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THE ROCKEFELLER UNIVERSITY

news and notes



A VERY GOOD PARTY

Carolers in fine voice and good things to eat and drink are happy traditions at the annual holiday party given by President and Mrs. Seitz, shown in the far photo between Regina Titus, left, and Lila Magie.

According to Food Service Manager Leah Woerner, University revelers enjoyed 180 pounds of fruitcake, 100 pounds of cookies, 1000 brownies, 35 pounds of nuts, 10 pounds of mints, and an enlivening punch into which went 20 cases of champagne, 12 cases of wine, 2 cases of brandy, and 36 pints of strawberries. It was a very good party.

A Decade of Transition

"Speaking from an administrative point of view," states Frederick Seitz in the *Report of the President 1976-77*, published last month, "the greatest transition at The Rockefeller University in the past decade has been the change in attitudes toward material resources. . . . My arrival on campus as president in 1968 coincided with massive cutbacks

in government spending for science, recession in the economy, and the onset of what has proved to be the largest run of inflationary pressure in our national history not immediately associated with a world war." Nevertheless, he points out, the University was able during this period to achieve a number of important goals, among them: the construction of Faculty House; expansion and upgrading of scientific facilities, including completion of the Tower Building and the new animal facility; the creation of the Field Center for Ecology and Ethology in Millbrook, and of The Rockefeller Archive Center in Pocantico; and the establishment of seven endowed professorships.

Referring to the year immediately past, Dr. Seitz reports that, in spite of skyrocketing fuel costs, exacerbated by a particularly severe winter, the University's 1977 budget deficit was 41 percent below the preceding year—the lowest since 1969, deducting one-time expenses. He attributes this to a number of factors, including extraordinary efforts to increase efficiency in plant management, especially in the area of energy conservation; significantly higher investment income; and increases in endowment funds gained

through the sale of the David painting and of the apartment houses on York Avenue, and through an additional \$2.7 million from development efforts. Sponsored research and grant revenues, primarily from federal funds, reached a record high. Also, a new source of income became available this year through reimbursement from Blue Cross/Blue Shield and other insurance plans from patients at the Hospital. This arrangement does not change the fundamental research character of the Hospital or its policy of not charging its patients. Revenues for operating support, from both development and annual giving programs, again exceeded the totals for the previous year.

"Looking ahead," he states, "we are now estimating that the operating deficits in the next two years should fall below the million-dollar level. Soon thereafter, the projections show a small surplus, which should be invested in research initiatives we have not been able to afford in recent years."

The *Report of the President* contains a complete list of agencies, foundations, corporations, and private donors from which gifts and grants have been received by the University through its development program during the fiscal years 1971 to 1977.

HONORS AND AWARDS

Professor **Igor Tamm**, Virology, received the Sarah L. Poiley Memorial Award of the New York Academy of Sciences for "contributions to the understanding of the mechanism of RNA virus replication and work concerned with the control of influenza virus." Professor **Fritz Lipmann**, Biosynthesis, was elected to honorary life membership in the Academy, "a distinction conferred on no more than 150 scientists." Professor **William S. Hall** and Senior Research Associate **Sylvia Scribner**, Comparative Human Cognition, were elected fellows of the Academy. Dr. Scribner was elected vice chairwoman of the Section on Psychology.

Rockefeller Scholars in Clinical Science

This is the third in a series of articles on The Rockefeller University Hospital and the role it has played in medical science and education since its founding in 1910. The first article, "A Revolutionary Idea," on the early days of the Hospital, appeared in the October 1976 issue. The second, "The Dual Commitment"—to science and medicine—was carried in the February 1977 issue. A third stage in the evolution of the Hospital was reached this past year with the establishment of the new program of Rockefeller Scholars in Clinical Science.

Stephanie J. Korn is a 27-year-old M.D. from Boston University with a special interest in pediatric rheumatology. During her years in medical school "Lancefield" and "McCarty" were names she "read about in textbooks." Last July, Dr. Korn became the newest member of the Rockefeller Hospital laboratory of bacteriology and immunology, which under the leadership of Professors Rebecca A. Lancefield and Maclyn McCarty has contributed some of the most important seminal work on the biology of microorganisms.

