Withings Announces U-Scan - The World’s First Hands-free Connected Home Urine Lab

Sophisticated urine analysis allows users to monitor metabolic insights and empowers women to manage monthly cycles

Issy-les-Moulineaux – January 3, 2023 Following four years of development, Withings, global leader in connected health is proud to announce U-Scan, a breakthrough in-home biomarker analysis platform. One of the company’s most technologically advanced devices to date, U-Scan is a miniaturized health lab that hygienically sits within any toilet bowl¹ to unlock the wealth of health information in daily urine. U-Scan has already been recognized by the Consumer Technology Association as a CES 2023 Innovation Award honoree in three categories: Smart Home, Fitness & Sports, and Digital Health.

With more than 3000 metabolites, urine is an extraordinary witness to assess and monitor one’s health. It gives an immediate snapshot of the body’s balance and is integral in monitoring and detecting a large variety of health information. While we urinate on average 7 times a day, urine analyses are usually performed only once a year. Withings U-Scan aims to change that by making it possible in the future to conduct biomarker assessments from the comfort and privacy of a person's own bathroom.

A game changer in home health, U-Scan is designed to be a versatile platform consisting of a technologically advanced pebble-shaped reader and changeable analysis cartridges designed to assess specific biomarkers without the need for external sample capture or strips. Then, with seamless sync to the Withings Health Mate app, it will provide a wealth of actionable insights based on daily readings.

It will debut in Europe with two consumer health cartridges with medical versions following in the future. These include U-Scan Cycle Sync for women’s monthly cycle tracking and syncing and U-Scan Nutri Balance, a detailed metabolic guide to hydration and nutrition. Withings U-Scan is in development in the US and will not be available until it receives FDA clearance.

In addition, Withings Health Solutions, the company’s business to business division serving the healthcare provider market, is making the technology available to partners for research purposes.

“The ability of U-Scan to perform daily urine analysis from the home will allow Withings to take its mission to help consumers fully utilize urine data to an entire new level,” said Mathieu Letombe, Withings CEO. “It’s one of the most exciting and complex products we have ever announced. We begin this journey with U-Scan Cycle Sync and Nutri Balance and look forward to announcing more cartridges on an ongoing basis as well as medical applications of the technology.”

Easy as 1, 2, Pee - How it Works

While easy to use, U-Scan overcomes a myriad of technical and chemical challenges. Developed with in-vitro diagnostic experts, it was four years in the making and resulted in 13 patent application families. As a complete system, U-Scan performs three tasks:

1) Automated Sample Capture – using a sophisticated reader within a toilet bowl

¹ for Western toilet bowls
Just 90 mm in diameter, the rechargeable U-Scan reader is engineered to distinguish between external liquid and urine and automatically funnel samples for analysis. Urine flows efficiently to a collection inlet thanks to its pebble-shaped design. A pump is activated when a thermal sensor detects the presence of urine, which starts a sample’s fluidic journey within a microfluidic circuit.

After its collection, the urine sample is injected into a test pod where the chemical reaction is read by an optical module. At the end of each measurement, the circuit returns to the idle position and the remaining liquid is purged through a waste outlet. The system is subsequently cleaned with every flush.

U-Scan can distinguish between various users thanks to its Stream ID feature. Low-energy radar sensors embedded within the reader measure multiple variables to identify an individual's urine stream signature, by detecting movement and distance of the stream. Stream ID information can be affirmed in the app.

2) Biomarker Analyses – within a miniaturized urine lab tailored to specific use cases

The rotating cylindrical U-Scan cartridge is a tiny chemical assessment chamber containing dozens of miniaturized test pods that can deliver reliable results.

When the reader delivers the sample to the injection point U-Scan begins the chemical analysis within moments. It automatically Patented cartridge transmits results via Wi-Fi and then rotates the cartridge to expose the next test pod to the injection point. Each cartridge is designed to support up to three months of readings.

The module system is purposely designed to allow Withings to continually develop and support the analysis of biomarkers associated with various medical and health conditions. Combined with measurements from Withings’ ecosystem, U-Scan will create even more insights for users and is an exciting tool to potentially help prevent diseases, improve quality of life, and reduce healthcare costs.

3) Actionable Advice – science-backed guided insights

The accompanying Withings app provides results, actionable insights, and guidance designed to help people build habits for enhanced wellness. In Europe, the U-Scan Cycle Sync results will appear in the Withings app that becomes a central place for cycle tracking, coaching, and journaling. It will show cycle predictions and ovulation window based on hormonal detection alongside key hydration and dietary biomarkers, specific gravity and pH levels to help women manage every aspect of their cycle. Full information on U-Scan Cycle Sync is available [here](#). U-Scan Cycle Sync is under development in the USA; its features will be announced when the solution becomes available following FDA clearance in the future.

In Europe, the U-Scan Nutri Balance cartridge will enable analysis of specific gravity, pH, vitamin C and ketone levels. It helps people monitor their metabolic intake to optimize their daily hydration and nutrients. As well as displaying results such as carb balance and pH levels, it recommends workouts, dietary suggestions, and recipes to achieve identified goals. Full information on U-Scan Balance is available [here](#). U-Scan Nutri Balance is under development in the USA; its features will be announced when the solution becomes available following FDA marketing clearance in the future.

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2 By following the recommended measurement plan.
**Availability.**

U-Scan will first be available in Europe from Q2 2023 with consumer cartridges Nutri Balance and Cycle Sync³. Users will be able to buy U-Scan starter kit for €499.95 to get one U-Scan reader and one cartridge providing 3 months of testing; then they will be able to subscribe to an automatic refill or buy a standalone cartridge on withings.com.

Future medical cartridges of U-Scan will be available pending regulatory approvals in Europe.

U-Scan is not for sale in the United States but is in development and plans to be available in the future following FDA clearance.

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**About Withings**

Withings created the first smart scale in 2009, and has been the pioneer in connected health ever since. Its clinically validated and multi-award winning range is used by millions worldwide, and includes smart scales, hybrid watches, blood pressure monitors, sleep analyzers and more. The team of engineers, data scientists, and healthcare professionals at Withings work alongside clinical experts to make it possible to take medical-grade measurements at home. Withings was the first to bring measurements for pulse wave velocity and electrodermal activity into the home – finding ever more precise ways to measure our health. Withings Health Solutions, its dedicated division serving healthcare professionals across chronic disease prevention and management, remote patient monitoring, clinical research and more helps bridge the gap between patients and their care teams.

Withings is dedicated to creating a world where people can see their path to better health, and feel supported to pursue it using devices designed to fit beautifully into daily life, supported by information that unlocks long-term health insights and offers programs to create meaningful change.

Find out more at withings.com and connect with us on Facebook, Instagram or Twitter.

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³ The U-Scan Nutri Balance and Cycle Sync cartridge and the Withings app are not intended to replace professional medical advice or diagnose, treat or manage any illness or medical condition. The cycle cartridge is not intended to serve as a birth control method of contraception.