5-18-2001

NEWS AND NOTES 2001, MAY 18

The Rockefeller University

May 18, 2001

news & notes

THE NEWSLETTER OF THE ROCKEFELLER UNIVERSITY

FRIDAY LECTURE

Doudna to discuss "Hijacking the ribosome"

Jennifer Doudna, the Henry Ford II Professor of Molecular Biophysics and Biochemistry at Yale University and an associate investigator at the Howard Hughes Medical Institute, will present the Friday lecture today (May 18). Doudna's topic will be "Hijacking the Ribosome: Structural Basis for Translation Inititation in Hepatitis C."

Doudna is interested in the structures and mechanisms of RNA catalysts, and in the roles of structured RNA molecules in RNA processing and translation initiation. Her current research is focused on understanding and comparing catalytic strategies used by RNA to those of protein enzymes. Her research group is also studying the structure and function of RNA-protein complexes involved in initiation of protein synthesis and transport of proteins to the cell membrane.

She has received several honors for her work on the structure and function of RNA, including the Johnson Foundation Prize for Innovative Research in 1996, the National Academy of Sciences Award for Initiatives in Research in 1999, the Alan T. Waterman Award from the National Science Foundation in 2000 and the Eli Lilly Award in Biological Chemistry

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Doudna is the Henry Ford II Professor of Molecular Biophysics and Biochemistry at Yale University and an associate investigator at the Howard Hughes Medical Institute.

Convocation 2001 celebrates a century of scientific achievements at Rockefeller

Convocation is always an important milestone for those who are graduating. This year's Convocation, however, marks an important milestone for the university itself. On Thurs., June 14, the day of Convocation, the university will celebrate its 100th birthday.

Founded by John D. Rockefeller, the Rockefeller Institute for Medical Research was incorporated on June 14, 1901. It was the first institution in the United States devoted solely to biomedical research—to understanding the underlying causes of disease. The Rockefeller Institute was later renamed The Rockefeller University as its scope and mandate broadened.

This year's Convocation ceremonies include a number of special events that celebrate not only the achievements of this year's graduates but also a century of outstanding science at Rockefeller.

The events on June 14 begin with a reception for the graduates, their families, presenters and other invited guests at 11:30, followed by a luncheon at noon. The David Rockefeller Fellowship for an outstanding 3rd-year Ph.D. student will be presented at the luncheon. (*News&Notes* will include a profile of this year's winner in a future issue.)

The procession of graduates and marchers in cap and gown will take place at 2:30 p.m. The procession begins in the Weiss lobby and crosses the campus to Caspary Auditorium. The entire Rockefeller University community is encouraged to gather on campus to wathc the procession.

At the ceremony itself, at 3 p.m., 15 students will receive their Ph.D.s. As is customary at Rockefeller, each graduate will be presented individually by his or her mentor. (*News&Notes* will publish excerpts from these remarks in the issue following Convocation.)

The David Rockefeller Award also will be presented at Convocation, as will the honorary degrees.

This year the university is awarding six honorary

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Lambowitz to give next week's Friday lecture

Alan Lambowitz, a professor and director of the Institute for Cellular and Molecular Biology at the University of Texas at Austin, will present the Friday lecture next week (May 25). His topic will be "Group II Intron Mobility via Reverse Splicing into DNA and Its Potential Applications in Targeted Gene Disruption and Site-Specific DNA Insertion."

Lambowitz's laboratory studies gene expression, RNA splicing, catalytic RNAs and retroviral genetic elements, including possible ancestors of the AIDS and leukemia viruses. They recently discovered a novel mechanism for site-specific DNA insertion used by autocatalytic group II introns. The nature of this mechanism suggests that group II introns might be used in new approaches for genetic engineering and gene therapy, applicable to a wide variety of diseases.

Lambowitz's research interests include mechanisms of RNA catalysis, how proteins assist formation of RNA structure, mechanisms involved in intron mobility, the evolution of introns and splicing mechanisms, the origin of retroviruses and reverse transcription, and the development of novel methods for functional genomics and gene therapy.

In addition to serving as director of the Institute for Cellular and Molecular Biology, Lambowitz is also the Mr. and Mrs. A. Frank Smith, and Nancy Lee and Perry R. Bass Regents Chairs in Molecular Biology, as well as a professor of chemistry and biochemistry, and of molecular genetics and microbiology at the University of Texas at Austin.

He received his B.S. in chemistry from Brooklyn College, City University of New York, and his Ph.D. from Yale University. He was a research associate at The Rockefeller University, in David Luck's Laboratory of Cell Biology from 1973 to 1975.

Among his many awards, he received an NIH MERIT Award in 1993 and was elected to the American Academy of Arts and Sciences in 1995.

Alan Lambowitz, a former research associate at The Rockefeller University, is the director of the Institute for Cellular and Molecular Biology at the University of Texas at Austin.

Lambowitz's talk begins at 3:45 p.m. in Caspary Auditorium and is preceded by a tea in Abby Aldrich Rockefeller Lounge. All are welcome.

Trustee Tilghman is named president of Princeton

Rockefeller University trustee Shirley Tilghman has been named the next president of Princeton University. Tilghman is the Howard A. Prior Professor of the Life Sciences at Princeton University, director of its Institute for Integrative Genomics, and an investigator with the Howard Hughes Medical Institute.

In the lab, Tilghman studies imprinted genes, which, unlike other genes, have patterns of activity that differ depending on whether they are inherited from a male or female parent. Her discoveries are helping to explain how imprinted genes may serve as weapons in a biochemical "battle of the sexes."

