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The Rockefeller University

news & notes

February 19, 1993 Volume 3, Number 20 — *The Rockefeller University*

Candice Scheiner, Employee Health Supervisor, will help administer the free cholesterol and diabetes test that the university is offering to its members.

University offers free cholesterol and diabetes testing

The Employee Health Office will offer free cholesterol and diabetes testing, beginning next week and continuing until April 30.

"I think it is important that everyone knows their blood cholesterol levels," said Candice Scheiner, Employee Health supervisor. "High cholesterol is a condition which can usually be controlled through diet and exercise. Similarly, diabetes, a common health problem, can often be managed through diet and exercise. Getting tested is smart. It's good preventative medicine."

According to Scheiner, about one in four adults has a blood cholesterol level considered high, that is, 200 mg/dL or greater. High cholesterol is one of the major risk factors for coronary heart disease, including heart attacks.

"Americans tend to eat a lot of high-fat, high-cholesterol foods, like French fries and hamburgers, which increases the risk of high cholesterol and triglyceride levels," said Scheiner. "That is one of the reasons coronary heart disease is so prevalent in this country. We will encourage people with high results to sign up for the Hospital's nutrition program, which teaches how diet and exercise can contribute to a healthy lifestyle."

Diabetes is also a common ailment among Americans. According to Scheiner, 14 million Americans have diabetes. An estimated 6 million have diabetes and do not know it. Those most at risk for adult-onset diabetes are over 40, overweight, and have a family history of diabetes.

To test for cholesterol and diabetes, the Employee Health Office will draw a small sample of blood. Individuals should fast for 12 hours before the test. Participants in the program will also be asked to complete a confidential questionnaire.

Results, which will come back from the lab in two to three days, will indicate a breakdown of HDL ("good" cholesterol), LDL ("bad" cholesterol), and triglyceride (blood fat) levels. They will also estimate the individual's risk of coronary heart disease.

To sign up for the test, members of the community should fill out the form that they will receive this week through interoffice mail and send it to the Employee Health Office, Box H38.

"We are expecting a large response to this program," said Scheiner. "That's why we are asking people to fill out the form rather than calling our office." A member of the Employee Health Office will then contact those interested in the test to schedule an appointment.

National science watch

Clinton's advisor discusses priorities

This year's annual meeting of the American Association for the Advancement of Science, held in Boston from Feb. 11 to 16, featured a press conference with President Clinton's newly appointed science advisor, John H. Gibbons. Rockefeller University's Manager of Public Affairs Doron Weber was on hand to hear his views on a host of science and technology issues. Following is Weber's report of the event.

President Bill Clinton's new science advisor believes that, despite some scaling back of big science programs, science and technology are a keystone of the administration's plans for the nation's economic future. Calling America's preeminence in science and technology a "remarkable feature of our culture," John H. Gibbons said both he and the president advocate shifting the emphasis in research spending away from the military toward civilian programs and returning to the traditional 50-50 split between the two sectors. In recent years, Gibbons said, the military had taken as much as 75 percent of the research budget.

Gibbons reported that he has been meeting around the clock with President Clinton and other Cabinet members who share the view that science and technology together are critical tools in providing new options for the nation's economic well-being. They believe that new civilian projects based on America's preeminence in science and technology can help the nation remain competitive in the international arena, while creating new jobs and providing more goods and services at home. In addition, new science and technology projects, such as those involving "green technologies," will help protect and clean up the nation's environment, Gibbons said.

Nevertheless, Gibbons warned the audience of print and broadcast

See ***Advisor****, page 2*

Campus crews clear paths after storm

A thick blanket of snow covered The Rockefeller University campus last Friday before the holiday weekend. Arquelio Negron, head porter for Custodial Services, together with a dozen members of the custodial and grounds crews, helped to clear footpaths, roads, and parking lots on campus throughout the day.

"We had a very long day on Friday," said Negron. "I worked from 6 A.M. to midnight. Fortunately, the university is well equipped for this kind of weather. It makes the job easier and the place safer for the drivers and pedestrians. We don't want people slipping and hurting themselves."

