

Factsheet

ONE SAMPLE - ALL ANSWERS.



About numares

numares, based in Germany, is a fast-growing innovative diagnostics company that utilizes machine learning and metabolomics to develop advanced analytical tests for high-throughput use in clinical diagnostics and life science research.

> 2M TESTS WORLDWIDE
3 LOCATIONS
60 EMPLOYEES (>50% PHD)

AXINON® powered by Magnetic Group Signaling™ (MGS®)

The company's AXINON® System and its proprietary Magnetic Group Signaling™ (MGS®) technology employ nuclear magnetic resonance (NMR) spectroscopy to create highly standardized spectra to evaluate clinically relevant metabolite constellations. Thus, several unmet diagnostic needs can be addressed while enabling rapid throughput testing in clinical routine.



Clinical Diagnostics by Metabolomics

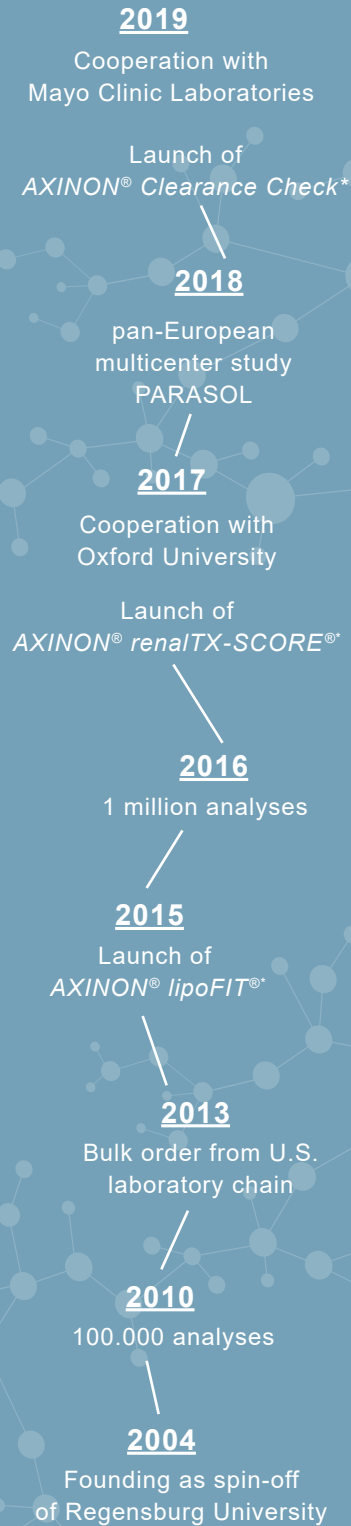
The concentration of metabolic products (metabolites) in various body fluids depends on the genetic and environmental exposure of a human being. This individual metabolic pattern is subject to normal physiological variation, but may also reflect pathological processes in the body.

Nuclear magnetic resonance (NMR) spectroscopy is the method of choice to detect metabolic networks, as NMR allows the simultaneous quantification of ~400 metabolites in human specimens. An NMR spectrum reflects all organic substances in a sample. This allows the determination

of the structure and dynamics of molecules and determination of substance concentrations within a single run.

numares uses machine learning to analyze study data together with NMR metabolite measurements to identify the relevant (bio)markers that carry the most information about the disease in question and to build an equation that represents this so-called "metabolite constellation".