Tilghman is a member of the The Rockefeller University Board of Trustees. She is also a member of the Committee on Scientific Affairs and is co-chair of the Educational Affairs Committee.

Tilghman received a B.Sc. from Queen's University, Kingston, Ontario, in 1968. After two years teaching secondary school in Sierra Leone, West Africa, she went on to earn a Ph.D. in biochemistry from Temple University.

She was a postdoctoral fellow at the National Institutes of Health and an investigator at the Institute for Cancer Research, Fox Chase, before moving to Princeton in 1986.

A fellow of The Royal Society of London and a member of the U.S. National Academy of Sciences and its Institute of Medicine, Tilghman helped set the blueprint for the current U.S. effort in the Human Genome Project.

Trustee Shirley Tilghman, who conducted groundbreaking work in genetics, will be the first female president of Princeton University.

AROUND CAMPUS

Awards corner

Professor Charles Gilbert was elected to the American Academy of Arts and Sciences last month. For more than two centuries, the Academy has brought together the country's leading figures from universities, government, business and the creative arts to exchange ideas and promote knowledge in the public interest.

Assistant Professor Peter Mombaerts received the Second Firmenich Flavour and Fragrance Science Award. This award rewards both academic and industrial research in these fields and is intended to encourage young and gifted scientists.

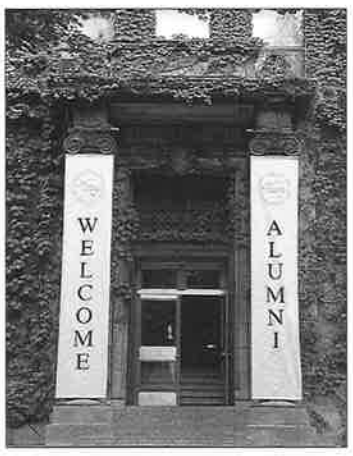
Professor Emeritus Miklós Müller was elected to be an external member of the Hungarian Academy of Sciences.

Papers and talks

If you are about to publish a paper or give a scientific talk, *News&Notes* would like to know about it. Please send your information by campus mail to Box 68, by e-mail to newsno or by fax to x7876.

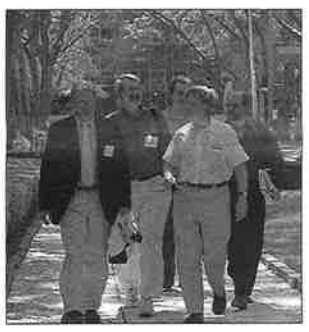
Scenes from Alumni Reunion 2001

Hundreds of familiar faces – past and present – were seen on campus during the Alumni Centennial Symposium and Reunion, May 3 – 6, 2001. More than 400 alumni, faculty and graduate students participated, including at least one representative of every graduating class since 1960.



President Levine was joined by former Presidents David Baltimore, Joshua Lederberg, Frederick Seitz and Torsten Wiesel at the Alumni Centennial Celebration dinner dance on Friday evening. As a gift from the alumni, each received a limited edition DNA necktie. Here, Levine, Wiesel, Baltimore and Lederberg model their ties.

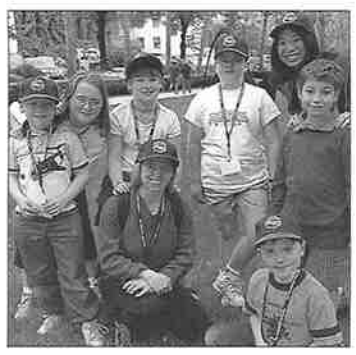
Current graduate students offered alumni a glimpse of what's happening in the university's laboratories today at a poster session on Saturday morning. Here, a student shares his poster with David Sabatini '66, chair of the Alumni Centennial Symposium Planning Committee.



David Baltimore '64, president of the California Institute of Technology, closed Friday's scientific program with a lecture entitled "Is Small Science Over?" The talk, given before a capacity crowd in Caspary Auditorium, was viewed by alumni around the world via a live webcast. Baltimore (center) receives congratulations on his talk from David Rockefeller (left) and President Levine.

Alzatta Fogg was named an honorary alumna and received a citation in recognition of her many years of service at RU. Fogg receives congratulations from Robert Barlow '67, chair of the Alumni Council.

Scientific symposia on Friday and Saturday featured more than 50 presentations by alumni and student speakers, including Darcy Kelley '75.



While alumni attended the scientific programs, their children had their own itinerary to keep. They received a guided tour of the city, with stops at the American Museum of Natural History, Central Park, the Sony Wonder Technology Lab and other points of interest throughout the city. Kneeling l to r: Kate Kadoun (RU chaperone), Stanford Schor; Standing l to r: Jonathan Schor, Devra Schor, Jessi Moodey, Alice Proia, Jackie Lee (RU chaperone), Zach Kagan.

MoMA director Glenn Lowry to discuss sculptures at Spring Neighborhood Day tomorrow

On Sat., May 19, at the university's Spring Neighborhood Day, Glenn Lowry, director of the Museum of Modern Art (MoMA), will give a public lecture about the MoMA sculptures currently on campus. This special exhibition, entitled "Sculpture from the Abby Aldrich Rockefeller Sculpture Garden of the Museum of Modern Art," includes works by Scott Burton, Alexander Calder, Ettore Colla, Herbert Ferber, Bryan Hunt, Henry Moore, Claes Oldenburg, Eduardo Paolozzi, George Rickey, David Smith, Tony Smith and Mark di Suvero.

