Virtual Seminar: Opposing Activities of Chromatin Modifiers in Balancing Stem Cell Division, Differentiation, and Death

Neural stem cell division, neurogenesis, and gliogenesis give rise to all cells in the brain. Dr. Peng’s lab studies the modifiers of histone H3 lysine 27 (H3K27), which regulate genetic programs for neural stem cell amplification and differentiation. Dysfunction in H3K27 modifiers lead to developmental disorders and pediatric brain tumors. The lab has uncovered regulators of these H3K27 modifiers that control stem cell division, differentiation, and death. These advances illuminate epigenetic regulation of neural stem cells and pathogenic mechanisms in brain defects and malignancy.