**Key questions defining research program:**

1) What are the mechanisms driving calcification in the vessels and valves?
2) How do CD73 and adenosine signaling modulate vascular homeostasis?
3) How does mechanical stress influence calcification?
4) Does autophagy protect/repair vascular calcification?

**Key words describing research program:**

1) Rare disease study to identify novel mechanisms of more common disease pathology
2) In vitro and in vivo disease modeling
3) Calcific aortic valve disease, ACDC, chronic kidney disease, aneurysm
4) Vascular extracellular matrix remodeling

**Titles for shovel-ready research projects:**

1) Calcification potential of aortic, coronary, iliac, femoral, and popliteal arteries
2) Relaxin effects on the vessel wall
3) Mechanical stress on gene expression
4) Autophagy flux in ACDC cells

**Data sources for shovel-ready research projects:**

1) Primary VSMCs
2) Banked histology, RNA, & protein samples
3) Derived from cultured VSMCs and valve interstitial cells
4) Derived from experiments with patient-derived fibroblasts