

# Introduction to the special issue in honour of George Gokel

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George Gokel was born in New York City but raised in Florida. He received his BS in chemistry from Tulane University in 1968 and his PhD in organic chemistry in 1971 from the University of Southern California. After two years of post-doctoral study with Nobel Laureate Donald Cram at UCLA and a brief stay at Dupont's Central Research Department, he was appointed an Assistant Professor of Chemistry at Pennsylvania State University in 1974. He moved to the University of Maryland as an Associate Professor in 1978 and was promoted to Professor in 1982. In 1985, he moved to the University of Miami in Florida as Professor and Associate Chairman. He moved again, in 1993, to the Washington University School of Medicine as a Professor in the Department of Molecular Biology and Pharmacology, and was

the Director of the Chemical Biology Program. Since 2006, he has been a Distinguished Professor of Chemistry and Biology in the Department of Chemistry at the University of Missouri-St. Louis.

Professor Gokel's early work was in the area of phase transfer catalysis, and he co-authored the first monograph in that field in 1978. He invented the compounds known as "lariat ethers" and studied them extensively. Crown ethers that have redox-switchable side arms evolved from the lariat ethers, and he introduced ferrocene as a structural and functional element in supramolecular chemistry. His research work has produced more than 300 papers and a dozen patents. He has authored, co-authored, or edited fifteen books.

Professor Gokel's research work has gradually evolved in the direction of biology, in part thanks to the influence of collaborator Jeffrey Gordon. Their studies into understanding the binding and selectivity of the enzyme *N*-myristoyltransferase (NMT) produced nearly 30 joint papers and patents. During the past 10 years, Professor Gokel has pioneered the development of synthetic cation channels that function in phospholipid bilayer membranes. These compounds are of value in understanding the function of the far more complex channel-forming proteins. In recent collaborative work with Professor Paul Schlesinger at the Washington University School of Medicine's Cell Biology

Department, Professor Gokel has developed a family of membrane-anchored peptides that function as anion channels. These relatively simple structures exhibit remarkably complex behavior that, it is hoped, will lead to a better understanding of channel function in general. Because certain of these compounds are chloride selective, it is hoped that they may have therapeutic value in the treatment of cystic fibrosis.

Professor Gokel's wife, Kathryn, also has a BS in chemistry, which she complemented with an MBA degree. They have three sons, who, like Professor Gokel, have black belts in Tae Kwon Do.

Professor Gokel joined the Editorial board of *NJC* in 2001, serving two three-year terms, the second as the US Associate Editor from 2004 to 2006. In 2006, George turned 60 years young, and it seems a fitting tribute to his years of service to scientific research and publishing to produce this special 60th Birthday issue in his honour. The quality of the manuscripts we have received, and the alacrity with which the invitations to contribute have been accepted by George's peers, colleagues, co-workers and friends, demonstrate very clearly the significance of his ongoing contribution to science. We look forward to the next 60 years!

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