

INSIDE SALK

Institute Receives Record \$30 Million Gift



An anonymous donor has made a \$30 million donation to the Salk Institute, providing the largest single gift in the history of the Institute.

The donor has designated the gift to “grow the general endowment of the Institute so that it can maintain strength and flexibility in pursuing the best basic science and most promising scientists. Basic research in biology is an investment in human beings and in humanitarianism. Salk is in a unique position to contribute and this donor is proud to contribute to the future of the Salk.”

This transforming gift will have an enormous impact on Institute operations. Bolstering the Institute’s endowment ensures the Institute’s future financial health and its

ability to respond to the demands imposed by rapidly progressing science. Interest generated from the endowment allows the Institute to make strategic investments in long-term programs, ranging from attracting new faculty to supporting emerging lines of research.

Interest revenue also covers the costs of research not supported by research grants. These costs include but are not limited to the purchase of scientific equipment, the salaries of some postdoctoral trainees and graduate students, the establishment and operations of core facilities used by multiple investigators and their students, and the costs of hosting scientists to visit the Institute to exchange information.

The gift comes in the

wake of a series of significant research accomplishments at the Salk Institute. During the past several months alone, Salk scientists have made important advances in the understanding of Alzheimer’s disease, Lou Gehrig’s disease, AIDS, obesity, heart disease, cancer, and diabetes.

See President’s Message on page 11.

The Impact of Salk Science

■ Two Institute researchers ranked among the top 25 most-cited scientists worldwide for their work’s influence, according to an organization that monitors the impact of scientific publications.

The Institute for Scientific Information (ISI), in the >>



Impact continued

September/October edition of its magazine *ScienceWatch*, listed Professor Ronald Evans as the 10th most-cited researcher, and Professor Tony Hunter as the 22nd most-cited among scientists in all disciplines. The rankings evaluated the number of times the scientists' papers were referenced by other publications over the last 20 years. Citations are an important measure of the value of a scientist's work and reflect the work's impact on scientific understanding.

Evans' 442 papers, published between 1983 and 2003, were cited by scientists 57,630 times, and Hunter's 481 papers were referenced 46,313 times. Evans' research focuses on molecules in cells that regulate metabolism, while Hunter studies how proteins in cells become activated to carry out a wide range of cellular functions.

In addition, ISI lists eight additional Salk faculty members as "highly cited" scientists from 1981 to 1999. They include Fred H. Gage, Nobel laureate Roger Guillemin, Stephen Heinemann, Dennis O'Leary, Catherine Rivier, Paul Sawchenko, Wylie Vale, and Inder Verma. "Highly cited" scientists represent the top half of one percent of all researchers worldwide.

The survey follows an announcement earlier this year that ranked the Salk at least first or second in various categories among the world's leading research institutions for total citations per paper published in the fields of molecular biology and genetics, further reflecting the impact of Institute scientists on a national and international level.

Primed to Fight Cancer

A little molecular planning by a versatile protein that suppresses tumor formation helps prevent cancers, Professor Beverly Emerson's team in the Regulatory Biology Laboratory found. The protein, p53, is the most commonly mutated protein of the tumor suppressor gene family and is strongly implicated in the cause of many cancers. Knowing how to halt these mutations (and preserve p53's function) could help combat a wide range of cancers.



Beverly Emerson

Emerson reported in the October *Molecular Cell* that p53 binds to its target genes to regulate cell growth before any outside stress, such as ultraviolet light or carcinogens, acts on those genes. The work reverses prevailing theories about p53, which held that the protein didn't act until triggered by stressors.

"Since p53 controls one gene that functions in cell cycle arrest and another in programmed cell death, its actions have significant consequences for fending off cancer," says Emerson.

The team found that p53's planned approach controls a two-step process in halting abnormal growth. First, it can arrest the cell cycle, which doesn't kill the cell but stops the excess growth. If arrest doesn't work, then p53 is set up to trigger cell death. Cancer can be caused when p53's gene is mutated, removing this key regulatory component of growth.

Diabetes' First Steps

By looking at how fat competes with sugar for cells' energy needs, a Salk research team has identified the first molecular steps that can lead to adult diabetes.

The study, in the November 13 issue of *Nature*, for the first time identified the molecular switches that decide whether the liver stores or burns fat. Knowledge of these switches may provide new avenues for treating adult-onset diabetes, which affects about three percent of Americans.

