

3-31-1995

NEWS AND NOTES 1995, VOL.5, NO.23

The Rockefeller University

Follow this and additional works at: http://digitalcommons.rockefeller.edu/news_and_notes_1995

Recommended Citation

The Rockefeller University, "NEWS AND NOTES 1995, VOL.5, NO.23" (1995). *News And Notes 1995*. Book 1.
http://digitalcommons.rockefeller.edu/news_and_notes_1995/1

This Book is brought to you for free and open access by the The Rockefeller University News and Notes at Digital Commons @ RU. It has been accepted for inclusion in News And Notes 1995 by an authorized administrator of Digital Commons @ RU. For more information, please contact mcsweej@mail.rockefeller.edu.

news & notes

March 31, 1995 Volume 5, Number 23

The Rockefeller University

Trustees extend Wiesel's term, set major fund-raising goals for faculty initiatives, approve promotion and appointments



The university's trustees have voted to extend President Torsten Wiesel's term through 1998.

The Rockefeller University Board of Trustees voted Wed., Mar. 22 to ask President Torsten Wiesel to continue as president through 1998, two years beyond his current term, in order to provide continuity for implementing the Academic Plan and related fund-raising efforts. The Board also decided to raise \$82 million in a three-year campaign to complete a fund for faculty initiatives totalling \$157 million, of which \$75 million was raised in a first phase (1991-94).

Richard M. Furlaud, chairman of the Board, said, "The trustees are appreciative and admiring of the tremendous progress made under Torsten Wiesel's leadership, particularly in recruiting excellent new faculty, in bringing our budget into balance, and in attracting new sup-

port for university programs."

He continued, "We think Torsten's leadership is critical during this important three-year period of faculty renewal and development. I am delighted that the trustees, key volunteers, and members of the faculty are enthusiastic about his willingness to continue to serve through 1998 and thereby ensure the continuity that is essential for our success in these endeavors."

In response to the Board's action, Wiesel said, "We appreciate the trustees' warm support for what the faculty and administration have accomplished by working together and for what we have set out to achieve, which is to ensure that the university is a strong and interesting place for investigators to do the best scientific research. I have enjoyed my first three years as president and look forward to continuing. As I am now an emeritus professor, I can spend even more time on scientific and academic issues and, of course, fund-raising."

Furlaud and Stephen Stamas, vice-chairman of the Board, had met with the Academic Council earlier in March to discuss plans for

1995 convocation to be dedicated to David Rockefeller

The Board of Trustees voted to dedicate the 1995 convocation to David Rockefeller in honor of his extraordinary leadership and on the occasion of his 80th birthday and 55 years of service on the Board. Mr. Rockefeller received an honorary degree in 1980.

Look for more information in future *News&Notes*.

the campaign and the extension of Wiesel's term.

Ambitious fund-raising campaign for faculty recruitment

At the Board meeting, John Whitehead, co-chairman of the Board's development committee, presented a report on progress to date in private fund-raising for fac-

See *News*, page 2

Virologist to discuss GO signals and intracellular traffic

Elliot D. Kieff, Harriet Ryan Albee Professor at Harvard University, will give a talk entitled "Epstein-Barr Virus Transforms Cells by Flashing GO to Intracellular TRAFicking" at the Friday lecture today (Mar. 31).

Kieff and his colleagues study the molecular genetics of the Epstein-Barr virus, which is believed to play a role in human lymphomas, Hodgkin's disease, and nasopharyngeal carcinoma. In the U. S., the most common disease caused by the virus is infectious mononucleosis. Kieff's group has recently identified a new human protein through which the virus causes abnormal cell growth. A viral protein, LMP1, discovered over a decade ago by his research group, interacts with two novel human proteins. These human proteins are related to two mouse proteins recently discovered to be associated with tumor necrosis factor receptors, and are referred to as TRAFs. Today Kieff will discuss this finding and its possible role in controlling the growth of human malignancies.

