
The primary goal of the project should be the discovery or development of a novel compound, target molecule, or drug concept for the treatment of kidney-related diseases and/or novel technology to drive such research.

Target diseases are:

- **Chronic Kidney Disease (CKD)** caused by a genetic component or various primary diseases including, but not limited to, Diabetes, Hypertension, Nephrotic Syndrome and Nephritis.
- **Acute Kidney Injury (AKI)** including septic, post-cardiac surgery and drug induced acute injury.
- **End-Stage Kidney Disease (ESKD)** including its complications.
- **Kidney disease-related multi-organ failure**.
  
  Kidney cancer is excluded from the focus of this RFP.

Primary research focus:

1. Novel compounds, target molecules and drug concepts applicable to therapeutics for the target diseases.
   
   - **Areas of high interest include:**
     - Kidney dysfunction evaluated by markers such as creatinine and blood urea nitrogen
     - Decrease in glomerular filtration rate
     - Proteinuria/Hematuria
     - Kidney injury induced by a specific gene mutation
     - Damage, dysfunction or loss of podocytes
     - Damage, dysfunction or necrosis of tubular epithelial cells
     - Fibrosis of tubulointerstitium
     - Oxidative stress
     - Injury on vascular endothelial cells
     - Inflammation and/or invasion of inflammatory cells
     - Multi-organ injury related to kidney dysfunction
   
   - **Modalities of interest:** small molecule, antibody, peptide, protein, nucleic acid, or cell therapy.
   
   - **Strong consideration will be made for proposals that include in vivo proof-of-concept data from animal models for kidney disease or use clinical findings to develop a drug concept.**

2. Novel technologies that can drive innovative research and therapies in kidney-related areas.
   
   - **Technologies of interest include:**
     - *In vitro or ex vivo* assays to replace in vivo evaluation enabling a bridge from pre-clinical to clinical studies, or to use for high-throughput compound screening.
     - Methods for segmentation of patients with potential genetic causes of disease identified from clinical samples.
     - Methods for finding promising target molecules or pathways in the target diseases
     - Drug delivery systems targeting kidney, and more preferably specific cell types within kidney, such as podocytes and epithelial cells of tubule or collecting duct.
     - Novel drug modalities or therapeutic technologies, and their application to a target kidney disease. For example, the development of gene therapy enabling more effective gene induction and/or modulation.

3. Proposals in areas other than those described above, yet related to the mission of KKC, may also be welcomed.