For favour of posting

The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series
（普通話主講）

Speaker: 常俊標教授
河南師範大學

Title: 核苷類創新药物的研發策略

Date: November 3, 2017 (Friday)

Time: 4:00 p.m.

Venue: Room 128
Science Centre

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Contact Person:
Prof. Henry N.C. Wong

For favour of posting

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

Speaker: Prof. Paolo Melchiorre
Institute of Chemical Research of Catalonia
Spain

Title: The Bright Side of Enantioselective Organocatalysis

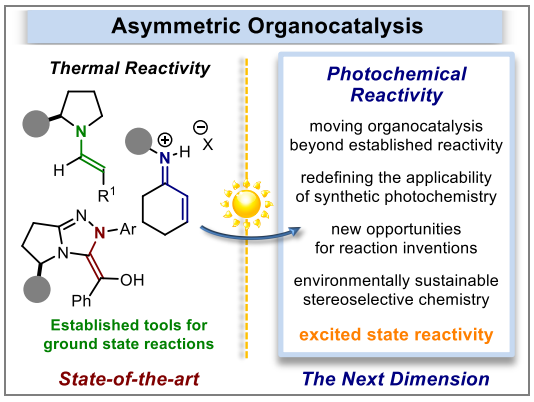
Date: November 14, 2017 (Tuesday)

Time: 2:30 p.m.

Venue: L3, Science Centre

< Abstract >

Light-driven processes considerably enrich the modern synthetic repertoire, offering a potent way to build complex organic frameworks (1). In contrast, it is difficult to develop enantioselective catalytic photoreactions that can create chiral molecules with a well-defined three-dimensional arrangement (2). Recently, our research laboratories (3) has started a program aimed at translating the effective tools governing the success of ground state asymmetric organocatalysis into the realm of photochemical reactivity, exploiting the potential of key organocatalytic intermediates to directly participate in the photoexcitation of substrates. At the same time, the chiral organocatalyst can ensure effective stereochemical control. This single catalyst system, where stereoinduction and photoactivation merge in a sole organocatalyst, can serve for developing novel enantioselective photoreactions. The new synthetic possibilities, opened up by the application of organocatalysis within photochemical and radical patterns, will be discussed (4).



References

(1) Schultz, D. M.; Yoon, T. P. *Science* **2014**, *343*, 1239176.
(2) Brimioulle, R.; Lenhart, D.; Maturi, M. M.; Bach, T. *Angew. Chem., Int. Ed.* **2015**, *54*, 3872–3890.
(3) (a) Arceo, E.; Jurberg, I. D.; Á lvarez-Fernández, A.; Melchiorre, P. *Nature Chem.* **2013**, *5*, 750–756. (b) Woźniak, Ł.; Murphy, J. J.; Melchiorre, P. *J. Am. Chem. Soc.* **2015**, *137*, 5678–5681. (c) Murphy, J. J.; Bastida, D.; Paria, S.; Fagnoni, M.; Melchiorre, P. *Nature* **2016**, *532*, 218–222.

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Contact Person:
Prof. Y.Y. Yeung

For favour of posting

The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series
（普通話主講）

Speaker: Professor Lianzhou Jiang (江連洲教授)
College of Food Science (食品學院)
Northeast Agricultural University
(東北農業大學)

Title: 植物蛋白高值化加工技術及新產品創制

Date: 17 November, 2017 (Friday)

Time: 2:00 p.m.

Venue: Room C2
Lady Shaw Building

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Contact Person:
Prof. Chi Wu

For favour of posting

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

Speaker: Prof. Amir H. Hoveyda
Department of Chemistry
Boston College

Title: New Concepts, Catalysts and Methods in Stereoselective Olefin Metathesis

Date: November 17, 2017 (Friday)

Time: 4:30 p.m.