Snow rounds include every path, road, and parking lot on campus, as well as the sidewalks forming the perimeter of the university from 63rd St. to 68th St. and the esplanade footbridge. "This campus is so big that in bad snow storms like the one on Friday, we finish clearing the campus and then it's time to start all over!" said Negron.

The university is ready for rough weather conditions. "We have a new 4x4 Jeep with a plow on the front, two small tractors, five blowing machines and one brushing

See ***Crews****, page 2*

Alfonso Arias, porter in Custodial Services, shovels some of the snow that fell on campus recently.

Chick delights students, teachers

After several hours of rocking and shaking, a quail chick broke through its speckled shell last week to the delight of children and teachers at The Rockefeller University Children's School.

"We had been waiting for this to happen for several days," said kindergarten teacher Helaine Meyers who organized the project with help from her assistant, Sandy Tananbaum, and Carol Novotney, a postdoctoral fellow at the Laboratory Animal Research Center (LARC).

"I was looking for a science project that would teach the children something about the whole life cycle," Meyers explained. To help the children understand the different stages of quail development, Meyers made a chart with drawings of the egg at each stage.

"From day one, we followed the chart closely, crossing out each day as countdown to the hatching," she said. "This way, we learned about the embryo. After 15 days, the chick hatched right on schedule."

Now, the children gather around the brooder to watch the bird. New questions ring out: "Why is it hopping around like that?" "Oh, can I touch it?"

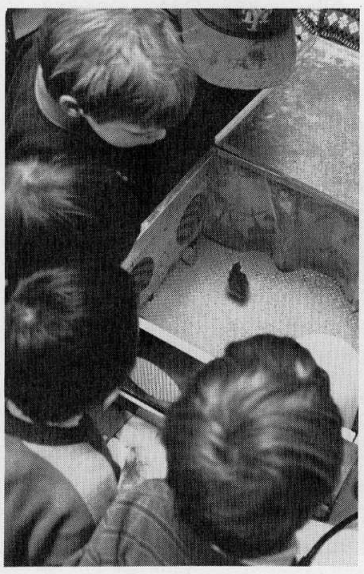
Michael Hayre, director of LARC, was enthusiastic about the project. "I thought that having the children observe hatching quails would make an easy and instructive project for everyone," said Hayre. "I also saw it as a great opportunity to show them something of science. I know it's an experience they will never forget."

Hayre referred the teachers to Novotney, who was delighted at the prospect of introducing quails to children. "We had the eggs and we also had an incubator that we were not using," she said. I was able to provide some information about quail development and the teachers did a wonderful job of adapting it for the classroom. I think it's important for children to learn about science early on. A project like this can teach them so many aspects of life and also give them an idea of the responsibilities involved when caring for animals."

The chick was one of three hatchlings. "The others didn't make it," said Meyers. "They weren't strong enough. It's a part of the life cycle that we explained to the children."

The children voted for a name. Mr. Chatter won by a large margin over Birdy and Squeaky. "We all agreed that he was making a lot of little noises, so the name seemed appropriate," explained Meyers.

Mr. Chatter joins three rabbits, one guinea-pig, and several fish and tadpoles. "I think our next project will be snails," said Meyers, "but I'm not sure."



Children crowd around the newest addition to their class, a quail chick they call Mr. Chatter.

SRC ballots are counted

Preliminary results from the Student Representative Committee (SRC) election last week are in.

According to Graduate Fellow Arthur Tinkelenberg, who counted the ballots, the students who received the most votes were: first-year representative, S. Rasika; third-year representative, Firdaus Dhabhar; and single-student-housing representative, Jonathan Dworkin.

Six write-in candidates for the fifth-year-and-over class representative each received one vote: Ethan Benardete, Mark Benedyk, Pierre Gönczy, Erich Jarvis, Lynn Lapierre, and Deborah Norman.

Campus crews clear paths after storm

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machine," explained Negron. "But even with this equipment, we still have to salt the roads by hand, and many parts of the campus are only accessible with hand plows and snow blowers." The parking lots are the most difficult areas to clear because of narrow ramps and parked cars.

