An internationally recognized leader in genetics of skin biology, Elaine Fuchs, Ph.D., will join the Rockefeller University this June as a Professor of Basic Sciences and head of the Laboratory of Molecular Control of Circadian Behavioral Rhythms at the Stavros Niarchos Foundation. The Rockefeller University aims to create a new research focus on the cellular and molecular mechanisms of biological clocks, the internal mechanisms that control the timing of daily activities in living organisms.

Using the fruit fly as a model, Young's group has identified several genes in the fly that work in tandem to tightly control the fly's 24-hour body clock. Copies of all of the fly's clock genes now also have been identified in mammals, including humans.

Research by Young's lab originally showed how the pairing of two proteins, PER and TIM, respectively, forms a core reaction in the molecular clock. Thomas P. Sakmar, acting president, "has first met Elaine in 1986 at the University of Chicago when I worked in the lab adjacent to hers. She brings incredible enthusiasm and energy to her work." A Howard Hughes Medical Institute investigator, Fuchs is a member of the National Academy of Sciences and was president of the American Society of Cell Biology this past year. Since her days as a postdoctoral fellow at the Massachusetts Institute of Technology, Fuchs has used human skin and the laboratory mouse as model systems in her studies. "I became a skin biologist because the skin epidermis is one of the few examples where adult stem cells can be maintained and propagated in a petri dish in the lab. This allows us to study the intricate molecular mechanisms involved in how our skin surface can be constantly rejuvenated and how harmful microorganisms can be kept out, and body fluids in, so we don't dehydrate." In understanding the basic biology of skin, Fuchs' team also has elucidated the genetic basis for a number of human skin disorders. Recently, the group has been working on skin cancers. When she arrives in June, Fuchs will bring 20 postdocs, graduate students and research technicians from her current lab in Chicago. If her joining Rockefeller is as efficient as her move from Cambridge, Massachusetts, to Chicago 22 years ago over a Labor Day Weekend, her Rockefeller lab will be up and running by mid-June. "When I moved to Chicago from MIT, I was in the lab doing experiments on Tuesday after the Monday holiday," she recalls with a smile. Also with her in New York City will be her husband, David, and their two children.

If you had just 36 hours to communicate the essence of the Rockefeller University to a prospective graduate student, how would you begin? Would you focus only on the students' opportunity to interact with and learn from stellar scientists — or introduce the university and the city's rich cultural environment as well? This weekend and next, Rockefeller University will focus on both, when prospective students descend on campus for the annual Graduate Program Open Houses. "Our graduate program always has been unique in treating students as colleagues," says Dean Sidney Strickland. "This approach has attracted wonderful individuals who have become leaders in biomedical science. Two graduates are now Nobel laureates. While on campus, prospective grad students hear an overview of the graduate program from Strickland and Acting President Thomas P. Sakmar, and attend sessions with faculty members that are tailored to the students' research interests. Many students cannot live by bench work alone, and Strickland notes that "New York's unparalleled cultural offerings make it a great place to come of age as a scientist." But in the final analysis, "What is most important to great students is great science," concludes Strickland. "Rockefeller has an extremely strong faculty — including 14 new appointments in the last two years. Combined with our interactions with neighboring institutions, this lets us offer the best of all possible worlds: a small, supportive campus within the context of a large biomedical environment in a vibrant city."

Adhesive "dapples" (red lines), shown here inside skin epithelial cells, aid the outer layer of skin called the epidermis in forming interconnected sheets. Fuchs' laboratory studies the mechanisms of this cell-cell adhesion process in both normal cells and in tumor cells, in which this process has gone awry.

The research of Elaine Fuchs (right) is described in an article on page 5 of this issue.

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In the lab, Stacie Grossman points to her apartment where she occasionally — and guilty — watches Seinfeld reruns.

Stacie G. Rosman, postdoc in Paul G. Tagliarino's lab, enjoys writing as well as science. Following is her first News & Notes article describing her introduction to the university.

Graduate Program Open House Poster Session

3:30 to 3 p.m.
17th Floor, Weiss R research Building

Postdoc Shares “Diary”

In the lab, Stacie Grossman points to her apartment where she occasionally — and guiltily — watches Seinfeld reruns.

Stacie G. Rosman, postdoc in Paul G. Tagliarino's lab, enjoys writing as well as science. Following is her first News & Notes article describing her introduction to the university.

