Bob Parr Receives Honor from State of North Carolina

Considered one of America's most outstanding physical chemists, Bob



Parr has made s i g n i f i c a n t contributions in t h e o r e t i c a l quantum chemistry. Research in this field has enabled scientists to predict — among other t h i n g s — t h e energies, bond gles of complicated

distances, and angles of complicated molecules, and site selectivities in chemical reactions. Today, quantum chemistry is routinely used by thousands of chemists, physicists, materials scientists, and biochemists. For this and other career achievements over fifty years, Bob received the 1999 North Carolina Award in Science.

Born in Chicago, Bob came by his interest in science naturally; his father was a prominent bacteriologist. After attending schools in Beirut; Andalusia, Alabama; Des Moines; Chicago; Bethesda; and Washington, D.C., he entered Brown University, graduating with an A.B. in chemistry with high honors in 1942. In 1947, he received a Ph.D. in physical chemistry from the University of Minnesota.

That year, he became an assistant professor of chemistry at Minnesota. In 1948, he went to the Carnegie Institute of Technology and soon advanced to the rank of professor. From 1962 to 1974, he served as a professor of chemistry at The Johns Hopkins University; he was Chairman of the Chemistry Department from 1969 to 1972. In 1974, he was appointed the William R. Kenan, Jr. Professor of Theoretical Chemistry at the University of North Carolina at Chapel Hill, where today he is the Wassily Hoeffding Professor of Chemical Physics. At UNC, he has served as Chair of the Faculty Priorities Committee and as a member of the Chancellor's Advisory Committee.

Bob's research involves the study and prediction of the properties of atoms and molecules using the principles of quantum mechanics. These principles are quantitative; solving the correct equation for any atom or molecule enables one to determine properties accurately. In the 1950s, with Rudolph Pariser, he created what later became known as the PPP theory, which accounted for a host of experimental chemical discoveries. Recently, his research has focused on developing the so-called density functional theory of molecular electronic structure and reactivity. In short, Bob has made original contributions to the science of chemistry, spurring substantial changes in chemical thought.

Over his career, Bob has written more than two hundred scientific articles and two books, Quantum Theory of Molecular Electronic Structure (1963) and Density-Functional Theory of Atoms and Molecules (1989, with Weitao Yang of Duke University). He has also supervised forty-five doctoral students and more than eighty postdoctoral associates.

Widely honored for achievements in his field, Bob is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, the International Academy of Quantum Molecular Science (where he has served as President), and the Indian National Science Academy. He has received the American Chemical Society's Langmuir Award in Chemical Physics (1994) and been awarded honorary degrees from the University of Leuven in Belgium (1986) and Jagiellonian University in Poland (1996).

Graduate Student Fellowship Funds Announced in Honor of Hiskey, Eliel

hat can a university and its alumni do to honor a truly great teacher? When Richard Hiskey retired in 1996 after devoting 38 years to undergraduate and graduate students at Carolina, the Department of Chemistry created the Richard G. Hiskey Graduate Student



y Graduate Student Fellowship. The Hiskey Fellowship helps the University meet one of its highest priorities attracting and r e t a i n i n g graduate students and does so in the name of a valued

mentor and friend to students over the years.

"All of us at the Chemistry Department - faculty, staff and countless students - have been extremely fortunate to associate with Dick Hiskey during his many years here," says Chairman Edward T. Samulski. "He has always shared his wide-ranging knowledge and experience unselfishly, and his warmth and approachability have made him a ready source of encouragement and support. It is in this spirit that we have created the Richard G. Hiskey Graduate Fellowship Fund."

In January 1998, Ernest L. Eliel was voted one of the 75 most

"Distinguished Contributors to the C h e m i c a 1 Enterprise" of the last 75 years by the readers of Chemical & Engineering News. He won't tell you that, but we will. "Ernest's contributions to the



Department of Chemistry have been enormous and multifaceted," said Chair Edward T. Samulski. "His scholarship and teaching are legendary, and his high profile in the American Chemical Society has brought considerable attention to Carolina." In return, we want to create a graduate fellowship in his honor. If we do so, his name will stand as a constant reminder to future generations of scientists of his commitment to and professionalism in the field.

"The professor can teach, advise and inspire," Eliel once said, "but only the able and motivated student can successfully carry out the work at the bench." A graduate fellowship is a fitting tribute to this devoted scholar, scientist and teacher. The Ernest L. Eliel Graduate Student Fellowship has been established to help the University attract the best students from across the nation and does so in the name of a valued mentor to students over the years.

Carolina must be able to offer competitive awards if it is to attract the best graduate students. The financial goal for each of the Hiskey and Eliel Funds is \$300,000, which will support a fellowship at the highest level on the UNC-Chapel Hill campus. Once the funds are fully endowed, the Richard G. Hiskey Graduate Student Fellowship in Chemistry and the Ernest L. Eliel Graduate Student Fellowship in Chemistry will become a part of the Royster Society of Fellows, a program modeled on the Morehead Scholars program for undergraduates. Selection will be -continued on page 9