Key questions defining research program:

- How can we improve the safety and efficacy of transfusion of stored blood?
- What are the common mechanistic and therapeutic pathways of pulmonary hypertension (PH) in the context of major lung and systemic diseases (such as metabolic syndrome) and how can we target this biology with new drug strategies?
- How can we develop a safe specific CO poisoning antidotal therapy?

Key words describing research program:

- Pulmonary hypertension
- Sickle cell disease
- Carbon monoxide poisoning
- Hemolysis
- Nitrite

Data sources for shovel-ready research projects:

- Clinical records/data
- *In vivo* Animal physiology data
- *In vitro* Cellular and molecular methods data