Toward the end of graduate school at Georgetown University, I began to search for a postdoc position at an academic institution in my one and only location of preference: Manhattan. New York City. My advisor at Georgetown pointed out that I was not only limiting my search to one city, but to one island in that city when in reality and in her opinion, I could take my Ph.D. almost anywhere in the world. This got me thinking of all the exotic places I knew I would never live. For me, there was only one option. I accepted a postdoc position in the Laboratory of Molecular Biology at the Rockefeller University in February 2000.

I put my name on the waitlist for university housing and came to Rockefeller University in mid-June. When I arrived, however, my apartment wasn't quite ready for me. I put all my belongings in storage. I moved into temporary housing and came to Rockefeller four months later. When I arrived, however, my apartment wasn't quite ready for me. I put all my belongings in storage. I moved into temporary guest housing on the second floor of Faculty House, in an apartment overlooking York Avenue and the traffic that results from living literally between the local on- and off-ramps of the FDR Drive. Needless to say, it was loud.
Graduate Fellow Says “Nobody Boxes You in as a Scientist” at Rockefeller

Third-year graduate fellow Tshaka Cunningham divides his time studying and a lab notebook. I can prove it.) I was reminded of my first pipetting experience. I was doing a rotation in a lab at Georgetown in July 1995, working with a research assistant, who asked me to aliquot some samples. He handed me a Pipettman. “Stacie, do you know how to do this?” No, I wasn’t. He looked at me like I was an alien. Everything in this new lab reminded me of that. I was traumatized.

In July, the news I had been waiting for finally came. There was an apartment for me — a one-bedroom in Scholars Residence. I scheduled my move on Saturday and picked up the keys the Friday before. I took the elevator up to my floor and unlocked the door. I jumped around with delight in my spacious living room. I never thought a postdoc would live in a place this nice. A veritable palace!

I got a Christmas card with an alien on it from my friend. Holiday time rolled around, and I started trying to do ligations. I felt proud. I got exciting data. I would like to think it was partly because of my ligation technique. I was doing a rotation in a lab at Georgetown in July 1995, working with a research assistant, who asked me to aliquot some samples. He handed me a Pipettman. “Stacie, do you know how to do this?” No, I wasn’t. He looked at me like I was an alien. Everything in this new lab reminded me of that. I was traumatized.

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An angel illustration on a greeting card is Grossman’s good-luck charm in the lab.

I took the angel down and placed her picture on top of my tubes. My liking worked; I was hooked on this angel. She still hovers above my bench. She is however, not foolproof.

By the time a year had passed, I was satisfied with my progress and excited about my project. I had filled all the pages of my lab notebook, made good friends in the lab, learned an entirely new field and generated new data. I was terrible at molecular biology and the second that I hated it. These discoveries were not mutually exclusive and certainly not publishable. Nothing I did worked. I felt like an idiot. I considered alternative career options: “Hi, I’m Dr. Seinfeld.”

Dissatisfied with my progress, I decided to change labs. My mentor, Dr. Grossman, was willing to take me on. I was thrilled. I was doing a rotation in a lab at Georgetown in July 1995, working with a research assistant, who asked me to aliquot some samples. He handed me a Pipettman. “Stacie, do you know how to do this?” No, I wasn’t. He looked at me like I was an alien. Everything in this new lab reminded me of that. I was traumatized.

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Genes Governing Internal Biological Clock Also Involved in Learning, Vision, Smell, M metabolism

People with "jet lag" typically complain about feeling disoriented and tired — symptoms of an out-of-sync internal biological clock, or circadian rhythm.

"We used to think this was a problem limited to the brain. Now we know there are clocks in virtually every cell type and they fail to track a common time after being moved across time zones," explains R. O'connell University scientist M. Michael Young, who will speak at today's Friday Lecture.

For most individuals, jet lag is a minor inconvenience — the price of cross-country and international airline travel. But, the body's circadian rhythm does much more than prompt alertness during the daytime and slumber at night. At any time of day, it helps organize bodily functions and behaviors such as blood pressure, temperature, heartbeat and cellular metabolism as well as sleep.

"A "gene-hunter" chasing the molecules behind circadian rhythm, Young is professor and head of the Laboratory of Genetics. Some of the genes he has identified already have been directly connected to specific human sleep disorders, but problems of sleep and wakefulness are important components of a variety of disorders including addiction, depression and even Alzheimer's disease. Young's basic research may provide insights into these as well.

Sleep disorders are common. Perhaps 20 percent of the population is affected by chronic sleep difficulties. Previous research with lab organisms, especially fruit flies (Drosophila), helped Young and his colleagues explain how circadian clocks can tell time. Recently, however, his lab has been studying how accurately the circadian clock relays this information to bodily processes and behavior.