See *Kieff*, page 2

Diverse approaches to neural systems to be described at second annual DeCamp symposium on the neurosciences

The second annual DeCamp Symposium on the Neurosciences will take place Tues., Apr. 4 in Caspary Auditorium. The program, entitled "Neural Systems Approaches to Learning and

Perception," will feature five leading investigators: Richard S.J. Frackowiak, Institute of Neurology, University of London; Eric I. Knudsen, Stanford University School of Medicine; Bruce L. McNaughton,

University of Arizona; Ken Nakayama, Harvard University, and Tomaso A. Poggio, Massachusetts Institute of Technology.

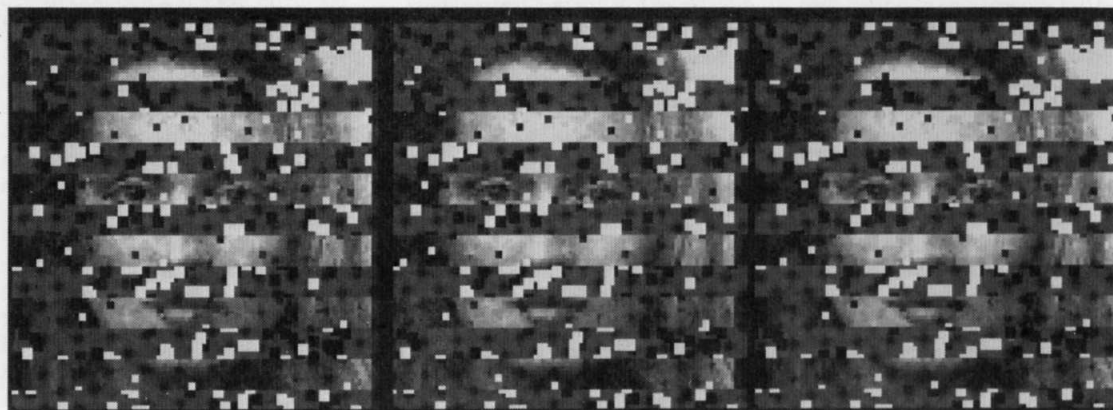
See *DeCamp*, page 2

3 The origins of cell biology

4 Singers, sisters, and a storyteller

4 Runners: team up for Rockefeller

Courtesy of Ken Nakayama



When you converge two of these images (fusing them with your eyes), the face and the checked stripes will appear in different depth planes. When the face appears behind the checked stripes, it is more easily recognizable than when it appears in front. Ken Nakayama will talk about this work at the DeCamp symposium.

Rockefeller hosts DeCamp symposium

(continued from page 1)

"Each of the five speakers represents a different field in the area of neural systems—neurophysiology, perception, mathematical modeling, and neural imaging," said Professor Charles Gilbert, chair of the Tri-Institutional DeCamp Symposium Committee. "We have asked the speakers to make their presentations accessible to a general scientific audience and we hope people outside the neurosciences will attend."

Gilbert will open the symposium at 10:00 A.M. Knudsen will give the first presentation, at 10:05 A.M., on "Auditory Learning in the Barn Owl's Brain: Site, Mechanisms, and Dynamics." Knudsen, a neuroethologist, has been investigating how the formation of maps of auditory and visual space in the owl brain are influenced by experience, and he uses this as a model system for understanding the general mechanisms of learning.

At 11:00 A.M., McNaughton will speak on "Hippocampus, Space, and Episodic Memory: The Stuff Dreams are Made of." McNaughton, like Knudsen, uses physiological approaches. He is studying how neural ensembles code for an animal's sense of spatial location and how changes in the environment alter the properties of cells and the effective connections between them.

After a lunch break, the symposium will resume at 1:30 P.M. with Nakayama speaking on "Visual Surface Representation: A Critical Link between Lower-Level and Higher-Level Vision." Nakayama is a perceptual psychologist who explores the rules that govern object perception and attention.