Marc Montminy, professor in the Clayton Foundation Laboratories, and his team discovered in mice the chemical relay that controls whether the body burns sugars or fats for energy. Too much fat released into the bloodstream for burning impedes insulin's ability to promote the uptake of glucose. The body tends to then burn fat rather than sugar, making it harder for insulin to deliver sugar to cells. This process results in insulin resistance and, eventually, diabetes.

While scientists have known how this relay can, in diabetes, result in too much sugar, they did not know how the body simultaneously produced high levels of fat in the blood.

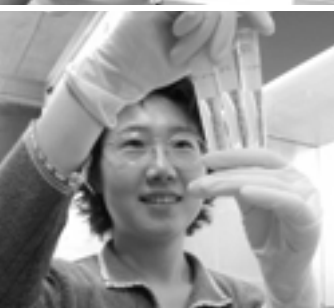
"Insulin resistance is a predictor of diabetes; like a battery-powered remote control, insulin's ability to process sugars can wear down with repeated use. Eventually, it becomes progressively difficult for insulin to get sugar into muscle and other cells," Montminy says.

Montminy studies fasting, which triggers the same responses in the body as human diabetes — increased sugar production and fat burning. Under fasting conditions, fats, in the form of free fatty acids, enter the blood and end up in the liver, where they are either stored or burned.

A molecule called CREB, short for cAMP Response Element Binding protein, which was originally discovered by Montminy, blocks the production of a switch protein, called PPAR-gamma, which normally promotes fat storage. By shutting off the PPAR-gamma switch, CREB ensures that the free fatty acids are burned and not stored. CREB may then contribute to insulin resistance by promoting the accumulation of free fatty acids in the blood. Inhibiting CREB under diabetic conditions might lead to drugs that provide a more effective diabetes therapy.



Marc Montminy



“Insulin resistance is a predictor of diabetes; like a battery-powered remote control, insulin's ability to process sugars can wear down with repeated use.”

“ We believe that PPAR-delta normally acts as a molecular soldier to guard against inflammation and disease. ”

Slowing Heart Disease

A tiny switch inside immune cells can curb hardening of the arteries, according to a study published in the October 17 issue of *Science* by Professor Ron Evans and his colleagues.

The switch, which helps regulate the body's inflammatory response, could be used to develop drugs to treat heart disease, currently the number one killer of Americans. About one million people in the U.S. die from some form of heart disease every year.

Evans and his colleagues found that the regulatory switch, a molecule called PPAR-delta (short for peroxisome proliferator-activated receptor and a relative of PPAR-gamma studied by Marc Montminy), cut heart disease in half in test animals when activated.

“Immune cells promote inflammation, which stimulates the transport and absorption of fat that triggers the early stages of heart disease,” Evans says. “Our study uncovered the molecular switch that regulates this process and reveals how the inflammatory response, designed to fend off invading agents, can go awry and encourage atherosclerosis and heart disease.”

“We believe that PPAR-delta normally acts as a molecular soldier to guard against inflammation and disease. Unfortunately, these good effects are compromised by high fat diets, poor exercise, infections, and stress, which could either turn off the switch or make it ineffective,” Evans adds. “Chemicals that regulate the activity of PPAR-delta could form the basis of a new drug to reduce atherosclerosis and be a possible therapy for heart disease.”



Ron Evans

SALK IN THE NEWS



Sydney Brenner

■ Distinguished Research Professor **Sydney Brenner** wrote an editorial on the need to develop human models for biological research, and on how molecular biology may help create important innovations in world-wide public health programs. The editorial, titled “Humanity as the Model System,” appeared in the October 24 issue of *Science*.

■ *Newsweek* included Salk researcher **Teresa Doyle** in their article “Girls, Boys and Autism.” The September 8 issue discussed the varying forms of autism and how these forms contrast with other developmental disorders, including Williams Syndrome, a rare disorder that Doyle and Salk Professor **Ursula Bellugi** investigate.

