Department of Biomedical Sciences

presents the seminar series in Cancer Biology, Biotherapy and Nanomedicine



Functionalization and delivery of Pt(IV) anticancer prodrugs

Dr. Guangyu Zhu
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Time: 4:00pm to 5:00pm

Venue: Meeting Room 2-130, 1/F, Block 2, To Yuen Building

Abstract

Despite the broad clinical applications of platinum-based anticancer drugs including cisplatin, their side-effects and resistance issues have encouraged researchers to look for novel metal-based anticancer complexes. Non-traditional platinum compounds have been extensively studied and they hold the promise to be further developed as the next-generation platinum drugs. On the other hand, using nanomaterials to deliver cisplatin specifically into cancer cells has proven to be promising to increase the anticancer efficacy of cisplatin and has been a hot topic in the recent years. In this presentation, I will summarize the recent progress in my laboratory in 1) the design, synthesis, and biological evaluation of dual-targeting non-traditional platinum anticancer agents and 2) co-delivery of platinum prodrugs and small molecules perturbing pathways related to cisplatin mechanisms. An example of cisplatin-loaded immuno-chemotherapeutic nanohybrid bearing immune checkpoint inhibitors for enhanced cervical cancer therapy will be given.

About the Speaker

Dr. Guangyu Zhu is an Associate Professor in the Department of Chemistry at CityU. He obtained his B.Sc. in Chemistry from Peking University and Ph.D. in Biological Chemistry from the Department of Chemistry at the University of Pittsburgh. He subsequently did his postdoc at Massachusetts Institute of Technology (MIT), working on the mechanism of action of cisplatin, one of the most widely used chemotherapeutic drugs in the clinic. He joined the City University of Hong Kong as an Assistant Professor in 2011. Dr. Zhu's current research interest lies at the interface of chemistry and biology, with a focus on anticancer drug development and mechanism.

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