

PIONEERS IN BIOMEDICAL RESEARCH SEMINAR

Presented by the Fralin Biomedical Research Institute at VTC and co-sponsored by the institute's Center for Vascular and Heart Research



KAREN K. HIRSCHI, Ph.D.

Director, Developmental Genomics Center
Professor, Department of Cell Biology
University of Virginia

In Person Lecture: Regulation of Endothelial Cell Specialization

During the process of blood vessel development, primordial endothelial cells are formed and become specified toward arterial or venous fates to generate a circulatory network that provides nutrients and oxygen to, and removes metabolic waste from, all tissues. Specification of arterial and venous endothelial cells occurs in conjunction with suppression of endothelial cell cycle progression, and endothelial cell hyperproliferation is associated with potentially lethal arterial-venous malformations. However, the mechanistic role that cell cycle state plays in arterial-venous specification has been unknown. Dr. Hirschi's studies demonstrate that endothelial cell cycle control plays a key role in arterial-venous network formation, and distinct cell cycle states provide distinct windows of opportunity for the molecular induction of arterial vs. venous specification. This work has broad implications for vascular tissue engineering and regenerative medicine, as well as the treatment of vascular disorders.

FRIDAY, SEPT. 16, at 11 a.m.

Room G101 A/B, 4 Riverside Circle
Watch live via Zoom at <https://FralinBioMed.info/PBR-Join>



FRALIN BIOMEDICAL
RESEARCH INSTITUTE AT VTC
VIRGINIA TECH.