Key questions defining research program:

1) What are the key steps in the pathway and regulation of apical endocytosis in the kidney proximal tubule?
2) What is the mechanistic basis for proteinuria in genetic and other disorders characterized by tubular dysfunction?
3) What are the key transcriptional pathways that modulate differentiation of proximal tubule cells?

Key words describing research program:

1) Lowe syndrome
2) Sickle cell disease/hemoglobin
3) Megalin/cubilin
4) RNAseq

Titles for shovel-ready research projects:

1) Uptake of hemoglobin by the proximal tubule: implications for vitamin status in SCD patients
2) Transcriptional changes that mediate proximal tubule cell differentiation in response to fluid shear stress
3) Generation of CRISPR disease models in proximal tubule cell lines
4) Human stem cell organoids to study genetic diseases of the kidney