



Graduate School of  
Biomedical Sciences

Department of Physiology & Anatomy

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**“Hybrid chemical platform: A smart approach to achieve multifactorial therapeutic benefit to treat eyes and vascular diseases.”**

Acute arterial thrombosis subjects the end organ to acute ischemic insult, resulting in myocardial infarction, acute limb ischemia, or stroke depending on the location of thrombosis. According to American Heart Association, about 8.5 million American at age more than 40 (10%) are suffered from peripheral arterial diseases (PAD), a cutaneous microvascular dysfunction of blood vessels to limbs that are partially or completely blocked by atherosclerosis, and this disease is worst in elderly patients (~20%). Similarly, central retinal artery occlusion (CRAO) is an ocular emergency because the retinal damage rapidly becomes irreversible with time with loss of blood supply to both retina and optic disc. CRAO is considered end-organ ischemia and is the ocular analogue of cerebral stroke. Dr. Suchismita Acharya at UNTHSC, Fort Worth in collaboration with UTA is developing a small hybrid molecule with both anti-oxidant and angiogenic activity and encapsulating the compound in a polymeric nanoparticle to deliver the drug to the target site and provide a sustained drug release profile.

**Friday, October 2, 2020, 11:00AM-12:00PM, Zoom  
University of North Texas Health Science Center  
Fort Worth, Texas**