Poggio will give a presentation

at 2:30 P.M. on "The Models of Learning and 3D Object Recognition." Poggio, a mathematician, develops theoretical models for perception and learning.

After a coffee break, Frackowiak will conclude the symposium with a lecture on "Investigations of the Functional Anatomy of Memory Systems in Man Using Functional Imaging." Frackowiak uses imaging techniques to look at the roles played by different regions of the human brain in higher-order cognitive functions.

The DeCamp symposium was established in 1993 by the Ira W. DeCamp Foundation to strengthen and expand ties among neuroscientists at The Rockefeller University, New York Hospital-Cornell Medical Center, and Memorial Sloan-Kettering Cancer Center. The grant also provides funding for seminars, lectures, and courses for students, postdocs, and faculty of the three institutions.



Professor Charles Gilbert organized the DeCamp symposium this year.

Kieff

(continued from page 1)

After graduating from the Johns Hopkins University (M.D., 1966), Kieff went to the University of Chicago as an intern and resident. In 1970, he became assistant professor and chief of the Section of Infectious Disease in the Department of Medicine. In 1971, Kieff received a Ph.D. from the University of Chicago and became director of the Interdepartmental Training Program in Infectious Disease. He was promoted to associate professor in 1975, became professor in 1979, and was named Louis Block Professor in 1985.

Kieff joined Harvard University in 1987 as professor in the Departments of Microbiology and Mole-

cular Genetics and Medicine, and director of Infectious Disease. He was named Harriet Ryan Albee Professor in 1988, and chairman of the Virology Program in 1991.

Kieff has received faculty research awards from the Schweppe Foundation and the American Cancer Society. In 1982 he received the Ann Langer Cancer Research Award of the Esther Langer Cancer Research Foundation. He is a member of the scientific advisory boards of The Medical Foundation and the Damon Runyon Foundation.

The lecture will be held at 3:45 P.M. in Caspary Auditorium and preceded by tea at 3:15 P.M. in Abby Aldrich Rockefeller Lounge. All are welcome.

News from the board of trustees

(continued from page 1)

ulty development and renewal.

To reach the \$82 million goal, he noted, ambitious annual targets have been set: \$17 million in 1994-95; \$21 million in 1995-96; and \$24 million in 1996-97; and, in addition, \$20 million would come from bequests, such as the recently announced gifts from the Liebmman estate and from the Weiss estate, which will be applied to the fund.

"Before setting such challenging annual amounts, we wanted to test whether achieving them was feasible, so we asked our trustees and close friends of the university for their commitment," Whitehead said. "Since Mr. Rockefeller had given a magnificent gift of \$20 million during the first phase of this effort, we could not turn to him again. I am delighted to report that six trustees have pledged \$1 million each, and several other trustees have made generous gifts as well. We have also had great success in securing major gifts from new friends. With three months to go in this fiscal year, we have already raised \$16 million, only \$1 million short of our ambitious \$17 million goal. With this encouraging support, we can confidently pursue a campaign to make it possible to fully implement the Academic Plan."

The fund would support goals and needs set out in the plan, which was developed by the faculty in 1993-94 and adopted by the Board at its June 1994 meeting. It calls for recruiting 13 to 15 new faculty in specific areas over three years; five appointments have already been made (Albert Hudspeth, Albert Libchaber, Peter Mombaerts, Andrej Sali, and Markus Stoffel). Searches are under way for 8 to 10 other new faculty members.

Promotion and appointments approved

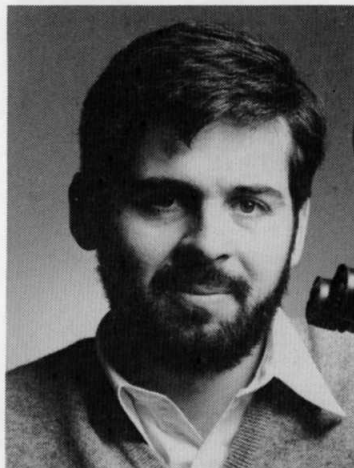
The Board also approved the promotion of Arturo Alvarez-Buylla to associate professor.

