Streptozotocin Model of Diabetic Nephropathy

Model & Experimental Details

- Species: Wistar Rats
- Model: Single Intravenous Injection of Streptozotocin (45 mg/kg)
- Methods: 24-hour Urine Collection in Metabolic Cages
- Endpoints: Markers of Renal Function & Injury, Hypertrophy and Histopathology

Microalbuminuria

* p<0.05 vs normal
# p<0.05 vs STZ
n=6-10/group

Creatinine Clearance

Systolic Blood Pressure

n=6 STZ rats
STZ Diabetic Nephropathy

- STZ induces diabetic nephropathy with a progressive increase in microalbuminuria blunted by Angiotensin Receptor Blockade (Losartan)
- STZ induces kidney and heart hypertrophy and hyperlipidemia with no effect on systemic blood pressure
- Hyperfiltration, mesangial matrix expansion, glomerular hypertrophy and macrophage infiltration are features of this model