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Digital Home-Testing Is The Future, Says Bloom Diagnostics Co-Founder Angelica Kohlmann

by [David Ridley](#)

With its lateral flow at-home tests for ferritin, thyroid function and ovarian reserves, Swiss medtech firm Bloom Diagnostics thinks it has seen the future of consumer healthcare. HBW Insight speaks to co-founder and board chair Angelica Kohlmann about the firm's Bloom Lab technology and forward-looking plans, including a possible US launch.

The global market for self-testing is currently valued at about \$6bn and is expected to grow by a compound annual growth rate of 4.5% over the next few years, reaching over \$8bn in 2027, according to Brandessence Market Research.

Ranging from self-tests for chronic and serious diseases like diabetes and HIV to at-home, digitally supported analysis kits for consumers to personalize their dietary supplements regime, self-testing has been boosted by COVID-19.

For Swiss medtech firm Bloom Diagnostics, which has developed a home platform that utilizes lateral flow technology and can deliver rapid, accurate testing at home for several conditions, the OTC approval for COVID-19 tests means that most people will now be used to this particular mechanism.

As explained by Bloom's co-founder and board chair Angelica Kohlmann, the Bloom System is centered on the Bloom Lab – a desktop device that can quantify analyte concentrations in the blood – into which a variety of tests for ferritin, thyroid function and ovarian reserves can be inserted.

Results from these simple tests are then delivered to the Bloom smartphone app, which creates a personalized health report, containing an “individual analysis and actionable information” to



help consumers change their behaviors to improve their health.

The inclusion of the at-home analysis device makes the first Bloom test relatively expensive at €300 (\$313), but as Kohlmann points out, this device only needs to be purchased once, and can then be used for whichever lateral flow tests the company launches subsequently.

However, Bloom has also recently opened a bricks-and-mortar store in Zurich, so people can try out the technology without committing to purchasing an at-home lab, she notes, in this exclusive interview.

In the future, Bloom expects to launch new tests for other conditions, as well as new hardware features for the Bloom Lab and general improvements to the Bloom System via artificial intelligence.

Bloom is also looking to expand its geographical reach, for example to the US in 2023.

Q How do Bloom's self-tests work?

A Bloom Diagnostics digitized the drop of blood. After pricking a finger, a drop or two of blood is placed on the Bloom Test strip, which is then inserted into the Bloom Lab. While the measurement is being conducted, the user will answer questions in the Bloom App. This information is combined with the quantitative test result leading to personal feedback – the Bloom Report – which is displayed in the app. Every part of the system is connected to the cloud.

Q The Bloom Lab is very expensive, why should consumers pay so much for an at-home test service?

A Bloom is the first company worldwide to offer real-time quantitative results for blood markers to lay users in real-time, including explanations. The Bloom Lab is needed to quantify the value. The Bloom Tests need to be inserted into the Lab for measurement. Everything is connected to the cloud and feedback is given via

proprietary algorithms, which analyze not only the amount measured but also combine it with other information such as age, symptoms, etc., to give the best possible, personal analysis of the result. The Bloom Lab only needs to be acquired once and it will work for an ever-increasing number of different tests and markers

Q Has COVID accelerated the take up of at-home testing and lateral flow technologies, and what is the potential for home-testing to democratize healthcare and drive self-care?

A COVID has definitely helped people understand that home-testing works. However, given the speed of development for the COVID tests, quality was not always satisfactory. Bloom started the development of its products in 2018, before the surge of COVID, and today offers high quality, very refined products. Healthcare systems are overwhelmed, far too expensive and a burden for governments. Digital home-testing is the future as it tackles all these challenges at the same time. It's relatively cheap and accessible to everyone, including in the space of monitoring chronic disease; it offers real-time, actionable results, meaning that people act faster and can prevent more serious conditions; it delivers anonymous, real-time insights, which may allow for predictions e.g. about a surging pandemic.

Q Why did you decide to open a bricks-and-mortar store in Switzerland?

A Bloom is developing a completely new market, so people may want to touch and try the product. It proved to be very valuable. We chose Switzerland because it is where our HQ is located and the country is generally open to innovation.

Q What role does the software play in Bloom's personalized self-care system, and what is the potential for AI technology to improve this further?

A Bloom is a software company, which develops and builds the necessary hardware to run its software, much as Apple does. Bloom's algorithms learn from each test performed, allowing for new features and updates to be implemented seamlessly. Bloom is the first company to learn from clinical data in real-time, and AI will open completely new doors for drug development, prediction and prevention of disease.

Q What's next for Bloom?

A Bloom is focused on two areas of growth: product development - Bloom has a strong pipeline including many new hardware features such as multiplexing (several markers on one test strip), and software updates, such as including Bloom's Data Intelligence in the Bloom Report. And geographic expansion - Bloom is expanding to many more European countries, such as the UK already this May, and to the US in 2023.