**What is the significance of shortening Acute Kidney Injury Recovery Time? A clinical outcome and biomarker study.**

Acute Kidney injury is a sudden drop in kidney function resulting in a failure to maintain fluid and electrolyte balance. It occurs in 1 in 4 acute hospital admissions, and is associated with longer stays in hospital, higher risk of death and rapid progression to long-term kidney damage (chronic kidney disease). Various studies have shown that AKI is often preventable or modifiable. We have been successful in shortening the time to recover from AKI and we think this may have a crucial bearing on the outcomes of these patients.

We aim to study the relationship between the time to recovery from AKI, and the outcome of these patients and to look for underlying biological explanations.

We propose to study patients who develop AKI at MRI. We will monitor them until recovery from AKI and up to 90 days thereafter. We will collect data on their underlying conditions and outcome (e.g. the development or not of long-term kidney damage). In addition we will measure various markers in their bloodstream during the AKI episode and after their recovery from this. We will then search for any relationship between these blood markers, time to recovery and patient’s better or worse outcomes. This will hopefully help to predict in the future the outlook (prognosis) of patients who have had an episode of AKI and help inform their follow up.