



*The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series*

Speaker: Professor Tetsuro Majima
The Institute of Scientific and Industrial
Research (SANKEN)
Osaka University

Title: Development of TiO₂ Photocatalysts

Date: July 12, 2017 (Wednesday)

Time: 2:30 p.m.

Venue: L3
Science Centre





The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series

Speaker: Prof. Wenping Hu
Department of Chemistry
Tianjin University

Title: Small Crystal World of Organic Semiconductors

<< Abstract >>

The use of micro and nanometer sized organic and polymeric single crystals to fabricate devices can keep all the advantages of single crystals, avoid the challenge for the growth of large sized crystals, and provide a way to characterize organic and polymeric semiconductors more efficiently. Moreover, the effective use of such “small” sized crystals will be meaningful for organic electronics, e.g., the construction of high performance organic transistors. Here, the growth of organic and polymeric single crystals, the structure-properties dependence and optoelectronic devices based on “small” crystals, and present challenges are introduced.

Date: July 13, 2017 (Thursday)

Time: 10:30 a.m.

Venue: L3
Science Centre



ALL ARE WELCOME

Contact Person:
Prof. Qian Miao



The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series

Speaker: Prof. Gerard C.L. Wong
Department of Chemistry & Biochemistry
California NanoSystems Institute
UCLA

Title: Chemistry and machine learning meet innate immunity
and autoimmunity

<< Abstract >>

Biomolecular self-assembly can play unexpected roles in infectious diseases and immunity. It is well-known that antimicrobial peptides (AMPs) can kill pathogens via a range of mechanisms, such as permeation of bacterial membranes or binding or intracellular targets. Likewise, it is a commonplace notion that AMPs such as defensins or cathelicidins can be immunomodulatory, and amplify cytokine mediated immune responses in the presence of virulence factors, endotoxins, and other immune ligands. The root mechanisms behind these distinct activities are at present not fully understood. Here, we will discuss how AMPs can assemble into protofibrils that act as cofactor templates for the recruitment and multivalent presentation of immune ligands, leading to potent immunomodulation. Examples illustrate how these effects operate in inflammation induced by heart disease, necrotic cell death, neutrophil extracellular traps, and autoimmune diseases. We will also discuss how machine learning can be used to map out the undiscovered sequence space of innate immunity peptides, and how this knowledge may be used to create new molecules against multi-drug resistant bacteria by renovating existing obsolete antibiotics.

Date: July 21, 2017 (Friday)

Time: 10:30 a.m.

Venue: Room C1
Lady Shaw Building



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Contact Person:
Prof. Chi Wu