Hybrid systems are gaining enormous interest in drug discovery campaigns. Diversity-oriented synthesis, design and generate libraries of functionally diverse molecules. We have developed a biology driven DOS strategy that involves 5 and 6-endo-trig cyclizations towards natural product inspired hybrid systems, where the structural diversity is defined by natural product templates and the “privileged scaffolds” attached to it. We have synthesized 14 hybrid systems with complex framework, disparate stereochemistry and predominant Csp3 centres. They have wide shape diversity, as depicted by principal moment-of-inertia analysis. The final hybrids were screened against several drug resistant malarial cells, mycobacterium tuberculosis, leishmania cells and MCF-7 cancer cell line to assess their extent of cellular modulation on phenotypic screening.

Date: 27th October 2014 (Monday)
Time: 11:00am – 12:30pm
Venue: NTU SPMS CBC Building Level 2, Conference Room
Host: Assoc Professor Roderick Bates