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1994 Dana Award winners to discuss their work at neuroscience symposium at Rockefeller

A symposium on neuroscience featuring the 1994 winners of the Charles A. Dana Awards for Pioneering Achievements in Health will take place at Rockefeller Tues., Nov. 1. Among the winners is recently recruited Rockefeller professor Albert J. Hudspeth; the others are Philippe Ascher, Yves-Alaine Barde, John W. Olney, Hans Thoenen, and Jeffrey Watkins.

At the symposium, entitled "Science of Change: Neuroscience Enters a New Age," the honorees will speak about their research and answer questions. The first presentation in the program, which begins at 2:00 P.M., will be by Olney and Ascher, followed by Barde and Thoenen. Hudspeth will be the final speaker. In the 20-minute presentations, the scientists will discuss the research for which they are being honored.

Hudspeth, who is moving to Rockefeller from the Center for Basic Neuroscience Research at the University of Texas Southwestern Medical Center, Dallas, has been studying the structure and physiology of cells that aid hearing. He received the award for discoveries about the complex workings of the human ear that have opened promising avenues of clinical research into the prevention and treatment of hearing loss.

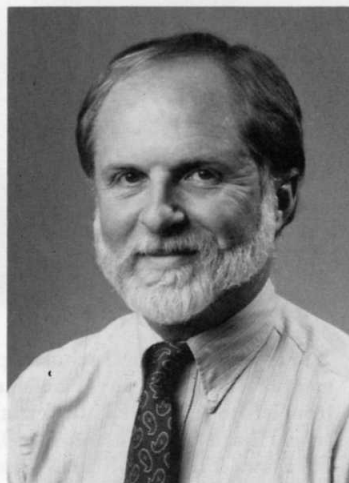
Ascher, Olney, and Watkins have received the award for contributions illuminating both the function of glutamate as a major neurotransmitter and the conditions under which it becomes toxic and kills nerve cells. As a result of their

work, therapies are under development to prevent brain cell damage from neurological conditions such as stroke, head trauma, and many neurodegenerative diseases.

Barde and Thoenen are being recognized for research on neurotrophic factors—the biochemicals essential to the growth and survival of nerve cells. Thoenen's demonstrations of the basic physiology of these factors set the stage for Barde's discovery of a new neurotrophin.

Three other Dana Awards are being given this year in a ceremony at the Plaza Hotel, which will take place after the symposium at Rockefeller. James Watson, who is currently director of the Cold Spring Harbor Laboratory, will receive the Charles A. Dana Distinguished Achievement Award in Health. In addition, Awards for Pioneering Achievements in Education are being given this year to Robert F. Sexton, executive director of The Prichard Committee for Academic Excellence, a citizen's policy group in Kentucky, and to Robert E. Slavin, co-director of the Johns Hopkins University's Center for Research on Education of Students Placed at Risk; Slavin has led the development and dissemination of an effective early education program.

Courtesy of Albert J. Hudspeth



Albert Hudspeth, a neuroscientist who has accepted an appointment as professor at Rockefeller, will receive a Dana Award Tues., Nov. 1.

According to the Dana Foundation, the purpose of the annual awards is "to bring attention to innovative ideas of proven potential" in health and education. The awards consist of \$50,000 and a medallion.

The symposium featuring the neuroscientists will begin in Caspary Auditorium at 2:00 P.M. A reception will follow in the Abby Aldrich Rockefeller lounge. All are invited to attend.

Lecturer to speak on motor neuron diseases

Donald L. Price, director of the Alzheimer's Disease Research Center at Johns Hopkins University School of Medicine, will speak on "Motor Neuron Disease and Animal Models: Mechanisms and Therapies" at the Friday lecture today (Oct. 28).

Price studies the mechanisms involved in aging, Alzheimer's disease, and amyotrophic lateral sclerosis (ALS). Today he will discuss his work on ALS, a motor neuron disease, the gene for which has been cloned and shown to encode for superoxide dismutase. Price has also studied the use of growth factors in preventing degeneration of motor neurons.

"Don Price is one of the foremost authorities on neurodegenerative diseases," said Vincent Astor Professor Paul Greengard, who will introduce Price today. "He approaches this subject both as a clinician and as a basic research scientist."

Price received his M.D. in 1961 from Albany Medical School, Union University, in Albany, New York. He was an intern and resident at New England Medical Center until 1963, when he went to Massachusetts General Hospital as a neurology resident. After completing his residency, Price served as a staff neurologist at the National Naval Medical Center in Bethesda, Maryland; a senior fellow at Massachusetts General Hospital; and a research fellow at Harvard University.

