



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



**Synthesis and Biosensing
Applications of Plasmonic
Nanoparticles**

Professor Jwa-Min Nam
Department of Chemistry
Seoul National University

17 January 2023 (Tuesday)
2:00 PM
SC 158

Contact Person:
Professor Zhifeng HUANG



Synthesis and Biosensing Applications of Plasmonic Nanoparticles

Jwa-Min Nam*

Department of Chemistry, Seoul National University, Seoul, South Korea

*jmnam@snu.ac.kr

Designing, synthesizing and controlling metal nanostructures with a superhigh precision are the keys to the reliable and widespread use of plasmonic nanostructures in optics, nanoscience, chemistry, materials science, biotechnology and medicine. Here, I will introduce the design, synthetic strategies and characterization of plasmonic nanostructures with strong, controllable and quantifiable plasmonic signals including quantitative surface-enhanced Raman scattering. I will then show their potential in addressing some of important challenges in plasmonics, biosensing, bioimaging and therapeutics, and discuss how these new plasmonic materials and platforms can lead us to new breakthroughs in nanochemistry, molecular computing, nanomachines/nanorobotics and next-generation disease diagnostics.