

## In Honor of Professor Chi-Huey Wong on the Occasion of His 60<sup>th</sup> Birthday



Chi-Huey Wong

Professor Chi-Huey Wong was born on August 3, 1948 in Chiayi, Taiwan. He obtained B.S. (1970) and M.S. (1977) degrees from National Taiwan University, then earned his Ph.D. from the Massachusetts Institute of Technology in 1982, under the direction of Professor George Whitesides. After a postdoctoral year at Harvard with Whitesides, he started his independent career as assistant (1983–1986), associate (1986–1987), and full professor (1987–1989) at Texas A&M University. In 1989 he became Professor and Ernest W. Hahn Chair in Chemistry at The Scripps Research Institute (TSRI). In addition, from 1991–1999 he was Head of the Frontier Research Program in Glycotechnology at RIKEN, Japan, and from 2003–2006 was Director of the Genomics Research Center at Academia Sinica, Taiwan. In 2006 Professor Wong was appointed President of Academia Sinica; he also remains a Professor of Chemistry at TSRI.

Among Professor Wong's numerous awards, he received the ACS Cope Scholar Award (1993), the Presidential Green Chemistry Challenge Award (2000), the ACS Award for Creative Work in Synthetic Organic Chemistry (2005), the Alexander von Humboldt Research Award (2006), and the F. A. Cotton Medal (2008). His international memberships include Academia Sinica (1994), the American Academy of Arts and Sciences (1996), the US National Academy of Sciences (2002), and the American Association for

the Advancement of Science (2005). In addition to serving on the Editorial Board of *Advanced Synthesis and Catalysis* since its inception, Professor Wong has since 1993 been Editor-in-Chief for *Bioorganic & Medicinal Chemistry*, and is currently Chairman of the Executive Board of Editors for Tetrahedron Publications. To date, Professor Wong has authored over 600 publications and is an inventor on more than 60 patents.

Professor Wong is well-known in the scientific community for creative approaches to science. As a graduate student and postdoctoral fellow in the Whitesides lab, he pioneered the application of enzymes in synthetic chemistry. He expanded this approach in his independent career, applying a wide variety of enzymes for synthetic purposes, including aldolases, glycosyltransferases, lipases, proteases, dehydrogenases, and sulfotransferases. His invention of elegant cofactor regeneration systems has been essential for rendering many biocatalytic processes practical on a preparative scale. These enzymatic advances have been used as a springboard for development of new methods in carbohydrate chemistry and glycobiology.

More recently, the invention of programmable one-pot oligosaccharide synthesis, in concert with enzymatic methods, has enabled development of glycan microarrays for high throughput analysis of protein-carbohydrate interactions. His development of new

methods for glycopeptide and glycoprotein synthesis, as well as proteomic analysis of glycoproteins in vivo, are important steps in gaining an understanding of the role of glycosylation on protein function, and in human disease.

To many who have met him only briefly, Professor Wong may appear to be a man of few, though brilliant, words. To his friends, family, and colleagues, he is a warm and generous person, with a wickedly dry sense of humor and a flair for entertainment. His students quickly learn that he is a true polymath, and his open management style in the laboratory offers students real freedom of intellectual pursuit. Nothing is off-limits scientifically. This imbues both independence and creativity in the students and postdoctoral associates that he trains, of whom there are more than 200 to date. Professor Wong takes great pride in the success of his students and postdocs, who have gone on to faculty appointments at Scripps, UCSD, Michigan, Stony Brook, Boston University, Indiana, Ohio State, Tennessee, Toledo, National Tsing-Hua University in Taiwan, Humboldt University of Berlin, and Konstanz, among other universities around the

world. In addition, former Wong group members can be found at most pharmaceutical companies, including Pfizer, Novartis, Merck, Bayer, Roche, Johnson & Johnson, and BMS, as well as biotechs including Amgen, Gilead, Albany Molecular, Array Biopharma, Kalypsys, Codexis, Verenum, and Optimizer. Perhaps this extended scientific family is Wong's greatest legacy. On behalf of this group, we wish Professor Wong a happy 60<sup>th</sup> birthday, with respect and admiration.

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