INDIAN INSTITUTE OF SCIENCE
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Professor A. Srikrishna Memorial Lecture 2018

Molecular Complexity and Diversity from Aromatics: Concept, Strategy and Reality

by

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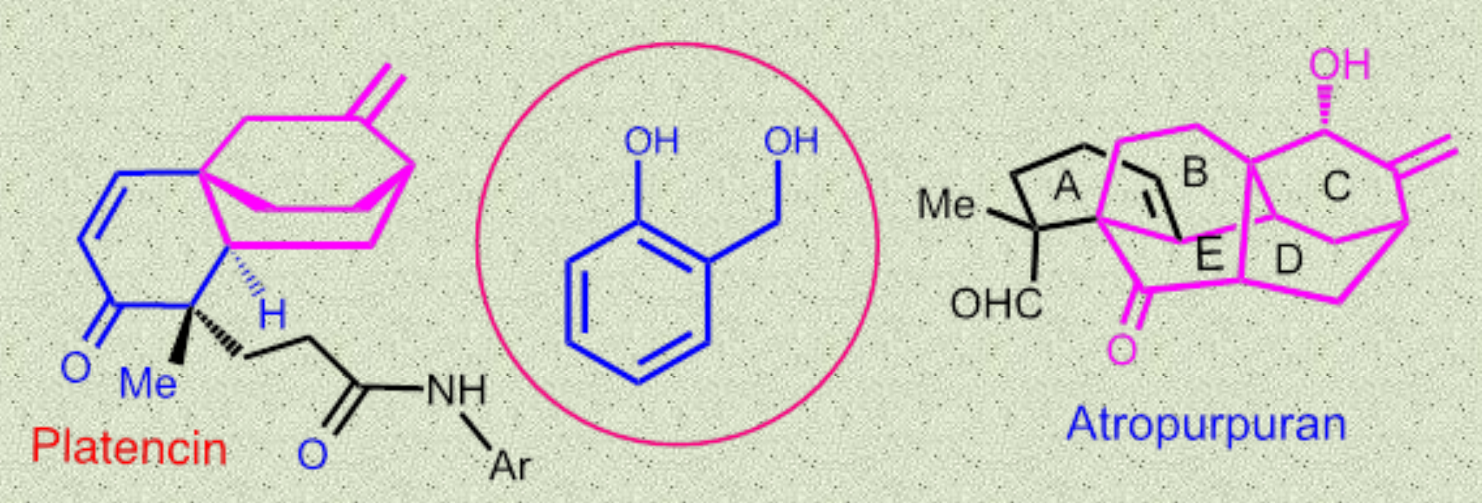
ABSTRACT

Efficient creation of structural, functional and stereochemical complexity from simple precursors is one of the most important and desirable aspects of development of contemporary synthetic methodology. Evolution of a novel and efficient methodology for the synthesis of diverse molecular architectures and its application in the synthesis of natural products will be presented. Oxidative dearomatization, inverse demand cycloaddition and reactivity modulation in ground and excited states are the key features of our design and approach. Recent application of methodology towards synthesis of platencin, atropurpuran and sterpurenone will also be presented.



ABOUT THE SPEAKER

Vishwakarma Singh obtained his M. Sc. and Ph.D. degree from University of Gorakhpur. After post-doctoral studies in India (Professor G. Mehta), Japan (Prof. E. Osawa, Hokkaido University, Sapporo) and USA [Professor A. R. Martin (university of Arizona at Tucson) and Prof. J. B. Hensrickson Brandeis University, Waltham, Massachusetts), Dr. Singh worked at Malti-Chem Research centre, Nandesari, Baroda (1982-1984) and M. S. University of Baroda (1984-89). Subsequently, he moved to Indian Institute of Technology Bombay where he was a Professor of Chemistry (untill June 2017). He is the recipient of several endowment awards. Professor Singh is a fellow of National Academy of Science India (NASI) and the Indian National Science Academy (INSA), New Delhi. Professor Singh is a recipient of the JC Bose National Fellowship (Department of Science and Technology, New Delhi) and was a recipient of Institute Chair Professorship (IIT Bombay). Professor Singh has received several recognitions for his outstanding and creative chemistry such as Silver medal of CRSI (2011). Professor Singh has also received award for Excellence in Teaching (IIT Bombay, 2014 and 2016). His research interests are in the area of organic synthesis and photochemistry.

Tea: 4:10 PM

Date: Monday, 5th February 2018
Venue: Faculty Hall
Main Building, IISc
Time: 4:30 PM

Director, IISc will preside