

# The 164<sup>th</sup> iCeMS SEMINAR

CeMI Seminar Series 42

**15 April 2014**  
**11:00-12:00**

## The diaphragms of fenestrated endothelia: gatekeepers of vascular permeability and blood homeostasis

Lecturer: **Assoc Prof Radu V Stan**

Dept of Pathology, Dartmouth Medical School  
The Geisel School of Medicine at Dartmouth College

Venue: 2nd Floor Seminar Room (#A207)  
iCeMS Main Building (#70), Kyoto University

Vascular permeability is a vital cardiovascular function by which endothelial cells, lining the entire cardiovascular system, mediate the exchange of myriad molecules between the blood plasma and the interstitial fluid of all tissues and organs of vertebrates to mammals. Fenestral and stomatal diaphragms are endothelial subcellular structures that form on organelles implicated in vascular permeability: fenestrae, transendothelial channels and caveolae. Prof. Stan's group found that PV1 protein is required for diaphragm formation and barrier function. Their data provide genetic evidence for the important role of the diaphragms in basal permeability of fenestrated capillaries and the maintenance of blood homeostasis.

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**Hosted by:** iCeMS (Institute for Integrated Cell-Material Sciences), Kyoto University

