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news & notes

October 21, 1994 Volume 5, Number 6

The Rockefeller University

Recruitment news

Three young scientists to join Rockefeller faculty

Three scientists in the early years of their careers have accepted appointments as assistant professors and heads of laboratory at Rockefeller: Peter Mombaerts, currently a postdoc at the Howard Hughes Medical Institute at Columbia University College of Physicians and Surgeons; Andrej Sali, a postdoc at Harvard University; and Markus Stoffel, a research associate at the Howard Hughes Medical Institute at the University of Chicago. The appointments are the result of a thoroughgoing and successful recruitment effort by the Rockefeller search committees in chemistry and medical science.

Announcing the appointments, President Torsten Wiesel said, "We are delighted that Peter Mombaerts, Andrej Sali, and Markus Stoffel have chosen to join Rockefeller. These appointments reflect the priorities set out in the Academic Plan, which recognized junior faculty as a critical resource for our revitalization. These talented and promising scientists will help the university continue its pioneering research into the next century."

Peter Mombaerts, who grew up in Belgium, earned an M.D. in 1987 from the Catholic University of Louvain. From 1987 until 1992, he was a Howard Hughes Medical Institute Predoctoral Fellow in Biological Sciences, working on a Ph.D. in biology at M.I.T. His dissertation, completed in 1992, was on lymphocyte development and

function with mice genetically altered through gene targeting. Mombaerts stayed at M.I.T. for an additional year, working with his dissertation advisor, Nobel laureate Susumu Tonegawa, and then joined Richard Axel's lab at Columbia in 1993.

Mombaerts is now interested in the logic of olfactory coding, studying the mechanisms regulating the expression of odorant receptor genes and the relationship between odorant receptor gene expression and the pattern of axonal projections from olfactory neurons onto the olfactory bulb.

Andrej Sali, who was born in Slovenia, studied for his Ph.D. with Tom Blundell in the department of crystallography at Birkbeck College in London. His Ph.D. projects included X-ray crystallography of aspartic proteases and development

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New York Times science editor to address Cohn forum next week

Nicholas Wade, science editor at *The New York Times*, will speak at the Zanvil A. Cohn Forum on Health Affairs, Tues., Oct. 25. His topic is "Science and the Press."

"Nicholas Wade is an influential figure in the print media and has helped the *Times* gain stature as a reliable and interesting purveyor of science news," said Alexander Bearn, chair of the forum's program committee. President Torsten Wiesel will introduce Wade at the forum next week.

Wade received a B.A. in natural sciences from King's College, Cambridge in 1964. He worked on the news staff of *Science*, then became Washington correspondent and deputy editor of *Nature*. From 1982 until 1990, he was an editorial writer for the *Times*, opining about defense, space, science, medicine, technology, environment, and public policy. Wade's column on science, "Method and Madness," appears every third

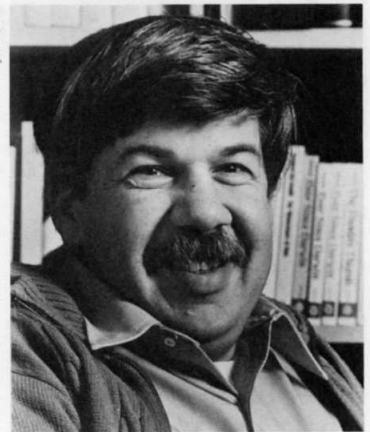
Harvard zoologist speaks today on structure of evolutionary theory

Stephen Jay Gould, professor of geology and Alexander Agassiz Professor of Zoology at Harvard University, will speak on "The Structure of Evolutionary Theory" at today's Friday lecture (Oct. 21).

A geologist, paleontologist, and award-winning writer of a dozen books on science, Gould is especially known for his theory of punctuated equilibrium, developed in collaboration with Niles Eldredge. This theory views the origin and extinction of species as a largely discontinuous process, in which long intervals of evolutionary stasis are punctuated by periods of rapid evolutionary change. Traditional evolutionary theory had viewed speciation as a gradual and continuous process.

"Stephen Jay Gould is unique among contemporary biologists in combining pioneering studies in evolution with a remarkable ability to communicate a broad range of science-related topics and issues to a general audience," said President Torsten Wiesel, who will introduce

Joe Wynn



Evolutionary biologist and writer Stephen Jay Gould lectures today (Oct. 21).

Gould today. "Stephen has been particularly eloquent in describing how Darwin's theory of evolution introduced the historical perspective and method to science—a perspective that stresses that if we are to understand the causes shaping the present world, we must reconstruct the worlds of the past."

