

Report of the Committee on Awards for the Year Ending June 30, 2000

The Committee on Awards met on Thursday, 6 November 1999 during Sigma Xi's 1999 Forum and Annual Meeting in Minneapolis, Minnesota.

The William Procter Prize

During its meeting in Minneapolis, the Committee reviewed a list of excellent nominations for the William Procter Prize for Scientific Achievement. The Committee recommended, and the Board of Directors subsequently approved, that Dr. Stephen Hawking be awarded the 2000 William Procter Prize for Scientific Achievement. Dr. Hawking declined to accept the 2000 Procter Prize. In view of Dr. Hawking's decision, the Committee recommended that Dr. Francisco J. Ayala receive the award in 2000, and Dr. Alexander Rich receive the award in 2001.

An evolutionary biologist, Dr. Ayala is the Donald Bren Professor of Biological Sciences and Professor of Philosophy at the University of California, Irvine. His path-breaking research on speciation rates and pathways has many societal applications, as evidenced by his work on malaria and other diseases. In addition, his research has philosophical and ethical implications for our understanding of the origins of species. He was Chairman of the Board of Directors of the American Association for the Advancement of Science, is currently serving as a member of the President's Committee of Advisors in Science and Technology (PCAST) and is a member of National Academy of Sciences and the American Academy of Arts and Sciences.

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.

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. Ayala has nominated Dr. Stephen M. Rich of the Department of Infectious Disease at the Tufts University School of Veterinary Medicine to receive this award. Dr. Rich has expressed his willingness to attend the 2000 Forum and Annual meeting to accept his grant-in-aid of research award during the Society's annual banquet.

Honorary Member

At its November 1999 meeting, the Committee on Awards recommended, and the Board of Directors subsequently approved, that Mr. David Sington become an Honorary Member of Sigma Xi. Mr. Sington is the 1999 winner of the American Geophysical Union's Walter Sullivan Award for Excellence in Science Journalism, for writing and producing "Earth Story", an extremely popular and informative eight-part television series. Over two years in the making, "Earth Story" provides a sweeping overview of the fundamental processes that shape the Earth.

In addition to "Earth Story", Mr. Sington has also developed such science programs as "Traces of Guilt", concerning the role science plays in fighting crime. Formerly a film producer with BBC, Mr. Sington now heads his own firm, DOX Productions, Ltd.

Mr. Sington has indicated that he will be in attendance at the November 2000 Forum and Annual Meeting in Albuquerque to be initiated as an Honorary Member of the Society.

Young Investigator Award

Also during its November 1999 meeting, the Committee recommended that Dr. Sherry Yennello, Associate Professor of Chemistry at Texas A & M University, be awarded the Young Investigator Award in physical sciences and engineering. The Board of Directors subsequently approved this recommendation and Dr. Yennello has agreed to participate in the 2000 Forum and Annual Meeting to accept her award and to present a lecture on her research on Saturday morning during the annual meeting. Dr. Yennello's nuclear chemistry research has already contributed substantially to understanding equations of state, particularly as elucidated by isospin-related studies. These studies have far-reaching implications for our understanding of the origin and evolution of the universe. In addition to her strong research profile, Dr. Yennello has garnered awards and recognition for her teaching and involvement with science and technology issues.

Regional winners of the 2000 Young Investigator Award were recognized with Certificates of Recognition for their accomplishments. The 2000 regional winners were: Dr. Kristian P. Helmersen of the National Institute of Standards and Technology (Mid-Atlantic Region); Dr. Rex D. Ramsier of the University of Akron (North Central Region); Dr. Metin Akay of Dartmouth College (Northeast Region); Dr. Courtney A. Young of Montana Tech of the University of Montana (Northwest Region); and Dr. Rigoberto Hernandez of the Georgia Institute of Technology (Southeast 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 9-12 May 2000, Sigma Xi continued its participation in the International Science and Engineering Fair, which this year was held in Detroit. 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 Manhasset High School (Manhasset, New York) who created a new comprehensive mathematical model of HIV and T cell dynamics that allowed for the simulation of various types of drug therapy and allows researchers to explore many new aspects of HIV behavior and potential new therapies against HIV and AIDS. A second place award of \$600 was presented to two students from Saint Edwards Upper School (Vero Beach, Florida) who created a text to speech program for the blind with the highest level of versatility, user friendliness and understandability, and with a 98% accuracy rate. The third place award of \$300 was given to three students from Knoxville Catholic High School (Knoxville, Tennessee) who created a new vacuum injection technique and used this technique to study the effects of a tyrosine hydroxylase inhibitor on various parameters in the fruit fly.

A team of 14 judges from three Southeastern Michigan area Sigma Xi chapters (University of Michigan, Oakland University, and Ford Motor Company) evaluated 165 team projects at the Fair for the Sigma Xi awards; Dr. Robert Zand of the University of Michigan Chapter, served as Chair of the Sigma Xi judging team. The Committee would like to express its gratitude to Dr. Zand and all of the Sigma Xi judges for their efforts in assisting the Society's participation in the 2000 International Science and Engineering Fair.

Monie A. Ferst Award

Dr. Dale Margerum was selected to be the recipient of the 2000 Monie A. Ferst Award. He is currently the Harvey Washington Wiley Distinguished Professor of Chemistry at Purdue University. An inorganic and physical chemist, Dr. Margerum has received numerous awards for his work, including the American Chemical Society's Award for Distinguished Service in the Advancement of Inorganic Chemistry in 1996. Dr. Margerum's research focuses on rapid rates and pathways of chemical reactions in solution. His laboratory studies reactions with significant environmental or health impacts, such as the creation of bromate, a carcinogen, as a byproduct of water chlorination. A teacher and mentor to over 80 doctorate, 20 master's, and numerous undergraduate students, Dr. Margerum represents the highest ideal of the teacher-scholar model.

Sigma Xi Awards

Details for all Sigma Xi awards can be found on the Sigma Xi Web page 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. Dr. Evan Ferguson can be contacted at the Society's headquarters for additional information about Sigma Xi's awards.

The members of the Committee on Awards for the year ending 30 June 2000 were:

Elizabeth L. Ambos, Chair
Jaleh Daie
W. Franklin Gilmore
Lynn O. Lewis
Geraldine Twitty
Robert Zand