

# 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



**BENJAMIN PROSSER, Ph.D.**

Associate Professor

Physiology

Associate Director, Pennsylvania Muscle Institute

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Perelman School of Medicine

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## *In Person Lecture: Cytoskeletal Control of Local Protein Synthesis and Directed Cardiac Growth*

In response to stress, adaptive or maladaptive remodeling of heart muscle cells (i.e. cardiomyocyte hypertrophy) helps dictate the resulting structure and performance of the heart. Dr. Prosser and his lab find that upon increased demand, the cardiomyocyte microtubule network orchestrates the subcellular transport and positioning of mRNAs and the translational machinery to control where and when new protein synthesis occurs. Microtubule-based transport thus represents a novel, tunable mechanism to control and bias “local translation” in striated muscle, enabling the directed growth of cardiomyocytes to regulate cardiac form and function.

**FRIDAY, FEB. 23, at 11 a.m.**

Room G101 A/B, 4 Riverside Circle

Watch live via Zoom at <https://FralinBioMed.info/PBR-Join>



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