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Yong Sam JUNG, PhD., is a professor of One health laboratory and College of veterinary medicine at Nanjing Agricultural University. Currently, he is also the chief scientist of the Jiangsu and Shandong Foreign Expert Workshop in China. My research aims to define how viruses engage with various host factors/signaling pathways with respect to cellular antiviral immunity, at both the molecular and biochemical levels. This research is intended to pave the way for innovative approaches to future therapeutic interventions. Currently, our laboratory focuses on a few cellular signaling, namely DNA damage repair responses, Ubiquitination and Interferon (IFN) signaling, which have been shown to play important roles in the activation and regulation of various aspects of intracellular immunity during virus infection. The two research goals of my laboratory are, 1) characterize the role of protein homeostasis in virus pathogenesis, including coronavirus, influenza virus and large DNA viruses (i.e. African Swine Fever Virus (ASFV) and Marek's disease virus); 2) Development of diagnosis, antiviral agents and vaccines for coronavirus, influenza, emerging and reemerging viruses. We study this virus-host cell interaction using a number of important viruses in industrial animal farm, including ASFV, Herpes simplex virus (HSV), Marek's disease virus (MDV), Porcine epidemic diarrhea virus (PEDV), and influenza virus.