Thomas Mineo, director of Custodial Services, has a contingency plan for weekends with heavy snow conditions. "I have personnel on standby for these situations," he said. "When heavy snow is forecast there are people I count on to clear the campus and the sidewalks around the perimeter. With a large campus like this you need to be prepared." Mineo oversees all clean-up operations which are often coordinated with the Grounds Department.

This year, winter storms have deposited two to thee inches of snow. Negron recalls much greater accumulations in the past. Two weeks after Negron arrived at Rockefeller in 1978, a snow storm deposited two feet of snow on the campus. "Fortunately, I had plenty of experience with large mechanical equipment and could handle the tractor plows," said Negron. "But I had never seen snow before coming to this country from Puerto Rico. I'll never forget the experience!"

U.S. advisor discusses science issues

(continued from page 1)

journalists from around the world that politics was "the art of the possible" and there was only a finite sum of funding to go around. Reiterating the view that the nation has been borrowing from the future, Gibbons said: "There's no question that we're in a hole. We've been digging a hole for 12 years. So everyone's going to have to take some hits—at least until we can come out of the hole."

In particular Gibbons believes that big, expensive projects like the U.S. space station and the superconducting supercollider will have to be scaled back or slowed to reduce costs. But Gibbons said that the president supports the idea of maintaining these projects at some level and ensuring that international agreements about them are honored. He said that such projects are important to maintain because, among other things, they involve large-scale international cooperation that "forces mankind to come to grips with the fact that we can come together to work on great projects." Gibbons said: "If there's any international language it's the language of science."

Asked about funding for basic science, Gibbons said there was a gap between our scientific ability, which he called "wonderful" and our manufacturing capability, which has slipped badly. Describing science as "upstream" and technology as "downstream," he said it did not make sense to go upstream to fix a problem downstream. He suggested we need a better connection between science and technology so that we can turn our knowledge into more jobs and products.

Asked about the agreement between the Swiss company Sandoz and the Scripps Institute, Gibbons said the U.S. should receive the benefits of research funded by U.S. dollars: "If the U.S. takes the lead and puts money into research so that new enterprises are launched, the fruits of that research should go to the U.S."

On the sensitive question of university overhead costs, Gibbons drew one of his biggest laughs by asking how this compared with defense overhead. He said what was needed was "an equitable overhead that allows for cost recovery but no more" and suggested that the government and universities need to reaffirm their close and fruitful partnership. He reminded the audience that money spent on university research was extremely beneficial and a "multiplier of public dollars."

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A look back

Flexner shaped Rockefeller for three formative decades

Adapted from an article by Robert Applebaum

A year after The Rockefeller Institute for Medical Research was founded in 1901 as a place where scientific investigation into infectious diseases could be combined with clinical care and the study of patients, Simon Flexner became its first director. Flexner oversaw the institute's course for three formative decades, leaving a legacy that persists to this day.

Under Flexner's leadership, the institute rapidly attained a stature on par with the Pasteur Institute in Paris and Berlin's Koch Institute for Infectious Diseases—Europe's premier research facilities whose traditions Flexner modified to a particularly American form. The institute also inspired the creation of other investigative institutions throughout the United States and became a training ground for a corps of physicians and scientists staffing those fledgling research departments.

Peyton Rous, a scientific colleague of Flexner's at the institute, was struck by Flexner's ability to sense the shape of things yet to unfold. Simon Flexner "had vision of the sharpest, seeing the future implicit in the present; and he acted upon what he saw," wrote Rous in a 1949 profile of Flexner's life for the Royal Society of London. "From youth, as if with foreknowledge, he made himself ready for the needs of a coming time, moulding himself for its purposes, almost in detail."

Flexner's preparation

The son of an itinerant peddler, Simon Flexner received a rudimentary education at the University of Louisville Medical School before moving on to the Johns Hopkins University in 1890 to study under William Henry Welch, whom Rous credits with having brought "modern scientific medicine" to America.

