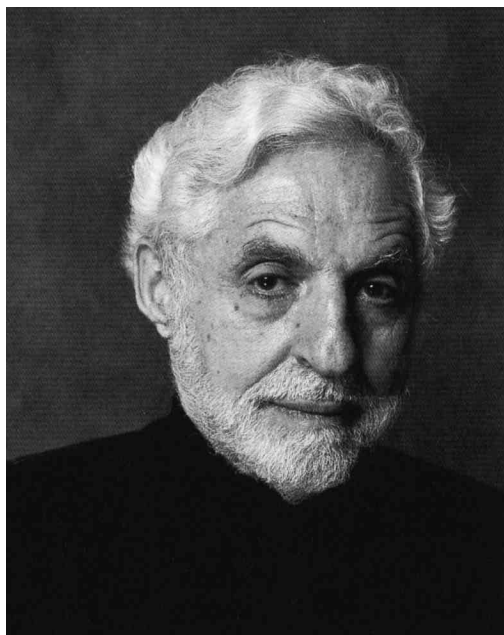


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Carl Djerassi to Receive 1998 Procter Prize



MICHAEL BIRT

Stanford University chemistry professor and novelist Carl Djerassi, known as “the father of the birth control pill,” has been selected to receive the 1998 William Procter Prize for Scientific Achievement at Sigma Xi’s annual meeting in November in Vancouver, British Columbia.

Djerassi is widely known for his contributions to synthetic organic chemistry—notably in the steroid field—and to physical methods of determining organic molecular structure, his effectiveness in translating scientific knowledge into technological practice, and his efforts to promote international scientific cooperation.

The Society’s highest honor, the Procter Prize is awarded annually to a scientist who has made outstanding contributions to research and has also demonstrated an ability to communicate the significance of his or her research to scientists in other disciplines.

The recipient is asked to designate a younger scholar, usually working in the same field, to receive a \$5,000 Grant-in-Aid of Research award from the Procter Prize Fund. This year’s grant recipient is Jose Giner, a former graduate student of Djerassi’s who is now an assistant professor of organic chemistry at the State University of New York at Syracuse.

Djerassi grew up in pre-war Vienna and fled the Nazis in 1938 with his mother, arriving in New York at the age of 16. Two years later, he graduated Phi Beta Kappa from Kenyon College in Ohio. Before age 22, he had received his Ph.D. from the University of Wisconsin. In between, as a junior

chemist with the Swiss pharmaceutical firm Ciba, Djerassi was part of the team credited with discovering the antihistamine Pyribenzamine.

While at a Syntex lab in Mexico City he directed the synthesis of the first oral contraceptive for women in 1951. Dubbed “the father of the pill,” he often shares the title with Gregory Pincus and John Rock, who performed the biological and clinical studies to confirm the pill’s effectiveness in humans.

The author of more than 1,200 scientific publications and seven monographs, Djerassi is one of only a few scientists to receive both the National Medal of Science and the National Medal of Technology. A member of the National Academy of Sciences and the American Academy of Arts and Sciences, Djerassi has received many honors, such as the first Wolf Prize in Chemistry, the first Award for the Industrial Application of Science from the National

Academy of Sciences and the American Chemical Society’s highest award, the Priestley Medal.

For the past decade, he has turned to fiction writing, inventing a genre he calls “science-in-fiction,” whereby he illustrates the human side of scientists and the personal conflicts they face in their quest for knowledge, personal recognition and financial reward. His five novels include a science-in-fiction tetralogy consisting of *Cantor’s Dilemma* (1991), *The Bourbaki Gamb*(1994), *Menachem’s Seed*(1996) and *NO* (1998). His unconventional autobiography, *The Pill, Pygmy Chimps, and Degas’ Horse* (1992), received high praise from scientific colleagues and literary critics alike.

