Advances in Target-Oriented Synthesis – A Recent Account

by Professor David Yu-Kai Chen
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Host: Prof Lu Yixin         Fri, 22 March 2019    10:00 – 11:30    MD1-08-01E Seminar Room 2

About Professor David Yu-Kai Chen

Professor Chen was born in Taipei, Taiwan in 1976. He received his B.Sc. (Honors) from the University of Auckland (1997) and Ph.D. under the supervision of Professor Ian Paterson at Cambridge University (2001). After postdoctoral training under the direction of Professor K.C. Nicolaou at the Scripps Research Institute (2002–2003), he joined the Merck Research Laboratory at Rahway–New Jersey as a Senior Research Chemist (2003–2005). He was appointed as the first Principal Investigator of the Chemical Synthesis Laboratory (CSL) @ Biopolis under A*STAR, Singapore in Mar 2015. During his tenure in Singapore, he also held an Adjunct Associate Professorship at the division of Chemistry and Biological Chemistry (CBC), Nanyang Technological University, Singapore. In 2011, he relocated to Seoul, South Korea, where he was appointed as Professor of organic chemistry at the Seoul National University. Professor Chen has been awarded College of Natural Sciences Teaching Award (2017); Ernest Ritchie Memorial Lecturer (2014); Novartis Early Career Award in Organic Chemistry (2011); and many others.

Abstract

Over the course of history, Target-Oriented Organic Synthesis has served admirably as a vehicle for advancing chemical, physical and biological sciences. Concurrently, the thought-process behind a synthetic chemist’s mind, as reflected in the masterfully designed and executed synthetic campaign, has also evolved tremendously over the last two decades. While serving its multifaceted role in methodological developments, structural and biological investigations, we pondered the underlying scientific essence that is uniquely bestowed by target-oriented Total Synthesis. In this talk, snapshots of current projects from a design viewpoint will be discussed, together with personal thoughts of Target-Oriented Organic Synthesis. Hopefully, this lecture will transform our perception of total synthesis beyond simply a “compound-making” exercise, and uncover new possibilities for future directions.

References


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