

Report of the Committee on Awards for the Year ending June 30, 2001

The Committee on Awards met on Thursday, 9 November 2000 during Sigma Xi's 2000 Forum and Annual Meeting in Albuquerque, New Mexico.

The William Procter Prize

Following the Society's 1999 annual meeting in Minneapolis, the Board of Directors approved the Committee's recommendation that Dr. Alexander Rich receive the 2001 William Procter Prize for Scientific Achievement.

Dr. Alexander Rich is presently the William Thompson Sedgwick Professor of Biophysics at Massachusetts Institute of Technology. Renowned for his work in biochemistry and molecular biology, Dr. Rich was awarded the National Medal of Science in 1995. Dr. Rich is best known for his discovery of left-handed DNA, or Z-DNA, and the three-dimensional structure of transfer RNA, key discoveries that have led to an understanding of the role and function of RNA and DNA molecules in heredity. Dr. Rich has long been recognized as a preeminent researcher in the field of structural molecular biology.

Each year the Procter Prize recipient has the privilege of naming a younger colleague to receive a \$5,000 grant-in-aid of research from the Procter Prize Fund. This year, Dr. Rich has nominated Dr. Thomas Schwartz, a post-doctoral fellow at Rockefeller University, to receive this award. Dr. Schwartz has expressed his willingness to attend the 2001 Forum and Annual meeting to accept his grant-in-aid of research award during the Society's annual banquet.

Honorary Member

At its November 2001 meeting, the Committee on Awards recommended, and the Board of Directors subsequently approved, that Ms. Diane Jukofsky become an Honorary Member of Sigma Xi. Ms. Jukofsky is the Director of the Rainforest Alliance's Conservation Media Center, based in San Jose, Costa Rica. As Center Director, Ms. Jukofsky researches, writes and edits a bimonthly, bilingual newsletter about tropical conservation issues in Latin America, arranges training workshops for U.S. and Latin American journalists and non-governmental organizations, and manages and edits a bilingual Web site called the Eco-Index, a searchable almanac of conservation initiatives in Mexico and Central America. Ms. Jukofsky was elected as an Honorary Member of Sigma Xi for her services to science in the public interest.

Ms. Jukofsky has indicated that she will be in attendance at the November 2001 Forum and Annual Meeting in Raleigh to be initiated as an Honorary Member of the Society.

Young Investigator Award

Also during its November 2000 meeting, the Committee recommended that Dr. Henry Rodriguez of the National Institute of Standards and Technology (NIST) be awarded the Young Investigator Award in the life and social sciences. The Board of Directors subsequently approved this recommendation and Dr. Rodriguez has agreed to participate in the 2001 Forum and Annual Meeting to accept his award and to present a lecture on his research on Saturday morning during the annual meeting. A molecular and cellular biologist, Dr. Rodriguez has been at NIST since 1998 where he is a project leader in the Biotechnology Division. Among his scientific accomplishments are a variety of molecular methods with exciting potential applications in basic research and medicine. Dr. Rodriguez is known not only as a creative and energetic scientist but also as a fine communicator of science, both written and orally. He is also the co-founder of the Oxidative Stress and Aging Association, a society dedicated to the advancement of diagnosis and therapeutic approaches concerning oxidative stress and related diseases.

Regional winners of the 2001 Young Investigator Award were recognized with Certificates of Recognition for their accomplishments. The 2001 regional winners were: Dr. David Arnosti of Michigan State University (North Central Region); Dr. Elizabeth Chilton of Harvard University (Northeast Region); Dr. Alexandra Basolo of the University of Nebraska - Lincoln (Northwest Region); Dr. Lee Dugatkin of the University of Louisville (Southeast Region); and Dr. Todd Anderson of Texas Tech University (Southwest Region).

Established by the Board of Directors in 1996, the Young Investigator Award recognizes the work of outstanding young Sigma Xi members within ten years of their highest earned degree as well as the ability to communicate their research to the general public. The Award alternates between the physical sciences and engineering and the life and social sciences. The Award includes a Certificate of Recognition, \$5,000, and the opportunity for the recipient to present their research during a lecture at the Society's Annual Meeting.