Alvarez-Buylla received his Ph.D. from Rockefeller in 1988, working with Professor Fernando Nottebohm. After a year at RU as a postdoc, he became assistant professor in 1989 and head of the laboratory of developmental neurobiology in 1991. In 1992, he received the Sinsheimer Award.

Alvarez-Buylla studies neurogenesis and its relation to behavior, using songbirds and mice as models. His work in adult mammals has demonstrated that subventricular zone cells are neuronal precursors.

More recently, he has found evidence of long-distance neuronal migration in adult mice; in his 1994 *Science* paper, he showed that grafted and endogenous subventricular zone cells in the lateral ventricle of adult mice migrate long distances and differentiate into neurons in the olfactory bulb. Another recent paper, published in the *Proceedings of the National Academy of Sciences*, with Nottebohm and graduate fellow Sowmyalakshmi Rasika, showed that testosterone increases the recruitment and/or survival of newly generated neurons in adult female canaries.

Finally, the Board approved the proposed appointment of three scientists to the faculty, as recommended by faculty search committees and the Board's committee on scientific affairs, to be announced when offers are accepted.



Arturo Alvarez-Buylla was promoted to associate professor at the Board of Trustees meeting last week.

News&Notes is published each Friday throughout the academic year by The Rockefeller University, 1230 York Avenue, New York, NY 10021. Phone: 212-327-8967.

Torsten Wiesel, President
Ingrid Reed,

Vice President for Public Affairs and
Corporate Secretary

Kay Locitzer, Editor
Joseph Bonner, Assistant Editor
Heather Leahy, Design
Robert Reichert, Photography
Media Resource Service Center, Processing

Ideas and submissions can be sent interoffice (Box 68), by electronic mail (newsno), or by fax (212-327-7876).

The Rockefeller University is an equal opportunity/affirmative action employer.



Two pioneers recount origins of cell biology at Rockefeller celebration

To open "Journey into the Cell," Rockefeller's celebration of 50 years of modern cell biology, held Mar. 16-18, the university called on two of the field's pioneers: George Palade and Christian de Duve, who together with Albert Claude shared the 1974 Nobel Prize for their landmark work on the organization of the cell. Palade was an investigator at Rockefeller from 1946 to 1973; among his many accomplishments are his work on the structure of mitochondria, the discovery of ribosomes, and the elucidation of the secretory pathway. In his talk, "The American Cradle," Palade traced some of the research achievements of his predecessors and of his own circle up through the '60s, describing how they were nurtured and made possible by the special environment provided by Rockefeller. de Duve, who became a Rockefeller professor in 1962 and is the university's Andrew Mellon Professor Emeritus, is well known for the discovery of lysosomes and peroxisomes. In his talk, "The Belgian Connection," he described the achievements of Belgian-born cell biologists (including Albert Claude and de Duve's own group) and their relationship with Rockefeller. Here, News&Notes presents excerpts of the two lectures.

Palade: The American cradle

Fifty years ago, Keith Porter, Albert Claude, and Ernest Fullam published the first electron micrograph of a cultured cell that showed convincingly that in the glassy void of the cell parts, called at the time hyaloplasm (or "ground substance"), there was a well-defined, elaborate structure which they described as "a lace-like reticulum." This historic micrograph was the first convincing proof that well-defined structural elements existed beyond the realm of biological structure detected by light microscopy. For this special occasion [Rockefeller's celebration], this electron micrograph is considered the birth certificate of a vigorous baby, which, a few years later, was baptized "Cell Biology."