Gould graduated from Antioch College (A.B., 1963) and Columbia University (Ph.D., 1967). He then went to Harvard as assistant professor of geology and assistant curator of paleontology in the Museum of Comparative Zoology. He was promoted to associate professor in 1971, and in 1973, to professor of geology. He was named Alexander Agassiz Professor of Zoology in 1982.

Gould, a MacArthur Prize Fellow, is curator of invertebrate paleontology at Harvard's Museum of Comparative Zoology. A member of the National Academy of Sciences, he is also a fellow of the American Academy of Arts and Sciences and has won many awards and honors.

Gould is the author of many books on evolution and related topics, including *The Panda's Thumb*, for which he won the National Book Award in Science in 1982. His most recent book is *Eight Little Piggies*.

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

2 SUBJECT: library
KEYWORD: access

3 Population
politics

4 Holland in
Sweden

Courtesy of Nicholas Wade



Nicholas Wade of *The New York Times* will address the Cohn Forum, Tues., Oct. 25.

Sunday in *The New York Times Magazine*.

His most recent book is *A World Beyond Healing*, about how a nuclear war might begin and what

See *Wade*, page 4

Assistant professors selected by medical sciences and chemistry committees

(continued from page 1)

of methods for comparison of protein three-dimensional structures and homology modeling. Since 1991, he has been a postdoc with Martin Karplus in the department of chemistry at Harvard University.

Sali has worked on the kinetics and thermodynamics of protein folding using Monte Carlo lattice models, on improving the method for homology modeling of proteins, and applying it to several proteins of unknown structure. He will continue to develop methods for protein structure modeling and refinement and to apply them to biologically interesting proteins.

Markus Stoffel, from Germany, earned an M.D. from Bonn University in 1989 and a Ph.D. in 1991, also from Bonn, in molecular virology. He was a postdoctoral fellow at the Heinrich Pette Institute

at Hamburg University with Wolfram Ostertag. Since 1991, he has been at the University of Chicago, first as a postdoc, then as assistant

professor and research associate in the department of medicine. He is also a research associate at the Howard Hughes Medical Institute.

Courtesy of Peter Mombaerts



Courtesy of Markus Stoffel



Peter Mombaerts (left), Markus Stoffel (right), and Andrej Sali (not shown) will be joining the Rockefeller faculty as assistant professors and heads of lab.

Stoffel's research, pursued in collaboration with Graeme I. Bell, focuses on identifying genes that increase the risk of developing diabetes mellitus through a combination of techniques from genetics, molecular biology, cell biology, and biochemistry. His current projects include positional cloning of the MODY1 gene on chromosome 20, isolation of highly polymorphic simple tandem repeats of diabetes candidate genes, development of transgenic mouse models of non-insulin dependent diabetes mellitus (NIDDM), and genetic studies of NIDDM. Stoffel will join Rockefeller in January.

The medical sciences committee, chaired by Professor Jan Breslow, recommended Stoffel and Mombaerts. Sali was recommended by the chemistry search committee, which is co-chaired by Professors Peter Model and Robert Roeder.

The library invites everyone to see where tradition and the Internet meet

What do scientists and librarians have in common? The need to navigate streams and reams of information.

Patricia Mackey, librarian at Rockefeller, published a newsletter this month about the library staff's continuing effort to improve information access for the RU community. To help plan more user services, the library staff is conducting a survey this week and next among library patrons.

"We have almost 200 databases available, each one complex, each one with a somewhat subjective index and its own key words. We're concentrating on ways to help people locate what they need in the maze of information," said Mackey.

Advances in information access are described in the newsletter, *The R.U. Library News*, which was put together by David Man, educational services librarian. Available in the library this week, it announces new databases that can be searched through RU computers, in subjects such as AIDS, chemistry, and pharmacology. The newsletter advertises personalized one-on-one Medline tutorials "in the comfort of your own lab at your very own workstation." It explains the library's on-line bulletin board, which posts a list of periodicals that the library is considering ordering, gives telnet addresses for libraries of medical institutions throughout New York, and chronicles news, such as books on order.

And the newsletter offers information on subscribing to professional bulletin boards on the Internet.

The user survey now in progress will aid in developing more ways to meet the information needs of the extended Rockefeller community. It asks four questions—about the user's affiliation, title, purpose in visiting the library, and time and length of the visit. To tap as many library patrons as possible, it is being conducted on five days during the busy month of October. Library staff are approaching all users during staff hours with the questionnaire. Between 8:00 P.M. and 8:00 A.M., survey forms are stacked up next to the security desk

where night users sign in.