Within two years, Flexner was named associate professor and became Welch's first assistant, spending the remainder of the decade immersed in the study of pathology, bacteriology, immunology, and related fields both in Baltimore and in laboratories throughout Europe. He also headed a Hopkins commission to study diseases in the Philippines, afterwards accepting an appointment as professor of pathology at the University of Pennsylvania and subsequently becoming the director of The Rockefeller Institute.

Trained during an era in which the relationship between infectious diseases and illness was just becoming apparent, Flexner was a member of an elite group of American pathologists, headed by William Welch, whose agenda called for proving that "pathology was no mere addendum to the clinic but a dynamic science in its own right," according to Rous.

A new theory of medicine

In the view of historian Daniel Fox, Welch was the "American guru" for a new system of medical inquiry and belief that espoused an educational model designed to disseminate knowledge from the laboratory to medical practitioners in the field. A willing convert, young Flexner gained quick entrance to Welch's inner circle, Fox said, and became a "true believer" well before the founding of The Rockefeller Institute.

"For 4,000 years there was fundamentally no method in medicine that was guaranteed to lead to better health," Fox explained. "In the last four decades of the 19th century the method is there: Knowledge comes from the principles of physiology and cellular pathology and the study of bacteria as a causal factor in disease. Knowledge comes from the lab bench [as well as] from looking at patients. And once that knowledge comes from the lab, it must be tested in a teaching hospital. Finally, the diffusion of knowledge comes through a modern medical school. It is a pyramid determining the image of health care in the 20th century."

According to Fox, as The Rockefeller Institute took shape under Flexner's guidance and with Welch heading its scientific advisory board, it became the ideal vehicle for spreading the new-found gospel, embodying the doctrine of the medical vanguard in its "pure, distilled form." With its labs and research hospital, and its role in preparing scientists to fill posts throughout the nation, the institute was "headquarters for the theory and distribution" of a modern scientific system of medicine in the United States.

Flexner sets up system of labs

Though Flexner modeled The Rockefeller Institute after the great European laboratories, American notions of pluralism and egalitarianism were woven into the underlying fabric of the research facility. In place of rigidly defined departments that could stagnate over time, Flexner built the institute around relatively easy-to-set-up, and equally easy-to-disband lab groups, each headed by a senior scientist. Inherent in this structure was a desire to depart from the European custom of organizing research institutes around one remarkable man—as in the Pasteur, Koch, and Ehrlich Institutes.

Innovative for the early 1900s, this framework has endured the century, as has Flexner's custom of encouraging lab heads to pursue their own lines of research rather than imposing an agenda from the top. Flexner "believed that scientists who had a record of discovery might be argued with, but would have to be backed, if they insisted in projects of which he disapproved," wrote his son, James Thomas Flexner, in *An American Saga*. Rous writes about Flexner: "he looked upon individuality as the mainspring of enterprise in thought as in all else. Individuality throve on freedom; he would give it to all who could stand it."

For Professor Emeritus Bruce Merrifield, who won the Nobel Prize in Chemistry in 1984, this freedom proved invaluable. Referring to a lengthy period during which he struggled to test and develop his ideas for the chemical synthesis of peptides and proteins, he said: "Three years without publication would be deadly somewhere else, but it can be done under our system. The lab arrangement here functions as a protective shield, and the leeway it provides made all the difference in my work."

By the time of Flexner's retirement, he had also established the institute as a training ground for young people. By 1935 more than 150 Rockefeller-trained veterans had gone on to become professors in scores of American universities. From the 1910s to the 1930s, "it was crucial for a young research-oriented doctor or Ph.D. to spend two or three years at The Rockefeller Institute as part of his or her basic training," said Darwin Stapleton, director of the Rockefeller Archive Center. "Flexner was one of the great talent scouts. He learned who was up and coming, and invited promising people to the institute."

A lasting legacy

Much of the early success of The Rockefeller Institute can be attributed to the leadership of Simon Flexner. "During the 50 years of his personal effort medicine emerged into the sharp light of science," Rous commented. Flexner "helped this happen, and he did vastly more. He revealed the existence in the unconsidered human commonality of latent abilities to discover, and he showed that these could be called forth by fostering individual initiative and giving it scope.