A newborn baby needs, of course, a friendly comfortable cradle, which was provided by this institution. Rockefeller became the American cradle of cell biology not only because the early protagonists were in the research staff of the house, but also because the Institute provided a supportive environment that helped the development of new technologies needed to open new fields for research.

Claude realized early on the power inherent in the combined use of the two approaches of electron microscopy and cell fractionation, but in both cases preparation tech-

niques were still severe limiting factors. But by 1949 partial technological improvements [in fixation and ultramicrotomy] were good enough to meet our first objective: to make amenable to electron microscopy—at least in principle—any cell in any tissue or organ of any species.

Essentially the entire garden of creation was open for study at the new levels of resolution, and prospectors for anticipated scientific gold nuggets rushed to the newly open fields in ever-increasing numbers, very much like the forty-niners in the gold fields of California. The spirit was not very different; claims were made and arguments flourished, but the newly open fields were so rich that any diligent microscopist could not avoid making at least a couple of discoveries. The field was in general ferment: old laboratories were activated and new laboratories sprang into action in this country and abroad. Yet the Rockefeller group retained a margin of initiative and on that account attracted as trainees professors in addition to regular postdoctoral fellows. We had, therefore, the unique experience of introducing leading scientists to biological electron microscopy.

Quite often they knew more than we did about the topics on which we worked together and quite a number of important findings were the results of these activities. Among our trainees of high rank were Don Fawcett and Sandy Palay and later on, Russ Barnett, Fritz Miller, George Pappas, and Myron Ledbetter. They became leaders in biological electron microscopy upon return to their home bases. From that period dates the series of papers on the endoplasmic reticulum on which Keith Porter and I worked together. Also from the same period date the discovery of the fine structure of mitochondria, the discovery of plasmalemmal vesicles, the description of the nuclear envelope by Michael Watson, and especially the discovery of the small particular component of the cytoplasm. Later on the isolated particles were (properly) called ribonucleoprotein particles (by Philip Siekevitz and myself) and finally ribosomes.

In 1956, the Rockefeller Institute became a university for graduate studies, and quite a number of students joined the cell biology laboratory. Lee Peachey was the first, followed by others including Jim Jamieson, David Luck, Peter Satir, and David Sabatini. These special graduate students, together with the postdoctoral fellows and research associates of that period, who included Günter Blobel, Nam-Hai

Chua, and Marilyn Farquhar, became the most active, imaginative, and enterprising crew in the history of the Rockefeller cradle for cell biology. I never encountered in my existence a more impressive collection of clever minds and nimble hands.

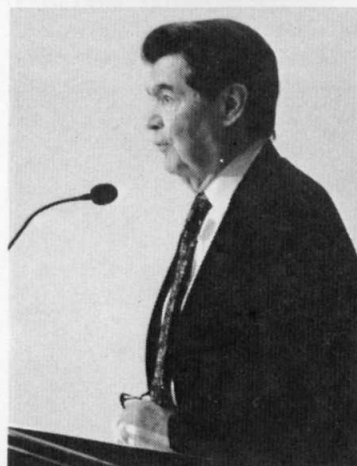
de Duve: The Belgian connection

The place of birth of cell biology is clear. It's the Rockefeller Institute for Medical Research. The date of birth is a little fuzzy, [but] let's take it to be 1945, just 50 years ago. The name of the father and mother is clear: Albert Claude and Albert Claude.

[Claude conducted research while in medical school at the University of Liège, at the Cancer Institute in Berlin, and at the Kaiser Wilhelm Institute.] But his real ambition was to purify and characterize the agent that causes the transmissible chick sarcoma, the Rous sarcoma [virus]—we know it's a virus now, but then it was called a "filterable agent." The virus was discovered here at Rockefeller by Peyton Rous in 1911, and Claude decided that the best place to do this work was at Rockefeller.

