**JCV3060H ~~ Advanced Topics in Cardiovascular Sciences: Molecular Biology and Heart Signal Transduction**

**Course Director: Dr. Steffen-Sebastien Bolz**

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**Day/Time: Fridays, 10:00-12:00pm**

This course is one of a set of seven advanced seminar half-credit courses dealing with current areas in the cardiovascular system. Specifically, JCV3060H focuses on various aspects of the genetic, molecular and cellular properties of the heart and its’ development and new techniques used to investigate these areas.

Areas that may be covered include:

* Genetic regulation of heart development and function
* Cell signalling
* Molecular properties of cardiac ion channels, G-protein coupled receptors, sarcoplasmic reticular proteins
* Circadian rhythms of gene expression
* Molecular and cellular mechanisms of heart disease
* Cell transplantation
* Animal models to study heart disease

**Prerequisites**: None

**Maximum Enrolment:** 12

**Minimum Enrolment:** 9 registrants for the course to run

**Enrolment:** Graduate students interested in heart research. Preference will be given to students enrolled in the Cardiovascular Sciences Collaborative Specialization.

**Grading: 20%** manuscript critique

30% oral presentation

40% written essay

10% participation