**JCV3064H ~~ Advanced Topics in Cardiovascular Sciences: Microvascular Medicine**

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

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**Day/Time: Fridays, 8:00-10:00am**

This course is one of a set of seven advanced seminar half-credit courses dealing with current research areas in the cardiovascular system. Specifically, JCV3064H will provide a translational perspective on Microvascular medicine and progress from new molecular concepts of microvascular function to evaluating their clinical applicability and therapeutic value.

Areas that may be covered include:

* Microvascular endothelial function and dysfunction
* Molecular signaling in the Microvascular smooth muscle – specific focus on myogenic responsiveness
* Microcirculation in the lung
* Molecular mechanisms underlying Microvascular dysfunction following subarachnoid hemorrhage
* Aging microcirculation
* Diabetes-associated Microvascular dysfunction
* Microvascular function during general anesthesia
* Circadian rhythmicity in microvascular function
* Phenomenon of neovascularization
* New experimental platforms to assess microvascular function
* Overview of recent clinical trials on therapeutic strategies targeting the function and/or structure of the microcirculation

**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**: 10% essay outline

 30% student presentation – oral presentation on final term paper

 40% final essay – subject dealing with a lecture topic

 15% student seminar contributions and participation

 5% attendance