

TIFR Centre for Interdisciplinary Sciences, Narsingi, Hyderabad 500075

<u>Seminar Notice</u> <u>From C-H Functionalization to Radical Mediated</u> <u>Opening of Chiral Expoxy Alcohols</u>

Dr. Rajarshi Samanta

Max-Planck Institute of Molecular Physiology, Dortmund, Germany

Abstract: In my first part of talk, I will discuss about the C-H functionalization. C-H functionalization is the straightforward and atomeconomic approach for the synthesis of complex valuable chemicals from cheap feedstock. The functionalization of C(sp2)-H bonds of aromatic compounds provides access to key scaffolds of natural products, drugs, and materials. Organocatalytic, oxidative, intramolecular and intermolecular C-H amination at ambient temperature will be discussed. Second part of my talk would be focussed on Ti(III) mediated regioselective opening of chiral epoxy alcohols followed by its intermolecular trapping with electron deficient double bonds. Further this method was extended to its intramolecular version and applied for the synthesis of highly substituted carbocycles, oxacycles and azacycles. Finally the developed methodologies were applied for the total synthesis of biologically active natural products. The last part of my talk will deal with future research plans.

Date: Thursday, January 24th 2013 Time: 11:30AM (Tea/Coffee at 11:15 AM) Venue: Conference Hall, TCIS

All are cordially invited