NANYANG TECHNOLOGICAL UNIVERSITY

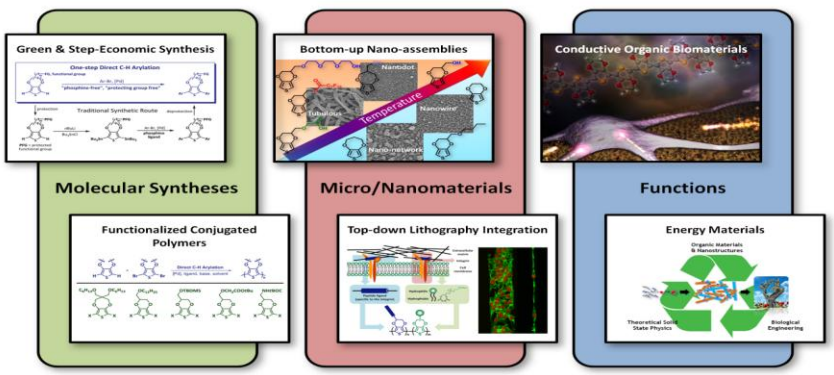
# CBC SEMINAR ANNOUNCEMENT

## Professor Hsiao-hua Yu Bruce
## RIKEN Advanced Science Institute

### Organic Conductive Biomaterials: from Efficient Syntheses to Bioengineering Applications

The research of Yu Initiative Research Unit focus on the development of independent and multidisciplinary research program though the triangle of chemistry, electronic materials, and biomedical/biological investigations based on molecular and nano-assembled building blocks of conducting polymers. Although many applications of conducting polymers have been demonstrated feasible, there was only limited research toward biological and biomedical applications based on the non-functionalized forms of conducting polymers. Conducting polymers introduce electrical characteristics to build up the complexity necessary for further understanding of the targeted biological/biomedical issues. In our research, we utilize conductive molecular building blocks to synthesize conducting polymers tool-kits for biologoical/biomedical applications.

In this talk, it will contain mainly three parts: (1) more efficient and atom-economic strategy to synthesize molecular building blocks for functional-pi materials, (2) chemical and electrochemical approaches to synthesize different nanostructured conducting polymer, and (3) utilization of nanostructured and functionalized conducting polymers for various bioengineering applications, particularly biosensing and cell engineering.

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| **Date:** | **14th September 2012 (Friday)** |
| **Time:** | **11:00am – 12:30pm** |
| **Venue:** | **NTU SPMS CBC Building Level 2, Conference Room** |
| **Host:** | **Asst Professor Martin Pumera** |