■ Professor **Fred H. Gage** discovered a new gene therapy treatment for mice with ALS (or Lou Gehrig’s disease). The story



Fred Gage

was picked up by NBC’s *Today Show* and appeared in magazines, newspapers, and other media around the world, including *Science*, *the Wall Street Journal*, *Washington Post*, *BBC News*, *The Independent* (London), *London Telegraph*, *Dallas Morning News*, *San Diego Union-Tribune*, *San Francisco Chronicle*, *Orange County Register*, *Scientific American*, *ScienceDaily Magazine*, *Baltimore Sun*, *Boston Globe*, *Newsday*, *Philadelphia Inquirer*, *Miami Herald*, *Better Humans* (Canada), CNN Money and CNN.com, *Bio World Today*, and the *Atlanta Journal-Constitution*. The story received local television and radio coverage in Detroit, Hartford-New Haven, Seattle, and Phoenix. Gage also wrote an article for *Scientific American* on the possibility the brain may be able to repair itself. In recent years, Gage’s lab has been documenting the growth of new neurons in the adult brain.



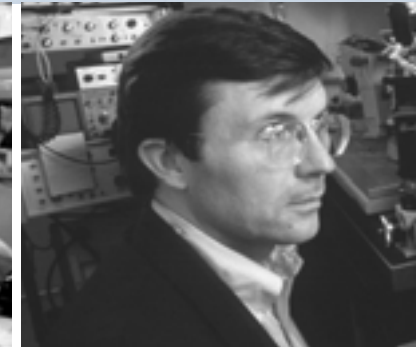
Tony Hunter

In addition, Gage weighed in on the ongoing debate about the ethics of using stem cells in *U.S. News & World Report*.

■ Professor **Tony Hunter** appeared in the *San Diego Union-Tribune* July 31 and *Science News* August 2 for his research on the enzyme Pin1. The study was the first to suggest that neurodegenerative diseases like Alzheimer’s can be linked to the activity of this enzyme. This molecule may provide a therapeutic target in the treatment of Alzheimer’s.

■ The *New York Times Magazine* included an article on October 26 about an upcoming film on **Louis Kahn**, Salk Institute architect. The film, *My Architect*, by Kahn’s son, **Nathaniel**, is a documentary about his father’s life.

■ Salk postdoctoral fellow **Sara Mednick**, who works in the



Terry Sejnowski

Systems Neurobiology Laboratory, and fellow researchers received news coverage in August for discovering that a 60- to 90-minute nap is as good as a night’s sleep for restoring visual alertness. The findings were made while Mednick was a graduate student at Harvard University. The story has been covered by Bloomberg News, Reuters, NPR, the *Dallas Morning News*, and television stations in Portland, Ore., and Dallas.

■ The *New York Times* business section featured IBM’s recent focus on genetic research for development of new business and included comments by Professor **Terry Sejnowski**. He discussed the effects of genetics in this area, including cost-effective measures and some of the tradeoffs encountered when deciding on data systems.

Sejnowski was also mentioned in the September 25 *La Jolla Light* for his work on brain function. >>

Sejnowski has proposed that the brain functions as a dynamic and adaptable network, rather than a fixed system. And Bloomberg News quoted Sejnowski regarding the recent California gubernatorial recall election and the high number of candidates. He said, "People will tend to vote for the first person who reaches their threshold."

■ San Diego is known as "Biotech Beach" for its successful biotech industry. The *Miami Herald* quoted **Bruce Stevenson**, vice president for academic affairs, in an October 19 article on Florida's hope to duplicate such an environment. In addition, the September 17 issue of the *St. Louis Post Dispatch* stated that San Diego's biotech industry serves as a comparison for evaluating the success of biotech in other cities.

■ The *La Jolla Golden Triangle* featured an article on the eighth annual **Symphony at Salk** in the Society section on October 16. In addition, the September 25 *La Jolla Light* contained an article on the event.

■ Salk Professor **Inder Verma** discussed with *India West* his belief that biotechnology is the future of medicine. Of biotechnology, Verma said "it does something not only for curing diseases but improving the quality of life."

■ *San Diego Magazine* featured *Forbes* magazine's "Best Places" issue, in which San Diego received high marks as a "biotech mecca." The Salk Institute was noted as one of a cluster of research institutes contributing to the excellence of San Diego's biotech industry.

Findings Detail Genetic Links to Cancer

For the first time, Salk scientists have implicated a group of proteins required for DNA duplication with a new activity: accurate chromosome movement during cell division. The findings, published in the December issue of *Nature Cell Biology*, may help explain the genetic influences behind some forms of cancer.

