



# Rapid detection of acute kidney injury

## -A point-of-care test

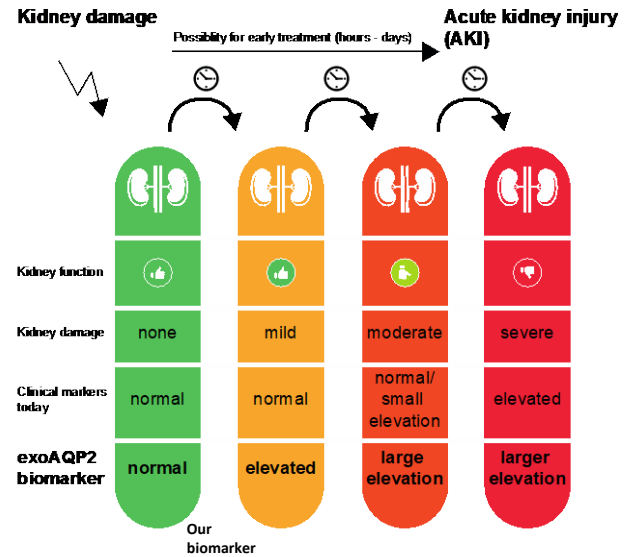
### Value proposition and field of application



Acute kidney injury (AKI) affects ~20% of hospitalized patients, though doctors fail to initiate the correct treatment.

Our AKI diagnostic will enable healthcare professionals to make better + more timely clinical decisions and create personalised treatments for patients with AKI.

This point-of-care diagnostic will save lives, improve patient quality of life, and reduce healthcare costs.



### Faster, accurate clinical detection of kidney damage is urgently needed.

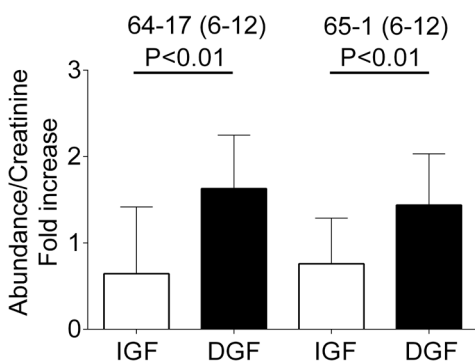
Diagnosis today is insensitive and slow to change relative to AKI.

Valuable time is therefore lost, delaying treatment onset and increases the patients risk of permanent loss of kidney function.

Our AKI diagnostic provides medical doctors an earlier window of opportunity to proactively assess kidney damage severity and mitigate the severe consequences of AKI and other kidney injuries.



### Current state of development



We have patent protected a novel biomarker that is sensitive and specific, and levels increase rapidly after kidney injury.

The inventing team has developed two monoclonal antibodies which bind to our biomarker on the surface of urinary exosomes. This enables fast and sensitive test (ELISA) for detection of uEV levels necessary to screen patients from urine samples.

## Proof of Concept

Our biomarker can - within 12 hours of transplantation - discriminate between worse (DGF, delayed graft function) and good (IGF, immediate graft function) outcome, and is directly correlated to kidney damage severity.

Our biomarker is excreted in unique transport vesicles (exosomes) when the kidney is damaged and can be measured in a simple urine sample (exosomes are released from kidney cells immediately).

By evaluating kidney transplant recipients for delayed graft function, our inventors have shown that elevated levels of our biomarker represent cellular damage in the allograft that leads to clinically apparent delayed graft function.

Detection of this biomarker has a high sensitivity and specificity, i.e. it accurately predicts which patients will experience DGF.

## Business opportunity

### Kidney biomarker market

The market size for predictive biomarkers detecting early kidney damage is substantial.

Approximately

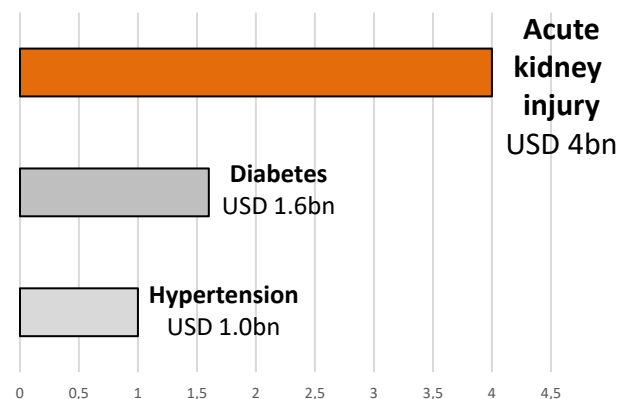
1 in 5 adults is affected by AKI during hospitalization and 2 million people die of AKI every year.

Our primary market is for detection of acute kidney injury after nephrectomy.

### Partnering

We seek out-licensing of this asset for further commercial development of the kidney biomarker program. IP rights include a priority patent application held by SDU (University of Southern Denmark) and RSD (Region of Southern Denmark). Priority application filed March 2023.

### 3 KIDNEY BIOMARKER MARKETS



## Team



**Per Svenningsen**  
Associate Professor  
Department of  
Molecular Medicine  
SDU



**Martin Tepel**  
Clinical nephrologist,  
Professor  
Odense University  
Hospital & SDU

## Contact information

Business Developer  
Lindsay Kellar-Madsen  
Email: lkmadsen@sdu.dk

