



ZiO Health Ltd

ZiO Health

Company Profile

ZiO Health is a VC-backed biotechnology company that has developed pocket-sized technology, bringing laboratory-based testing to the home. Founded in 2016, ZiO Health has spent the last 6 years developing biosensor technology to be used in various point of use analytical devices. The company's core belief is that everyone should have access to molecular level testing to optimise long term health and prevent sickness. To maximise impact on society, ZiO Health has partnered with multiple firms allowing them use of ZiO Health's patented technology to develop customised solutions.

As a doctor, CEO and co-founder, Neel Patel was frustrated with the inefficiencies associated with the blood testing available in a hospital setting and wanted to find a solution to accelerate the full testing process. Alongside this co-founder, Dr Shaolin Liang had recently become a father and discovered a desire to bring lab testing into the home with the initial goal being to gain confidence that his baby was receiving the correct nutrients. Liang wanted to use his technical knowledge to develop a solution to this. Together they worked with a shared goal of bringing hospital lab testing into the home allowing greater accessibility to molecular testing, providing a new route to optimising health and sickness prevention.

One of the applications for ZiO Health's proprietary biosensor technology is the 'home health hub' – a home testing device with instant results with personalised nutrition and wellness advice. The product, described below, has allowed ZiO to take their first steps towards providing individuals with new technology that will not only allow a greater understanding of their health, but give insights into what can be done to prolong good health.



ZiO Health will continue to fine-tune their home health hub with the focus set on improving health and wellness, aiming to expand their test range to maximise user value. The next steps for ZiO Health medical solutions (Therapeutic drug monitoring) include a progression onto a trial with a larger sample size prior to initiating the FDA regulatory process in the US, while the next steps for the company's customised solutions centres around a new partnership involving water quality testing. This new product will pilot in New Zealand specifically focusing on Paralytic Shellfish Toxins.

Flagship Product Deep Dive

The Home Health Hub developed by ZiO Health has the potential to change how individuals view their personal health. Allowing greater personal responsibility into taking care of ourselves leading to earlier intervention when health declines, giving peace of mind to individuals moving through life.

ZiO Health places great importance on empowerment, to encourage individuals to take control of their health, optimise their well-being and prevent sickness with easily accessible home diagnostic technology and personalised testing solutions. Standing above the competition, ZiO Health avoids the pitfalls many "mail to lab" services encounter as sending samples to the laboratory can be expensive and time consuming, leaving individuals waiting days for results and advice. The Home Health Hub is low cost and instantaneously gives a quantitative result, allowing instant advice to be given through the accompanying software app. The Home Health Hubs sensor is functional with blood, urine, saliva & breast milk, allowing ZiO Health to offer a significant range of testing and diagnostics.

ZiO Health are currently testing their technology in third party labs and institutions in various geographical locations. A recent trial includes tests that are being conducted in the US at a university hospital, showing positive results thus far, with the device being able to give quantitative results within the clinical range required. The Home Health Hub is currently at technology readiness level (TRL) 5-6 where the platform technology has been established to work and is ready to be tested in a simulated environment. The software component is easily adapted to integrate into both consumer health and hospital platforms.

Target market

The Home Health Hub has an initial target market focussing on the health-conscious consumer:

This is envisioned as 25-45 year-olds that exercise 4+ per week. They are always seeking new health-related products to expand their knowledge of health. Users are trying to receive a deeper understanding of themselves and gain confidence on what works on them. By monitoring specific markers in bodily fluids, the user is given the opportunity to optimise their health through nutrition & wellness advice received. This monitoring allows lifestyle changes to be made, reducing the risk of developing chronic conditions.



With the global health & wellness market is worth \$4.5 trillion, ZiO Health are entering the UK market at a promising time, where their initial obtainable market is valued at £90m. Whilst up-front costs for personalised drug therapy is more costly than traditional medicines due to the need for companion diagnostics; according to the National Academy of Medicine, personalised drug therapy could generate \$100 billion in added value from longer, healthier patient lifetimes showing a worthwhile investment in shifting healthcare responsibility to allow individuals to understand and take better care of themselves.

Channels to market

ZiO Health is optimising several channels to market through both business-to-business relationships and business to business to consumer relationships. Initially ZiO Health will be targeting companies that have the same target user as themselves. Through current R&D partnerships the company will be launching certain applications into the market space. Further, ZiO Health are partnering with insurance companies & healthcare institutions to aid the overall goal of bringing disease monitoring and medication monitoring into the home. In regard to ZiO Health's customised solutions, the company is forming licensing agreements to allow other companies to utilise their technology within their own products.

Success Factors

Team and Reputation

- ZiO Health was founded in 2016 by Drs Neel Patel and Shaolin Liang
- The company has gained support from SOSV, HAX and J&J Innovation

Intellectual Property

- PCT patents in US & Europe
- ZiO Health is collaborating with University Hospitals which are running trials with the company's technology.
- Through collaborations with private companies, ZiO Health's technology is being developed to be used for customised solutions – for example water quality testing.
- ZiO Health's competitive advantage is its proprietary biosensor technology. It is able to rapidly develop new tests to increase test ranges within existing devices and to develop new devices for various applications.
- With multiplexing, ZiO Health is able to add multiple tests on the same cartridge, enabling rapid analysis, diagnosis or monitoring at the point of use. The affordable technology can be mass manufactured at a low cost.
- Another major benefit of the technology is capability of continuous monitoring, a feature that the company will incorporate for some applications.



Funding

- ZiO Health's largest backer is SOSV, a VC based in San Francisco.
- The company is also associated with other well-known investors that strategically benefit the company, however those will currently remain undisclosed.
- ZiO Health is raising \$3 million that will be utilised to complete trials in the US.
- Further, the funding will allow for investment into company growth with a focus on expanding research and development partnerships and the ability to increase internal capacity to accelerate research. ZiO Health will see growth in their teams in China and the UK.