Studying a form of yeast first isolated from East African beer, Susan Forsburg, associate professor of molecular and cell biology, Salk postdoctoral researcher Julie Bailis, and colleagues in Scotland and France found that

proteins known to regulate DNA copying, a process that must occur before cell division, also regulate the cell's separation of chromosomes into newly created "daughter" cells.

"We found that proper regulation of genetic information is all about timing," Forsburg says. "The same molecular mechanism that activates DNA synthesis also regulates the precise assembly of proteins and DNA into specialized chromosome structures called centromeres, required for chromosome separation later in cell division.

Both processes are important for normal cells, and both can go awry in cancer." Forsburg and her team found that proper DNA synthesis and assembly of centromeres are both controlled by the regulatory protein Hsk1/Cdc7 kinase, and its partner Dfp1.

"This work shows us that the processes are linked, even though they occur at different times during cell division," she says.



Susan Forsburg

Joanne Chory, professor in the plant biology laboratory, has been selected by *Scientific American* for inclusion in the Scientific American 50. The award honors 50 individuals and organizations for accomplishments that demonstrate technological leadership. Chory was selected as a “Research Leader in Agriculture” for her work pinpointing a gene that may allow shaded plants to grow more efficiently, possibly leading to an increase in crop yield.



Joanne Chory

Ronald Evans, the March of Dimes Chair in Developmental Biology at the Institute, was named to the Institute of Medicine. Part of the U.S. National Academies, the Institute of Medicine selects members who have made major contributions to health and science. Evans was one of 65 leaders named as a member of the Institute. Members are expected to serve on Institute committees and help prepare reports that guide the U.S. government on health and science issues. Established in 1970 by the National Academy of Sciences, the Institute of Medicine currently has about 1,400 members.



Ronald Evans

Evans also received the prestigious Keio Medical Science Prize in December. In 1994, Keio University established the Keio University Medical Science Fund to recognize and encourage efforts in medicine and the life sciences that contribute significantly to the improvement of humankind.



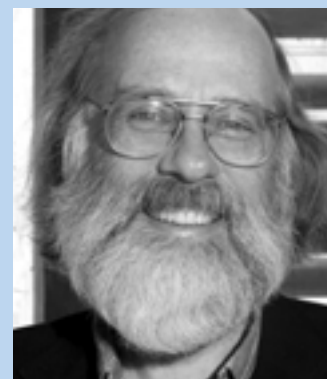
Dennis O'Leary

Dennis O'Leary, professor of molecular neurobiology, has been elected an AAAS Fellow by the Council of the American Association for the Advancement of Science. Beginning in 1874, the council has elected fellows each year

whose “efforts on behalf of the advancement of science or its applications are scientifically or socially distinguished.” O'Leary was honored for contributions to understanding the molecular mechanisms of mammalian brain development.

O'Leary also was selected as the 2003 C.U. Ariens-Kappers Award Laureate. He was presented with a medal and gave a keynote lecture at the Royal Netherlands Academy of Arts and Sciences on August 25. Following the lecture, a reception and dinner was held in his honor at the Amsterdam Historical Museum.

Tony Hunter, a professor in the molecular and cell biology laboratory, received the 2003 City of Medicine Awards from Durham Health Partners, Inc. Established in 1988, the program honors individuals or organizations for exemplary achievements in medicine, health, and biomedical sciences. Salk nonresident fellows **David Baltimore**, president of the California Institute for Technology, and **Elizabeth Blackburn**, a professor at the University of California, San Francisco, also received 2003 City of Medicine Awards.



Tony Hunter

Management Workshop Series Kicks Off

■ The Salk Research Fellow's (SRF) new development workshops for postdoctoral trainees have been established to address a curious problem: While postdoctoral fellows are well trained in laboratory techniques, they are often not conversant in skills needed to run a lab, like budgeting, presentation, and management.

Created in the wake of the successful Science Career Expo in June, the monthly workshops include information on networking, resume and *curriculum vitae* writing, and the logistics of federal funding.

"The expo last summer highlighted the fact that postdoctoral and student training involves specialized technical skills," says SRF coordinator and postdoctoral fellow Sophia Colamarino. "However, these are not skill sets used on a daily basis later in our careers. We developed this series to ease the transition to running one's own lab."