Glenn D. Lowry became the sixth director of The Museum of Modern Art in 1995. He leads a staff of some 600 people and directs an active program of exhibitions, acquisitions, and publications. In addition to directing the Museum's curatorial, educational, and administrative programs, he is managing the Museum's Building Project, which began in February 1996 and is expected to be completed in 2004, in time for MoMA's 75th anniversary.

A strong advocate of contemporary art, he, along with Alanna Heiss, director of P.S.1 Contemporary Art Center, conceived and initiated the merger of their two organizations, which was announced in February 1999. He has lectured and written extensively in support of contemporary art and artists and the role of museums in society, among other topics.

Lowry is a board member of the Association of Art Museum Directors (AAMD) and of the Donald Judd Foundation. He also serves on the advisory council of the Department of Art History and Archaeology at Columbia University.

Born in 1954 in New York City and raised in Williamstown, Massachusetts, Lowry received a B.A. degree (1976) *magna cum laude* from Williams College, Williams-town, and M.A. (1978) and Ph.D. (1982) degrees in history of art from Harvard University.

Lowry's talk, entitled "Creating an Urban Oasis: The Museum of Modern Art and the Abby Aldrich Rockefeller Sculpture Garden," will begin at 1 p.m. in Caspary Auditorium.

The Spring Neighborhood Day event will also include docent-led art tours for the public and campus community. The Rockefeller University campus has itself been described by *The New York Times* as an "urban oasis." The 15-acre grounds were designed by famed landscape architect Daniel Urban Kiley, who strove to create a protective and soothing environment in the midst of a big city.

Every year, on Spring Neighborhood Day, the university invites area residents to enjoy the campus's lush gardens. This year's event takes place from 12:30 p.m. to 4 p.m. and is free and open to the public.

Rockefeller will open its gates to the public on Sat., May 19, the university's Spring Neighborhood Day. At 1 p.m. MoMA director Glenn Lowry will discuss the sculptures on loan from the museum.

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CELEBRATING 100 YEARS · 1901-2001 · THE ROCKEFELLER UNIVERSITY · PRO·BONO·HUMANI·GENERIS

calendar

MAY EIGHTEENTH THROUGH JUNE SEVENTEENTH

EVENTS

Friday Lectures and Thesis Presentations

THESE EVENTS ARE HELD IN CASPARY AUDITORIUM AT 3:45 P.M. AND PRECEDED BY TEA AT 3:15 P.M. IN ABBY ALDRICH ROCKEFELLER LOUNGE. ALL ARE WELCOME.

FRIDAY, MAY 18

Hijacking the Ribosome: Structural Basis for Translation Initiation in Hepatitis C. Jennifer Doudna, Henry Ford II Professor of Molecular Biophysics and Biochemistry, Yale University, and Associate Investigator, Howard Hughes Medical Institute.

FRIDAY, MAY 25

Group II Intron Mobility via Reverse Splicing into DNA and Its Potential Applications in Targeted Gene Disruption and Site-Specific DNA Insertion. Alan Lambowitz, Professor and Director, Institute for Cellular and Molecular Biology, University of Texas, Austin.

THURSDAY, JUNE 7

Thesis Talk. Ethan Marin, Biomedical Fellow, RU. Thesis Presentation.
CASPARY AUDITORIUM. Tea at 3:15 p.m. in the Abby Lounge.

FRIDAY, JUNE 8

Brain Waves and Immune Genes in Brain Wiring. Carla Shatz, Nathan Marsh Pusey Professor of Neurobiology and Head, Department of Neurobiology, Harvard Medical School.

FRIDAY, MAY 18

9:00 A.M. **Psoriasis and Atopic Dermatitis: A Genomic Approach to Understanding Inflammatory Skin Disease.** Edmund Lee, Research Associate and Clinical Scholar, RU. Clinical Scholar's Grand Rounds. 110B NURSES RESIDENCE. *Open to RU/WMCCU/NYPH/MSKCC community and guests.*

MONDAY, MAY 21

1:30 P.M. **Immune Adherence Revisited.** John Atkinson, Grant Professor of Medicine and Immunology, Washington University School of Medicine. Immunology Seminar. SECOND FLOOR CONFERENCE ROOM, HSS, 535 EAST 70TH ST.

2:00 P.M. **Brain Clock and Cell Clock: Molecular Oscillation of Clock Genes.** Hitoshi Okamura, Professor, Department of Anatomy and Brain Science, Kobe University School of Medicine. Seminar. 301 WEISS. *Contact Michael Young, 327-8645.*

3:30 P.M. **Microtubule Motors, Myosin Va, and Rab27a Cooperate to Determine Melanosome Transport and Distribution in Mouse Melanocytes.** John A. Hammer, III, Section Chief, Molecular Cell Biology, National Heart, Lung and Blood Institute, National Institutes of Health. Cell Biology and Genetics Seminar. PAPANICOLAU LIBRARY, A-106 WMCCU, 1300 YORK AVE. *Coffee will be served. Open to RU/WMCCU/NYPH/MSKCC community and guests.*

TUESDAY, MAY 22

11:00 A.M. **Protein Interactions.** David Eisenberg, Professor, University of California, Los Angeles. Pels Family Center for Biochemistry and Structural Biology Seminar. 305 WEISS. *Contact Roser Busquets, 327-7050. Coffee and cookies at 10:45 a.m.*