In recent research on the circadian clock of fruit flies, Young's lab identified hundreds of genes that are turned on and off at the same time every day. For some 20 percent of these genes, scientists have predicted their function in the communication between nerve cells. Other genes are important in regulating vision and smell; neutralizing toxic substances and metabolizing proteins, fat and carbohydrates.

Research in Young's lab on fruit flies has connected the circadian clock directly to these bodily functions. Such studies are significant to understanding humans. "The genes that make up Drosophila's clock, and the way they work together, are evolutionarily conserved within the animal kingdom, so what we learn about how the fruit fly uses its clock to time different features of its biology will likely have implications for other species, including us," explains Young.

The Young lab's most recent findings, published last November in a featured article in the journal Nature, were the result of a collaboration between the Young lab (graduate fellow A. D. A. Carligsdie Chang and Catharine Boothroyd and postdoctoral fellow Herman Wijnen) and two R. O'connell physiologists, Felix N. A. in M. arclo M. Ignagnos's Laboratory of Mathematical Physics and N. Ireland R. awjdy in Eric Singals's Laboratory of Theoretical Condensed M. ater Physics. The Neuron paper reports an evaluation of virtually all fruit fly genes in the fly's head for evidence of patterns of daily regulation. To synchronize the circadian clocks of a population of young adult fruit flies, the researchers exposed the flies for three days each day to a regular schedule and every four hours on the fifth day of the experiment.

The scientists then ranked all tested genes according to the likelihood that their expression showed a true circadian rhythm.

"About 400 genes were classified as rhythmic in a first pass through the data. We were surprised to find several genes previously known to control the circadian clock near the top of the ranking," says Young. "Perhaps most cells of the head have to call on these genes to generate any rhythm at all in gene expression."

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This experiment was performed three times with two separate populations of flies, so that 36 samples spanning a total of six hours were available for analysis. To "fact check" their findings, the lab randomly selected for additional study 16 novel genes from the top group of 158 "circladian genes." In a traditional lab technique called a Northern blot analysis, the "robust rhythmicity" of all 16 randomly selected genes was duplicated.

With such strong confirmation, the scientists were confident that the 158 genes they had identified were indeed linked to the biological clock, and that the entire pool of rhythmic genes is much larger, possibly 400-500. The new group of circadian genes represents not only familiar types of circadian expression (a peak at dawn or dusk), but also many novel expression patterns with peaks at other times of the day. "Based on this new research, we now know that at any given hour of the day many genes are being rhythmically switched on or off," says Young. "We have estimated that between five and 10 percent of all genes active in the head are expressed with a circadian rhythm. It's a huge regulatory program."

Just two years ago, a study of this scope would have been impossible to conduct in under one year — or perhaps even in a scientist's lifetime. "Similar studies were done in the past, but they had to be on a much smaller scale," says postdoc W. J. den, co-first-author of the Neuron paper. "There was a time when finding a single rhythmic gene was a big deal," says Young.

The new DNA chip technology also can help spotlight genes that initially might not have been considered worth testing. "Many of the genes we reported in the Neuron paper previously had not been suspected of being related to circadian rhythm, so the results expand our understanding of the molecular connections between individual behaviors and circadian clocks," notes co-first-author and graduate fellow C. Chang.

The lab found that many genes for memory, learning and detoxification were "turned on" or expressed at night. This finding supports the presumed role of sleep in learning and in the body's ability to reinvigorate itself during sleep. "Alternatively," says Young, "this may be the only time some proteins can be replaced without risking survival."

The Rockefeller scientists also studied the newly identified "circadian genes" in three types of mutant flies with defective clocks. The mutants disrupted the rhythms of all genes that had been identified in the study, but some of the new expression patterns generated in the mutants suggested novel ways for the circadian clock to control gene activity.

As a first step directed at identifying the novel types of regulation, postdoctoral associate C. wajdy has begun to search among the circadian genes for the shared DNA elements that could control their daily expression rhythms.