"The planners of The Rockefeller Institute had thought of it as a purposeful utilization of human strength; but they had not known how to come at the strength, much less how to bring it to bear. Flexner did both."

The Rockefeller University Archives

Simon Flexner was the first director of The Rockefeller Institute for Medical Research, which later became The Rockefeller University.

A fishy story: co-op brings catch of day to seafood lovers

For members of The Rockefeller University community, Fridays can include a concert, or tea and a scientific lecture. For the 50 participants in the fish cooperative, Fridays can also bring the chance to purchase fresh fish, brought to campus straight from the Fulton Fish Market.

Chris Min, a biomedical fellow in the Sakmar lab and Thanos Dousmanis, a biomedical fellow in the Gadsby lab, made a recent trip to the South Street Seaport for the fish co-op. They left for market by 4:30 A.M. By 9:00 A.M., they had returned to Rockefeller with an abundance of salmon fillets, whole red snappers, shrimp, and octopus.

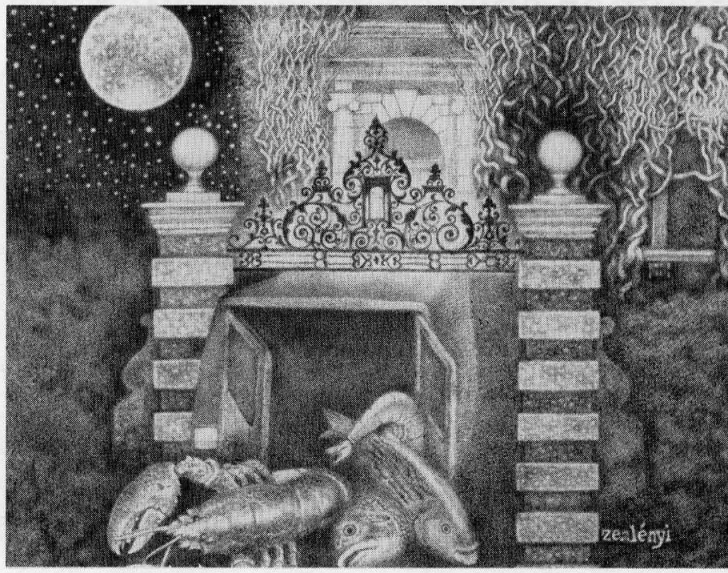
"The fish co-op was established about 20 years ago at Rockefeller as a way of providing the freshest possible fish at low, bulk-rate prices," said Atsuko Horiuchi, assistant for research in the Greengard lab who oversees the co-op. What started as a small, informal handful of seafood-lovers has become an organization of mostly faculty and students who purchase fish almost every week.

Participants in the fish co-op take turns driving to the market and selecting and purchasing the fish. If they don't have a car, they arrange to use the Rockefeller van. Upon returning to campus, the fish is filleted, wrapped, and priced at market prices by weight, then distributed among co-op participants who agree upon joining the co-op to regularly purchase a share of the goods.

"I try to buy seafood that will suit standard recipes and appeal to our large group," said Min, who has shopped for the co-op four times. "Usually, I return with fishes people know how to cook like salmon or tuna. Whenever possible, I look for something original. Once, I brought back several 50-pound bags of mussels. That weekend, I prepared a large bouillabaisse."

According to Min, it is virtually impossible to buy small sampling quantities at the market. One time, a shopper returned with eels for the group and included a recipe for members who had never cooked it before. Min bought one of the eels. "Killing it was the hard part," he admitted. "I'm not sure I want to try that again."

Thelma Chen, assistant professor in the Allfrey lab, has been a member of the fish co-op for one year.



Members of the fish co-op take turns shopping at the Fulton Fish Market on Fridays. They usually leave by 4:30 A.M., and return to campus with fresh fish before 9:00 A.M. (illustration by Rockefeller University's Csaba "Jacky" Zemlenyi).