Dr. Korn came to Rockefeller from New York Hospital, where she was chief resident in pediatrics. She is working with Professors John B. Zabriskie and Stanley E. Read, who are conducting studies of the possible genetic basis for the abnormal immune response to streptococcal antigens. While helping with the care of children who are patients at the Hospital, she is learning advanced research techniques related to the study of juvenile rheumatoid arthritis.

For 67 years, the Rockefeller Hospital has been giving young doctors a chance to explore the world of research. Dr. Korn is one of four participants who have so far been enrolled in a new program for Rockefeller Scholars in Clinical Science. The program will eventually support 12 concurrent scholarships for recent medical graduates, for periods of up to three years each. This educational effort is one of several measures—some in collaboration with other medical institutions in the city—through which the Hospital seeks to encourage and support those with a special talent for clinical research. These programs reflect a re-emphasis and extension of the pattern of post-doctoral education for physicians initiated with the establishment of the Hospital.

David R. Bickers had planned a career in private practice as a dermatologist. During his residency at New York University Hospital, one of his

professors spotted him as a potential researcher and sent him to the Rockefeller Hospital, where he worked for three years in the metabolism-pharmacology laboratory of Professor Attallah Kappas, now physician-in-chief of the Hospital. One of Dr. Kappas's major areas of clinical research is the porphyrias, a group of hereditary diseases caused by defects in porphyrin-heme metabolism. Combining his dermatological knowledge with the basic research skills he has developed under Dr. Kappas's direction, Dr. Bickers has been investigating, among other skin disorders, those which frequently occur in patients with the porphyrias. In 1974, he joined the dermatology department of the Columbia University College of Physicians and Surgeons; but last year, with the support of the new Scholars program, he was able to resume his research at Rockefeller. Last fall, at the age of 35, he began an impressive appointment as professor of medicine and chairman of the dermatology department of Case Western Reserve University.

Robert McVie, another Rockefeller Scholar in Clinical Science, came to the Hospital last January to work in the cholesterol metabolism laboratory of Professor Edward H. Ahrens, Jr. A graduate of the Medical College of Wisconsin at Milwaukee, he was a resident in pediatrics at Mt. Sinai Hospital and a fellow in endocrinology at New York Hospital.

The role of cholesterol in relation to heart disease and the role of diet in the formation of cholesterol in the blood and tissues are subjects of intense concern to clinical medicine. As a pediatrician, Dr. McVie feels that "if we are going to control heart disease in adults, we must gain a better understanding of the effects of nutrition in children." In addition to the several studies with which he is involved at Rockefeller, he has been investigating possible effects of hormones on cholesterol formation, studying groups of children currently on growth hormone therapy at New York Hospital.

Unlike Doctors Korn, Bickers, and McVie, Kristian Stengaard-Pedersen did not come to research through an initial commitment to medicine. For him, basic research was the goal and medical training was the means. However, as a medical student at the University of Aarhus in his native Denmark, he became deeply troubled by what he saw of the tragic consequences of drug addiction. In 1976, he took a leave from his position as chief resident and lec-

APPOINTMENTS

Mazhar Malik, senior research scientist at the Institute for Basic Research in Mental Retardation, Staten Island, and associate professor of biochemistry, Downstate Medical Center, as a visiting professor in the cell biology laboratory of Professor Philip Siekevitz, effective September 1.

Theodore Cooper, dean of the Cornell University Medical College and provost for medical affairs, as an adjunct professor, effective October 1.

Daniel M. Watterson, Cell Biology, as assistant professor, effective January 1.

Michael W. Young, Genetics, as assistant professor, effective January 1.

turer in internal medicine at Aarhus to work at the Rockefeller Hospital with Professor Vincent P. Dole, developer of the methadone maintenance treatment for heroin addiction.

At the present time, Dr. Dole and his co-workers are directing their attention primarily to basic research on the biochemistry of addiction. During his year with the Dole laboratory, Dr. Pedersen worked on histological and biochemical studies to pinpoint receptor sites in the brain and other tissues where opiates bind. This kind of work, which is being keenly pursued in many laboratories in relation to the newly discovered endorphins (opiate-like substances naturally produced by the body), has opened up an exciting array of possibilities, involving research not only on opiate tolerance and addiction but in such other areas as pain research and certain forms of mental illness.