— Cathy Yarbrough & Lisa Stillman
RESEARCH NEWS BRIEFS

Rockefeller Scientists Say the Play “QED” Gets the Physics Right

Seven Rockefeller university scientists — physicists, mathematicians and computational biologists — met backstage with actor and science enthusiast Alan Alda following his performance as Richard Feynman in the play “QED.” Monday, Feb. 25, at Lincoln Center’s Vivian Beaumont Theatre. The photo (right) shows Alda as the Nobel laureate physicist in a scene with actress Kellie Overbey, who plays a student. Alda, host of the TV program “Scientific American Frontiers,” portrays Feynman as both jovial and introspective. According to the Rockefeller scientists, “QED” gets the physics right, too. But Alda confesses that while he understands conceptually the value of Feynman’s theory of quantum electrodynamics, (QED — for which the play is titled), his lack of mathematical expertise brings him “up to the door, but unable to go inside” the science of QED. During more than an hour of discussion backstage following the performance, Professor Dino Goulianos recalled his interactions with Feynman and showed photographs from a week-long physics conference in Crete in 1980 which Feynman attended. There was lively discussion of whether Feynman’s greatest contribution was his diagrams depicting the possible particle interactions involved in QED, or his theory of QED itself.
— Lynn Love
Photo by Joan Marcus

HIV, Ebola Share “Getaway” Mechanism

Two of the most deadly viruses in the world today, HIV and Ebola, employ the same mechanism to exit from infected cells. The study results, published in December’s Nature Medicine by Rockefeller researchers at the Aaron Diamond AIDS Research Center (ADARC), show that both HIV and Ebola use the same naturally occurring protein, called Tsg101, in the process known as “budding.” In this late stage of viral replication of both HIV and Ebola, Tsg101 attaches to viral structure proteins and helps the particle emerge from the cell. Without Tsg101, virus particles would remain trapped behind the cell membrane, unable to infect new cells. “It’s remarkable to see two such different viruses share a common budding mechanism,” says Paul Bieniasz, staff investigator at ADARC and assistant professor at The Rockefeller University.

“This may present a new target for drugs to treat HIV and Ebola infection, and our research team has begun working on drug discovery based on this research.”
Pictured (left) is an overlay image of Ebola virus matrix (EbVp40) expressing cells relocating Tag101 to the plasma membrane where viral particles form. The nucleus is stained blue. The image indicates that while EpVp40 always localizes to the plasma membrane (green), Tsg101 colocalization (red) is required to complete the budding process in both Ebola and HIV. Ebola and HIV share a PTAP peptide motif that binds Tsg101 and recruits it to sites of a particle assembly.

Two New “Caretaker” Proteins Identified

The immune system constantly refines its own antigen-hunting capacity through two kinds of DNA modification reactions: somatic hypermutation (SH) and class switch recombination (CSR). This adaptability, however, also renders the immune system vulnerable to future insult. In the form of B-cell malignancies, Rockefeller professor Michel Nussenzweig (an HHMI investigator) worked with his brother André, a molecular biologist at the National Cancer Institute (NCI), and a team of researchers from Rockefeller, NCI and Kyoto University to understand this apparent paradox. They learned that two proteins, Nbs1 and γ-H2AX, repair the DNA lesions involved in CSR. They also discovered that the presence of an RNA-editing enzyme, activation-induced cytidine deaminase (AID), is required for the two proteins to start their repair work. These findings contribute to the growing understanding of “caretaker” proteins — those essential for maintaining genomic stability — and their molecular pathways. Their results were published in the December 6 issue of Nature.

Pictured (right) are the co-localizations of γ-H2AX and Nbs1 with immunoglobulin (IgH) in the G1 phase of the cell cycle. The red and green fluorescence of the caretaker proteins, respectively, merged with the light to indicate the DNA repair foci (yellow).
"Reverse" Approach to Genetics Distinguishes Elaine Fuchs’s Research

When Fuchs first organized her laboratory at the University of Chicago in 1980, she focused on proteins called keratins, which give epidermal cells their durable, protective nature, or as Fuchs calls them, "Saran Wrap quality." Working first with a test tube, then with mice, and finally with skin from human patients, she discovered that when defective, the keratin genes and their related family members (a total of more than 50 different intermediate filament genes) can result in different human genetic disorders. While Fuchs’s own research has concentrated mostly on skin disorders, her laboratory’s work has led to the discovery of a large group of genetic disorders including blistering skin diseases and cornea, liver, muscle and degenerative nerve disorders.

At the moment, her laboratory is focused on normal growth processes—the same processes that malfunction in cancer, allowing skin cells to grow unchecked. She and her colleagues have already uncovered the molecular basis of a tumor of the hair follicle, and last year, they discovered a protein that, when mutated, leads to precancerous lesions in the skin.

