

# Nephrology Models

## In-vivo Efficacy

### In House Models:

- Acute Kidney Injury  
(ischemia, inflammation, endothelial und tubular cell death)
- 5/6 Nephrectomy  
(glomerular hypertension and glomerulosclerosis)
- Unilateral Ureteral Obstruction  
(loss of renal parenchyma and fibrosis)
- Renal Artery Stenosis  
(hypertension, renal fibrosis and tubular degeneration)
- Renal Transplantation  
(acute and chronic allograft rejection)
- Aortic Transplantation  
(vascular rejection and neo-intima formation)
- Diabetes Induction Model  
(Streptozotocin > mild diabetic nephropathy, insulin-dependent)
- Diabetes Mutation Model  
(BTBR Ob/Ob mice)

### In House Analysis:

- Direct Organ Function
- Hematology
- Light Cycler PCR (Renal tissue)
- ELISA (biomarkers: e.g. Kim-1, NGAL, NAG)
- FACS (peripheral blood/tissue)
  - Multiplex Analysis (cytokines)
  - CellAnalysis (inflammatory cells)
  - Renal tissue analysis (macrophages)