In 1971, Price became assistant professor of neuropathology at Harvard Medical School and director of the Neuropathology Laboratory at Boston City Hospital. Later that year, Price went to Johns Hopkins School of Medicine as director of the Neuropathology Laboratory and associate professor in the departments of pathology and neurology, and was promoted to professor in 1978. In 1983 he became a professor in the department of neuroscience, and in 1984, director of the Alzheimer's Disease Research Center.

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2 Ethics course

3 Darwin revisited

4 Playground ceremonies



Associate Professor Gilla Kaplan, Professor Ralph Steinman, Professor Robert Roeder, President Torsten Wiesel, and Richard Furlaud, chairman of the RU Board of Trustees (from left to right), stand together after the fall meeting of the Rockefeller University Council Wed., Oct. 26. Over 100 friends of the university and their guests gathered to hear a program on "Confronting AIDS: The Second Decade." The presentations by Kaplan, Steinman, and Roeder will be covered in a future issue of News&Notes.

Rockefeller labs host twelve clinical scholars

A full complement of 12 clinical scholars is now at work in the Rockefeller Hospital, the result of a programmatic effort to intensify clinical research at the university.

"The N.I.H. has called physicians who are both doctors and researchers an 'endangered species.' We share their concern, and so are particularly pleased that the clinical scholars program has expanded and met its ambitious quota," said Jules Hirsch, physician-in-chief at the Hospital.

In 1992, President Torsten Wiesel identified the expansion of the clinical scholars program as one of the university's priorities. Shortly thereafter, the Hospital received a challenge grant from the Carl J. Herzog Foundation to support visiting physician-scientists; the grant has been successfully matched. In May 1994, an institutional grant to the Hospital of \$27 million from the N.I.H. augmented its ability to host clinical researchers. The goal of a dozen scientific guests was attained this fall.

Clinical scholars are M.D.s and M.D.-Ph.D.s who stay for an inten-



The Hospital's clinical scholars program now has a full complement of 12 visiting physician-scientists. On the Hospital steps, from left to right, are Patrick Haslett, Gil Cu, Sandra Handwerger, Jules Hirsch (physician-in-chief), Nora Valeria Bergasa, Naomi Fukagawa, Steven Shiff, Ian Tang, Chithranjan Nath, and Yael Goldberg. (Not shown: Johan Hellmér and Lisa Hudgins).

sive period of research that integrates clinical practice and laboratory science. They describe their interests when they apply for a visit; if applicants are compatible with the laboratory groups based in the Hospital, they are invited to participate in the Hospital's enterprise—using molecular biology to explore information gathered in ward and clinic.

The 12 clinical scholars are conducting research in seven university laboratories. In the Hirsch-Leibel lab, five are looking at the effects of nutrition on disease: Naomi Fukagawa is tracing the impact of protein depletion on vulnerability to disease among the elderly; Johan Hellmér is working on genetic influences on metabolism as a factor in obesity; Lisa Hudgins is determining the source and control of human fat production; Steven J. Shiff studies agents in common foods and drugs that may affect the risk of colon cancer; and Yael Goldberg, who is collaborating with Shiff, is designing studies with colon cancer patients aimed at understanding how genes and environment each contribute to the disease.

A fifth visitor studying nutrition is in the Breslow lab. Chithranjan Nath is examining the interplay between dietary cholesterol and cholesterol produced by the body in an effort to understand the effects of metabolism on coronary artery disease.

In the Steinman lab, two scholars are seeking ways to treat people with AIDS. Ian Tang is trying to ascertain whether interleukin-2, an immune cell product, can boost immunity in people with HIV, and Patrick Haslett studies thalidomide as a potential palliative for AIDS symptoms.

Two visitors are researching problems associated with skin diseases. In the Tomasz lab, Sandra Handwerger has been examining antibiotic-resistant infection in epidermolysis bullosa, an inherited skin disease, while James Krueger, in the Carter lab, has been examining the pathogenic relationship between immune activity and epithelial cell abnormalities in psoriasis.

Finally, Nora Valeria Bergasa studies the relationship between opioids and itchiness in liver disease in the Kreek lab, and in the Zabriskie lab, Gil Cu is elucidating the role of plasmin in kidney disease induced by strep infection.