"The encouragement and support of young clinical scientists in their early postdoctoral years is the key purpose of the new Rockefeller Scholars in Clinical Science program," states Dr. Kappas. "The Rockefeller Hospital has contributed greatly to medical education and scientific knowledge through the research opportunities it has provided for such young people as these through the years." Or, as newcomer Stephanie Korn puts it, "I think the Hospital and I will be good for each other."

FREE FILMS

Free films scheduled for evenings at 8:30 in Caspary Auditorium: "That Cold Day in the Park" (January 22); "Drunken Angel" (February 5); "Torn Curtain" (February 19); and "To Die in Madrid" (March 4).

New Horizons for Science Writers

In a recent *New Yorker* cartoon, a white-coated venerable remarks to his laboratory colleague, "One thing I'll say for us, Meyer—we never stooped to popularizing science."

With no discernible stooping, and with a good deal of lively exchange, prominent scientists from the nation's leading universities and research institutions, including a number from Rockefeller, talked about their work with more than 100 science writers at the 15th annual New Horizons in Science Briefing of the Council for the Advancement of Science Writing, Inc., held November 13 through 18 at the University.

These writers, whose job is to report and interpret science to the public, represent daily newspapers, general interest and science weekly and monthly magazines, national syndicates, radio, and television. Their annual briefing offers them the chance to broaden their knowledge in many fields of basic and applied research and to ask questions at the source. Since reporters tend to report, the first day's session resulted in a page-one story in *The New York Times*

on a new plant-growth stimulator, described by Dr. Stanley K. Ries of Michigan State University. A later talk by Professor Anthony Cerami on the work of his Rockefeller laboratory of medical biochemistry to find new drugs for so-called "orphan diseases" was reported in a half-page piece in *Time* (November 28), among other coverage.

Other Rockefeller participants included Professor Neal Miller, Physiological Psychology, who reviewed aspects of behavioral medicine; Professor Mahin Maines, a member of the metabolism/pharmacology laboratory, who talked about the effects of ingested trace metals on body organs and metabolism; and Professor Peter Marler, coleader of the University's animal behavior laboratory and director of the Field Center for Ecology and Ethology, who delivered the opening night banquet address on the subject of bird song and the development of human speech. Informal laboratory seminars were conducted by Professors Purnell Choppin, Virology, Bruce Merrifield, Biochemistry, and Donald R. Griffin and Fernando Nottebohm, Animal Behavior.

Robert Keiber Appointed

Robert John Keiber, manager of media production for the North Carolina State Department of Education from 1971 to 1974 and an award-winning producer-director for public television in Washington, D.C., has been appointed manager of Graphic Services.

Before joining the University, Mr. Keiber headed his own media production company in Raleigh, North Carolina. He has also served as chairman of the Department of Communications for Shaw University in Raleigh. A native of Jersey City, New Jersey, he earned a B.S. from East Carolina University, and a master's degree in media from the University of North Carolina in Chapel Hill. He also held an internship in management at Duke University.

In 1971, Mr. Keiber produced and directed an Emmy Award-winning series on literature for public television. Trained as a commercial artist, he won the International Art Directors' Creativity '74 Award for a book cover design. His paintings and photographs have been exhibited in one-man and group exhibitions in the South. Mr. Keiber lives with his wife, Sharon, and their two sons, Christian, 6, and Cameron, 3, in the Mountain Lake region of New Jersey.

PROMOTIONS

The Library announces that **Patricia Mackey** has been promoted to senior library assistant and assistant to the librarian and **Douglas Many** to library assistant in charge of the Periodicals Room. In addition, responsibilities have been expanded for **Peg Sheehan**, in charge of the Acquisitions Section; **Rose Lawrence**, in charge of the Book Reading Room; **Elsa Kostick**, in charge of Current Periodicals Control; and **Diane Owens**, in charge of Binding.

Allan R. Goldberg, Virology, to associate professor, effective July 1, 1978.