Fuchs explains that this protein, alpha-catenin, normally aids in connecting cells to one another. But she and her colleagues hit upon the surprising finding that it also acts like a "gatekeeper" to prevent cells from growing when the proper signal comes along. For example, in wound-healing, damaged cells send a signal to surviving cells to grow and fill in the wound. In cancer, the cells grow without being instructed to do so, and consequently may harbor defective gatekeepers.

"The results were surprising because nobody thought that adhesion proteins like alpha-catenin could regulate cell growth," says Fuchs.

At Rockefeller, Fuchs will continue to explore the role of adhesion proteins in cancer, as well as a host of other questions. By focusing first on proteins, she wants to better understand how skin works normally and, in the process, she just might uncover the cause of another human disease.

— Whitney Claxin

Fuchs joins Rockefeller, continued

professor and director, Program in Philosophy and Education, Teachers College, Columbia University.

What attracted Fuchs—to many outstanding universities—to Rockefeller? "It is intellectually rich environment of the university and the tri-institutional program—as well as the cultural richness and diversity of New York City." I rely heavily on the inspiration of my fellow scientists and on the intellectual energy of my surroundings. Rockefeller has the quality I was looking for." Her department also is an opera and symphony fan.

She is deeply committed to educating students not just about science, but also about the ethics of research. "You have to teach students effectively," she comments. "I tell the students that the future of science, and we need to convey to them what makes us so passionate about our own science."

"We also must educate graduate students and postdocs on how to apply rigorous methods in doing science, and not bend the rules when it comes to the framework of how experiments are conducted," she says. "Scientists also have an enormous social responsibility in practicing and teaching morally and ethically responsible science, and in acting as good citizens and colleagues within and outside the scientific community."

The only way to teach these things is to lead by example, and we can all work to do better at this."

After completing her undergraduate degree in chemistry with honors in 1972 at the University of Illinois, Fuchs earned the Ph.D. in biochemistry five years later at Princeton University. This was followed by postdoctoral training in the laboratory of Howard Green at MIT.

Fuchs is an associate editor of the Journal of Cell Biology and serves on the editorial boards of Cell, Developmental Cell and Genes and Development. She also serves on the Council of the National Academy of Sciences.

— Cathy Yarbrough

Fuchs and colleagues genetically engineered a mouse embryo (shown above) to produce a protein (detectable by blue dye) solely in its skin cells. They placed the gene for this protein under the control of a human skin promoter — a genetic switch that turns on skin proteins. Fuchs’s laboratory has characterized this promoter and shown its value not only in mouse genetics but also for potential clinical use in gene therapy and drug delivery to human skin cells.
Friday Lectures and Thesis Presentations

Scientific Events

Friday, March 8

1:30 p.m. Graduate Program Open House Poster Session. William V. Young, Jr., 4:30 p.m. and preceding by tea at 3:35 p.m. in Abby Aldrich Rockefeller Lounge. All are welcome.

Friday, March 8

Life's 24-hour Clock: Molecular Control of Circadian Behavioral Rhythms. Michael Young, professor and head of laboratory, RU.

Monday, March 11

4 p.m. Determining Global Structure and Folding of RNA in Solutions. Arthur Papazian, University of Colorado, Boulder. NMR Structural Biology Seminar. 301 Weiss. R appointments at 3:30 p.m. Contact Sarah Collins, 327-721. The Rockefeller University Box 68, 1230 York Avenue, New York, NY 10021 Address Correction Requested

Tuesday, March 12


Wednesday, March 13

4 p.m. Pharmacokinetics of Interferon, Hiv, Lauglin, Scherling Plough, Center for the Study of Hepatitis C Seminar. 301 Weiss. Open to RU/W/MCCU/NYPH/MSSC community and guests.

Wednesday, March 13

12 p.m. Chemokines and Effector T-cell Trafficking. Andrew Luderer, Massachusetts General Hospital, Harvard Medical School. Seminar in Clinical Research. 110B Nurses Residence. Contact Dale Miller, 327-8412.

Wednesday, March 13

4:30 p.m. The Activation of B eta-globin Gene Expression. M. Krounseina, member and director, Division of Basic Sciences, Fred Hutchinson Cancer Center, M. SKCC. President's Research Seminar. Auditorium, Rockefeller Research Laboratories, MSKCC, 430 East 67th St. at 4 p.m.

Thursday, March 14

12 p.m. Prostaglandin F2 alpha (PGF2alpha) Signaling and Regulation of Ovarian Genes Involved in the Termination of Pregnancy.aula Gibner, University of Illinois, Chicago. Endocrinology and Reproductive Biology Seminar. MSKCC.