3:00 P.M. **Expression Linkage Approaches for Mapping Type 2 Diabetes Genes.** Susan Sell, Assistant Professor, Department of Nutrition Science, University of Alabama, Birmingham. Starr Center for Human Genetics Seminar. 110B NURSES RESIDENCE. *Contact Emily Huffman, 327-7387.*

4:00 P.M. **G-Proteins coupled Receptors Dimerization: Implication for Role in Signaling and Trafficking.** Devi A. Lakshmi, Department of Pharmacology, New York University Medical Center. Pharmacology Seminar. WEILL AUDITORIUM, WMCCU, 1300 YORK AVE. *Coffee and cookies at 3:45 p.m. Contact Lissett Checo, 746-6250.*

4:00 P.M. **Modulating the Affinity between Proteins and Ligands.** Thomas James Wandless, Assistant Professor, Department of Chemistry, Stanford University. Bio-Organic Chemistry Seminar. 116 ROCKEFELLER RESEARCH LABORATORIES, MSKCC, 430 EAST 67TH ST. *Tea at 3:45 p.m.*

4:00 P.M. **Nuclear Receptor Coregulators and the Decoding of Gene Regulatory Information.** Arndt Benecke, RU. Center for Studies in Physics and Biology Seminar. B LEVEL CONFERENCE ROOM, SMITH HALL ANNEX. *Contact Erik van Nimwegen, 327-8184.*

WEDNESDAY, MAY 23

12:00 P.M. **DNA Damaging Agents That Hijack Transcription Factors.** John Essigmann, Professor of Chemistry and Toxicology, Department of Chemistry, Massachusetts Institute of Technology. Student-Sponsored Seminar. 301 WEISS. *Pizza luncheon at 1:00 p.m. on the Weiss 17th floor. Open to RU/WMCCU/NYPH/MSKCC community and guests.*

12:00 P.M. ***Helicobacter pylori* Diversity and Risk of Human Disease.** Martin J. Blaser, Professor and Chair, Department of Medicine, Professor of Microbiology, New York University School of Medicine. Seminars in Clinical Research. 110B NURSES RESIDENCE. *Contact Dale Miller, 327-8411.*

4:30 A.M. **Proteolysis: The Cell Cycle and Beyond.** Marc W. Kirschner, Chair, Department of Cell Biology, Carl W. Walter Professor of Cell Biology, Harvard Medical School. MSKCC President's Research Seminar. AUDITORIUM, ROCKEFELLER RESEARCH LABORATORIES, MSKCC, 430 EAST 67TH ST. *Tea at 4:00 p.m.*

THURSDAY, MAY 24

4:00 P.M. **Prime-boost Vaccination for Malaria.** Adrian V.S. Hill, Professor, Infectious Disease Laboratory, Wellcome Trust Centre for Human Genetics, Oxford, England. LFKRI Research Seminar. LOWER LEVEL CONFERENCE ROOM, NEW YORK BLOOD CENTER, 310 EAST 67TH ST. *Tea at 3:45 p.m. Contact Rosanna Martinez, 570-3357.*

4:00 P.M. **Relationship among Sperm Maturation, Fertility, and Chromosomal Aneuploidy in Man: The Role of the HspA2 Chaperone Protein.** Gabor Huszar, Director, Sperm Physiology Laboratory, Department of Obstetrics and Gynecology, Yale University School of Medicine. Endocrinology and Reproductive Biology Seminar. 301 WEISS.

FRIDAY, MAY 25

12:00 P.M. **Characterizing Early Stages in Hematopoiesis: Relationship of Cell Surface Phenotype, Gene Expression and Lineage Potential.** Richard Hardy, Ph.D., Senior Member, Institute for Cancer Research, Fox Chase Cancer Center. Cellular Biochemistry and Biophysics Seminar. 116 ROCKEFELLER RESEARCH LABORATORIES, MSKCC, 430 EAST 67TH ST.

TUESDAY, MAY 29

12:00 P.M. **Infection of CD8+ T-lymphocytes: A New Target for HIV-1.** Kunal Saha, Children's Research Institute, Ohio State University. CFAR Seminar. SIXTH FLOOR CONFERENCE ROOM, ADARC, 455 FIRST AVE.

5:30 P.M. **X-ray Crystal Structure of Bacterial RNA Polymerase and Promoter DNA Complex.** Katsuhiko Murakami, Postdoctoral Fellow, RU. **Statistical Analysis of Replicated Oligonucleotide Arrays: Response of the Macrophage to Interferon-gamma and *Mycobacterium tuberculosis*.** Stefan Bekiranov, Research Associate, RU. Pels Family Center for Biochemistry and Structural Biology Seminar. 110B NURSES RESIDENCE. *Contact Roser Busquets, 327-7050. Pizzas and drinks at 5:00pm. Open to RU/WMCCU/NYPH/MSKCC community and guests.*

WEDNESDAY, MAY 30

12:00 P.M. **Platelet Integrin Receptors in Blood and Vascular Diseases.** Barry Coller, Murray M. Rosenberg Professor of Medicine and Chairman, Samuel Bronfman Department of Medicine at Mount Sinai School of Medicine, and Chief of Medical Service, Mount Sinai Hospital. Rufus Cole Memorial Lecture. CASPARY AUDITORIUM.

3:00 P.M. **Protein Folding with a Purpose: Insertion of Soluble Protein Toxins in Membranes.** Anil Lala, Professor of Chemistry and Biotechnology, Indian Institute of Technology. Seminar. 301 WEISS.

