

Rat model of acute kidney injury (AKI): uninephrectomy associated to renal ischemia reperfusion

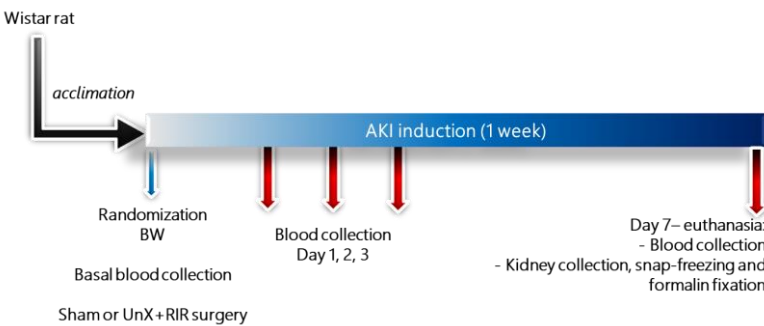
Physiogenex provides a unique rat model of acute kidney injury to test your compounds targeting the disease.

Key benefits

- ✓ A tailor-made animal model that enables the study of acute kidney injury.
- ✓ An animal model that moves to chronic kidney disease in later time-points.

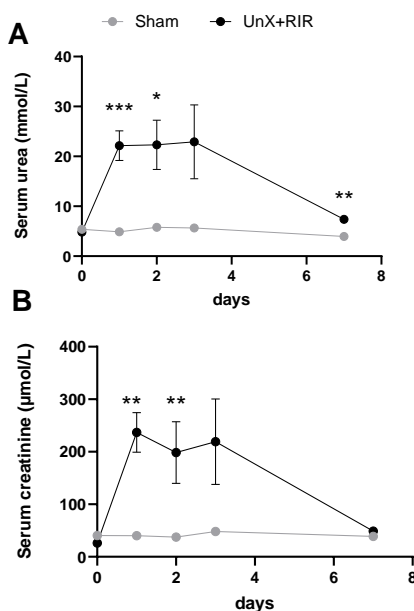
ANIMAL MODEL

- Background strain: Wistar rat
- Gender/Weight: male, 300-330g, 8-week-old
- Surgery: sham or uninephrectomy followed by renal ischemia reperfusion (UnX+RIR)
- Time: 0 to 7 days post-surgery (can be extended)
- Survival: between 5 and 20%



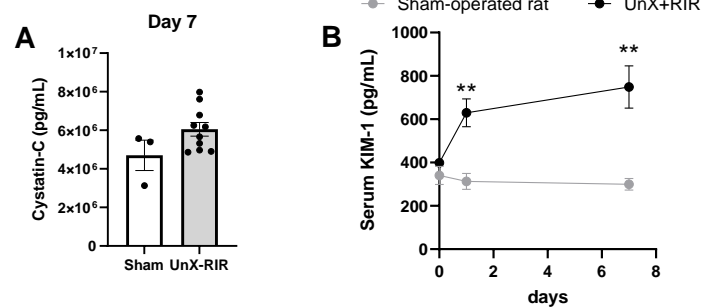
AKI characterisation

1 – HIGH LEVEL OF SERUM UREA AND CREATININE IN UNX+RIR RATS

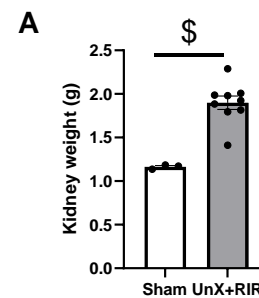


(A) Serum urea and (B) serum creatinine levels along the 7 days post-surgery
*p<0.05; **p<0.05; ***p<0.05;

2 – HIGH LEVEL OF SERUM CYSTATIN-C AND SERUM KIM-1 IN UNX+RIR RATS

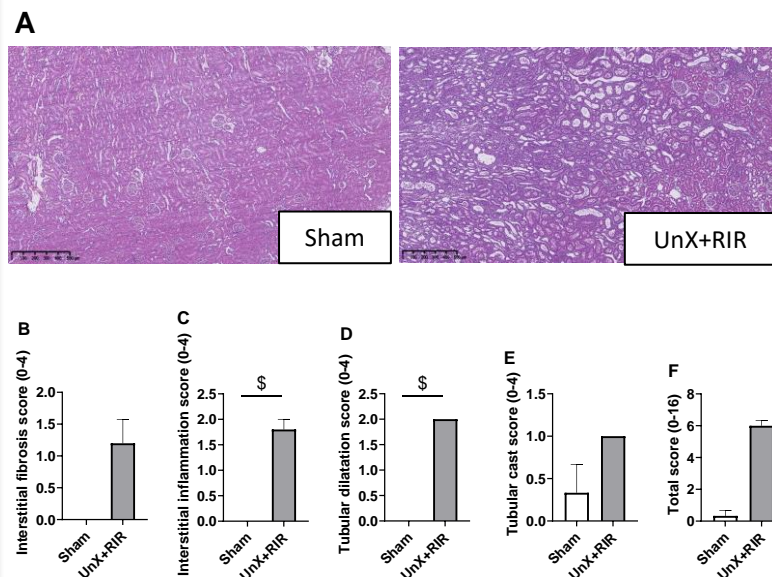


3 – ISCHEMIC-REPERFUSED KIDNEY HYPERTROPHY IN UNX+RIR RATS



(A) Kidney weight at 7 days post-surgery
\$p<0.05

4 – HISTOLOGY FEATURES OF ISCHEMIC-REPERFUSED KIDNEY



H&E staining of kidney: (A) Representative images (scale bar: 250µm), (B) interstitial fibrosis score, (C) interstitial inflammation score, (D) tubular dilatation score, (E) tubular cast score, (G) total score.
\$p<0.05