The Salk Society of Research Fellows is composed of graduate and postdoctoral trainees, its goal being to foster a sense of community for Salk trainees. SRF activities include SalkFEST, the Salk Ambassador Program, an Annual Career Symposium, monthly peer research talks, and an annual Poster Day.

DEVELOPMENT NEWS

Jacobs Gift Establishes Center for Computational and Theoretical Biology

■ The Salk Institute has received a \$7 million gift to establish a new center that will use computer-based computational biology methods to help unravel the complexities of the brain.

The goal of the center will be to help Salk scientists organize the wealth of information that is now available about the genes and proteins that regulate nerve cell activity as well as the networks of nerve cells that regulate brain function. Named to honor Salk Nobel laureate Francis Crick, the Center will build upon Crick's important work during the past two decades centering on consciousness and cognitive processing within the brain.

Joan and Irwin Jacobs provided the gift and have agreed to lend their name to the center. "We are proud to invest in the Crick-Jacobs Center for Computational and Theoretical Biology and to honor the work of Francis Crick and his colleagues at the Salk Institute," said Irwin Jacobs, who is the co-founder, chairman of the board, and chief executive officer of San Diego-based Qualcomm Inc., an international leader in digital wireless technology. "The Salk Institute is world-renowned for conducting basic research in the neurosciences, and we believe the cadre of current Salk faculty members as well as new faculty attracted to the Institute as a result of this innovative program will take our knowledge of the brain to new levels."

The Crick-Jacobs Center will have a profound impact on our

understanding of the brain. Work at the center will ultimately lead to a new understanding of information processing in the brain as well as brain diseases, ranging from degenerative diseases, like Alzheimer's and Parkinson's diseases, to psychiatric illnesses.

The center will allow computational biologists to mine the enormous amount of data on the composition of genes and proteins in the brain as well as the neural networks that regulate information processing. The ultimate goal will be to generate theoretical models to explain how the brain works, which then will be tested in Salk laboratories by experimental neuroscientists. To advance this work, the Institute is in the process of recruiting up to four new faculty members to staff the center. See *President's Message* on page 11.

Scandling Creates \$1 Million Chair

■ William F. Scandling, philanthropist and co-founder and retired president of Saga Corporation, has made a \$1 million gift to establish a developmental chair at the Salk Institute. The gift will fund early-stage research for an assistant professor at the Institute for two years, providing critical seed money during a time when young professors are also seeking federal grants.

Scandling and his partners, who were college roommates, established Saga Corporation in 1948 as a small institutional food service business, which originally served the needs of their alma mater, Hobart William Smith College (HWSC). They eventually

transformed the company into a leading food service corporation with more than 400 university, college, and hospital accounts with nearly \$1 billion in sales. The company was purchased by the Marriott Corporation in 1986. He has been a member of the board of HWSC since 1968 and served as chairman for 12 years. He was also on the Board of Trustees of Deep Springs College for eight years. He was a director of Empire Broadcasting Corporation and president of Auburn Broadcasting Corp. from 1975 to 1982, serving as director of Auburn Broadcasting until 1986.

A resident of Atherton, Calif., Scandling has served on the Salk International Council since 1972. He is president of the Scandling Family Foundation, which he established in 2000.

Booz-Allen-Hamilton Funds Lecture Series

■ The international consulting company Booz-Allen-Hamilton has donated \$35,000 to seed an endowment to support a named lecture celebrating the 2002 Nobel prize awarded to Sydney Brenner.

This lecture will be part of the Institute's Jerome Kohlberg Nobel Lecture series, which already includes lectures named in honor of three other Salk Nobel Laureates: Francis Crick, Renato Dulbecco, and Roger Guillemin.

Daniel Lewis, a Salk International Council member, spearheaded the effort to provide support for the lecture series. Lewis, a resident of La Jolla, is president of worldwide commercial business for Booz-Allen.

Three New Staff Members Join the Institute

Virginia A. McFerran joins the Institute as its new chief information officer, responsible for managing computing, telephone, multimedia, libraries, and other information technology issues.

McFerran came to the Salk from W Technologies, where she was the firm's president. W Technologies handled technology planning and strategy issues for clients ranging from the University of Washington to Amgen to Microsoft.

Previously, McFerran was chief information officer for The Fielding Institute, and chief of technology and operations for the Ecogenetics Institute at the University of Washington. She also worked for Microsoft Corporation in the Applications Division.