Said Hirsch, "If molecular biology is to fulfill its promise of a new era in medicine, we must continue and promulgate the art of moving between the hospital bed and the laboratory bench. It should not become a lost art. Through the generosity of the Hospital's friends and the interest of physician-scientists from around the world, we are now embarked on a broad range of imaginative work that will keep it alive."

N.I.H. ethics course begins next week

The ethical implications of scientific research will be addressed at the fourth annual Tri-Institutional Ethics in Research Course. The course consists of one half-hour lecture a week for four weeks, beginning Tues., Nov. 1.

The N.I.H. requires that all trainees on government grants be versed in the various aspects of ethical conduct in science. Pre- and postdoctoral appointees must attend the lectures and follow-up workshops. All members of the university community are welcome to the lectures. The schedule is:

- "Introduction," Tues., Nov. 1
Marguerite Lederberg, Memorial Sloan-Kettering Cancer Center
- "Ethics of Data Management," Tues., Nov. 8
Michael Caudy, Cornell University Medical College
- "Science as a Social Enterprise," Tues., Nov. 15
Carl Nathan, Cornell University Medical College
- "Ethics of the Use of Living Research Subjects," Tues., Nov. 22
Ronald G. Crystal, Cornell University Medical College

Lectures begin at 4:00 P.M. in the Rockefeller Research Laboratories auditorium, 430 East 67th Street. For further information, contact the Dean's Office, x8086.

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A portrait of Professor Emeritus Edward H. Ahrens Jr. was mounted in Hospital 128 last week. Staff at the Hospital drank a champagne toast in its honor. The oil painting, by Ahrens' daughter, Burgess Russell, shows him wearing full academic regalia. And the expression he's wearing? Ahrens commented: "I look like the curmudgeon I am. My wife Bonnie says it's 50 percent 'prove it to me' and 50 percent, 'sez who?'"



Stephen Jay Gould on the evolution of Darwinism

At last Friday's afternoon lecture, paleontologist Stephen Jay Gould spoke to a full auditorium on "The Structure of Evolutionary Theory." Here, News&Notes presents highlights.

On Darwinian explanation

Darwinism is a lot of things in popular language, but as a scientific theory, it is the theory of natural selection. There is a "least common denominator" set of minimal commitments underlying the theory of natural selection. These are: First, its creativity—that variation is just copious, random, raw material, and therefore the creative force, in any legitimate vernacular sense of that word, is natural selection. Second, its level of operation—that natural selection almost always works on organisms. And, third, its extrapolability—that natural selection is not merely an effective and operating force in local populations, but can do the work required over hundreds of millions of years. Strict Darwinian explanation is not adequate to account for the history of life.

On natural selection as a creative force

Francis Galton uses a beautiful metaphor in his book, *Hereditary Genius*, published in 1869. He says that in Darwinism, organisms are like billiard balls. The pool cue (natural selection) hits the ball and, depending on the input and the table (the environment), the ball moves. The ball's form enables it to move, but it's not controlling the direction of that move.

But, Galton says, suppose that organisms are more like polyhedra. If organisms are like few-faceted polyhedra, then they sit on one

side, which is their internal constraint of developmental and genetic architecture, and they still don't move unless something hits them. But when the pool cue of natural selection hits, the ball doesn't go anywhere that selection might want it to. There is pushback—constraint—from the organism, and that constraint is also creative.

I think that's a very powerful metaphor which is fundamentally correct: The organism is a much fewer-faceted polyhedron than we ever thought. Strict adaptationists never thought that there would be preserved detailed genetic homology over 500 million years between phenotypically different animal phyla, and yet there is. There is real homology in complex developmental architecture.

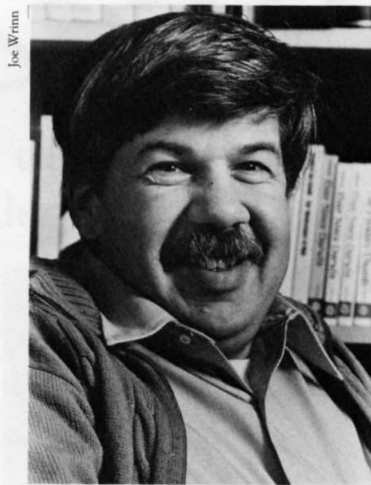
On levels of natural selection

One of the most interesting revisions of Darwinism in the past 20 years has been the recognition that although Darwin is certainly right, and natural selection on organisms is a powerful force, he was not right in saying that there is near exclusivity of selection at the organism level. There is also genuine selection at the gene level and at the species level.

