

presents the seminar series in
Cancer Biology, Biotherapy and Nanomedicine

**Regulation of genome stability and anti-cancer
drug resistance**

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Date : 19 Jul 2019 (Fri)
Time : 11:00 - 12:00
Venue : YEUNG-P4302, Yeung Kin Man Academic Building

Abstract

My presentation has two sections. In the first section, I will present data showing how And-1 regulates DNA damage response in cancer cells. In the second section, I will talk our strategy to study anti-cancer drug resistance, as well as a newly identified mechanism regulating platinum drug resistance in ovarian cancer.

About the Speaker

Dr. Zhu have been working on broad areas in molecular biology and cancer biology, with specific training and expertise in the fields of DNA damage response, DNA replication, anti-cancer drug resistance in ovarian cancer. Dr. Zhu is in the editorial board of JBC, and is the associate editor of cancer medicine. He has more than 15 years of experience in both basic and translational cancer research. He was the first to find that And-1 is a key component of replisome to regulate DNA replication in higher eukaryotes and loss of geminin leads to DNA re-replication in human cells. In the past, Dr. Zhu served as PI on NIH and ACS funded grants. He has been working on high-throughput screen and drug discovery for more than 10 years. Recently, he has established an innovative quantitative high throughput combinational screen (qHTCS) to identify new drug combinations for treatment of platinum drug resistant ovarian cancer. Using this qHTCS, he found that constitutively activated IL-11-JAK2-STAT5 pathway is critical to maintain platinum resistance in ovarian cancer, which is confirmed by clinical studies. A clinical trial based on this study is pending. In addition, recently he has reported several other pathways regulating platinum drug resistance in ovarian cancer.