



Thursday, November 15, 2018, 12:30 pm

Seaver Science Library, Room 150

SSC Auditorium next to the library

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Regulation and Inhibition of Jumonji Histone Demethylases

Lysine methylation is a functionally diverse chromatin modification with a regulatory role in a number of processes such as heterochromatin formation, transcriptional regulation and DNA repair. The spatial and temporal localization of histone methylation is achieved by opposing activities of histone modifying enzymes - methyltransferases, enzymes that deposit methylation marks, and demethylases, enzymes that remove them. Jumonji demethylases are a large class of enzymes that antagonize lysine methylation. Misregulation of these enzymes is associated with cancer pathogenesis, prompting investigations into identification of druggable sites and development of small molecule inhibitors. In this talk, I will discuss our work on understanding mechanisms that regulate catalytic activity of demethylases, which led to identification of an allosteric site in KDM5 enzymes. Our efforts to develop small molecule inhibitors of these enzymes will also be highlighted.

Hosted by Professor Chao Zhang

The scientific community is invited

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