Thursday, March 14


Thursday, March 14


Thursday, March 14

8 p.m. PSL, Mnd2 and Cancer. The Goal: The Good, the Bad and the Horrible. Ori Weisz. Weizmann Institute of Science, Rehovot, Israel. Harvey Lecture Society. Webcast and DVD.

Monday, March 17

4 p.m. Membrane-Cytoskeleton Adhesion: Role of PIP2. Mike Shechter, Columbia University. RU/W/MCCU/NYPH/MSSC community and guests.

Monday, March 17

5 p.m. The Origins and Programming of Blood and Vascularization in Xenopus and Zebrafish. Roger H. Naval, Institute of Molecular Medicine, University of Nottingham, UK. Cell Biology and Genetics Seminar. Papanicolaou Library, A-106, MCCU.

Tuesday, March 18

12 p.m. RA: Catalytic With and without Proteins. The Richard M. Furlaud Lecture. Thomas Cech, Distinguished Professor, University of Colorado, Boulder, and president, Howard Hughes Medical Institute.

Wednesday, March 19


Wednesday, March 19


Saturday, March 23

8 p.m. FRIDAY, MARCH 29

Lysogenic Bacteriophage: Thesis Presentation. Kara Pham, graduate fellow, professor and head of laboratory, RU.

MONDAY, MARCH 25

The Richard M. Furlaud Memorial Lecture. Howard Hughes, University of Colorado, Boulder, Distinguished Professor, Memorial Lecture.

Tuesday, March 26

4 p.m. Immunology Seminar. RU/W/MCCU/NYPH/MSSC community and guests.

Wednesday, March 27

12 p.m. Angiogenesis and Lymphangiogenesis in Skin Inflammation and Tumor Progression. Moshe Oren, Weizmann Institute of Science, Rehovot, Israel. PBMM Research Seminar. Open to RU/WMCCU/NYPH/MSSC community and guests.

Thursday, March 28


Thursday, April 4

12:30 p.m. Late Differentiation in Drosophila Photoreceptor Cells. Bertrand M. Spidalier, University of Strasbourg, France. Neuroscience Developmental Biology Seminar.

Friday, April 5

4 p.m. Inhibition of NK cells by HVEZ. Nic Valente, Pennsylvania State University. Center for the Study of Haploinsufficiency Seminar. 301 Weiss. Open to RU/W/MCCU/NYPH/MSSC community and guests.

The Arts and Other Events

Friday, March 8

3:15 p.m. Tea at 3:15 p.m. in Abby Aldrich Rockefeller Lounge. Ceremony. Open to RU/W/MCCU/NYPH/MSSC community and guests.

Friday, March 8

10:30 a.m. Tri-Institutional Noon Recitals. Brendan Spring Quartet. Cashmere Auditorium, Open to RU/W/MCCU/NYPH/MSSC community and guests.

Monday, March 11

5 p.m. R.S. 303 Memorial Concert. Orchestra of the Center for the six-month anniversary of the Sept. 11 attacks on the World Trade Center. Cashmere Auditorium. For additional information contact Meridith Egan, 327-8072.

Rockefeller University Film Series. The Seventh Seal (directed by Ingmar Bergman, 1957). Cashmere Auditorium. Open to RU/W/MCCU/NYPH/MSSC community and guests.

Tuesday, March 12

12 p.m. Children's Film Retrospective and Information Session. Virginia Huffman, Associate Director of Development. P.S. 183 Memorial Concert. Open to RU/W/MCCU/NYPH/MSSC community and guests.

Wednesday, March 13

5:30 p.m. A Conversation with Nobel Laureate Mario Capecchi. Rockefeller University. Open to RU/W/MCCU/NYPH/MSSC community and guests.

Friday, March 15

8 p.m. Rockefeller University Film Series. Shostakovich's Piano协奏曲. Open to RU/W/MCCU/NYPH/MSSC community and guests.

Thursday, March 21

4 p.m. Presentation of PDA Representative Candidate. 101 Weiss. Contact Daniel Besser, 327-8793.

Friday, March 22

Rockefeller University Film Series. High Noon (director Howard Hawks, 1952). Cashmere Auditorium. Open to RU/W/MCCU/NYPH/MSSC community and guests.

Friday, April 5

8 p.m. Rockefeller University Film Series. High Noon (Howard Hawks, 1952). Cashmere Auditorium. Open to RU/W/MCCU/NYPH/MSSC community and guests.