

numares' novel multi-marker kidney function testing shows promising results in US validation study

- Based on US clinical samples, leading NMR diagnostics company *numares* successfully finished validation of a multi-marker serum test of kidney function
- GFR_{NMR} uses a defined model for glomerular filtration rate (GFR) equation to assess kidney function, comprised of the analysis of several metabolites in serum together with age and sex.

Boston, USA/Regensburg, Germany – December 15, 2020. *numares* today announced that its novel multi-marker approach for the accurate assessment of glomerular filtration rate (GFR) shows promising results in a US based clinical validation study. Using serum, GFR_{NMR} evaluates a metabolite constellation of three metabolites combined with Cystatin C, age and sex. Compared to existing serum-based GFR methods, this multi-marker algorithm more accurately reflects gold-standard invasive clearance testing methods. GFR_{NMR} will create an accessible, affordable, and reliable new diagnostic standard for patients.

The validation was performed in a retrospective study using US-based and European clinical data. The new test is based on *numares'* metabolomics approach: a combination of serum biomarkers, forming a metabolite constellation, analyzed by advanced nuclear magnetic resonance (NMR) spectroscopy and evaluated by *numares'* proprietary AI-driven diagnostic software. After training the test on US-based clinical data, 461 samples of international origin were used to validate the metabolite constellation.

“The outcome of this validation study surpasses the performance of the existing equations that are used to estimate kidney function,” says Dr. Volker Pfahlert, Chief Executive Officer of *numares*. “Our vision was to obtain a glomerular filtration rate (GFR) value from a simple blood sample that is comparable to the much more involved and invasive plasma clearance method. We are closer to the vision, as never before, to help identify and quantify reduced kidney function in patients with a more accurate, easy-to-access, and affordable diagnostic standard.”

Fifteen percent of U.S. adults (37 million people) are estimated to have chronic kidney disease*. Determining kidney function is important in many different medical conditions, e.g., patients with kidney transplants, late complications in diabetes management, patients with chronic congestive heart failure, or in dosing of nephrotoxic drugs.

The GFR_{NMR} test will soon be further validated in additional clinical studies with ~1,500 patient samples comprised of additional clinical conditions and broader demographics. Based on these results, *numares* plans to submit the GFR_{NMR} test for FDA Clearance in the first half 2021.

* Source: <https://www.cdc.gov/kidneydisease/publications-resources/2019-national-facts.html>

About *numares*

numares AG, based in Regensburg, Germany, is a fast-growing innovative diagnostics company that applies machine learning to metabolomics data to develop advanced analytical tests for high-throughput use in clinical diagnostics. The *AXINON*[®] *System* employs advanced nuclear magnetic resonance (NMR) spectroscopy to evaluate metabolic constellations. *Magnetic Group Signaling (MGS)*[®] is a proprietary technology that enables NMR for highly standardized and rapid throughput testing. Metabolic tests stand as an important pillar in precision medicine to address unmet needs in cardiovascular, kidney, liver, and neurological diseases. You will find more information at <https://www.numares.com/>

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