He did to some extent achieve what he wanted to do. He never really succeeded in completely purifying the virus, but he did demonstrate that RNA was essential for the cancer-causing activity of the virus. He also did another thing which turned out to be very important: He used high speed centrifugation to separate the virus. [Then, as a control, he performed the same procedure on noninfected chick tissue and, later, on other kinds of tissue as well.] He found that, in fact, in every cell type there was a component that could be separated by high speed centrifugation and contain RNA, phospholipids and protein, and he called this material "microsomes."

He also started playing with a cell fractionation scheme. Before isolating the high-speed sediment, which was the microsomes, he isolated a particulate preparation that could be sedimented at low speeds. It took him a long time to accept the view that this contained mitochondria, but eventually [he did]. He had the bright idea of asking for the help of some other people on campus who knew more biochemistry than he did, such as Rollin Hotchkiss and George Hogeboom. Other people had used centrifugation to try and separate cell components, but Claude made the method analytical. We owe him for developing this approach, which was continued after Claude [left to return



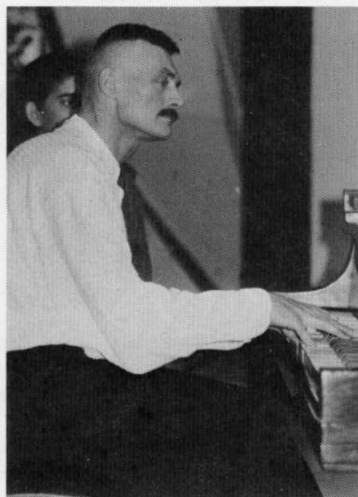
Christian de Duve (top) and George Palade, who shared a Nobel Prize in 1974, spoke at Rockefeller's celebration of modern cell biology, held Mar. 16-18.

to Belgium as head of the Jules Bordet Institute in 1949].

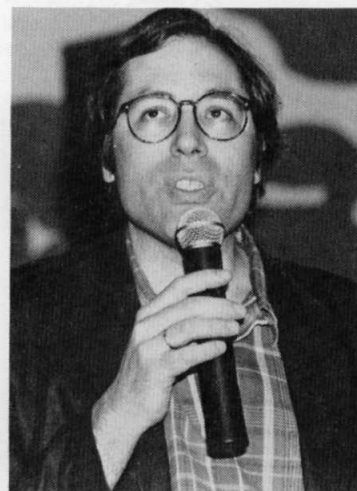
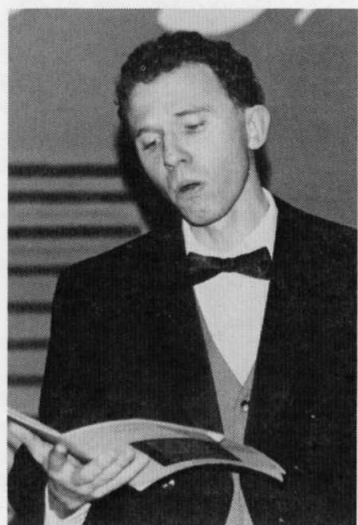
[My chapter in "the Belgian connection"] began in 1948, when I paid a visit to Albert Claude. He showed me around the Rockefeller Institute of that time, told me about his work, and gave me a few reprints, which I studied religiously on my way back to Belgium. I was fascinated [by his techniques]. Just the idea that you could actually take mitochondria in a test tube and ask them to do there what they do in the cell—it was something fantastic. But I wasn't ready to do that myself. At that time [the late '40s], I was interested in carbohydrate metabolism, and I started some biochemical work in that field at the University of Louvain. By a series of accidents and fortuitous circumstances, I came to use Claude's techniques [and] for the next 15 years, we spent most of the time in my lab at Louvain doing cell fractionations. The [ultimate] outcome of all that was the characterization of two new organelles, the lysosomes and the peroxisomes.