McFerran holds a master's degree in public administration with an emphasis on technology from Seattle University and a bachelor's degree from the University of Georgia. She serves on the board of the Society of Information Management and is involved with a number of technology associations.

Ann Miller is the Institute's new director of volunteer development and special projects in the Institute Relations office. Miller is responsible for enhancing the Salk's visibility to volunteers, donors, and community leaders, and for providing overall leadership in conveying the Salk's mission to the local, national, and international communities.

Miller works with a number of Institute and community leaders on programs at the Salk, including Symphony at Salk, the Back to Basics public lectures, the speaker's bureau, Institute tours, and regional events.

Prior to joining the Institute, she served as a director of philanthropy for the past year at The San Diego Foundation, and vice president and director of business development for International Development Opportunities, a Washington, D.C., firm that advised companies interested in securing contracts with the World Bank, Inter-American Development Bank, and other development banks. She has worked for



Virginia A. McFerran



Ann Miller



Charlene Pryor

Citibank and the American Symphony Orchestra League in Washington.

Miller received a master's degree from the Johns Hopkins School of Advanced International Studies, and a bachelor's degree from Smith College.

Charlene Pryor is the new director of estate and gift planning in the Institute Relations office. She works with individuals who are interested in including the Salk in their trusts or estates. Pryor is responsible for engaging prospective and existing donors, interacting with volunteer groups, executing internal and external events, and enhancing the Salk's Partners in Research program.

Before coming to the Salk, Pryor was vice president of philanthropy for The San Diego Foundation, where she was involved in securing an \$85 million gift — the largest endowment in the foundation's history. Before that, Pryor worked with Continental Rehabilitation Hospital and Sharp Healthcare.

She received a bachelor's degree from the University of Wisconsin-Stout, has studied gerontology at San Diego State University, and is currently completing her certification in planned giving at the American Institute of Philanthropic Studies.

INSIDE SALK

Outreach

Alumni Symposium

■ In September, Salk science alumni returned to the Institute to participate in the first alumni symposium, “The Biology of Growth and Development.” Alumni came from as far away as Tokyo, Munich, and Santiago to visit with friends and faculty and to hear an exciting array of scientific presentations from fellow alumni.

The symposium featured scientific presentations from an impressive group of alumni: Jerry Joyce (The Scripps Research Institute), Gerry Weinmaster (UCLA), Heiner Westphal (National Institutes of Health), Jon Cooper (Fred Hutchinson Cancer Research Center), Clare Isacke (Institute of Cancer Research, London), Tom Curran (St. Jude Children’s Research Hospital), Ellen Rothenberg (California Institute of Technology), Mike Bevan (University of Washington), Jim McNamara (Duke University),

Sara Sukumar (Johns Hopkins University School of Medicine), and Irv Weissman (Stanford University).

For Salk Professor Walter Eckhart, chair of the alumni program, the event was an important start in the Institute’s efforts to reconnect with Salk science alumni.

“It was heartening to see such a diverse group of alumni come back to the Institute,” says Eckhart. “We have an outstanding group of alumni who have left the Salk to pursue fascinating career paths, and we want to continue to provide them with opportunities to learn about Salk science and stay in touch with their former colleagues at the Institute.”

Still in its formative stages, the alumni program seeks to engage the more than 2,000 alumni who worked or trained at the Institute in a scientific capacity as post-doctoral fellows, graduate students, technicians, collaborators, and visiting faculty members.

The Basics on AIDS and Anthrax

■ Members of the Salk Institute’s President’s Club and other guests from the community were treated to a discussion of research on anthrax and AIDS by John Young, a recently hired professor in the Infectious Disease Laboratory.

Young talked about his research as part of the “Back to Basics” lecture program, which is designed to give the public greater insight into scientific advances at the Salk. Young is known for having isolated both known cellular receptors for the anthrax toxin in work that has implications for defending against bioterrorism. In addition, Young’s research focuses on what makes viruses like HIV — the virus that causes AIDS — successfully take over normal cells.

Donors in the President’s Club represent the highest support levels for the Institute’s Partners in

Discovery Fund, helping to attract and support faculty conducting research in a wide range of areas at the Salk.



