

SPECIAL RESEARCH SEMINAR

Presented by the Center for Vascular and Heart Research at the Fralin Biomedical Research Institute at VTC



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In Person Seminar: Nanocardiology: A Microscopy-Driven Approach to Cardiac Biology and Physiology

A growing body of evidence indicates that cardiac biology and physiology at cellular through organ scales are governed by the action of proteins organized within nanodomains with specialized ultrastructural properties. Importantly, multiple phenomena have been identified, such as ephaptic coupling and excitation-contraction coupling, whose function in health and dysfunction in disease cannot be predicted without accounting for the makeup and behavior of nanodomains. Thus, Dr. Veeraraghavan's laboratory's investigative approach is grounded in high resolution structural and functional imaging, which is complemented by nanoelectrophysiology (Prez Radwański), functional imaging (Sándor Györke) and computational modeling (Seth Weinberg). I Dr. Veeraraghavan will present results from three ongoing projects to illustrate how this multi-pronged approach is enabling us to take on biological and physiological questions ranging from basic science to translational: 1) the nuts and bolts of cardiac impulse propagation; 2) multiscale arrhythmia mechanisms in calmodulinopathy; and 3) distributed protein synthesis in cardiac myocytes.

THURSDAY, MARCH 31, 2022 at 11:00 a.m.

Attend in person in Room G101A&B, 4 Riverside Circle. Watch via Zoom at <https://virginiatech.zoom.us/j/87830803544>
or via livestream at <https://fbri.vtc.vt.edu/events/live-webcast.html>



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