## Chemical and Systems Biology for the Discovery and Validation of Druggable Targets

Sunghoon Kim

Medicinal Bioconvergence Research Center Department of Molecular Medicine and Biopharmaceutical Sciences Seoul National University, Seoul, Korea



Medicinal Bioconvergence Research Center (Biocon) was established in 2010 under the program called global frontier initiated by the Ministry of Education, Science and Technology (MEST), Korea. This project was designed to innovate drug discovery process by combining biology and chemistry with other multiple disciplines for rapid discovery and validation of therapeutic targets and drug leads so that they can be delivered to industry. In Biocon,

chemical biology is often employed to validate the efficacy of the disease-associated genes and proteins that have been identified from integrated approaches of genomics, proteomics and bioinformatics. In particular, chemicals are screening to modulate protein-protein interactions or alternative splicing that show therapeutic potential. Here we show a few case studies that proved useful to develop novel chemicals that show a potential as novel anti-cancer therapeutics.

**Sunghoon Kim** Professor, Seoul National University; Director, Medicinal Bioconvergence Research Center; B.S. 1981, Seoul National University; M.S. 1983, Korea Advanced Institute of Science and Technololgy; Ph.D. 1991, Brown University; Postdoctoral Training 1991-1994, MIT; *Molecular and cell biology for target discovery*; Tel: 82-2-880-8180, Fax: 82-2-875-2621, E-mail: sungkim@snu.ac.kr