Donald G. Lindmark, Biochemical Cytology, to associate professor, effective July 1, 1978.

It's A Skating Rink

A wooden frame, a large plastic sheet, some water, and a little help from Jack Frost, and the tennis court is a skating rink. Everyone on campus is invited to lace up their skates and enjoy. (Guests of University personnel must be accompanied by their University hosts when using the rink.)

PERSONALS

Marion C. Howley, President's Office, was married on September 10 to Kevin Reilly, a securities trader with the Federal Reserve Bank in New York.

Kathryn Kenny, a secretary with Food Services since 1971, retired July 29.

Molly McIntyre, a helper in the laboratory of bacteriology and immunology since 1955, retired on October 1. She joined the University in 1949 as a waitress in Welch Hall and was a helper in Media Service from 1953 to 1955.

Anastasio Morales, a porter since 1964, retired December 1.

Melville Woodroffe, a porter since 1963, retired November 30.

BRIEFS

Professor **Rollin D. Hotchkiss**, Genetics, was the American representative at an international Conference on Cooperation among Molecular Biology Institutes, held in September in Oslo, Norway.

Professor **William Trager**, Parasitology, delivered the 41st James Franklin Craig Memorial Lecture at the meeting of the American Society of Tropical Medicine and Hygiene held in Denver, November 9-11. Dr. Trager is president-elect of the society and will take office as president in November, 1978. Also presenting papers at the meeting were **James B. Jensen** and **Milton J. Friedman**, Parasitology.

Professor **Frank H. Field**, Mass Spectrometry and Gaseous Ionic Chemistry, participated in a Symposium on Kinetic Mass Spectrometry and Its Analytical Applications, held October 10-15 in Moscow, sponsored by the Institute of Chemical Physics of the USSR. He spoke on Temperature Coefficients in Slow Ion-Molecule Reactions.

Professor **Konstantin Goulianios**, Experimental High-Energy Physics, has been appointed to the High-Energy Advisory Committee of the Brookhaven National Laboratory and as a consultant to the laboratory's physics department.

Professor **Zofia Borowska**, Biochemistry, was visiting professor of biochemistry at the Max Volmer Institute for Physical Chemistry and Molecular Biology at the Technical University of Berlin, Germany, September 15 to November 15.

IN PRINT

A new book by Professor **George A. Miller**, *Spontaneous Apprentices: Children and Language*, has been published by Seabury Press. Dr. Miller is an experimental psychologist whose special interest is language. From 1973 to 1975, he and his University colleagues ran a "playschool" for three-year-olds on the fourth floor of the Tower Building. (See *news and notes*, November 1973). The purpose of the Child Language Facility (the "kiddie lab" as everyone called it) was to study the process of language development. As Dr. Miller writes: "The development of language is particularly important because it is so clearly tied to the development of the mechanisms of thought and self-control. . . . On the one hand, we are fascinated that children can learn language so well in the home and, on the other hand, we are frustrated and puzzled that they have so much trouble learning and using further linguistic skills in the classroom. I believe that students of child language who want to answer the educators' appeal for help can do so most effectively by discovering the conditions that facilitate language learning in the earliest years."

Written in a nontechnical and narrative style, the book describes some of the things Dr. Miller and his co-workers learned about how children develop concepts and language in such basic areas as color, time, and space. On another level, it is a very personal and candid report about the trials and tribulations of the scientific process and its inevitable unpredictability, and the special plight of the scientist as reluctant administrator. It is also a warm tribute by Dr. Miller to his laboratory colleagues, including the spontaneous apprentices.

Professor **E. G. D. Cohen**, Theoretical physics, writing in the November-December issue of *American Scientist*, surveys the history of science's journey "Towards the Absolute Zero of Temperature." The journey begins with the French scholar Amontons, first to surmise, in 1702, that there was an absolute zero. Among other early scientists whose work Dr. Cohen describes are Faraday, "the father of low-temperature physics"; Cailliet and Pictet, the first to liquify oxygen; Dewar, whose efforts to cool liquids produced as a by-product the prototype of the modern Thermos flask; and Kamerlingh Onnes, who succeeded in liquifying helium. Dr. Cohen also discusses superfluidity of helium, superconductivity of metals,

and his own work relevant to the development of the helium-dilution refrigerator as part of the story of the ongoing quest toward absolute zero. (The article was adapted from a Rockefeller University Lecture presented in 1976.)