Singers, sisters, a storyteller, and other stars sparkle at ROCKEFOLLIES

Lori Carlsson (all photos)



Among the performers at ROCKEFOLLIES 95, held Tues., Mar. 21, were (clockwise from top center): secretary Jennifer Dell (right) and her sister Patricia Dell, who presented an original tap dance and joke routine; assistant for research Catherine Rozario, who performed a modern Indian dance with her sisters, Maria and Janet Rozario; research associate Benno ter Kuile, who recited an original story; research nurse Peggy Hempstead (second from right) and musicians and dancers from the New World Sword troupe, who performed a 16th century sword dance; postdoctoral fellow and countertenor Eric Marechal, who sang Vivaldi songs accompanied by graduate fellow Natalie DeSouza on piano; and Abby Dining Room server Thomas Holt, who played the complete *Moonlight Sonata*.



Potpourri

Tri-Institutional Noon Recital
Pianist Valery Kuleshov will perform works by Scarlatti, Scriabin, and Liszt at the Tri-Institutional Noon Recital today (Mar. 31). Kuleshov received the silver medal at the 9th Van Cliburn International Piano Competition. The concert, to be held at noon in Caspary Auditorium, is free. All are welcome.

Spring ahead

Remember to set clocks and watches one hour ahead on Sun., Apr. 2. Computers, fax machines, and answering machines should be reset also.

Opera performance

The winners of the Eastern Regional Finals of the Metropolitan Opera National Council Auditions will perform a benefit concert in Caspary Auditorium Sun., Apr. 2 at 8:30 P.M. A black tie reception (dark suits acceptable) with the artists will follow. The auditions program, established in 1954, is designed to discover new talent for

the Metropolitan Opera. Forty percent of the current Met roster participated in these auditions. Discounted tickets to the concert and reception are available to the Rockefeller community for \$20. Tickets can be obtained from Sandra Walsh, x8072, in Caspary 305. Checks should be made to "M.O.N.C.-Eastern Region." RU students, who may attend the concert free of charge, may obtain tickets from the Dean's Office.

Clinical Research Seminar

Jeffrey Laurence, associate professor at Cornell University Medical College, will discuss "Accelerated Apoptosis in Idiopathic and HIV-associated CD4+ T Lymphocytopenia" at the Clinical Research Seminar Wed., Apr. 5 at noon in Nurses Residence 110B.

Corporate challenge

Members of the RU community are invited to join a team of runners to participate in the 1995 Chemical

Bank Corporate Challenge Race Series, which consists of three 3.5-mile races held in Central Park. The RU team, which welcomes all runners—turtles as well as hares—will run in two races, on Thurs., May 11 and Tues., June 27. Team members may run in one or both races. Entry deadlines are:

- For the May 11 race, Fri., Apr. 7 at noon;
- For the June 27 race, Fri., May 19 at noon.

There is an entry fee of \$13 per race. For further information contact Robin Maloney, x7736.

Spraying

Weather permitting, the trees and shrubs on campus will be sprayed Sat., Apr. 8 from 6:00 A.M. to noon. The Grounds Department recommends that those on campus that day stay out of direct contact of the spray, close windows, turn off air conditioners, and keep pets inside. The rain date is Sat., Apr. 29. For more information, call James Sullivan, x8001.

Basketball tournament

Teams are being accepted for the RU 3-on-3 Hoop It Up basketball tournament. Entry forms and a \$20 fee, which covers the cost of a hoop, ball, and referee, should be submitted to Berdie Giammona, 105 Boiler House, before Fri., Apr. 14. For further information contact Abby Alvarez, x8013. Tournament dates will be announced later.

Philharmonic discount

The New York Philharmonic offers groups of 20 or more orchestra seats at a discount of 20 percent off the regular price. Performances are held in the evenings, with matinees on Fridays at 11:00 A.M. and 2:00 P.M. and Saturdays at 2:00 P.M. For further information call 496-2221.

Restaurant recommendations

The Office of Public Affairs is compiling a list of neighborhood restaurants. Send picks or pans (giving reasons) to Cathy Rogers, box 68, or fax, x7876.