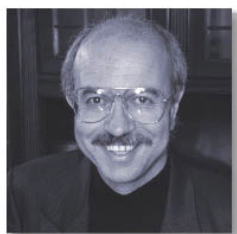


The 3M University Lecturer in Chemistry 2000-2001**K.C. Nicolaou**

Skaggs Professor of Chemical Biology
and Darlene Shiley Chair in Chemistry,
The Scripps Research Institute,
and Professor of Chemistry, The University of California, San Diego

K.C. Nicolaou was born on July 5, 1946, in Cyprus where he grew up and went to school until the age of 18. In 1964, he went to England where he spent two years learning English and preparing to enter the University. He studied chemistry at the University of London (B.Sc., 1969, Bedford College, First Class Honors; Ph.D. 1972, University College, with Professors F. Sondheimer and P.J. Garratt). In 1972, he moved to the United States and after postdoctoral appointments at Columbia University (1972-1973, Professor T.J. Katz) and Harvard University (1973-1976, Professor E.J. Corey) he joined the faculty at the University of Pennsylvania, where he rose through the ranks to become the Rhodes-Thompson Professor of Chemistry. In 1989, he accepted joint appointments at the University of California, San Diego, where he is Professor of Chemistry, and The Scripps Research Institute where he is the Chairman of the Department of Chemistry and holds the Skaggs Professorship of Chemical Biology and the Darlene Shiley Chair in Chemistry.

His awards and honors include an A.P. Sloan Fellowship (1979), a Camille and Henry Dreyfus Teacher-Scholar Award (1980), the American Chemical Society Philadelphia Section Award (1983), a Guggenheim Fellowship (1984), a Humboldt Foundation US Senior Scientist Prize (1987), an A.C. Cope Scholar Award, American Chemical Society (1987), the Japan Society for the Promotion of Science Award (1988), the Alan R. Day Award, Philadelphia Organic Chemists' Club (1993), the American Chemical Society Award for Creative Work in Synthetic Organic Chemistry (1993), a Pfizer Research Award in Synthetic Organic Chemistry (1994), the Dr. Paul Janssen Prize for Creativity in Organic Synthesis (1994), the Alexander the Great Award, the Hellenic Cultural Society of San Diego (1994), the Rhone-Poulenc Medal of the Royal Society of Chemistry (London) (1995), the William H. Nichols Medal, New York Section-American Chemical Society (1996), the Inhoffen Medal of the Gesellschaft für Biotechnologische Forschung mbH (GBF) (1996), the Ernest Guenther Award in the Chemistry of Natural Products, American Chemical Society (1996), the Chemical Pioneer Award of the American Institute of Chemists (1996), the Linus Pauling Award, Oregon, Portland, Puget Sound Sections-American Chemical Society (1996), the Distinguished Scientist Award, San Diego Section-American Chemical Society (1997), the Decoration of the Order of the Commander of Honor Medal (bestowed by the President of Greece, 1998), the American Chemical Society Esselen Award for Chemistry in the Public Interest (1998), the Headliner of the Year Award from the San Diego Press Club (1998), the Yamada Prize, (Japan, 1999), the first Aspirin Prize for Solidarity through Chemistry (Spain, 1999), the Max Tishler Prize, Harvard University (2000), the Paul Karrer Gold Medal, Universitat Zurich, Switzerland (2000), the Royal Society of Chemistry Centenary Medal (U.K., 2000-2001), the Ernst Schering Prize, Ernst Schering Research Foundation (2001), and the Nagoya Medal of Organic Chemistry, Nagoya University, Japan (2001). He is a Member of the New York Academy of Sciences (1987), a Fellow of the American Academy of Arts and Sciences (1993) a Member of the National Academy of Sciences, USA (1996), a fellow of the American Association for the Advancement of Science (1999), and holds honorary degrees from the University of Pennsylvania (M.A., 1980), the University of London (D.Sc., 1994), the University of Athens (Ph.D. Honoris causa, 1995), the University of Thessaloniki, Greece (Ph.D., Honoris causa, 1996), the University of Cyprus (Ph.D., Honoris causa, 1997), the Universidad de Alcalá, Madrid, Spain (Ph.D., Honoris causa, 1998), the University of Crete, Greece (1998), and the Agricultural University of Athens (Ph.D. Honoris causa, 2000). In 1996, he was elected Honorary Foreign Member of the Japanese Pharmaceutical Society and in 1999, an Honorary Professor of the Shanghai Institute of Organic Chemistry, China. K.C. Nicolaou's research interests focus on chemical synthesis, molecular design and molecular recognition, and the biological actions of molecules. He is the author or co-author of more than 500 publications, 67 patents (48 issued, 19 pending) and two books, the last book titled *AClassics in Total Synthesis* with co-author Erik Sorensen.

Professor Nicolaou will present two lectures during his visit to UWO, for which he has provided the following abstracts:

Monday, March 19, 2001 2:30 p.m. Room 145 Natural Sciences Building (new lecture hall)

Chemistry, Biology and Medicine of Natural and Designed Molecules

The endeavor of total synthesis has been central to chemistry throughout the 20th century. Challenged continually by novel molecular structures from nature, synthetic chemists have responded by devising ingenious methods and theories for the total synthesis of natural products with ever-increasing complexity and stunning bond connectivities. While the field of total synthesis has seen enormous strides, its scope and objectives have been evolving to include not only arrival at the target molecule but the invention of new synthetic technologies and chemical biology studies. Contributions to these areas are highly dependent on the target molecules. These targets best serve their purpose as opportunities for discovery and invention when characterized by novel molecular architectures, important biological activities and new mechanisms of action. Such opportunities were presented by the molecules of brevetoxins, epothilones, sarcodictyins, vancomycin, CP-263,114 and CP-225,917, and trichodimerol. Selected results from projects inspired by these natural products will be discussed.

Tuesday, March 20, 2001 11:00 a.m. Room 193 Medical Sciences Building

Enabling Technologies for Biology and Medicine Arising from Endeavors in Total Synthesis

New synthetic technologies arising from endeavors in total synthesis and their applications to the synthesis of biologically active compounds and libraries thereof will be presented. Examples may include new solid phase chemistry and encoding technologies and automation for combinatorial chemistry as well as novel strategies towards unusual natural products.

