs or departments wishing to order in bulk for distribution outside the university should call Goldberg, x8969. There will be a charge of $8 per book for bulk orders.

Footnote: to the editorial staff, New SEP is known as Son of SEP.

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Ideas and submissions can be sent interoffice (Box 68), by electronic mail (newsno), or by fax (212-570-7876).

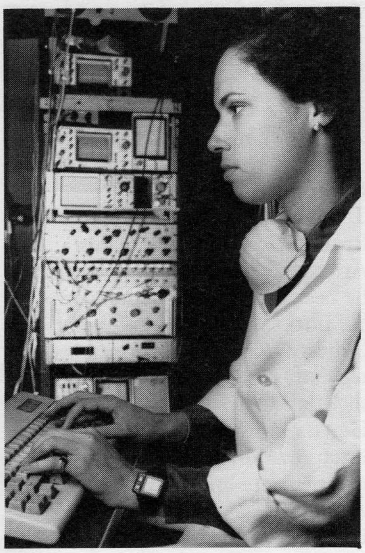
Interest in natural world drives entering class

by Mika Ono

The 22 students who make up the entering class at Rockefeller University this year are a diverse group. Some came straight from college, others came after years of research experience. Some are natives of the area; others traveled from countries as far away as Japan and the Soviet Union.

But the students have some striking similarities. They are all bright, independent individuals driven by their interest in the natural world. Most were attracted to Rockefeller by its excellent reputation in scientific circles and its flexible program of study.

Robert Reichert



Estela O'Brien

A fascination with the brain

Estela O'Brien, one of the students in the entering class, is from Long Island. She sparkles when addressing a subject that interests her. She came to Rockefeller to pursue the question which had come to fascinate her during medical school: how does the brain interpret visual information?

O'Brien was not always a biologist. She earned an undergraduate degree in physics from Harvard College and a masters degree in astrophysics from Rensselaer Polytechnic Institute before going on to complete two years at Cornell University Medical College.

"It was fascinating to try to understand how stars are born, but I changed into the biomedical field because it has more relevance to people," O'Brien says. "In addition, as I am black and Hispanic, I feel that there are more opportunities in this field to act as a role model for young black and Hispanic scientists."

In the Knight lab, she is running experiments to identify which brain cells process different types of visual information in cats and monkeys. Similar experiments have revealed that some cells specialize in responding to a specific type of image; for example, some cells fire only in response to a horizontal image, others only to a vertical or diagonal one.

"Right now I look at small groups of cells at one time," O'Brien says, illustrating her point on the chalkboard in her office. "Later, I hope to pursue a technique called imaging, which enables a researcher to see which cells fire simultaneously in a larger area of the brain. I also am interested in understanding how the brain integrates visual images with cognition, for example seeing a chair and understanding that it is used to sit on."

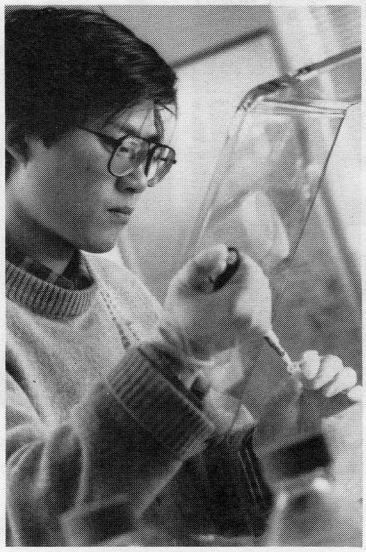
Moving quickly to the frontiers of research

Like Estela O'Brien, Xiaofeng Qin—a student from Beijing, China—is already immersed in research. In fact, the ability to begin research immediately was one of the factors which attracted him to Rockefeller's Ph.D. program.

"Here students are able to move quickly to the frontiers of research, where science is most exciting," he says. "Students do not have to follow a slow, formal path."

Qin is no stranger to research. Before becoming a student, he worked two years in the Chua lab at Rockefeller as a guest investigator. Before that, he earned an undergraduate degree from Nanjing

Robert Reichert



Xiaofeng Qin

University and a master's from Academia Sinica. Qin is now performing a small research project on the immune system in the Nussenzweig lab.

"There are two to five different classes of immune responses," he explains. "Which response is used depends on what is attacking the body, for example a virus or bacteria. We do not yet understand how the body determines which response to use, but it is an interesting and important question."

Leaving the easy life for the laboratory bench

The same independence of mind and interest in research that characterizes O'Brien and Qin can be seen in Henrik Tommerup. After graduating from Copenhagen University, Tommerup performed basic research on plants for Carlsberg Research Center in Copenhagen, where he worked with John Mundy, a researcher who had been a postdoc at Rockefeller.

Tommerup applied to Rockefeller because "a Ph.D. from Rockefeller University is well respected all over the world." While he wanted to broaden his horizons by studying outside Denmark, he remarks, "life is so easy in Copenhagen. You really have to want to do research to leave it—or any wealthy Western European country for that matter."

Tommerup has plans to pursue research in the de Lange lab on molecular kinetics, but has not yet begun running experiments.

