Name: Sruti Shiva, PhD
Title: Associate Professor of Pharmacology and Chemical Biology
Division: Vascular Medicine Institute
Primary Email: sss43@pitt.edu
Assistant: Carla Monzo
Primary Email: monzocm@upmc.edu
Phone number: 412-383-5854

Key questions defining research program:
1) What signaling role does the mitochondrion play in platelets?
2) Can platelet bioenergetics be utilized as a biomarker of disease?
3) How does hemolysis alter mitochondrial signaling in circulating cells leading to thrombosis?
4) What are the primary mechanisms by which nitrite regulates mitochondrial function?
5) Is regulation of mitochondrial function required for nitrite-mediate cardioprotection?

Key words describing research program:
1) Mitochondria
2) Reactive Oxygen/Nitrogen Species
3) Platelets
4) Hemolysis
5) Hypoxia

Titles for shovel-ready research projects:
1) Hemolysis propagates thrombosis through platelet mitochondrial signaling
2) Platelet bioenergetics are altered in obesity
3) Platelet bioenergetics as a biomarker of scleroderma pathogenesis
4) Nitrite regulates platelet and skeletal muscle mitochondrial function
5) Altered bioenergetics in circulating cells of patients with HIV

Data sources for shovel-ready research projects:
1) Biochemical and physiological assays in cell culture and human platelets
2) Platelets already isolated from obese and healthy weight human subjects
3) Platelets already obtained and to be obtained from an ongoing scleroderma cohort
4) Platelets and skeletal muscle from subjects in an ongoing clinical trial
5) Circulating cells obtained from HIV patients (in collaboration with Dr. Alison Morris)