International Science and Engineering Fair

On 7-12 May 2001, Sigma Xi continued its participation in the International Science and Engineering Fair, which this year was held in San Jose. Participating in the "Special Awards" category, Sigma Xi awarded three prizes for the best interdisciplinary team projects at the Fair. Each team received a cash prize, and each team member received a Certificate of Recognition and a one-year subscription to *American Scientist*; the winners school library also received a one-year subscription to the magazine.

The first place award of \$900 was made to a team of two students from Northern Secondary School (Toronto, Ontario) who took a novel approach to DNA computer programming by demonstrating the viability of DNA computation as simulation medium and developing an accurate DNA simulation of baseball. A second place award of \$450 was presented to two students from Allen D. Nease High School (Saint Augustine, Florida) who predicted

the results of a PETScan (Positron Emission Tomography Scan) calibration scan before the process takes place in order to pioneer new ways of calibrating the machine more accurately and more efficiently. Another second place award of \$450 was given to two students from Bowie High School (Bowie, Maryland) who showed that a luminescent bacteria associated with nematodes was present in the glowing wounds of Civil War soldiers and inhibited the growth of pathogenic bacteria, thus increasing their survival rate.

A team of 15 judges from the San Jose State University and Lawrence Livermore National Laboratory Chapters evaluated the 172 team projects at the Fair for the Sigma Xi awards. The judging team was assembled by Dr. Sulekha Anand of the San Jose State University Chapter and Mr. Ronald Weinberg of the Lawrence Livermore National Laboratory Chapter; Dr. Anand served as Chair of the judging team. The Committee would like to express its gratitude to Sulekha Anand and Ron Weinberg, and all of the Sigma Xi judges for their efforts in assisting the Society's participation in the 2001 International Science and Engineering Fair.

Monie A. Ferst Award

Dr. Michael J. Chamberlin was selected to be the recipient of the 2001 Monie A. Ferst Award. Dr. Chamberlin is Professor Emeritus of Biochemistry and Molecular Biology at the University of California, Berkeley. Dr. Chamberlin's research interests are in the regulation of gene expression and particularly in the regulation of transcription in both prokaryotic and eukaryotic organisms. Recently, his research has focused on two major areas: Studies of the reprogramming of bacterial RNA polymerases by sigma factors, and studies of the factors that control elongation and termination of RNA chains. Dr. Chamberlin's many former students acclaim his strong mentorship and collegial approach to research and education as major factors in their own professional successes.

The Monie A. Ferst Award will be presented to Dr. Chamberlin in an October ceremony at the University of California, Berkeley that is being arranged by the Georgia Institute of Technology and the University of California, Berkeley Chapters.

This Sigma Xi award is given annually to a scientist who has made "notable contributions to the motivation and encouragement of research through education." The award is given under the auspices of the Georgia Institute of Technology Chapter and the Chair of the Committee on Awards and the Southeast Regional Director participate in the selection of the recipient.

Sigma Xi Awards

Details for all Sigma Xi awards can be found in the [Programs section](#) of the Sigma Xi web site or from local Sigma Xi chapters.

Nominations for Sigma Xi awards are welcomed by the Committee on Awards and can be forwarded to the Committee at the Society's headquarters. The Committee urges that chapter leadership and regional directors take a stronger role in the coming years in nominating potential awardees, particularly for the Proctor Prize. Dr. Evan Ferguson can be contacted at the Society's headquarters for additional information about Sigma Xi's awards and nomination procedures.

Committee on Awards

On 1 July 2001 the structure of the Committee on Awards will change as part of the Society's transition to its new governance. Formerly, the Committee was composed of the 6 Directors-at-Large, but with the new governance the Directors-at-Large will no longer be members of the Board. Thus, on 1 July 2001, the Committee will include the last two Directors-at-Large (Geraldine Twitty and Robert Zand) to serve one year terms, two members of the Board (Cliff Chancey and Ron Weinberg) elected by the Board for two-year terms, and a member of the Board (Tony Whitehead) elected by the Board for a three-year term.

As I conclude my term as Chair of the Committee on Awards, I would like to thank the other Directors-at-Large who have worked with me on the Committee. It has been a pleasure working with them and I thank them for their willingness to serve the Society as a member of the Committee. Again, I would like to enter a personal plea that chapter members become involved in the award nomination process!

The members of the Committee on Awards for the year ending 30 June 2001 were:

Elizabeth L. Ambos, Chair

Jaleh Daie

Geraldine Twitty

Robert Zand