"I think that students are quite happy with their experience here," Tommerup comments. "The faculty, even senior faculty, are accessible. We have all the equipment we need. And it's great to jog along the East River, go to classical music concerts on campus, and explore New York's cultural life.

"I am impressed by my colleagues in the entering class," he continues. "Even in fields they are not familiar with, they grasp new ideas quickly and are able to manipulate them."

Intelligence, curiosity, and strong technical skills

The intelligence and self-motivation of these students are no surprise to Marjorie Russel, dean of admissions.

"We look for three things when reviewing applications to study at Rockefeller: intelligence, curiosity, and a strong technical background," she says. "All the indicators—such as recommendations and grade point averages—are used together to assess the character and preparation of the individual."

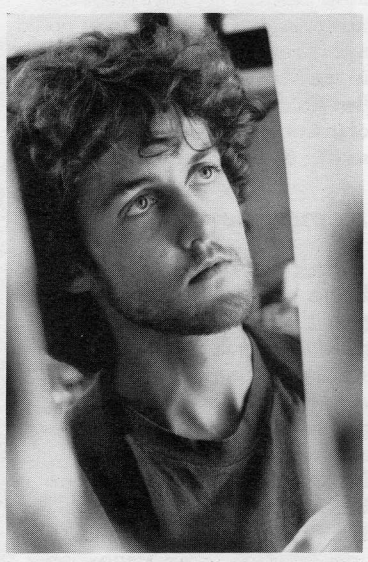
Even though the admissions committee—made up of about seven faculty members including Russel—receives around 300 applications for 20 positions, Russel claims that there are few candidates that meet Rockefeller's simple, yet rigorous, criteria. Most applications are weeded out on the first round of review, and only around 50 are treated as top candidates.

This year's class of 22 contains slightly fewer women than normal—five—and more international students than usual—16.

"Statistical anomalies are bound to crop up when you deal with such small numbers," Russel says. "Although we welcome diversity in the class, our philosophy is that it is more important to admit the most qualified individuals and let the statistics fall where they may."

This admissions policy seems to be paying off by attracting students with the potential to one day lead research in their fields.

Robert Reichert



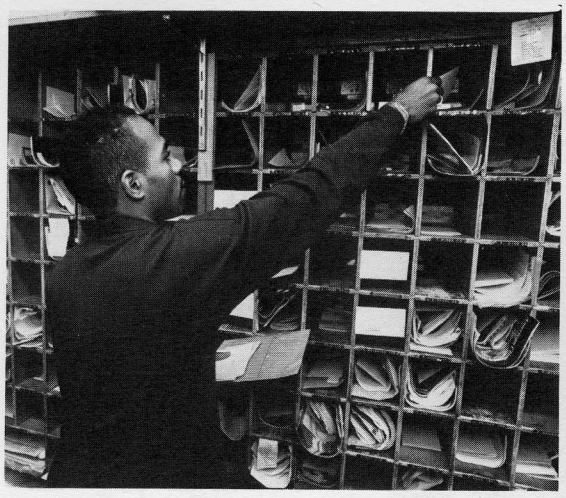
Henrik Tommerup

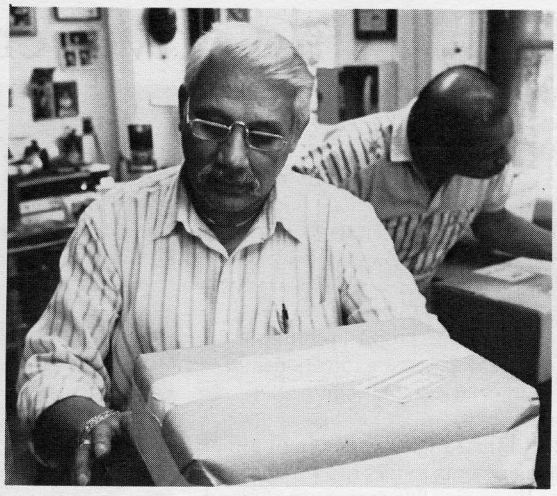
M.D.-Ph.D. program offers large selection of labs

This year's 11 entering biomedical fellows are the first to have been accepted into the fully integrated Tri-Institutional M.D.-Ph.D. program sponsored by Rockefeller University, Cornell University Medical College, and Cornell University Graduate School of Medical Sciences, which includes Sloan-Kettering Institute.

"M.D.-Ph.D. students can choose to do their lab work at any of the three institutions," says Ron Bose, an M.D.-Ph.D. candidate who entered the program this year. "The large selection of labs was a factor which attracted me to the program. I also had a good impression of the faculty, who believe in offering students both flexibility and guidance."

Robert Reichert





Left: **John Vega delivers interoffice mail to Rockefeller's 302 mail boxes.** ***Right:*** **Jose Perez *(front)* and Ismael Diaz take care of a few of the 10,000 items that the Mail Room handles per week.**

Send it to Rockefeller University, 10021

There is a delightful element of mystery about an unopened piece of mail. Mail can bring us greetings from far away places, words of encouragement, checks, bills, announcements, awards, rejections, revisions, articles, presents, samples, ads, and long-awaited orders. Mail mediates human relations and facilitates commerce and science.

