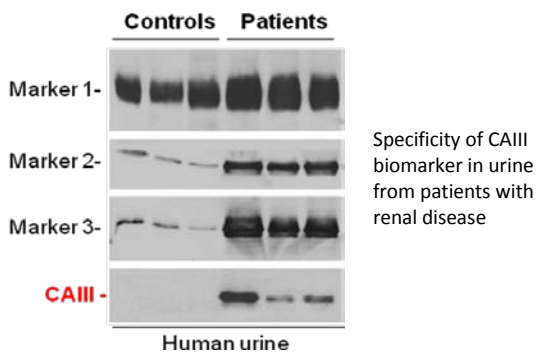




TYPE III CARBONIC ANHYDRASE, a new urinary biomarker

Sopartec, the technology transfer company of the Université catholique de Louvain (UCL), presents a new urinary biomarker that enables an early and sensitive detection of renal dysfunction.



Technology Keywords

- Renal dysfunction
- Proximal tubule toxicity
- Diagnosis
- Urinary biomarker

Technology Market : Medical diagnosis in nephrology

Renal dysfunction presents a high prevalence (up to 30%) in hospitalized patients. Renal proximal tubule is the most sensitive part of kidney tubule. There is a need for a rapid and sensitive detection of renal dysfunction before irreversible damages occur.

The UCL invention

Researchers at the Unit of Nephrology of the UCL have identified a new biomarker, type III carbonic anhydrase (CAIII), that is **produced in situ in the renal tubule** and that is directly released in the urine when tubules are

damaged. Apparition of CAIII in the urine is therefore **totally independent of filtration by glomerules** and is really representative of a suffering at the tubular level (see Figure).

Features :

- non invasive (urine collection),
- easy to use (single measurement, no need for further analytes),
- highly specific.

Applications :

- targets the most sensitive part of the kidney;
- permits an early diagnosis → identification of at-risk patients, prevention of severe renal failure;
- can be useful for toxicology screenings, including side-effects of drugs;
- can be used to monitor the efficacy of a treatment for such conditions.

The lab has also access to **clinical expertise & patient cohorts** for validation.

Technology Status

This work is the subject of a patent application : PCT patent application filed on 12/02/2008 and published under No. WO 2008/098940. (internal file reference number : SOP-203)

Sopartec would like to talk to companies interested in developing and commercializing this opportunity.

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