Frederik Paulsen Joins Board of Trustees

■ Frederik Paulsen, chairman of Ferring Pharmaceuticals, has been elected to the Board of Trustees, representing the membership of the International Council. In this newly created seat on the board, Paulsen will serve as a link between the trustees and members of the International Council as the two groups work together to support the Institute. Paulsen has been a member of the International Council since 1995 and is a President’s Club Life member. In August 2000, the Dr. Frederik Paulsen Foundation established the Dr. Frederik Paulsen Chair in Neurosciences to support Salk Professor Jean Rivier in the Clayton Foundation Laboratories for Peptide Biology. Paulsen also planned and underwrote the successful 2003 meeting of the International Council in Stockholm, Sweden. After joining Ferring Pharmaceuticals in 1976, Paulsen became managing director of Ferring AB, Sweden in 1983 and CEO of The Ferring Group in 1988.



The Board of Trustees and the International Council came together in La Jolla on November 13 for their bi-annual dinner. They heard a presentation from Kathleen Murray about the history of the Institute and learned about the establishment of a newly created seat for the International Council on the Board of Trustees (see the accompanying story on this page). The dinner gives board and council members an opportunity to interact and discuss ways to support the mission of the Institute. Pictured at left are board members Betty Knox of La Jolla and Jennifer Howse, president of the March of Dimes.



FROM THE PRESIDENT

These new major gifts augment the Institute's substantial government support in vital and complementary ways.

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The two major private gifts reported in this issue of *Inside Salk* are of enormous importance to the Institute.

The first gift of \$30 million given anonymously will grow our endowment. Made by a donor who understands the Institute's need for a substantial financial reserve to underwrite research costs not covered by government sources, the gift affords us the guaranteed income the Salk Institute will need for its long-term success and operations. Indeed, the Institute's Board of Trustees has identified building the endowment as one of our highest priorities.

Currently, two-thirds of the Institute's \$90 million budget comes from investigator-initiated research grants obtained from government agencies. The remaining third represents the total derived each year from the March of Dimes, private research agencies, and philanthropy from foundations and individuals, along with licensing income from Institute inventions and interest generated by our endowment, which contains both restricted and unrestricted funds.

Restricted endowment supports specific programs identified by donors and the Institute as high priorities, including professorial chairs, research in specific diseases, and support for graduate students and postdoctoral fellows.

Income from unrestricted endowment will significantly increase due to the \$30 million gift. These monies can be flexibly used to support the Institute's greatest needs, including equipment purchases, core facilities shared by multiple laboratories, program development, emerging projects not yet funded externally, and enriching the Institute's scientific environment through retreats and scientific meetings, symposia, and speakerships for visiting scientists. Unrestricted endowment also provides funds for maintaining the Institute's buildings and for responding to unforeseen events, such as major downturns in government funding, which are now threatened.

The second gift of \$7 million from San Diegans Irwin and Joan Jacobs will establish the Crick-Jacobs Center for Computational and Theoretical Biology. The Crick-Jacobs Center will bring to the Institute new scientists and technology to expand our ability to probe the most intriguing frontier of biology, the human brain. The funding will enable the hiring of up to four scientists who will use sophisticated computer-based modeling methods to analyze and organize the enormous amount of data now available on nerve cell networks and the genes and proteins that regulate nerve cell activity. The goal is to create theories about brain function and brain diseases that can be tested in the Salk's neuroscience laboratories, long regarded as among the world's finest.

These new major gifts augment the Institute's substantial government support in vital and complementary ways. They help us obtain and sustain the tools and talent needed to continue making leading-edge discoveries, and they illustrate how vital private sector funding is to realizing the mission Jonas Salk established 40 years ago: generating fundamental knowledge about biology to better understand human diseases.

We are deeply grateful, and to both donors, we say thank you.



INSIDE SALK

Calendar

The first Salk Science Alumni Symposium attracted alumni throughout the country and the world. Alumni returned to the Institute to reconnect with friends and faculty and hear scientific presentations from fellow alums. Learn more about the symposium on page 10.



JANUARY 15

Roger Guillemin Nobel Lecture
Speaker: Jeffrey Friedman,
Rockefeller University

Salk Institute

FEBRUARY 20

Renato Dulbecco Nobel Lecture
Speaker: Harold Varmus,
Memorial Sloan Kettering

Salk Institute

MARCH 6

High School Science Day

Salk Institute

MARCH 10

**President's Club Back to Basics
Spring Program**

Salk Institute



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