

Report of the Committee on Awards for the Year ending June 30, 2005

During the year ending 30 June 2005, the Committee on Awards met twice to make recommendations to the Society's Board of Directors in regard to recipients of Sigma Xi awards for the year beginning 1 July 2005.

The first meeting of the Committee took place on Friday, 12 November 2004, during the Society's annual meeting in Montreal. During this meeting, the Committee agreed on its recommendations for the 2005 William Procter Prize for Scientific Achievement, the 2005 Young Investigator Award, and Honorary Members to be initiated during the 2005 annual meeting in Seattle that were forwarded to the Society's Board of Directors. In addition, the Committee unanimously agreed that nominations for honorary membership would be considered for only five years after their nomination, as is done for the Procter Prize.

For the 2005 William Procter Prize for Scientific Achievement, the Committee recommended, and the Board approved, that the award should go to Dr. Bjarne Stroustrup, Department of Computer Science at Texas A&M University. Dr. Stroustrup is an internationally renowned computer scientist who is best known as the inventor of C++ programming language that has become a driving force for many technological and computing advances, since its invention in the early 1980s. For the 2005 Young Investigator Award, the Board approved the Committee's recommendation that the Award go to Dr. Thomas E. Spencer, Department of Animal Science at Texas A&M University. Dr. Spencer was recognized for his groundbreaking research in reproductive biology and endocrinology. On the Committee's recommendation, the Board also elected Mr. Ira Flatow and Mr. David Quammen as honorary life members of Sigma Xi for their contributions in communicating science to the public. Both Mr. Flatow, National Public Radio (NPR) science correspondent and anchor of "Talk of the Nation: Science Friday," and Mr. Quammen, internationally renowned science and nature writer, will be initiated as Honorary Members of Sigma Xi during the November 2005 annual meeting in Seattle. Likewise at the 2005 annual meeting in Seattle, Dr. Stroustrup will receive the Procter Prize and deliver the 2005 Procter Prize Lecture and Dr. Spencer will receive the 2005 Young Investigator Award and deliver the Young Investigator Award Lecture.

The Committee met again on Wednesday, 9 March 2005, via a telephone conference call to select the 2005 John P. McGovern Science and Society Award recipient and to discuss two items of committee business. For the 2005 John P. McGovern Science and Society Award the Committee selected celebrated oceanographer Dr. Sylvia Earle to receive the Award and deliver the John P. McGovern Science and Society Lecture at the November 2005 annual meeting in Seattle. Dr. Earle was recognized for her outstanding contributions to science and society and her abilities to communicate science to the public. Dr. Earle, Time magazine's first "hero for the planet" agreed to accept the Award and to deliver the McGovern Lecture at Sigma Xi's November 2005 meeting in Seattle.

In addition to selecting Dr. Earle for the 2005 McGovern Award, the Committee on Awards agreed that, in the future, it would select the McGovern Award recipient during the Society's annual meeting each fall; i.e., at the same time as the Committee selects the other major awards in the Society. In addition, in May 2005, the Board subsequently agreed with the Committee's recommendation that the Board waive its provision of two weeks advance notice for items requiring Board action so that the Board may act upon recommendations from the Committee concerning nominees for Society awards that take place during the Society's annual meeting. This would enable the award winners in the Society to be determined, and invited to accept their award, one year in advance of when they would receive their award.

On 9-13 May 2005, Sigma Xi continued its participation in the International Science and Engineering Fair, which this year was held in Phoenix, Arizona. 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 winner's school library also received a one-year subscription to the magazine.

The first place award of \$1,000 was made to a team of two students from Technical School No. 139 in Viale, Entre Rios, Argentina. Hugo Chiardola and Ignacio Rodriguez won for their project entitled "Milk Pasteurizer" which presented ways to build an inexpensive, yet effective milk pasteurizer that could be built and used by small milk producers and retailers of untreated milk. A second place award of \$450 was presented to two students, Daniel Hefter and Aryeh Sokolov of the Davis Renov Stahler Yeshiva High School for Boys and the Hebrew Academy of the Five Towns & Rockaway in Long Island, New York for their project entitled "Engineering Environmentally Safe Self extinguishing Polymers." A third place award of \$300 was given to three students from the North Carolina School of Science and Mathematics, Quinn Morris, May Liu, and Courtney Fox, for their project "Harvesting Electrons from E. Coli."

A team of 15 Sigma Xi members from the greater Phoenix area served as judges and evaluated the 232-team projects at the Fair for the Sigma Xi awards. In addition to members-at-large, the Arizona State University Chapter provided many judges for the Sigma Xi awards. Dr. Arleyn Simon, President of the Arizona State University Chapter served as Chair of the judging team. The Committee would like to express its gratitude to Dr. Simon and all of the Sigma Xi judges for their efforts in assisting in the Society's participation in the 2005 International Science and Engineering Fair.

Distinguished analytical chemist Gary M. Hieftje at Indiana University, Bloomington received the 2004 Monie A. Ferst Award, which recognizes those who have made notable contributions to the motivation and encouragement of research through education. Administered by the Georgia Institute of Technology Chapter of Sigma Xi, the

award is made annually to a person who has touched and inspired his or her research colleagues in a manner that can be documented by their subsequent scientific accomplishments.

Hieftje's contributions to the field of analytical chemistry encompass the training of excellent students, the production of texts and scholarly books, the performance of fundamental research to characterize the field and the development of new techniques and instrumentation. Hieftje is perhaps best recognized for his work in chemical instrumentation and atomic spectrometry. His group has long been active in the study of events that lead to atom formation, excitation and ionization in flames and high-frequency plasmas and in the development of new kinds of plasma sources, sample-introduction devices, and both optical and mass spectrometers. He is widely known for his invention of a method for background correction in atomic-absorption spectrometry and for the coupling of time-of-flight mass spectrometry to atomic ion sources.

Details for all Sigma Xi awards can be found on the Sigma Xi web page (<http://www.sigmaxi.org/programs/prizes/index.shtml>) 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 administrative offices. 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 administrative offices for additional information about Sigma Xi's awards and nomination procedures.

As Chair of the Committee on Awards, I would like to thank the Directors who 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.

The members of the Committee on Awards for the year ending 30 June 2005 were:

Ernest H, Gilmour, Chair
Richard LoPinto
Donald McGraw
Linda K. Meadows
M. A. (Tony) Whitehead