

HEALTHCARE & LIFE SCIENCES REVIEW

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Interview

Daniel Wallerstorfer – CEO and Founder, Novogenia, Austria



Dr. Daniel Wallerstorfer, CEO and founder of Novogenia, a vibrant Austrian genetics company, discusses founding his own company and the innovative services Novogenia provides to ensure genetics are a staple part of global preventative measures. He also provides an insight into the future of genetic analysis and the positive overall effects genetic testing can have on the entire healthcare system.

What was the overriding motivation to found your own company?

Ever since I was 13 watching Jurassic Park I have been interested in genetics and have wanted to become a geneticist. After completing a PhD in the field of biotechnology in the United Kingdom, I realised human medical genetics was mostly utilized for damage control purposes rather than prevention measures. I constructed a business plan with the intention of preventing genetic diseases and shortly after returning to Austria, I approached a few investors and founded the company in 2009.

Novogenia started as a 20sqm laboratory on the German-Austrian border. We got the licence to do medical genetic testing from the Austrian government and rapidly entered the preventive genetic testing field. Our first mission was focused on preventing common diseases such as thrombosis. I realised my abilities in developing genetic testing were greater than my marketing skills; therefore, I opened a white labelling laboratory service and this division represents around 80 percent of our revenue. For example, Novogenia does the laboratory work for Amway's weight management program called BodyKey.

How would you assess the company's evolution since 2009?

When we opened we were comprised of three employees, though we had an abundance of ideas. Developing the first product was a lengthy process, and over time we improved our automation, leading to decreased waiting times for our customers. Furthermore, we have also developed our service portfolio as we initially only offered our disease prevention test and now we offer nutrition tests, after realising the importance of nutrition in disease prevention.

Research demonstrates people react differently to the same nutrients due to genetic differences. For example, some people do not gain weight when given calories in the form of fat and others do. This reason is due to certain genes regulating what are the certain nutrients that different types of bodies absorb from food. We are able to test a patient's genes and determine the best strategy for weight management.

We also have a new born screening program that tests for eleven diseases that need to be detected and treated before lifelong disabilities take hold. Moreover, we have founded another company called Genome Plus that produces personalised supplements based on a genetic test. We are able to formulate a unique combination of vitamins and minerals specifically developed in accordance to the patient's needs and disease risk. Furthermore, we are involved in performance and health-genetic tests for

horses. We can define the likelihood of disease, and forecast if it will be a successful good racehorse in a specific race type.

What are the key milestones thus far?

In 2012, we acquired Genosense Diagnostics, our only Austrian competitor that was located in Vienna. This allowed us not only to test genetics, but utilise the science to create solutions for downstream applications. In 2013, we opened a company in Spain focusing on expanded new-born screening of babies, and I believe in the next 20 years every new-born will have its whole DNA sequenced at birth. This will allow us to predict what diseases are likely to affect certain people. In 2014 we founded Genome Plus, a personalised supplement solution to help combat genetic weaknesses and next month we will launch personalised cosmetics based on the genetic test of 20 genes.

In which ways are you bringing innovation to the market?

Genetics are only ten percent of our services. Rather than solely focusing on genetic information like many of our competitors, Novogenia provides patients with a solution to maintain a healthy body derived from genetic data. For example, we have created a map of good and bad recipes and diets for specific types of clients, we produce personalized supplements, cosmetics and so on.

Where do you see the future growth of genetic analysis?

Undoubtedly, whole genome sequencing will be the future growth driver of the healthcare sector. Today we can read out the whole genetic code of a human being (3 billion letter genome) but interpreting what it all means is the tricky part science is currently still stuck at.

There is a huge number of scientific papers for specific gene mutations and their effects on the body and in order to understand a person's genome, you have to know and understand these publications. My team and I are finalizing an artificial on the intelligence system capable of extracting and storing information from scientific papers in the field of genetic mutations. By mid-2018 I expect this system to analyse and generate the most advanced generic testing ever.

Prevention in the healthcare sector is at times overlooked to the detriment of many medical conditions, such as diabetes and cardiovascular disease. How do you advocate for this to be promoted more prominently in Austria?

Nutrigenetics, the science of knowing your genes and eating based on your genetic profile is important in terms of prevention as has the possibility of resolving many lifestyle related disease. Parents should be educated more in regard to this science as they are responsible for their children's health.

Thankfully, awareness on dietary habits and genetics is growing, though people can be misinformed; for example, lactose and gluten intolerance are genetic diseases we can test for. We see many people having self-diagnosed themselves as lactose or gluten intolerant and the genetic test reveals they can

eat it without any problems. Another example is iron overload disease that affects the intake of iron in food and causes the immune system to be less efficient, possibly resulting in irreversible illnesses, such as diabetes and liver damage. Unfortunately, 75 percent of doctors do not perform a genetic test to identify the cause of these problems, iron poisoning, and misdiagnose the disease. Performing this genetic test on a still healthy individual allows affected individuals to give four to six blood donations a year; therefore lowering the iron content in the body and preventing the disease. This is genetic disease prevention.

What makes you stand out over other genetics based competitors?

There are around 30 companies doing genetic testing in Europe and thankfully we supply 75 percent of the market. In fact, Novogenia is one of the few to have its own lab. Most of the competitors are associated or university laboratories, which has its advantages, though result in slower service times and lower capacities. We are the only ones I am aware of that produces highly personalized follow up products based on genetics or blood tests. We produce supplements and cosmetics for every single person. Additionally, Novogenia is extremely price competitive, and this, coupled with our high quality of work and innovative services, makes us even more attractive compared to our competition.

What are your ambitions and aspirations for Novogenia?

My objective is to eradicate all genetic diseases in anyone willing to undergo the procedure for themselves or their offspring and – hopefully – we are on the right path. The process we follow is similar each time; first, discovering what is wrong with a person’s genetic profile, then, finding the relevant solution. At the moment, we are focused on creating the best genetic testing system of genome sequencing. We hope that the government provides our programs with more support as the economic savings associated with their utilisation is immense. This prevention method in the long run can be up to 80 percent more efficient than the costs required for treatment to cure conditions.

What advice do you have for other young entrepreneurs who want to take a leap into founding their own company?

Be patient and stubborn. Stay optimistic and don’t give up on your ideas!

The Novogenia Group Austria

Company information:

The Novogenia Group, founded in 2009, is one of the European market leaders in lifestyle diagnostic genetics and is a worldwide pioneer in preventive genetic diagnostics.

Address: Saalachstrasse 92 5020 Salzburg Austria

Tel.: +43 662 42 50 99 11

Website: www.Novogenia.com

Email: office@Novogenia.com