Department of Chemistry
香港城市大學
City University of Hong Kong

Special Departmental Seminar

By

Prof. WEI Hui

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Rational Design of High-Performance Nanozymes for Biomedical Applications

Date: **4 August 2026 (Tuesday)**

Time: **10:00 am – 11:00 am**

Venue: **B5-211 (Blue Zone, 5th Floor)**
Yeung Kin Man Academic Building
City University of Hong Kong

For abstract, please refer to the attached sheet.

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~ All Are Welcome ~

Abstract

Nanozymes are functional nanomaterials with enzyme-like catalytic activities. Compared with natural enzymes and conventional enzyme mimics, nanozymes offer unique advantages, including high stability, low cost, tunable catalytic performance, and multifunctionality. Since their discovery, nanozymes have attracted significant attention for applications in bioanalysis, bioimaging, disease diagnosis, and therapy. Despite substantial progress, the rational design of high-performance nanozymes remains a major challenge. In this seminar, I will present our recent advances in the guided design of high-performance nanozymes, focusing on the development of structure–activity relationships and design principles, as well as their applications in biomedicine.

Key references:

《纳米酶》，化学工业出版社，2025.

Nature Reviews Methods Primers, 2024, 4, 36.

Chemical Society Reviews, 2013, 42, 6060-6093.

Biography

Dr. Hui Wei is a Professor in School of Biomedical Engineering at Nanjing University. He joined Nanjing University after completing two postdoctoral trainings with Professors Yi Lu and Shuming Nie. He received his BS degree from Nanjing University in 2003, where he conducted undergraduate research with Professor Xinghua Xia, and subsequently joined Professor Erkang Wang's group at the Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, earning his PhD in 2009. He has published over 100 papers in peer-reviewed international journals, which have been cited more than 20,000 times (H-index 73), and he is recognized as a Highly Cited Researcher by Clarivate. His research focuses on functional nanomaterials and new methodologies for analytical and biomedical applications. Dr. Wei has received numerous honors, including the Advances in Measurement Science Lectureship Award (2025), Nature Awards Microbiome Accelerator (2024), Dalton Horizon Prize (2023), National Science Fund for Excellent Young Scholars (2017), Fellow of the Royal Society of Chemistry (2015), Shuangchuang Program Award of Jiangsu Province (2014), Thousand Talents Program Award for Young Researchers (2012), and the Excellent Prize of the President Scholarship of the Chinese Academy of Sciences (2009). He previously served as an Associate Editor of the Chinese Journal of Chemistry and currently serves as an Associate Editor of ACS Nano Medicine.