Join us for the

WISE/LP SEMINAR

November 7, 4:30 PM

Lecture Room 2, Grad. School of Veterinary Medicine

Cancer Epigenetics, Metastasis, and Antitumor Immunity

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ABSTRACT

Epigenetic aberrations often lead to cancer and other human diseases. It has been well established that many epigenetic regulators control various processes of tumorigenesis, including metastasis and evasion of immunosurveillance. Among these epigenetic regulators, the KDM5/JARID1 histone demethylases are demethylases for tri-methylated lysine 4 in histone H3 (H3K4me3), the epigenetic mark for transcriptionally active chromatin. Using KDM5A/B knockout mouse models, we showed that loss of KDM5A or KDM5B inhibits tumorigenesis in several genetically engineered mouse models. In addition, we revealed novel mechanisms by which KDM5A/B contribute to tumor progression and metastasis. Furthermore, we identified potent small molecule KDM5 inhibitors that could be further developed for cancer treatment in the clinic.

LEARNING OBJECTIVES

1. Understand the importance of epigenetic contribution to cancer initiation and progression
2. Learn the roles of KDM5 histone demethylases in cancer metastasis and immune evasion
3. Learn new therapeutic avenues for cancer treatment

Discussion with Dr. Yan after the seminar is highly encouraged!

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