4:30 P.M. **Controls on the Progression of Autoimmune Diabetes, Revealed in a Simplified Murine Model.** Diane Mathis, Head, Section on Immunology and Immunogenetics, Joslin Diabetes Center, and Professor of Medicine, Harvard Medical School. MSKCC President's Research Seminar. AUDITORIUM, ROCKEFELLER RESEARCH LABORATORIES, MSKCC, 430 EAST 67TH ST. *Tea at 4:00 p.m.*

CONTINUED ON OTHER SIDE WITH ARTS AND OTHER EVENTS.

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calendar-2

MAY EIGHTEENTH THROUGH JUNE SEVENTEENTH

7:30 P.M. **Psoriasis Support Group.** Meeting. 110B NURSES RESIDENCE. *Contact Patricia Gilleaudeau, 327-8333.*

THURSDAY, MAY 31

12:00 P.M. **"Model-free" versus "Model-based" Linkage Analysis: A False Dichotomy?** Susan Hodge, Professor of Clinical Public Health and Columbia University Research Scientist, Division of Clinical Epidemiology, New York State Psychiatric Institute; Co-Director, Mathematic Genetics Unit, New York State Psychiatric Institute, New York State Psychiatric Institute. Starr Center for Human Genetics Seminar. 110B NURSES RESIDENCE. *Contact Emily Huffman, 327-7387.*

4:00 P.M. **Biology and Transplantation of Stem and Progenitor Cells.** Irving L Weissman, Professor of Pathology and Developmental Biology, Stanford University School of Medicine. 24th Alexander S. Wiener Lecture. AUDITORIUM, NEW YORK BLOOD CENTER, 310 E. 67TH ST. *Tea at 3:45 p.m. Contact Rosanna Martinez, 570-3357.*

4:00 P.M. **Stem Cell and Lineage Biology: Relevance to Growth and Tissue-specific Gene Expression in Liver.** Lola M. Reid, Professor, Department of Cell and Molecular Physiology, Program in Molecular Biology and Biotechnology, University of North Carolina School of Medicine. Center for the Study of Hepatitis C Seminar. 305 WEISS. *Refreshments at 3:45 p.m. Open to RU/WMCCU/NYPH/MSKCC community and guests.*

THURSDAY, JUNE 7

4:30 P.M. **Molecular Target Assessment by in vivo Imaging.** Ralph Weissleder, Associate Professor of Radiology, and Director, Center for Molecular Imaging Research, Department of Radiology, Massachusetts General Hospital. MSKCC President's Research Seminar—Robin C. Watson Memorial Lecture. WILLIAM P. HOFFMANN AUDITORIUM, ROCKEFELLER RESEARCH LABORATORIES, 430 EAST 67TH ST. *Tea at 4:00 p.m.*

FRIDAY, JUNE 8

12:00 P.M. **Dynamic Visualization of Biochemical Networks in Living Cells.** Stephen Michnick, Associate Professor, Department of Biochemistry, University of Montreal. Cellular Biochemistry and Biophysics Seminar. 116 ROCKEFELLER RESEARCH LABORATORIES, MSKCC, 430 EAST 67TH ST.

TUESDAY, JUNE 12

12:00 P.M. **Mammalian Thioredoxin and Selenium-dependent Thioredoxin Reductase: Structure and Function in Cellular Redox Regulation.** Arne Holmgren, Professor, Medical Nobel Institute for Biochemistry, Department of Biochemistry and Biophysics, Scheele Laboratory, Karolinska Institute, Stockholm, Sweden. Cell Biology Seminar. 116 ROCKEFELLER RESEARCH LABORATORIES, MSKCC, 430 EAST 67TH ST.

4:00 P.M. **Regulation of Cell Death by the ABI Tyrosine Kinase.** Jean Y. J. Wang, Professor of Biology and Associate Director of Basic Research, University of California. Molecular Pharmacology and Therapeutics Seminar. 116 ROCKEFELLER RESEARCH LABORATORIES, MSKCC, 430 EAST 67TH ST. *Tea at 3:45 p.m.*

WEDNESDAY, JUNE 13

8:00 A.M. **Fulfilling the Challenge: John D. Rockefeller's Commitment to Educational Opportunity and Service to Humanity.** Centennial Symposium. CASPARY AUDITORIUM. *By Invitation Only.*

4:30 P.M. **Delineating the Genetic Basis for Susceptibility to Systemic Autoimmunity.** Edward K. Wakeland, Edwin L. Cox Distinguished Chair, Director, Center for Immunology, University of Texas Southwestern Medical Center at Dallas. MSKCC President's Research Seminar. AUDITORIUM, ROCKEFELLER RESEARCH LABORATORIES, MSKCC, 430 EAST 67TH ST. *Tea at 4:00 p.m.*

THURSDAY, JUNE 14

12:00 P.M. **Molecular Determinants for Cell-specific Actions of the Human Glucocorticoid Receptor.** John A. Cidlowski, Chief, Laboratory of Signal Transduction, National Institute of Environmental Health Sciences, Research Triangle Park, NC. Endocrinology and Reproductive Biology Seminar. 110B NURSES RESIDENCE.