A special international issue of *American Psychologist*, the journal of the American Psychological Association, was published in November. Developed largely through the efforts of Professor **Michael Cole**, head of the laboratory of comparative human cognition, it contains papers by scholars from Iran, Israel, Mexico, South America, Japan, and the Soviet Union, the last co-authored by Alexander Romanovich Luria, the eminent neuropsychologist who died last year. The issue also includes a tribute to Luria by Dr. Cole. Of Luria's many contributions to the field of psychology, a study in the 1930s of the effects of rapid modernization on a peasant culture in Central Asia had influenced Dr. Cole in some of his own cultural studies in Africa. In 1966, Dr. Cole was invited by Luria to Moscow to help organize the International Congress of Psychology. During this period, Dr. Cole was able to consult with Luria and to study some of his unpublished data. Accompanying the article is a photograph of Luria with his young namesake, Dr. Cole's son Alexander.

Micromanipulation Subject of Exhibition

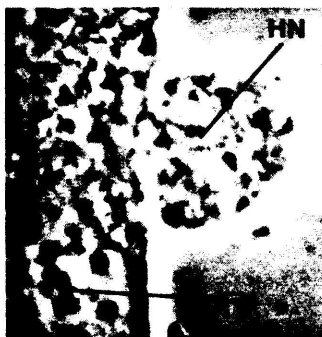
The current exhibition in the University Library contains materials showing the early and more recent development and applications of the microsurgical methodology for studying living cells.

The manipulation of human and other cells through microsurgery and microinjection, as performed in the cytobiology laboratory of Dr. Elaine G.

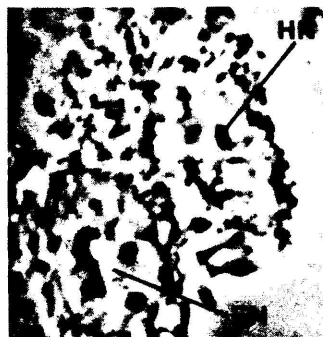
Diacumakos, is one way to study the transfer of genetic and other materials from one cell to another directly. Cells that have been manipulated, or their progeny, can be analyzed and observed.

The photographs below, published here for the first time, show an example of the transplantation of a nucleus from one type of cell to another. A fibro-

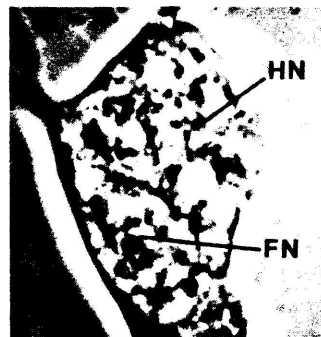
blastic cell is fused with a HeLa cell of abnormal origin. In this case, by modifying the operation for cell fusion, the nucleus of the HeLa cell is transferred to the fibroblastic cell. Such cells, or their progeny, are being studied. Other studies include the microinjection of virus to study gene expression, chromosome structure and function, and electrophysiologic studies of cell surface membranes.



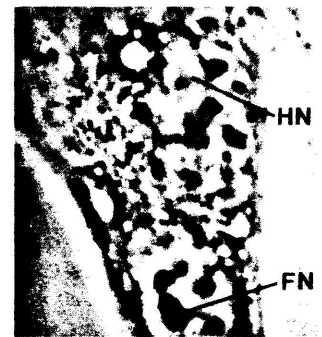
Elongated normal human fibroblast with its nucleus (FN) fused with round HeLa cell (right) with its nucleus (HN) in process of transferring into fibroblast.



12 minutes later: Elongated fibroblast (left) and nucleus (FN). Most of HeLa cytoplasm has been cut away and fibroblast cytoplasm has engulfed HeLa nucleus (HN).



44 minutes later: Fibroblast now rounded up containing the HeLa nucleus (HN) and its own (FN).



2 hours later: Fibroblast now normally elongated having accommodated both HeLa (HN) and its own (FN) nucleus.