He has recently embarked on a trilogy of plays which he describes on his Web site <www.djerassi.com> as “science-in-theatre,” with an emphasis on contemporary cutting-edge research in the biomedical sciences. His first play will premiere in August at the annual Edinburgh Festival Fringe. The distinguished chemist is also the founder of the Djerassi Resident Artists Program near Woodside, California, in which nearly 1,000 artists have participated.

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Chenming Hu Wins Monie Ferst Award



Innovative electrical engineer Chenming Hu at the University of California at Berkeley has received the 1998 Monie A. Ferst Award, presented by the Georgia Institute of Technology Chapter of Sigma Xi.

The annual award honors notable contributions to the motivation and encouragement of research through education. It consists of a medal and \$5,000 and is named for an engineer and businessman who was a 1911 graduate of Georgia Tech.

Begun in 1977, the Ferst Award is supported through a trust fund established by the Ferst Foundation of Atlanta. A day-long symposium, during which the Ferst Award recipient's former students make presentations on their research, is among the prize's traditions.

A professor of electrical engineering and computer sciences, Hu has focused on the theory of integrated-circuit devices, and especially on metal oxide semiconductor (MOS) device physics and engineering, for which he has achieved world renown. He holds nine patents, including two that are in commercial production. In 1997, he was awarded the Institute of Electrical and Electronics Engineers' (IEEE) Morton Technical Achievement Award

for "outstanding technical leadership in the field of MOS device reliability."

His research interests include micro-electronic devices, thin dielectrics, circuit reliability simulation and non-volatile memories. He has written or co-authored four books and more than 500 research papers, and has supervised 60 doctoral students.

A member of the National Academy of Engineering and a fellow of the IEEE, Hu received the Berkeley Distinguished Teaching Award in 1997. He has also received the Technical Excellence Award and the Outstanding Inventor Award from the Semiconductor Research Corporation.

He is known for his commitment to his students and for his ability to inspire them to extend themselves beyond preconceived boundaries. In addition, Hu has taught metal oxide semiconductor field effect transistor (MOSFET) or device reliability issues to more than 1,000 practicing engineers from around the country through Berkeley Extension Courses.

One student echoed the sentiments of many in saying, "I had been admitted to Berkeley to pursue graduate study in the field of communication. Taking a semiconductor class with Dr. Hu totally changed the direction of my study. His teaching was so powerful, exciting and deliberate that it completely attracted me to the solid-state devices field. I can genuinely state that during my nine years of undergraduate and graduate study I have not found a more enjoyable and effective educator than Dr. Hu."

**For more information
on Sigma Xi
Programs, Awards,
Membership and
Chapters, visit
www.sigmaxi.org**

Chapter Web Notes

The following news items were gleaned from the more than 90 chapter home pages now posted on the World Wide Web. Links are available through Sigma Xi's Web site at <www.sigmaxi.org>.

■ **The Washington University Chapter** sponsors colloquia on campus at irregular intervals and frequently collaborates with the **St. Louis University Chapter** and the **Monsanto Chapter** to sponsor activities for the larger community, such as a recent tele-conference on biodiversity ■ **The Villanova Chapter** co-sponsored a talk on "Reading Our Own Blueprint: The Human Genome Project" by 1998 Mendel Medallion honoree Francis S. Collins, director of the National Human Genome Research Institute ■ **The University of Colorado Chapter**, which represents a merger with former chapters at IBM and at the federal research laboratories in Boulder, holds a lunch meeting the first Tuesday of each month during the academic year that features a talk on scientific results or issues ■ **Scott R. Woodward** of Brigham Young University gave a talk to the **Washington, D.C., Chapter** on his efforts, through the use of DNA analysis, to confirm the lineage and identity of 18th and 19th dynasty Egyptian mummies ■ **At the University of Arkansas Chapter's** annual banquet, noted seabird biologist David Duffy of the University of Alaska spoke on the effects of El Niño ■ In addition to an annual undergraduate research symposium, the **Gustavus Adolphus College Chapter** sponsors a visit by a distinguished lecturer, who this year was Mary Lucas Powell of the William S. Webb Museum of Anthropology at the University of Kentucky ■ **The Lake Forest College Chapter** has begun weekly get-togethers, called "Friday Coolers," during which a member makes an informal research presentation ■ **The University of Calgary Chapter's** lecture program for the 1997-98 academic year revolved around the theme "Multidisciplinary Views of Environmental Issues"