"Filling out the survey takes less than a minute. The more people who participate, the better services we can develop," said Mackey.

The information explosion is not the only challenge common to librarians and scientists. Because of limited funds, several years ago, librarians at Memorial Sloan-Kettering Cancer Center, Cornell University Medical College, and Rockefeller began meeting regularly. On the basis of the major interests at each institution, they now decide together who will buy which new expensive reference book and cancel which rarely used periodical. The paper triage is predicated on

the cooperative lending policies the three institutions have established. It enables each to spend limited resources efficiently. "We call ourselves the four corners library, and as the Hospital for Special Surgery collaborates more, we will all have access to each other's collections," said Mackey.

Access is the key word at the library these days. "The library is really everyone's entry to information. Whether it's on-line searching of the newest database or obtaining an old rare book, we can do it," said Mackey. Mackey can be reached at x8909 or e-mail mackey.



Patricia Mackey, librarian, never says hush to users of the RU library. "Ask us questions, tell us what's good and bad about the library. It's here for everyone," she said.

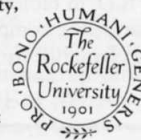
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Cairo and beyond

Rockefeller professor discusses conflicts over world population

by Susan Blum

Once upon a time—some 10 to 12 thousand years ago—the Earth's human population numbered five and a half million. Today, that population is over five and a half billion—a thousandfold increase representing, on average, one population doubling every thousand years.

But concealed within that simple average is a more complex story, one of a tremendous recent acceleration in population growth. Says Rockefeller Professor Joel Cohen, "Since 1650, the human population increased from roughly half a billion to roughly 5.5 billion today, or one doubling per century. Since World War II, the population has doubled in about 40 years—a 25-fold acceleration of the long-term average of the last 10 or 12 millennia."

This was the population trend shaping discussion at the United Nations International Conference on Population and Development (ICPD) held last month in Cairo—a conference that aimed to build a consensus among the world's nations on population and development over the next 20 years. Cohen, a population biologist, discussed the Cairo meeting at a recent gathering of the Science Policy Association of the New York Academy of Sciences, and in an interview with *News&Notes*.

The first ICPD was held in 1974 in Bucharest; the second, 10 years later in Mexico City. As Cohen recounted it, "The political history of the conferences since 1974 roughly approximates the square-dance step known as swing your partner, in which you and your partner, pulling against each other, exchange positions and then come back to your original ones."

The partners jostling in this dizzying dance were family planning and economic development, Cohen said. "In 1974, the United States and some other wealthy countries went to Bucharest to promote family planning. The idea was that lowering fertility by voluntary means would lower population growth rates, which would make it easier for poor countries to develop economically. But the developing countries saw the emphasis on family planning as a cheap cop out—a way for rich countries to avoid transferring the capital assets and technology required for development of the poorer ones. Those countries wanted development first, and slower population

growth later."

Ten years later in Mexico City, the positions had switched, Cohen reported. "While the U.S. was asserting that population growth is, by itself, a neutral phenomenon, the developing countries, with 10 years' more experience of rapid population growth, urgently desired support from family planning programs, and considered the U.S. stance as a way to avoid providing it."

Since 1984, "the population optimists have lost prominence," Cohen continued. But while there is general agreement that slowing population growth now would improve human prospects for the next 40 years, there is still much debate about how to effect that deceleration.

This debate came through loud and clear in the documents prepared for the conference. Promoters of family planning programs emphasized the importance of providing contraceptives, while others emphasized the economic, educational, health, and cultural factors (like the status of women and improved child survival) that make parents want to bear fewer children.

No consensus

"As there was no consensus among scholars about the most effective means of lowering fertility before the meeting, one could hardly have expected the ICPD to take a single, clear direction. And it did not," Cohen said. "The program of action produced by the conference is a mix of dream and sermon, of wish and prayer. By one count, the program contains more than a thousand recommendations. Of these, only a handful deal with the desirability and means of reducing fertility and slowing population growth. The remaining recommendations urge governments to improve almost every aspect of human well-being, but specify no priorities."

Those who read or heard about the Cairo conference might be forgiven for wondering if it had any solid foundation buried under the shifting sands of politics and partisanship. But the meeting did, in fact, have much to build on. And that groundwork was largely constructed through modeling—the number crunching, data digesting, computer-assisted analysis that grapples with complex phenomena and draws from them pattern and

coherence. Some of the models employed in preparing the conference were used to project the population growth rate; others, to assess factors important for slowing it.