What does it take to be a Darwinian agent? You need to have a birth point, a death point, and a reasonable stability during your life. You have to have children, and your children have to look like you. Genes have those five properties, and species do, too.

On the extrapolability of natural selection

Will Darwinian extrapolative



Stephen Jay Gould discussed evolutionary theory at Rockefeller last week.

uniformity suffice? I don't think so.

Take mass extinction. It's not just that asteroids hitting the earth pack some kind of journalistic wallop. They really do challenge a fundamental precept of Darwinian theory—namely, that natural selection is an effective patterning agent for the full history of life in its development through time.

There's nothing in asteroidal impact that's anti-Darwinian. Clearly, if an asteroid is going to strike the earth, not all organisms are going to be able to adapt fast enough. That's fully Darwinian. But if, in fact, life or death at these catastrophic moments is a fortuitous result of features you evolve for other reasons under natural selection, then a component is added to patterning in the history of life that cannot be read out of this extrapolative Darwinian argument. And

Darwinism, though operative and important, is not fully explaining the pattern.

On the impact of fate

Let me just put it to you as directly as I can, where it hits home.

Why are you here? Why are we all here today? Mammals arose at the end of the Triassic period, the same time as dinosaurs did. Mammals lived for 100 million years in the interstices of the dinosaurs' world. They never usurped any of the ecological space that was apparently entirely dominated by dinosaurs for 120 to 130 million years. Then something hit the earth 65.3 million years ago, apparently wiping out fairly healthy and flourishing dinosaurs, and giving mammals a chance.

It's only been 60 million years since then. There's no reason to think that since dinosaurs dominated mammals for the 130 preceding million years, that absent the ultimate catastrophic bolt from the blue, dinosaurs would still not be dominating mammals, which would still be rat-sized creatures in the nooks and crannies of the dinosaurs' world.

Without that asteroid, there's no reason to think we'd be here. Dinosaurs had no tendencies toward greatly increased intelligence, nor is it likely to have been possible within their body plan. In other words, there is no extrapolative adaptationist story that will tell us why mammals eventually made it and dinosaurs died. It's a fortuitous result of an unanticipatable large-scale catastrophic impact of the nonuniformitarian sort that Darwin really hated.

Anniversary and retirement awards: Celebrating service through the years

The following employees will be honored at the Anniversary-Retirement Dinner Thurs., Nov. 3. The dinner is invitation only.

45 Years

R. Bruce Merrifield
Igor Tamm

40 Years

Jules Hirsch
David Mauzerall
Eugene Roth
Philip Siekevitz

25 Years

Veronica Abrams
Martha Bodden
Kenneth Case

Oscar Irizarry
Carol Moberg
Patsie Moore
Neftali Rivera
Heidemarie Robinson
Franklin Santos

Retirees

Enrique Alvarez
Dorothy Barrett
Samuel Bispham
Octavius Ferebee
Alva Holloway
Dewitt Harrison
Mary Ledoux
Luce Milord
Gloria Rapley-Davis
Harriet Seidler
Timothy Shea

The following employees will be honored at the Employee Recognition Award Program Thurs., Nov. 10 at 3:00 P.M. in Abby Aldrich Rockefeller Lounge. All are welcome to join.

20 Years

Norma Akande
Marva Allen
Yolanda B. Alvarez
Joyce Buffa
Isaiah Curry
Mary Margaret Hickey
Leise Holstein
Veta Lebechi
Mabel McGray
Edilberte Palustre
Bindu Patel

Cynthia Payne
Catherine Rogers
Marianne Rolditt-Georgieff
Anne Marie Scully
Eleana Sphicas
Irena Zielinski-Large

10 Years

Carmen Gloria Balmaceda
Nina Bhardwaj
Jan Breslow
Mona Buzak
George Cuevas
Patricia Dash
Edward Deas
Veronica Delph
Celeste Dubosky
Francis Duffy
Li-Shin Huang
Pearl Hutchins
Maren Imhoff

James Jonas
Audra Labella
Frances Lawrence
Shao-Hui Li
Gualbert Louisy
Daphne Massiah
Svetlana Mojsov
Campbell Muir
Vance Park
Peter Peirce
Teresa Sanocki
Byron Scatliffe
Peter Sekac
Sanford Simon
Jonathan Smith
Patricia Tellerday
Yuk-Wah Tsang
Joseph Tynan
Annemarie Walsh-Mullen
Mary Olha Windels
James Young

Children's School to inaugurate playground in lunchtime ceremony

The recently installed playground will be formally handed over to the university by the Children's School Board of Directors in a ceremony Thurs., Nov. 3.

