

# CRO services for chronic kidney disease

**Chronic kidney disease (CKD)** is defined as abnormalities of renal structure or function with implications for health. CKD is a worldwide public health problem, there is rising incidence and prevalence of kidney failure with poor outcome and high costs. The main pathologies are glomerular injury, tubulointerstitial inflammation and fibrosis.

**Adriamycin model** is a well-characterized disease model for renal injury. Adriamycin model encompasses key pathophysiological features of CKD: glomerular injury, albuminuria, renal fibrosis and inflammatory cell infiltration, which makes this model attractive as an *in vivo* drug screening system.

**SMC**, a Tokyo-based biotech company also known as the leading nonclinical CRO for non-alcoholic steatohepatitis (NASH) and other fibrosis diseases, has re-validated murine Adriamycin-induced nephropathy as a model translating non-clinical program into clinical practice. Our expertise in pharmacological studies is now experienced in CKD R&D.

## SMC's services in Adriamycin model

### Animal:

- ☐ Male C57BL/6 mice

### Adriamycin model:

- ☐ Induction of disease: the mice will be intravenously administered Adriamycin.
- ☐ Control : the mice will be intravenously administered saline.

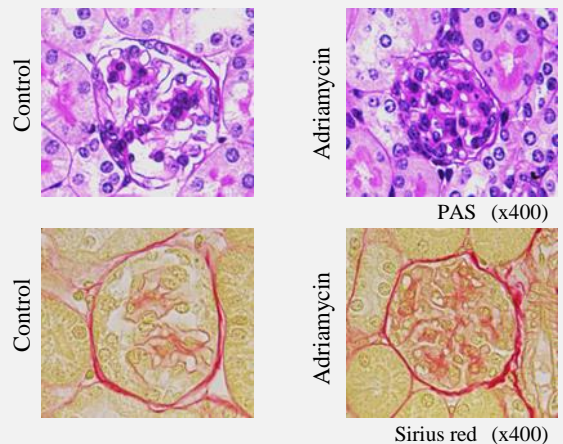
### Major endpoints:

- ☐ Glomerular injury (PAS, urine albumin)
- ☐ Fibrosis score (Sirius red)

### Additional endpoint:

- ☐ Inflammatory cell infiltration (F4/80)

### Histological analysis (glomerular injury)

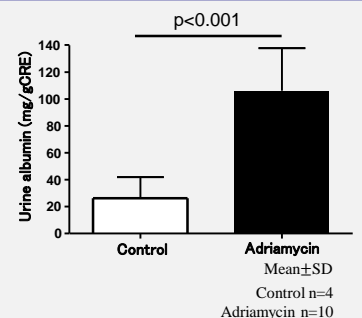


### Histological analysis (tubulointerstitial fibrosis)



The Sirius red-positive area (fibrosis area) is increased in Adriamycin model.

### Biochemical analysis (urine albumin)



Urine albumin level is increased in Adriamycin model.



For more information, please contact us below.

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