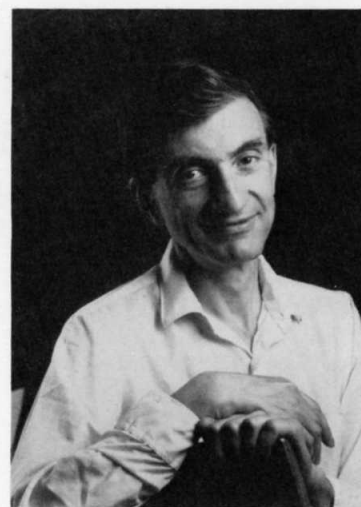
Cohen, who uses modeling extensively in his own work (his book, *How Many People Can the Earth Support?*, will be published next fall) explained how models can be generated to help understand the factors affecting how many children a woman will bear. First, data are gathered on many variables, such as fertility history (age at marriage and at first conception, outcomes of pregnancies and number of children) and a wide range of social and economic factors (years of education, income, skills). Using mathematical models generated by researchers, these data are then analyzed with powerful computer programs; such analysis highlights relationships among the variables. For instance, Cohen said, it has been found that as average years of a woman's schooling go up, the average number of children she has goes down. Also, as her use of modern contraceptives increases, the number of children she bears decreases.

Cohen says that modeling makes it "easy to find the things that look as if they matter," such as modern contraception and education for women. But it is difficult to tease out the directions of causality—for instance, did a woman's education result in her choosing to use contraceptives, or did her use of contraceptives result in her decision to pursue an education, or did general economic development encourage both contraception and education?

"That's where the sticking point is, that's where the arguments are, and that's why there's disagreement between those who favor the family planning programs and those who favor the empowerment of women as a means of lowering birth rates," Cohen said.

Conflicts and ambiguities

Such sticking points leave plenty of room for the demands of politics, culture, and religions to resonate. And that's just what happened in Cairo, where the voices of feminism and religious conservatism were among the very loudest, often threatening to drown one another out. Indeed, the pressures exerted by the various conflicting constituencies were such that the con-



Professor Joel Cohen discussed the recent U.N. meeting in Cairo on world population.

ference's final program, or call for action, was what Cohen calls a "masterpiece of ambiguity."

Though the ICPD's program of action will be interpreted differently by the more than 150 countries who participated, it can be used by all of them to pursue fertility reduction in the ways they think best. "The document lends weight to the jawbone of ministers of health, who are responsible for begging for money for their programs," Cohen says. "They can go in and wave the document in front of their prime ministers and say, 'Look here, this is what everybody else is doing and we're going to do it too. It's important.'"

In Cohen's view, certain accomplishments of the ICPD were particularly important. For one thing, "women played a central role in the conference for the first time. Their health, jobs, credit, education, property rights, and reproductive autonomy have emerged as primary concerns." For another, "the United States resumed leadership in promoting slower population growth to enhance human well being." (Congress approved \$595 million for population activities in fiscal year 1995.) And, he concluded, "The ICPD didn't treat population in isolation from the other factors in human well-being. Population numbers alone are not the whole issue. Economics, education, health care, equal rights between men and women—and not just between men and women—are also vital. Some people forget that. I am very glad the ICPD didn't."

Research assistant as modern day troubadour

How do researchers at Rockefeller unwind? Some take to the tennis courts; others hit the marathon trail. Still others perform in the arts. Yvonne Holland, assistant for research in the Knight lab, carries the torch of her Swedish heritage as a Scandinavian folk dancer, singer, and guitarist.

Holland's musical specialty is the visor, the traditional troubadour song. Swedish troubadours often sing the words of distinguished Swedish poets, accompanying themselves on guitar or lute. Holland's career as a troubadour began when she was three, singing for the patrons of her mother's restaurant in Gothenburg. As a teen, she learned to play the guitar and, with four friends, formed a group that entertained residents of nursing homes and hospitals.

Holland arrived at Rockefeller in 1957 on a leave of absence from the University of Gothenburg to further her knowledge of histology. Her 12 month visit, arranged by university scientist Alfred E. Mirsky, turned into permanent residency after she married her husband, whom she met at a party that, as she says, "neither of us wanted to be at." Holland's 37-year career at Rockefeller has spanned five university presidents. She has been in the Knight lab since 1978.