"We are delighted with the new playground. It's a wonderful facility. We welcome everyone who would like to join us in thanking our dedicated parents, President Wiesel, and the university community, as well as Jim Sullivan, Bob Francis, and George Candler, who gave us invaluable assistance," said Marjorie Goldsmith, director of the Children's School.

The event will take place from 12:30 P.M. to 1:15 P.M., with official remarks at 1:00 P.M. Apples and cookies will be offered, and six-year olds will demonstrate how to use the new equipment, which was

designed by Playground Environments.

Solemn words will also be part of the ceremony, when the new sandbox is dedicated to a Children's School mother, Myriam Juro, who died last year while her son, James, was a student in the Blue Room. "Since James loves water and sand, we decided that naming the sandbox was the most appropriate way to commemorate his mother, Myriam," said Goldsmith.

Fund-raising for the play structure is an ongoing project of the board of directors of the parents' association. Parents volunteered time and labor to build the playground, which was financed by the university as well as donations from parents.

All are invited to participate.



All work and then play. Volunteer parents built the elaborate new playground last summer (left). Children's School students quickly mastered it.



Potpourri



Soprano Kyoko Saito will perform at the Tri-Institutional Noon Recital today (Oct. 28).

Bake and violet sale

A bake and violet sale to benefit The Rockefeller University Children's School will be held in the Tower lobby from 8:30 A.M. to 3:30 P.M. today (Oct. 28).

Tri-Institutional Noon Recital

Kyoko Saito, soprano, will perform works by Bizet, Gounod, Korngold, Yamada, Dan, Nakada, and Poulenc at the Tri-Institutional Noon Recital today (Oct. 28). Saito will be accompanied by pianist Dalton Baldwin. The concert, to be held at noon in Caspary Auditorium, is free. All are welcome.

Friday film

Forbidden Planet (U.S.A., 1956), directed by Fred McLeod Wilcox, will be shown today (Oct. 28) at 7:30 P.M. in Caspary Auditorium. The film, a science fiction classic, stars Anne Francis and Walter Pidgeon. Admission is free.

Fall back

Remember to set clocks and watches one hour earlier Sun., Oct. 30. Computers, fax machines, and answering machines should be reset also.

Clinical Research Seminar

Howard Fillit, professor of geriatrics, medicine, and neurobiology in The Henry L. Schwartz Department of Geriatrics and Adult Development at Mount Sinai Medical Center, will address the question "Will Understanding the Pathogenesis of Alzheimer's Disease Be Sufficient for Effective Drug Development?" at the Clinical Research Seminar, Wed., Nov. 2, at noon in Nurses Residence 110B.

Health and Wellness Lecture

Elizabeth R. de Oliveira e Silva, research associate in the Breslow lab and associate physician, will discuss "The Cholesterol Issue: An Update" at the Health and Wellness Lecture Wed., Nov. 2 at noon in Caspary Auditorium.

Award

Vincent Astor Professor James E. Darnell, Jr. will receive the Paul Janssen Prize in Advanced Biotechnology and Medicine today (Oct. 28). The prize will be presented to Darnell at the symposium "Transcriptional Control in Growth and Development," sponsored by the Center for Advanced Biotechnology and Medicine in cooperation with Johnson & Johnson and Janssen Pharmaceutica. The symposium is being held at Rutgers, The State University of New Jersey.

Children's School applications

The Rockefeller University Children's School and Infant-Toddler Center (ITC) are accepting applications for the academic year beginning Sept. 1995 for children from three months to five years old. In addition, the ITC currently has three openings for infants (three to twelve months old) for this academic year. For further information, contact Marjorie Goldsmith, x8580.

Tricks and treats

The Tower cafeteria will celebrate Halloween Mon., Oct. 31 with pie and candy giveaways and a "Count-the-Candy-Corn" contest. Horror movies will also be shown all day on televisions located throughout the cafeteria.

Price

(continued from page 1)

Price is a diplomate of the American Board of Neurology and Psychiatry and the American Board of Pathology. He is the author or coauthor of nearly 400 publications dealing with the biology of disease in humans and animal models. Price serves on the advisory boards of several federal and private committees, and is the recipient of many awards, including The Metropolitan Life Foundation Award for Medical Research, the Soriano Award for Outstanding Contribution to Neuroscience, and the Potamkin Prize for Alzheimer's Disease Research.

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.



Courtesy of Donald L. Price

Neurologist Donald Price lectures today (Oct. 28).