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Small molecules to control cell fate

Rajkumar Halder, Ph.D. Scientist E Drug Discovery Research Center Translational Health Science and Technology Institute Gurgaon- 122016

496 Seminar Hall, THSTI 3.00 pm 5th June(Thursday) 2014 The greatest challenge facing our global future today is 'Health'. To have a better living standard, a growing world population will need easily available and cheaper medicament, especially in cancer and infectious diseases. To combat this impending situation, New Molecular Entities (NMEs) are needed especially in the area of endemic cancer and infectious diseases. NMEs can be developed by combining basic research with applied science keeping in mind that chemistry is central to everything. This talk will place the scale of the global medical issue in perspective and then discuss some of the issues related to basic science that is needed to emulate drug discovery. With this basic science in place, the design and synthesis of desired compounds and their application to cure diseases through controlling the cell fate in vitro and in vivo will be presented.

Dr. Rajkumar Halder attended Indian Institute of Technology, Kharagpur where he received an M.Sc in Chemistry in 2002. He later moved to the University of Basque country, Spain where he began research on asymmetric synthesis in organic Chemistry. After earning his Ph.D. degree with Highest Honors summa cum laude in 2006, he accepted Max-Plank fellowship to work on catalysis and biocatalysis in organic synthesis at Max Planck Institute for coal Research, Muelheim, Germany. Then he started to work with Prof. Peter G. Schultz on biomedical research on cancer, stem cells and Mycobacterium tuberculosis at The Scripps Research Institute, La Jolla, USA. He was also a scientist at Novartis (GNF), San Diego. Currently, he is Scientist 'E' in Drug Discovery Research Centre at Translational Health Science and Technology Institute, Gurgaon. India.