John H. Moore Begins Serving as 1998-99 President of Sigma Xi

On July 1, John H. Moore begins his one-year term as president of Sigma Xi. The following article is excerpted from an interview with him that is on the Society's home page at <www.sigmaxi.org> in the "News" section. Moore is president of Grove City College and a former deputy director of the National Science Foundation.

What would you say are some of Sigma Xi's strengths?

The strength of any organization lies first and foremost in its members, and that is very much the case with Sigma Xi. Our members are highly qualified in their fields, often among the most distinguished scientists anywhere. Because of its size and reputation, Sigma Xi is in a position to speak with authority on issues pertaining to science and science policy.

Our chapter structure is another powerful asset, perhaps with more potential than realization. Sigma Xi is—or can be—much more than an association of individuals, connected only through paying dues to the same address and a common journal subscription. The chapters provide a mechanism for bringing members together, for creating and cementing relationships, for pursuing joint projects, for creating a sense of shared purpose and a community of interests.

What are some of the challenges facing the scientific community?

Adjustment to change, in patterns of funding and in the organization of science, represents an important challenge. Indeed, important changes in the very structure of higher education are in the works. Online delivery of post-secondary education by for-profit entities, greatly expanded distance education (including opportunities to enroll in foreign institutions), increased provision of advanced education and training by firms for their employees—these and other innovations are altering the landscape for higher education.

Another challenge—which also represents an opportunity—lies in the fact

that scientific capabilities have grown enormously elsewhere in the world. American science still leads the world, but the lead is not in every field nor is it as large as it once was in fields where it still exists. Thus there is more competition, not necessarily for funds, but for making new discoveries. At the same time, the spreading of excellence creates new opportunities for collaborative efforts, improving the prospects for scientific advances.

Of course, to take advantage of these opportunities, international cooperation must also advance. National science policies must be developed with an understanding that there are mutual benefits in international collaboration and that attempts to contain the results of a nation's scientists within its borders are self-defeating. The 1998 Sigma Xi Forum in Vancouver, British Columbia, on November 12-13 will address some of the key issues involved in international scientific cooperation.

What are some of the challenges facing Sigma Xi?

As the scientific research society, Sigma Xi must be aware of these and other challenges to science in general. And we should be active in finding ways to meet them. But the Society faces some specific challenges of its own.

First and foremost is arresting the decline in our membership. This is not a new issue for us, nor is ours the only organization faced with this problem, and many steps have been taken to arrest the decline.

I am confident that these steps will bear fruit, but the battle is far from being over. Sigma Xi's programs must be developed with this issue in mind. Improved communications with the membership are needed. We should focus on the recruiting of new members and on their retention.

A second challenge lies in our governance structure. The existing structure has evolved over a period of years. It



is unwieldy and costly to maintain. We need to design and adopt a structure that is truly representative of the membership, that is efficient in operation and that is conducive to retaining the essential nature of Sigma Xi as an honorary society.

A third challenge lies in the diversity of our membership. If Sigma Xi is to be "the" scientific research society, it should include all qualified scientists and engineers. Our Committee on Diversity is doing an effective job of improving our policies and elevating our consciousness. Our concerns with diversity extend beyond racial and ethnic minorities to include global diversity.

Nearly 100 Sigma Xi chapters now have home pages on the World Wide Web. How significant is this development?