FRIDAY, JUNE 15

11:00 A.M. **Folding@home: Simulating the Folding of Small Proteins in Atomistic Detail Using Distributed Computing.** Vijay Pande, Professor, Chemistry Department, Structural Biology Department, and SSRL, Stanford University. Seminar. 110B NURSES RESIDENCE. *Contact Roser Busquets, 327-7050.*

The Arts and Other Events

FRIDAY, APRIL 27

12:00 P.M. **Tri-Institutional Noon Recitals.** Stephanie Houtzeel, mezzo-soprano and Ken Noda, piano. Performing songs of Franz Schubert and Hugo Wolf; Ravel: selections from Shéhérazade; the Sesto-Arias of Handel (from Giulio Cesare) and Mozart (from La Clemenza di Tito). CASPARY AUDITORIUM. *Open to RU/WMCCU/NYPH/MSKCC community and guests.*

SATURDAY, MAY 19

1:00 P.M. **Creating an Urban Oasis: The Museum of Modern Art and the Abby Aldrich Rockefeller Sculpture Garden.** Glenn D. Lowry, Director, The Museum of Modern Art. Spring Neighborhood Day. CASPARY AUDITORIUM. *Campus grounds open to the public at 12:30 p.m. Guided tours of the art and gardens at 2:00 p.m. and 3:00 p.m. Live jazz music throughout the day. For further information contact Holly Teichholtz, 327-8971.*

SUNDAY, JUNE 3

1:30 P.M. **Classical Concert.** The Möbius String Quartet and friends, featuring Rockefeller Biomedical Fellows, perform works of Beethoven and Schnittke. CASPARY AUDITORIUM. *Free (no tickets required). Open to RU/WMCCU/NYPH/MSKCC community and guests.*

Honorary degrees recipients for Convocation 2001

At its Centennial Convocation, The Rockefeller University will award honorary degrees to six scientists who have made important contributions to their respective areas of science. Below are biographies of the recipients.

Biology
Christiane Nüsslein-Volhard

Presented by Hermann Steller

Christiane Nüsslein-Volhard, whose genetic analysis of the establishment of the embryonic body plan in *Drosophila* revolutionized the study of animal development, will be presented with the degree of Doctor of Science, *honoris causa,* for her contributions to the field of biology.

She received the 1995 Nobel Prize in Physiology or Medicine for her work with Eric Wieschaus, in which they conducted a screen for mutations disrupting the formation of the body plan of the *Drosophila* embryo. The two researchers were able to identify a large number of relevant mutations and sort them into a functional hierarchy, reflecting a stepwise refinement of the body plan. Their work represented the first systematic genetic dissection of the development of an organism, and it inaugurated a new era in developmental biology.

In her own subsequent work, Nüsslein-Volhard investigated the influence of maternal genes on the establishment of the embryonic body plan; the molecular cloning and analysis of several key maternal genes led to a comprehensive understanding of the principles of axis determination in the embryo, in particular the role of morphogenetic gradients. In 1991, she turned to the study of vertebrate embryology and again broke new ground, carrying out the first systematic search for mutations affecting zebrafish. This work was instrumental in establishing the zebrafish as an important genetic model organism.

Nüsslein-Volhard is currently director of the Max Plank Institute for Developmental Biology in Tübingen, Germany. In addition to the Nobel Prize, she has received many other honors and awards, including the Albert Lasker Award, the Alfred Sloan Prize of General Motors, the Rosenstiel Medal of Brandeis University, the Hans Krebs Medal of the Federation of European Biochemical Societies, the Otto Warburg Medal of the Federation of the German Society for Biochemistry and Molecular Biology and the Distinguished Service Medal from the German Order of Merit.

Physics
Freeman J. Dyson

Presented by Nicola N. Khuri

In 1998, *WIRED* magazine called Freeman J. Dyson "the deepest futurist alive—and the most trustworthy." Dyson, whose prescient sensibility has earned him a level of distinction in physics and in literature that few individuals achieve in their lifetime, will receive the degree of Doctor of Science, *honoris causa*, for his contribution to the field of physics.

As a pre-doctoral fellow at Cornell University in the late 1940s, Dyson made major contributions to our understanding of quantum field theories in general and electrodynamics in particular. His methods provide the best level of agreement between theory and experiment today for any science. In addition, he made seminal contributions to many other areas of physics, such as statistical mechanics, stability of matter and solid state physics.

Dyson is perhaps best known as a scientist with an ability to speculate keenly on the future of science and humankind. His "Dyson shell" was the first theory to suggest an artificial biosphere, or an alternative environment in which life can exist.

Among Dyson's numerous scientific awards are the Wolf Prize in 1981, the Enrico Fermi Award from the U.S. Department of Energy in 1995, and the Hughes Medal of the Royal Society, London, the Max Planck Medal of the German Physical Society and the J. Robert Oppenheimer Memorial Prize in 1968, 1969 and 1970, respectively. Dyson is also the recipient of twenty honorary degrees.

One of his seven books, *Weapons and Hope*, won the National Book Critics' Circle Award for Non-Fiction in 1984. Dyson's other books include *Disturbing the Universe* (1979) Origins of Life (1985; 2000, 2nd ed.) *Infinite in All Directions* (1988) *From Eros to Gaia* (1992) *Selected Papers of Freeman Dyson: With Commentary* (1996) *Imagined Worlds* (1997) and *The Sun, the Genome and the Internet* (1999). The Rockefeller University honored Dyson with its Lewis Thomas Prize honoring the scientist as poet in 1996.

Dyson was professor of physics for 45 years at the Institute for Advanced Study at Princeton where he is now professor emeritus.

