



# RMB CVRC Seminar

The Robert M. Berne Cardiovascular Research Center Presents

**Matteo Morello, MD and Santosh Karnewar, PhD**

## **Affiliations:**

**Matteo Morello, MD** – Post-Doctoral Research Associate; Dr. Lindner Lab, Robert M. Berne Cardiovascular Research Center, University of Virginia Health System

**Santosh Karnewar, PhD** – Research Scientist; Dr. Lindner's lab, Cardiovascular Research Center, University of Virginia.



## **Cavitation Facilitated AAV Transduction**

This presentation will focus on multidisciplinary collaborative studies between CVRC and BME that investigating how ultrasound cavitation of microbubble contrast agents can produce site-targeted augmentation of AAV to the heart. These studies are intended to optimize the acoustic environment for AAV delivery and investigate mechanistic underpinnings on a molecular

## **Inhibition of NLRP3 in Acute MI: Effects on Microvascular Reflow and Remote Plaque Activation**

Description: In acute reperfused myocardial infarction, the release of damage-associated molecular patterns (DAMPs) contributes to not only microvascular reperfusion injury, but also thromboinflammatory activation of atherosclerotic plaque in remote non-culprit vessels. This presentation will focus on how advanced non-invasive imaging, including in vivo molecular imaging of endothelial phenotype, is being used to evaluate the salutary effects of pharmacologic inhibition of the NLRP3 inflammasome which is an intermediary between DAMPs and thrombo-inflammatory processes.

**Thursday September 26<sup>th</sup>, 2024  
11:00 AM-12:00 PM  
MR5 Room 3005**

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**\*\*Refreshments served\*\***