

Press release

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Urine analysis enables cardiovascular risk assessment

Mosaiques diagnostics and an international network of renowned scientists from the British Heart Foundation (UK) and Baker Heart Research Institute (Australia) developed an innovative approach to distinguish between presence and absence of coronary artery disease by the straightforward analysis of urine.

Hannover – Coronary artery disease (CAD) is the leading cause of morbidity and mortality worldwide. Every year, CAD is responsible for as many as two million deaths in Europe and another half a million in the United States. It has no geographic, gender or socio-economic boundaries, and therefore represents a significant challenge in all countries. A vast amount of deaths and disabilities caused by CAD could be avoided by an early diagnosis, enabling effective individual actions for preventing clinical events such as acute myocardial infarction.

Researchers of mosaiques diagnostics, the *British Heart Foundation* (Glasgow, UK), and *Baker Heart Research Institute* (Melbourne, Australia) examined a total of 370 patients in an international blinded clinical study. The consortium established a diagnostic urine test distinguishing between presence and absence of CAD with sensitivity of 98% and specificity of 83%. Mosaiques' proprietary CE-MS technology (capillary electrophoresis coupled to mass spectrometry) enabled not only the successful identification of CAD patients, but also suggests the possibility of monitoring the effects of therapeutic interventions. This non-invasive and precise diagnostic procedure provides tremendous benefits for patients with significantly increased risk of cardiovascular complications, such as patients with type II diabetes and the elderly in personalized

medicine. The technology already proved its impact on drug evaluation during clinical trials by a detailed assessment of drug effects on the vascular and - considering mosaiques' further diagnostics - renal architecture.

The study outcome is published in the leading journal *Molecular & Cellular Proteomics*, entitled: *Urinary proteomic biomarkers in coronary artery disease*. The publication is electronically accessible via <http://www.mcponline.org/cgi/reprint/M700394-MCP200v1>.

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About mosaiques diagnostics & therapeutics AG

Mosaiques diagnostics & therapeutics AG was established in Hannover, Germany. The company's core competence is the early and reliable detection of diseases enabling personalized medicine during therapy and drug development. The company utilizes diagnostic polypeptide patterns (DiaPat) derived from the fast and accurate analysis of proteins and polypeptides in body fluids (e.g. urine and cerebrospinal fluid). For this purpose, mosaiques has developed a unique technology on the basis of clinical proteome analysis, enabling the early and differential detection of cardiovascular, renal, and urogenital diseases. Diagnosis of bladder and prostate cancer, chronic renal diseases, diabetic nephropathy, graft-versus-host disease, ureteropelvic junction obstruction in newborn, and infarct risk is already marketed in Germany through the subsidiary DiaPat GmbH. Mosaiques' polypeptide pattern technology has been proven in multiple blinded clinical studies on over 10,000 qualified patient samples from different pathological alterations.