By enhancing communications among chapters, the home pages create prospects for sharing information and ideas, for developing research partnerships, for enhancing Sigma Xi in general. We cannot bring all 85,000 Sigma Xi members together physically, but we can create a virtual community through the Internet. And that is happening. This whole area may prove especially important as the Society expands globally.

Sigma Xi Hotel Connections Program Update

Since the initiation of Sigma Xi's Hotel Connections Program last November, many members have taken advantage of this new benefit of active membership. The program caters to business travelers who want the best value for their travel dollar. Accommodations are three star and better, and include amenities not found in discount hotels.

More than 50 cities are currently covered by the program, including 42 U.S. destinations, five in Canada and nine in Europe. Information about cities and hotels is available on the Web at <www.travelties.com>. A hot link is included on Sigma Xi's Web site.

If you are attending a conference, the Sigma Xi Hotel Connections Program may offer nearby accommodations for less than the convention hotel rate. These discount rates are available no more than 14 days in advance of your arrival, and if the reservation is made on the day of arrival, the rate is lower still.

That's because the rooms offered through the Hotel Connections Program are the ones that remain unbooked within the 14-day period, and hotels are willing to sell them at break-even costs to avoid losing money.

Reservations can be made toll free, 24 hours a day, seven days a week from any touch tone telephone and usually take as little as 90 seconds to complete. Membership kits, mailed to active Sigma Xi members, include a wallet-size city directory card that provides the 800 number to call, simple directions for using the system, Sigma Xi's exclusive PIN number and access codes for cities.

For more information, visit the Sigma Xi Web site at <www.sigmaxi.org>, which includes a Hotel Connections page under "Membership Benefits" in the membership section.

1998 Forum Offers Mix of Science and Policy Sessions in Vancouver

The 1998 Sigma Xi Forum *International Cooperation in Science and Technology Development* to be held in Vancouver, British Columbia, on November 12-13, will feature a mixture of scientific and policy-related sessions. The two-day conference will be held in conjunction with Sigma Xi's 1998 Annual Meeting at the Vancouver Hyatt.

A variety of current scientific developments and issues associated with international cooperation will be explored. The tentative schedule includes discussions of:

- global warming and weather effects
- sustainable development
- the human genome
- chemical and biological weapons; non-proliferation
- trans-border pollution, trans-border fisheries issues
- arctic and Antarctic research
- "big science" vs. "small science"
- international education and science in developing countries
- the international space station
- emerging and re-emerging diseases
- the Internet as a tool for international cooperation

In recent years, technological developments have facilitated international cooperation, and declining government sponsorship has encouraged the science and technology community to consider the economic advantages of international collaboration. There is a long tradition of cooperation in areas such as "big science" (e.g. astronomy, high energy physics), global environment (e.g. global warming, ozone, weather and climate), international security (e.g. weapons disposal, nuclear issues), and standards, and the number and scale of cooperative projects is increasing rapidly.

Economic globalization complicates cooperation, however, by raising issues such as intellectual property ownership. As R&D moves off-shore, and firms encounter different legal environments, there are increasing political, educational and scientific implications. Cooperation is further complicated by economic and political disparities, and recent developments in biotechnology raise difficult international ethical issues.

For more information, visit Sigma Xi's home page at <www.sigmaxi.org>, e-mail forum98@sigmaxi.org or call 800-243-6534.

Call for Papers

The 1998 Sigma Xi Forum organizing committee welcomes contributed posters on the topic of international cooperation in science and technology development. Abstracts of less than 200 words should be submitted by August 15 to forum98@sigmaxi.org or via the Sigma Xi Web site at <www.sigmaxi.org>.

Include name, affiliation, address, e-mail and phone number of the presenting author. Selection and scheduling are at the discretion of the organizing committee. Authors will be notified of the status of their submissions by late September.

Updates on forum speakers and panelists are also available on the Sigma Xi Web site, along with an archive of information on past forums covering such topics as trends in industrial innovation, the future of federal support for science, K-12 science education and ethics and values in science.