PROXIMITY-ENABLED CHEMICAL BIOLOGY FOR CELL ENGINEERING AND MICRORNA REGULATION

Presented by Fu-Sen Liang Dec. 1st Clark 101, 4pm

Proximity control is one of the most commonly used strategies in biological regulatory systems. In the past years, we have developed several unique strategies using small molecules to selectively control the proximity between desired molecules in order to regulate associated biological effects in living cells. In this seminar, we will discuss our efforts in developing a new chemistry-integrated synthetic biology platform for rapid reprogramming of mammalian cells. We will also discuss new approaches using bi-functional molecules to regulate the level of microRNAs in cells.