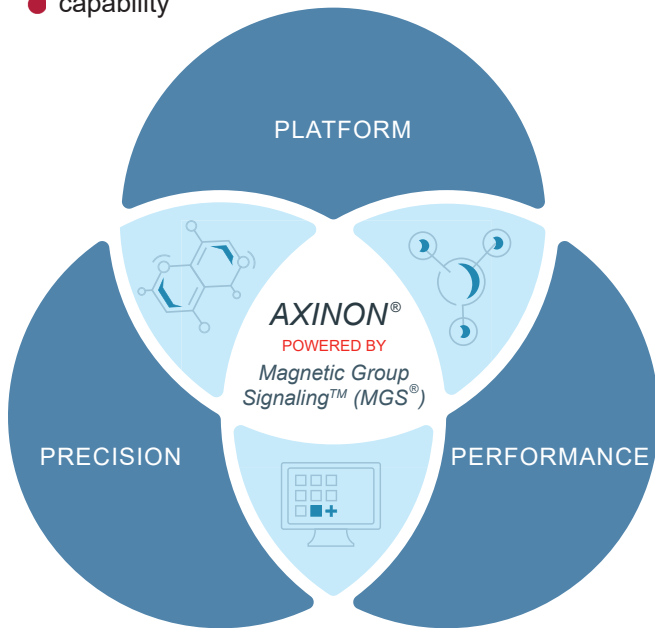
This equation is then used as a diagnostic test for cardiovascular, nephrology, oncology, transplantation and neurological disorders.



The AXINON[®] System

AXINON[®] is the first modular software-based system for clinical diagnostics - providing hardware, operating system, *Magnetic Group Signaling[™]* (MGS[®]) processor and individual test applications, collectively enabling:

- Innovative real-time use of metabolic data
- Fully automated lab solution
- Precise results for diagnostic decisions
- High reproducibility (interlaboratory precision)
- Standardized analysis
- Connectivity to lab systems (LIS/LIMS)
- Multi-testing flexibility
- Easy-to-use
- High throughput capability



PLATFORM

The NMR based AXINON[®] System offers high throughput multi-testing capability.

PRECISION

AXINON[®] enables a more detailed, standardized and automated lipoprotein and metabolic profiling.

PERFORMANCE

Identification of more than 400 metabolites within one run enables the discovery of meaningful metabolite constellations.

* Available as a CE-labeled in vitro diagnostic product in the European Union and as Research-Use-Only product in the United States. numares' products have not yet been approved or cleared by the U.S. Food and Drug Administration.

Products and Developments applicable to the AXINON[®] System



CVD RISK ASSESSMENT

AXINON[®] *lipoFIT[®]* measures concentration, size and distribution of lipoprotein particles and determines the respective quantity of the key compounds triglycerides, cholesterol and phospholipids.



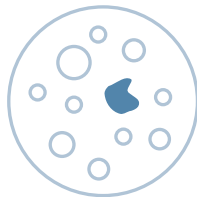
RENAL FUNCTION ASSESSMENT

AXINON[®] *Clearance Check^{*}* provides an advanced determination of GFR based on multi-parametric metabolomics (GFR_{NMR}) analysis. The test is as simple as eGFR but almost as accurate as tracer based GFR clearance measurements.



RENAL ALLOGRAFT SURVEILLANCE

AXINON[®] *renalTX-SCORE[®]* is a non-invasive test intended to support the diagnosis of a kidney allograft rejection. The urine test is based on multi-parametric metabolomics analysis evaluating a metabolite constellation by *Magnetic Group Signaling[™]* (MGS[®]) and calculates a score for acute graft rejection.



CANCER DETECTION (in dev.)

numares focuses its research on prostate, bladder and liver cancer. Already good performing metabolite constellations, which could be used in cancer screening, have been identified and validated in independent test sets.



NEUROLOGICAL DISORDERS (in dev.)

In collaboration with Oxford University, numares develops a serum-based test evaluating a metabolite constellation to monitor multiple sclerosis progression in clinical routine and enable early therapy intervention.

EXECUTIVE BOARD



"We at numares are convinced that using AI and our proprietary methods to depict meaningful metabolite constellations will take patient health care and precision medicine to a new level."

Dr. Volker Pfahlert, CEO



"With software-based diagnostic tests for our modular AXINON[®] System, we are focusing on improving patient care at affordable healthcare costs."

Dr. Claus Botzler, COO