"I knew about the co-op years ago, but I didn't want so much fish then," she said. "Now that I'm married, however, I have someone to share it with! I joined for the quality and price of the fish as well as for the experience of shopping at this particular market.

"I'll never forget driving to the market down at the South Street Seaport at four in the morning and seeing how the city's fish is supplied," she continued. "I learned many things that day. For example, I learned the difference between a fluke and a flounder: they're both flat fishes, only one looks right and the other looks left. Or is it the other way around?!"

Biochemist to speak at Friday lecture series

Nicholas Cowan, professor of biochemistry at The New York University School of Medicine, will speak on "Protein Folding in the Eukaryotic Cytosol" at the Friday lecture today (Feb. 19) at 3:45 P.M. in Caspary Auditorium.

Proteins are bent into complex conformations and thus rendered biologically active through the assistance of molecular chaperones which catalyze the folding process. Such chaperones were identified in prokaryotes, mitochondria, and chloroplasts. Recently, Cowan's laboratory identified what appears to be a catalyst responsible for protein folding in the eukaryotic cytoplasm.

Cowan received his Ph.D. at Oxford University in 1970 and went on to hold a postdoctoral fellowship at the Medical Research Council Laboratory of Molecular Biology in Cambridge. He was awarded the Belt Memorial Fellowship in Medical Research in 1974. In 1976, Cowan joined the faculty of Princeton University where he taught basic and molecular immunology.

In 1982, Cowan moved to the Department of Biochemistry at The New York University School of Medicine.

Potpourri

Tri-Institutional Noon Recital

Violist Rosemary Glyde and pianist Diana Kacso will perform at the Tri-Institutional Noon Recital today (Feb. 19). Glyde, winner of the Juilliard Viola Competition, is considered an outspoken leader in viola performance and research. Kacso, who has won many international piano competitions including the Chopin, Rubinstein, Leeds, and Viña del Mar, has performed with orchestras around the world. Admission to the concert, to be held in Caspary Auditorium at noon, is free. All are welcome.

Sweat Shirt Shop sale

The Sweat Shirt Shop will hold a sale in the lobby of Tower from 11:30 A.M. to 2:00 P.M., Tues., Feb. 23.

Film

Sunless (*San Soleil*) will be shown at 7:30 P.M. on Sun., Feb. 21 in Caspary Auditorium. The film dissolves the distinction between fiction and non-fiction. Admission is free. All are welcome.

Birth

Emmanuel Valentine, assistant for research in the Allfrey lab, and his wife, Gladys, announce the birth of a girl, Lydia Clemente, on Dec. 29, 1992.

Awards

Mariano Lopéz de Haro, a postdoctoral associate in the laboratory of Professor E. G. D. Cohen from 1981 to 1983 and currently professor at the Laboratório de Energía Solar of the Instituto de Investigaciones en Materiales in Temixco, Mexico, was recently awarded two prizes. He received the Distinción Universidad Nacional Para Jóvenes Académicos en el Area de Ciencias Exactas, which is awarded annually to members of the Universidad Nacional Autónoma de Mexico (UNAM) who are under 40 years of age in recognition of outstanding teaching and research. He also received the Premio de la Academia de la Investigación Científica en el Area de Ciencias Exactas, a national prize bestowed annually to scientists under 40. He will receive this award in a ceremony presided over by the Mexican president at the official presidential residence.

Arrivals

Assistant professor: Srinivas Sastry Lederberg lab.
Postdoctoral associate: Nora Linderoth, Model lab.
Postdoctoral fellows: Jose-Manuel Alonso, Wiesel lab; Curt Horvath, J. Darnell lab.
Guest Investigator: Urbano Gonzalez-Castro, Carter lab.

Departures

Guest investigator: Fatima Soares Motta Noronha, D. Young lab.

Discount

Chez René Coiffure, at 330 East 65th St., is offering a discount to members of the Rockefeller community: 20 percent off hair cuts, color, highlighting, perms, and relaxers; and 5 percent off collagen conditioning, hair extensions, hair removal, manicures, and pedicures. Call 879-HAIR to make an appointment.