Intracellular regulation of immune system development, function, and malignancy

Immune system development and function can be regulated intracellularly at multiple levels, and abnormality in these regulations can cause immune deficiency, autoimmune diseases, and cancer. In my talk, I will briefly review about the research progresses from our laboratories that reveal how ubiquitin ligases, protein kinases, and microRNA regulate lymphocyte development and activation. I will also present some evidence that modulation of these pathways can sometimes be advantages to the treatment of autoimmune diseases and cancer.