



DISTINGUISHED SPEAKER SERIES

Irena Levitan, Ph.D.
Associate Professor
University of Illinois at Chicago
Departments of Medicine, Pharmacology
and Bioengineering

“Cholesterol regulation of endothelial K channels”

Inwardly rectifying K⁺ (Kir) channels constitute a major class of potassium channels which play critical roles in the maintenance of membrane potential and potassium homeostasis regulating multiple cellular functions including membrane excitability, heart rate and vascular tone. Our studies have shown that endothelial Kir channels are significantly suppressed by cholesterol in vitro and by plasma hypercholesterolemia in vivo. We have also shown that cholesterol regulation of Kir channels is direct and that surprisingly it is critically dependent on the cytosolic domains of the channels. Furthermore, most recently we have shown that cholesterol sensitivity of Kir channels is controlled by a belt of residues around the cytosolic pore suggesting that cholesterol regulates the channels through the alteration of channel gating.

Friday, March 18, 2011

10:00 am

GBSF Auditorium, Room 1005

Refreshments Will Be Served

Contact Information:

Alla Fomina, Ph.D.
affomina@ucdavis.edu
Yu-Fung Lin, Ph.D.
yflin@ucdavis.edu