Venue: Room 702
Mong Man Wai Building

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Contact Person:
Prof. Michael F.Y. Kwong

For favour of posting

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

Speaker: Dr. John Sui-Man Wai
Vice President of Medicinal Chemistry
WuXi App Tec, Shanghai

Title: Discovery of HIV Integrase Inhibitors: From diketoacid hit to Raltegravir and beyond

Date: November 20, 2017 (Monday)

Time: 2:30 p.m.

Venue: Room G34, Lady Shaw Building

< Abstract >

Human immunodeficiency virus-type 1 (HIV-1) is the etiological agent of acquired immunodeficiency syndrome (AIDS). The unique nature of the replicative cycle of HIV-1 provides many potential targets for chemotherapeutic intervention. One of these targets, the viral enzyme integrase, catalyzes the insertion of proviral DNA into the genome of host cells. Integration is a multistep process which includes three different biochemical steps: assembly of the proviral DNA on integrase, endonucleolytic processing of the proviral DNA, and strand transfer of the proviral DNA to host cell DNA. The complexities of the integration process, the technical challenges of studying the enzyme itself, and the chemical nature of the lead compound presented many obstacles for early drug discovery efforts. After many years of effort, the viability of integrase strand transfer inhibitors as a therapeutic target was validated in vitro and the first clinical proof of concept was achieved in HIV-1 infected patients with L-870810. Further optimization led to the identification of Raltegravir and its approval for treatment of HIV-1 infection in 2007. This presentation will review the role of integrase in HIV-1 infection, the mechanism of action of integrase inhibitors, and key structural features shared by inhibitors. Discovery efforts in the identification of next generation of strand transfer inhibitors will also be discussed

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John Wai obtained his BSc and MPhil in chemistry from the University of Hong Kong and his PhD (1985-88) in total synthesis of natural products from the University of British Columbia, Canada with late Professor Edward Piers. After finishing his post-doctoral training with Professor K. Barry Sharpless (Nobel Laureate) on mechanism of osmium catalyzed asymmetric dihydroxylation of olefins, John joined Merck Research Laboratories, Department of Medicinal Chemistry (West Point, PA) in 1989. He contributed to the discovery efforts of a number of programs, from target validation & lead identification to lead optimization & early development. This includes HIV-1 non-nucleoside reverse transcriptase inhibitors, ras-farnesyl protein transferase inhibitors, fibrinogen receptor antagonists, HIV integrase strand transfer inhibitors, HIV RNase H inhibitors, gamma secretase inhibitors, etc. Through the years, John rose through the ranks and was promoted to be Director of Medicinal Chemistry in 2005. In 2007, he received the Distinguished Scientific Award from the inaugural Merck WP Basic Research Reward and Recognition Forum for his work on HIV integrase inhibitors. In 2013, John received the Heroes of Chemistry Award from the American Chemical Society for his contribution to the discovery and development of Isentress, the first HIV integrase inhibitors approved for treatment of AIDS (2007). In 2008, the Merck Integrase Inhibitor team was honored with the Galien Prix, which is considered as the Nobel Prize in the pharmaceutical industry. John joined WuXi Apptec (Shanghai) as Vice President of Medicinal Chemistry in 2014, and was appointed shortly after as Adjunct Professor at Fudan University, College of Pharmacy, Department of Medicinal Chemistry. In 2016, he is recipient of the prestigious Pudong 100 award.

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Contact Person:
Prof. To Ngai

For favour of posting

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

Speaker: Prof. Shuanhu Gao
School of Chemistry and Molecular Engineering
East China Normal University

Title: Natural Products Total Synthesis Using Photo-reactions

Date: November 28, 2017 (Tuesday)

Time: 2:30 p.m.

Venue: L3
Science Centre

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Contact Person:
Prof. Henry N.C. Wong

For favour of posting

Revised

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

Speaker: Professor Yong Tang
Shanghai Institute of Organic Chemistry
Chinese Academy of Sciences

Title: Sidearm Approach to Catalysts for Olefin Polymerization: Controllable Synthesis of Polyethylenes

Date: November 30, 2017 (Thursday)

Time: 4:30 p.m.

Venue: L3
Science Centre

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Contact Person:
Prof. Zuowei Xie