Mathematics
David B. Mumford

Presented by Mitchell J. Feigenbaum

David B. Mumford, a mathematician who systematically breaks down intelligence for the purpose of understanding how thinking and perception can be modeled, will be presented with the degree of Doctor of Science, *honoris causa,* for his contributions to the field of mathematics.

Like other great mathematicians, Mumford has shifted areas of interest over the course of his career. He first worked in pure mathematics, in the area of algebraic geometry, from his graduate days in the early 1960s through 1983, as a leader in analyzing the space of curves and Abelian Varieties, for which he received the Fields Medal in 1974.

A MacArthur Foundation Fellowship in 1984 supported his shift to an area of applied mathematics known as pattern theory. Since then he has worked on machine and natural intelligence, following the statistical approach of pattern theory. Within this context, Dr. Mumford concentrates on visual perception, and creates probability models for the variables of vision.

Mumford received his A.B. degree in mathematics from Harvard University in 1957 and his Ph.D. degree in Mathematics, also from Harvard University, in 1961. He continued at Harvard as an instructor, associate professor and Professor, until he retired as Higgins Professor of Mathematics in 1997. Mumford was chairman of the Mathematics Department at Harvard from 1981 to 1984, and has held visiting appointments at the Institute for Advanced Study, Warwick University, The Tata Institute of Fundamental Science in Bombay, the Institut des Hautes Etudes Scientifiques and the Isaac Newton Institute of Mathematical Sciences in Cambridge. He is currently University Professor at Brown, a position to which he was appointed in 1996.

Chemistry
H. Gobind Khorana

Presented by Thomas Sakmar

H. Gobind Khorana is a visionary who advanced nucleic acid chemistry and helped to found the new field of molecular biology. He applied chemistry and biochemistry to address the key biological problems of the age—foremost being the elucidation of the genetic code, for which he shared the 1968 Nobel Prize in Physiology or Medicine. He will be presented with the degree of Doctor of Science, *honoris causa,* for his contributions to chemistry.

The first person to synthesize a functional gene—a tour de force that has been called one of the great triumphs of 20th century science—Khorana also devised methods for gene amplification, which were later rediscovered and named PCR. In addition, he developed the chemistry that would evolve into automated DNA synthesis on a solid support, modeled after the technique developed by The Rockefeller University's Bruce Merrifield for peptide synthesis. For the last 20 years, Khorana's research has focused on membrane receptors.

Born of Hindu parents in Raipur, a little village in Punjab, which is now part of West Pakistan, Khorana was the youngest of a family of one daughter and four sons. He applied to two departments at Punjab University, English literature and the honors course in chemistry. He was ultimately accepted in the chemistry program, despite avoiding a required interview because of his shyness. At the end of World War II, Khorana received a Government of India Fellowship and traveled to the University of Liverpool to study organic chemistry.

From 1948 to 1949, Khorana spent a postdoctoral year at the Eidgenössische Technische Hochschule in Zurich with Vladimir Prelog. He returned to England in 1950, where he obtained a fellowship to work with G. W. Kenner and A. R. Todd on the peptides related to the recently discovered adrenocorticotropic hormone. It was during this time that Khorana became interested in proteins and nucleic acids. In 1960, after 10 years at the University of British Columbia, Khorana moved to the Institute for Enzyme Research at the University of Wisconsin. He joined the faculty at the Massachusetts Institute of Technology in 1970 as Alfred P. Sloan Professor of Biology and Chemistry.

In 1968, Khorana, together with Robert W. Holley and Marshall W. Nirenberg, was awarded the Nobel Prize in Physiology or Medicine for "their interpretation of the genetic code and its function in protein synthesis."

Khorana made a "radical switch" in the middle of the 1970s, and became interested in biological membranes and in bacteriorhodopsin, the light-driven proton pump. This led to his interest in light transduction in the mammalian photoreceptor, rhodopsin, and in the photoreceptor cells in the retina.

Medical Sciences
Michael S. Brown and Joseph L. Goldstein

Presented by Jan Breslow

Michael S. Brown and Joseph L. Goldstein, who together discovered the receptor that controls cholesterol metabolism, will each be presented with the degree of Doctor of Science, *honoris causa*, for their contributions to the field of medical sciences.

Much of our current understanding of cholesterol's role in heart disease is based upon the collaborative work of Brown and Goldstein. By studying patients with familial hypercholesterolemia, an inherited condition that leads to premature heart attacks in one out of 500 people, they identified receptors that regulate the amount of cholesterol in cells, and low-density lipoprotein (LDL) cholesterol in blood.

LDL cholesterol is referred to as the "bad cholesterol," because LDL particles transport cholesterol from the liver to the walls of arteries, where they can then build-up and cause atherosclerosis, or heart disease. Brown and Goldstein showed that patients with familial hypercholesterolemia carry a defective copy of the LDL cholesterol receptor and consequently possess elevated levels of LDL cholesterol in their blood.

In addition to discovering these very important receptors, Brown and Goldstein also revealed how cholesterol is internalized by cells, as well as the mechanisms by which it signals intracellular events and regulates gene expression.

For this seminal research, which not only led to new treatments for preventing heart attacks, but also profoundly influenced the fields of cellular and molecular biology, they have received numerous awards, including the Albert D. Lasker Award in Basic Medical Research (1985), the Nobel Prize for Physiology or Medicine (1985) and the National Medal of Science (1988).

