



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

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

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**Role of RAR $\gamma$  and its genetic variants S427L in transcriptional response to doxorubicin-induced cardiotoxicity**

**Margaret Huang**  
PhD Student

Dr. Liam Brunham

Monday June 22<sup>nd</sup>, 2020  
9:30 – 10:00 a.m.

**Zoom Video Conference**  
\*\*details in body of email\*\*

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*“Doxorubicin is a commonly used chemotherapy drug that showed effective outcomes in treating many adult tumors and more than half of all childhood cancers, but its clinical usefulness is limited by doxorubicin-induced cardiotoxicity (DIC). A genetic variant of retinoic acid receptor gamma (RAR $\gamma$ , S427L) has been identified associated with DIC and is a potential genetic screening site for future personalized medicine.*

*To better compare the functional impacts of this variant, we used genome-edited iPSC-CMs as isogenic study model. We performed protein structure modeling, luciferase reporter assay and RNA sequencing to investigate the role of RAR $\gamma$ -S427L in transcriptional response to DIC.”*

*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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