Uncovering the power of epigenetics

JOIN THE PROFESSIONALS THAT ARE HARNESING THE POWER OF EPIGENETICS FOR HEALTH AND WELLBEING

START YOUR JOURNEY AT CHRONOMICS.COM
What is your vision?
We want to start a healthcare revolution. We want to use large biological data to provide personalised and proactive information that anyone can use to avoid dying from preventable diseases. Chronic illness already absorbs 70% of healthcare budgets worldwide - we want to help people avoid these diseases and live healthier for longer.

What is unique about your product?
Three main things set our epigenetics testing product apart. First, it is the only home test that enables you to understand not only the DNA you were born with, but also how it is changed over time by your environment and lifestyle, which affect your long-term health.

Second, we explain our users’ health prospects to them in six simple health indicators - diet, sleep, environment, social interactions, exercise, and wellbeing. Each user also gets a recommended plan for making positive lifestyle and wellbeing changes, based on their epigenetics results, to help them prevent the onset of predicted illnesses. Our clients also use the platform to access specific advice and support from our trained wellbeing experts and doctors.

Third, we keep everything simple. If our user decides if they want more detailed results, they click through the key indicators to get more information or zoom in on an interactive chart: how much detail is entirely up to the individual user. We understand that the results we deliver could be life changing, so while we’ll never mask the truth or dumb down the science, we’re very sensitive about how we share information with our customers.

What is your purpose?
We see a world where everyone can manage and action their own health and understand the ‘why?’ and the ‘what next?’ - for all their health concerns. By harnessing new insights from epigenetics science we can make this happen.

Why and when was Chronomics set up?
Our CEO, Tom Stubbs, has worked at the forefront of epigenetic research for over four years. He started Chronomics during his Cambridge PhD, after realising the value of tests that predict the effects of environment and lifestyle on a person’s health. Tom and Dani Herranz, a fellow Cambridge PhD in epigenetics research computing, started the company to help people that want to proactively improve their future health and wellbeing prospects, with uniquely-personalised genetic information.

We are striving to democratise and personalise health to make it possible for people to decide and take action to achieve a better and healthier life.

How do your users take the saliva sample?
Our saliva test is easy - just spit in the tube. We send you the sample kit and you return it to us for testing. It’s best taken at home in the morning and it doesn’t need any of your tissue or blood.

What does Chronomics do?
We are the first epigenetic testing company that enables any person to take control of their future health prospects as revealed by their changing DNA. Using a saliva test, they can take at home, together with next-generation sequencing in our world-class labs, we profile lifestyle and environment indicators from a person’s epigenetics to reveal an overall picture of their health.

This unique health summary comes with personalised health recommendations - based on those epigenetic-level insights - so anyone can improve their health outcomes or wellbeing over time. Our users access all their test results and track and manage their health changes through their own secure interactive healthcare platform.

Why is interest in epigenetics growing?
There are two main reasons. First, unlike previous testing that uses the DNA someone was born with as the basis for health advice, our recommendations are based on next-generation sequencing of a person’s epigenetic health data that shows how their DNA and their health risks are changing. We see demand increasing as people learn they can use these insights to take control of their health while partners harness our data services to make product innovations.

Second, by taking DNA and epigenetics testing out of the lab and into the home with a simple saliva test, we’re involving people more directly in lifestyle changes and showing them how their future ill-health is down to their lifestyle and environment - things that they can change and help avoid disease over time.

What is the market for epigenetics-based health services?
According to Grand View Research Inc. the global market for epigenetics-based health services is set to reach $22.05 billion USD by 2025.

Chronic disease already takes up 70% of healthcare budgets worldwide. Most of this cost comes from long-term diseases are actionable but people don’t know what factors are impacting their health: they can’t find reliable ways to prevent illnesses as they get older.
Who will use your product?

We are targeting two main audiences: first, people wanting to improve their health because they know they could be at risk and are ready to change their lifestyles and actively manage their health choices. Second, commercial bodies such as private clinics, wellbeing companies and gym owners want to give their clients access to our personalised data and science-based recommendations for lifestyle changes, as part of, or added to, their products or services. We’ve built world-class labs and machine learning resources to help our partners achieve these innovations. These resources can be scaled up to millions of users as our partners want.

How does epigenetics help consumers?

While scientists use epigenetic screening to diagnose some DNA-based diseases, such as some cancers, we are using epigenetics to help consumers, giving them a more accurate measure of environmental and lifestyle factors’ impacts on their DNA. This is making DNA testing more adaptable and helping consumers avoid future illnesses.

What is the difference for consumers between DNA testing and epigenetics testing?

DNA testing revealed personalised health insights to millions of people but it only offers as picture of you as a baby. Epigenetics shows the impacts of lifestyle and environment on your DNA as they grow older, so our testing predicts health outcomes and risks for you that can be changed in the future. DNA testing technology has been around for some years but our next-generation sequencing is taking health insights to a whole new level.