Brown is the Paul J. Thomas Professor of Molecular Genetics, and Goldstein is the Regental Professor and chair-

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ETCETERA

Save the Date:

The Rockefeller University's Anniversary/Retirement Dinner will be held on Thurs., Oct. 4, 2001. Invitations will be sent out closer to the event.

Seen around campus

Workers installed the entryway to the Rockefeller University Hospital this past week. The university's five-year strategic plan provides for the Hospital to be modernized and transformed into a center for molecular medicine.

Employee Assistance Program has new Web site

The Employee Assistance Program Consortium is a free, confidential counseling service available to all employees of the five consortium members (Hospital for Special Surgery, New York-Presbyterian Hospital, Rockefeller University and Weill Medical College of Cornell University). The program now has a new Web site (eapc5.com) where you can learn more about this service.

Convocation 2001 schedule of events

Wednesday, June 13, 2001

9:00 a.m.-11:00 a.m.
Rehearsal
Caspary Auditorium
(all students and marchers)

6:00 p.m.-8:30 p.m.
Reception
President's House
(2001 graduates and their families, presenters, symposium participants and other invited guests)

Thursday, June 14, 2001

11:30 a.m.-12:00 noon
Reception
Weiss Café (East Room)
(2001 graduates and their families, presenters and other invited guests)

12:00 noon-1:30 p.m.
Luncheon

Featuring presentation of the David Rockefeller Fellowship to an outstanding Ph.D. student.
Weiss Café (South Room)
(same guests as above)

1:45 p.m.-2:30 p.m.
Gowning
Weiss 301, 302 and 305
(all marchers)

2:30 p.m.
Procession
begins from Weiss Lobby to Caspary Auditorium

3 p.m.

CONVOCATION

Fifteen students will be receiving degrees, and six honorary degrees will be awarded, as well as the David Rockefeller Award.

Caspary Auditorium

5:15 p.m.

Photograph
Founder's Hall steps

5:30 p.m.

Reception
Peggy Rockefeller Plaza/Weiss Lobby

Friday, June 15, 2001

9:00 a.m.-3:15 p.m.
Symposium: "Launching a New Century of Discovery"
Caspary Auditorium
Featuring presentations by each of the six honorary degree recipients:

9:40 a.m. Christiane Nüsslein-Volhard, Max Planck Institute for Developmental Biology

10:25 a.m. David B. Mumford, Brown University

11:30 a.m. H. Gobind Khorana, Massachusetts Institute of Technology

12:15 p.m. Freeman J. Dyson, Institute for Advanced Study

1 p.m.-2 p.m. Lunch break

2 p.m. Michael S. Brown, University of Texas Southwestern Medical Center

Joseph L. Goldstein, University of Texas Southwestern Medical Center

3:00 p.m. Closing remarks
Arnold J. Levine

Doudna continued

from the American Chemical Society in 2001.

She received her B.A. in biochemistry from Pomona College and her Ph.D. from Harvard University, where she worked with Jack Szostak on the design of self-replicating RNA. Following a postdoctoral fellowship with Tom Cech at the University of Colorado, she joined the Yale faculty as an Assistant Professor in 1994. She was promoted to Associate Professor in 1997 and Professor in 1999. Doudna was a Lucille P. Markey Scholar, a Donaghue Young Investigator, a Searle Scholar, and a Beckman Young Investigator, and she is currently a fellow of the David and Lucile Packard Foundation. She joined the Howard Hughes Medical Institute as an assistant investigator in 1997 and was promoted to associate investigator in 2000.

Doudna's talk begins at 3:45 p.m. in Caspary Auditorium and is preceded by a tea in Abby Aldrich Rockefeller Lounge. All are welcome.

Convocation continued

doctorates to scientists who are outstanding researchers in their respective fields. The recipients are Michael S. Brown, of the University of Texas Southwestern Medical Center; Freeman J. Dyson, of the Institute for Advanced Study; Joseph L. Goldstein, of the University of Texas Southwestern Medical Center; H. Gobind Khorana, of the Massachusetts Institute of Technology; David B. Mumford, of Brown University; and Christiane Nüsslein-Volhard, of the Max Planck Institute for Developmental Biology. (For biographical information on the recipients, see page 3.)

After the ceremonies, the graduates will pose for the traditional class picture on the steps of Founder's Hall and will be toasted at a reception on the Peggy Rockefeller Plaza.

On Fri., June 15, the honorary degree recipients wll present a symposium entitled "Launching a New Century of Discovery." Their presentations will take place in Caspary Auditorium from 9 a.m. to 3:15 p.m.

For additional information, consult the university's Web site: www.rockefeller.edu.

Honorary degrees continued

man of the Department of Molecular Genetics, both at the University of Texas Southwestern Medical Center at Dallas. They first formed their long-time research collaboration while doing their residencies in internal medicine at the Massachusetts General Hospital in Boston from 1966 to 1968. Later, they joined the faculty of the Department of Medicine of the University of Texas Southwestern Medical Center, and in 1976, they were both promoted to professor. In addition, they have both held the titles of Regent Professor of the University of Texas (1985) and Distinguished Chair in Biomedical Sciences (1989).

Brown became the Director of the M.D./Ph.D. program in 1996, and Goldstein has been Chairman of the Department of Molecular Genetics since 1977.

Brown and Goldstein are members of the National Academy of Sciences, the American Society of Arts and Sciences, the American Philosophical Society, the Institute of Medicine and many other organizations. They also serve on several editorial boards and have each received numerous honorary degrees. Goldstein is a member of the board of trustees of The Rockefeller University.

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