Rockefeller's Mail Room staff are aware of the importance of what they do. "We handle over 10,000 items per week which go to people in every lab and department on campus," said Jose Perez, Mail Room supervisor. "Incoming, outgoing, and interoffice mail all can contain vital information."

"The Mail Room is one of Rockefeller's main sources of communication with the outside world," chimed in Ira Woods, assistant supervisor. "We play a big role in communication within the university, too."

Since the Mail Room has a big job without a big staff, Perez always looks for ways to make operations more efficient. A large chart identifying codes for different postal rates hangs over the electronic scale in the Mail Room, located on the first floor of Founder's Hall. A set of intermediary boxes facilitates the sorting of interoffice mail. A chart matching combinations to postal boxes acts as a convenient reference.

"None of this was here before I became supervisor," Perez says with pride. "I always ask myself, 'how can we do things better?'"

The division of labor also aims to make the most of the five staff—Ismael Diaz, Angel Roman, and John Vega, in addition to Perez and Woods. Two men begin work at 7:00 a.m., shortly after the mail is delivered. Later, different stations within the small room are set up for sorting, distributing and posting correspondence.

"Some people think of us as a post office," said Woods. "But we're not. We're just a mail room. Unfortunately, we don't have the resources to offer all the services a regular post office does."

The Rockefeller Mail Room can send interoffice, domestic, and international mail; post small packages for business purposes; and call on Federal Express and a messenger service. A zip code reference book is available on request. The mail room is open from 8:30 a.m. to 5:30 p.m. Monday through Friday, and from 8:30 a.m. to 1:00 p.m. and 1:30 to 4:30 p.m. Saturday. Stamps are sold from 11:00 a.m. to 5:00 p.m.

Mail Room 'do's' and 'don't's'

- Do write an account number on all business mail.
- Do include a return address.
- Do use a rubber band to group letters from the same department.
- Do indicate what class a letter should be sent.
- Do drop mail in the proper slot—first class/air mail, printed matter/library rate, inter-office mail, or stamped mail.
- Do leave a forwarding address with the mail room if necessary.
- Don't reuse labels to return a package to the sender. Write a new label to ensure the address is clear.

A branch of the U.S. Post Office will assist those who wish to purchase money orders, send personal packages, mail boxes over 22 lbs., acquire more than one book of stamps at a time, or purchase stamps before 11:00 a.m. The Lenox Hill Post Office, located on 70th St. between Second and Third Aves., is closest to campus.

"We do what we can to help everyone," said Woods. "Just say 'hello' if you need to get our attention."

Roman develops his art

Angel Roman, a clerk in the Mail Room, has a passion for photography. Every weekend he shoots pictures—usually of flowers, parks, still life, or his eight-year-old son, Angel Jr. He also likes shooting photos of the small shops, buildings, and tropical storms of Culeba Island, a small island near Puerto Rico which he visits every year. Photos already cover the walls of his apartment in uptown Manhattan, yet he is eager to take more.

"I am glad fall is here," Roman said. "I think it's the best season to take pictures of the leaves."

Angel Roman

Rockefeller's tree-lined drive caught Angel Roman's eye last fall.

Potpourri

Retirement
Josephine Lewis, laboratory helper in the Merrifield lab, retired Sept. 30 after 26 years at Rockefeller University.

Macintosh users group
RockMug, the Rockefeller University Macintosh users group, is beginning its second year. The first meeting will be Wed., Oct. 9, in Caspary 1B, 11:30 a.m. to 12:45 p.m. The topic of the meeting will be System 7, and its new features will be demonstrated. The questions of "whether" and "when" to switch to System 7 also will be discussed.

Everyone is invited. Bring your lunch—drinks will be provided. Those who would like to help plan future meetings or who want to be added to the mailing list should contact Rachael Kolb, x8933, or e-mail *rachael.*

Noon Recital
Today's Tri-Institutional Noon Recital will feature the pianist Angela Cheng performing works by Beethoven, Berg, Schumann, Schnittke, Rachmaninoff, and Debussy. Cheng's performances regularly receive rave reviews, such as one from Montreal's *Gazette* which says, "Cheng's interpretation and keyboard manner were undoubtedly those of a full-fledged artist with important things to say and the means to say them." The concert will be held at Sloan House, York Ave. between 66th and 67th Sts. Admission is free.

Evening concert
The next performance in the Rockefeller University concert series will feature pianist Pascal Rogé, Wed., Oct. 9, at 8:00 p.m. in Caspary Auditorium. Mr. Rogé, winner of the 1988 Gramophone Award for Best Instrumental Recording, is known for performances of outstanding clarity, tenderness, and sensitivity. Tickets for his performance are available for $14 through the concert office, x8437.

Film
Working Girls (1987) will show at 7:30 p.m., Sun., Oct. 6, in Caspary Auditorium. This candid and controversial film directed by Lizzie Borden depicts a day in the life of five prostitutes in an upscale Manhattan brothel. Admission is free.

Classified

Anyone who can use a free bio-rad gel scanner in excellent condition ($10K value, Model 620 - Video Densitometer) should contact Susan Cox, x8120, after 11:00 a.m.