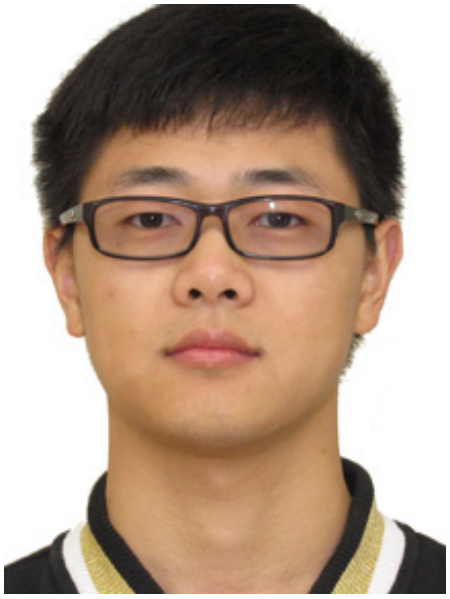
Centre for
Heart Lung Innovation
UBC and St. Paul's Hospital

Centre for Heart Lung Innovation Research in Progress (R.I.P.)



Role of NFAT5 in the Pathogenesis of Coxsackievirus-induced Myocarditis

Guangze Zhao
Graduate Student

Dr. Dechang Yang

Monday Nov 16th, 2020
9:00 a.m. – 10:00 a.m.
Zoom Video Conference
(Meeting ID: 645 5013 1099; Passcode: 783572)

"Viral myocarditis is an inflammatory heart disease caused by viral infection and coxsackievirus B3 (CVB3) is the predominant pathogen for this disease. Upon infection, CVB3 modulates various cellular signaling pathways, leading to cell cycle arrest and programmed cell death. Intercalated Discs (ICDs) are substantial connections maintaining cardiac structure and mediating signal communication among cardiomyocytes. NFAT5 (Nuclear factor of activated T-cells 5) is a transcription factor that shown to regulate some ICD proteins, but it was cleaved by CVB3 viral proteases upon infection. In order to delineate the interplay between NFAT5 and its regulated downstream genes in CVB3 infected conditions, we generated a conditional cardiac-specific NFAT5 knockout mouse model and verified that CVB3-induced reduction of NFAT5 leads to the destruction of ICD structure and alteration of interferon beta activation, which results in the damage of cardiomyocytes and contributes to viral pathogenesis."

This event is a Self-Approved Group Learning Activity as defined by the Maintenance Certification Program of the Royal College of Physicians and Surgeons of Canada

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