Soon after arriving in the U.S., Holland made the first of many public appearances when she appeared at Madison Square Garden. "Michael Todd, one of Liz Taylor's husbands, hosted a talent



Wearing authentic Scandinavian costume, Yvonne Holland (left), assistant for research in the Knight lab, performs traditional Swedish folk songs with musical partner Andrea Larson.

show at the old Garden," she said. "He was promoting his movie *Around the World in Eighty Days*. It was quite an extravaganza: There were elephants and anything you can imagine." Holland's audiences have included Scandinavian royalty: A few years after the talent show, she sang and played for the Princesses of Sweden, and during the U.S. bicentennial celebration, Holland danced for the King of Sweden at Philharmonic Hall, now known as Avery Fisher Hall. Earlier this year she performed at the farewell ceremony for the outgoing Consul General of Norway.

Recently, Holland has combined her love of guitar and dance by playing music for folk dancers. A little more than a year ago, she joined forces with a violinist and

singer named Andrea Larson. Last fall, the pair traveled to Sweden to expand their repertoire. "We immersed ourselves in the culture," Holland said. "Playing in Sweden allowed us to get the right 'twist' to the music." The two musicians perform around the country at such events as barn dances, and are listed in the registry of folk musicians.

Last June, Holland and Larson transported their music to Sweden to participate in the 30th Nordlek. Nordlek, or "Nordic games," celebrates the common culture of the Scandinavian countries; it is an exhibition of folk dancing, music, and art hosted alternately by Sweden, Finland, Norway, and Denmark every three years. The festival attracts 8000 to 9000 people from around the world. "There

Wade

(continued from page 1)

the environmental consequences might be. Wade has also written *Betrayers of the Truth*, an analysis of why scientists cheat; *The Nobel Duel*, which chronicles the 20-year race between Andrew Victor Schally and Roger Guillemin for the Nobel Prize; and *The Ultimate Experiment*, about the beginnings of biotechnology.

The forum on health affairs was established by the late Zanvil A. Cohn as a venue for informal discussion on important issues in health research and public policy. Upcoming guests are Kathleen M. Foley, of Memorial Sloan-Kettering Cancer Center, Tues., Nov. 29, and Alan J. Friedman, director, Hall of Science, Tues., Jan 31.

The forum begins at 5:30 P.M. in the Abby Aldrich Rockefeller dining room. Sherry will be served at 5:00 P.M. All are welcome.

is cooperation between the different nationalities and you just dance with whoever is next to you," she said.

Holland enjoys the communal nature of Scandinavian folk music. "The music travels, it is shared," she said. "You often find a group of Scandinavians singing the same song in different languages." Music is a unifying experience, she feels: "Singing and dancing bring people together, and we always do better when we collaborate."

Potpourri

Tri-Institutional Noon Recital Pianist Diane Walsh will perform works by J. S. Bach, Ben Weber, and César Franck at the Tri-Institutional Noon Recital today (Oct. 21). Walsh, winner of the

First Prize in the Munich International Piano Competition, will present a program entitled "Bach and His Influence." The concert, to be held in Caspary Auditorium at noon, is free. All are welcome.

Clinical Research Seminar

James H. Grendell, professor of Medicine, Cornell University Medical College, and chief of the Division of Digestive Diseases, New York Hospital-Cornell Medical Center, will speak on "Mechanisms of Injury and Repair in Experimental Models of Pancreatitis" at the Clinical Research Seminar Wed., Oct. 26 at noon in Nurses Residence 110B.

Club sandwiches

Beginning Thurs., Oct. 27, sandwiches will be on sale every Thurs-

day in the Faculty and Students Club when it opens at 4:00 P.M.

Computer course

An orientation meeting for the six-to-eight week, introductory course "Use of the Personal Computer in the Laboratory" will be held Tues., Oct. 25 at 9:30 A.M. in 301 Tower. For more information, contact Paul Rosen, x8750 or e-mail ros.

Dana Awards symposium

A symposium featuring the 1994 winners of the Charles A. Dana Awards for Pioneering Achievements in Health will be held Tues., Nov. 1 in Caspary Auditorium. The symposium, entitled "Science of Change: Neuroscience Enters a New Age," will begin at noon. Look for further details in next week's issue of *News&Notes*.

Film trial

Media Resources is offering Rockefeller University investigators the opportunity to try a new film developed by Kodak for medical-scientific applications. The new film is daylight balanced reversal slide film with an IE of 100. A maximum of four rolls will be processed free by Media. Users of the film must fill out a questionnaire. For more information contact John Sholtis, x8949.

Lectures

Professor Emeritus Abraham Pais discussed "Glimpses of Oskar Klein as Scientist and Thinker" at the Oskar Klein Centennial Symposium in Stockholm last month. In May, he gave a talk before the Israel Academy of Sciences and Humanities on Einstein and the press.

Lisa Kohler



Pianist Diane Walsh performs today (Oct. 21).