What innovations bring this extra clarity to your results?

First, our analytics engine goes through all our biological data to identify key health changes. Second, our interactive health platform uses intuitive graph-based charts to give users an easy-to-read dashboard of their lifestyle factors and predicted health risks. Third, the dashboard’s design also lets users track lifestyle changes they have made and their results against predicted health risks.

We are the only DNA company that sees you as an adult, not a baby and we are the only DNA company that shows you things that change in your DNA through epigenetics. We are the first epigenetics test in the consumer space.

How do you personalise the recommendations to each end user?

Our recommendations are personalised to each user based on analysis of their unique epigenetic health data. We also blend in additional data - where they live, their environment and diet, and so on. Unlike previous DNA testing, our test isn’t constrained by having to use the DNA that someone was born with as the basis for their health predictions and recommendations. It’s right up to date and more ten times more accurate than previous tests.

What is the interactive health platform?

Our interactive online health platform is the key to our product. It’s each user’s personalised information hub.

We designed it to provide simple and clear information for all our users - so they are engaged and motivated and their health management is personalised and proactive.

We boil all our testing data down to six key health indicators for our clients - diet, sleep, environment, social interactions, exercise, and wellbeing. Our ability to present complex information simply helps each user grasp their wellbeing. Our ability to present complex information simply helps each user grasp their wellbeing. Our ability to present complex information simply helps each user grasp their wellbeing.

We are the first epigenetics product’s testing power comes from this combination of providing actionable insights and repeated assessment in a straightforward and practical way.

How do you keep clients’ records safe?

We’re passionate about using data’s potential to improve health so we will never take our customers’ information for granted. Data is never accessed by anyone else without a user’s explicit consent. Research integrity is absolutely crucial for us, so we anonymise our client data from the moment a saliva test kit is ordered, through using secure protocols as well as the revolutionary MongoDB database that ensures minimal third-party data access. Our legal frameworks and processes ensure ICO and GDPR compliance and data security across all our logistics, data analytics and sharing operations.
What is epigenetics?
Epigenetics is the science of how our DNA is controlled, how genes are turned on or off, and how our environment influences our health.

Do you use array or next generation sequencing?
We sequence. We use the latest and most advanced next generation sequencing technology to ensure accuracy and reliability.

Are there any age limits on using your product?
Any person of any age can use the Chronomics test, but if you’re under the age of 18, you’ll need the consent of a guardian.

Who are your potential partners?
We see our main opportunities in corporate wellness, hotel & spa groups, health clinics and gyms.

Are you able to white label?
We have built the capabilities to do this and we are open to discussing white labelling to help power new partners’ business and expanded services.

How can you track progress?
Our users track their data through our secure interactive healthcare platform which will also be accessible under strict protocols by authorised personnel at our commercial partners.

How do you measure epigenetics?
We analyse DNA methylation, the molecular tags on your DNA that affect how your genes are used, using a technique called bisulphite conversion and next-generation sequencing.

Do you do DNA analysis?
We can extract genetic information from the epigenetics analysis to a similar level to other genetics tests out there. For the ultimate genetics analysis, whole genome sequencing is required.

Which territories/markets are you selling to?
Our main target markets are the UK, US, Canada, Australia and New Zealand.

What could a partner gain from your solution?
We’re scientists, so we owe our wellbeing expertise to our trusted partners who are as committed as us to helping their members improve their health outcomes. In return, our epigenetics testing product helps set our partners apart in several ways: first, it helps partners show their clients that they are truly innovative and want to provide the most advanced and personalised experience possible. Second, our product helps partners to engage with users more effectively and forge deeper and longer-lasting relationships with them while it also supports their acquisition of new customers.

Which factors are you testing and tracking?
Epigenetic changes occur to our DNA by the addition or removal of molecules such as methyl groups on DNA - it’s called DNA methylation. Changes can be triggered by lifestyle and environmental factors like diet, smoking and pollution. We focus on identifying when and where this DNA methylation has happened - typically sequencing five million pairs for every user - and turning the data into a simple snapshot of those lifestyle factors and their health impacts.

Who is providing financial backing?
We are pleased that Chronomics has secured £1.1 million first round funding in January 2019 from fintech venture capital firm Anthemis and biotech investor SOSV. We also have backing from angel investors including Highland Europe’s senior partner Laurence Garrett who has inspired deep tech firms like Speechmatics, FeatureSpace and BlueGnome, both as investor and board member.

How do partner organisations access users’ data?
Our users’ data is never accessed by our partners without a user’s explicit consent. To maintain our research integrity, we anonymise our client data from the moment a saliva test kit is ordered using secure protocols while we use the revolutionary MongoDB database to ensure absolutely minimal third-party data access.

We want to provide the most advanced and personalised experience of epigenetics analysis possible.
Making the unseen actionable

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