Interview: Dr. Othmar Pfannes – Founder & CEO, Genedata, Switzerland

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Dr. Othmar Pfannes, founder and CEO of Genedata, a bioinformatics company headquartered in Switzerland delivering enterprise software, data analysis consulting, and business-process analysis services to the life sciences community, reveals some insights into Genedata's business strategy and how ultimately their mission is to contribute to reducing the costs of drug research and development.

Genedata seems like a company at the cutting-edge; transforming data into intelligence, with innovative software solutions. What was it that prompted you to found the company back in 1997?

20 years ago it was already clear that genomic data would be key to the future of pharmaceutical R&D, even if it has only become visible to the public over the last few years, with the recent precision medicine initiatives for example. Indeed, even before 1997, in the 1980s when I was completing my PhD in statistics at Berkeley, the first sequencing of the human genome was being prepared, and I could see that genomic data would have an impact on the future of society. In the 1990s, when the first genomic data started to appear within the pharmaceutical industry, it became obvious that there was a need for analytical software to interpret very large datasets, such as these. Indeed, this motivated me to found Genedata.

How has Genedata's growth path looked over the years?

Genedata has seen steady, consistent growth of an average of more than 10 percent per year for over a decade now. For the first few years, starting out with just a few employees, we were growing at an even faster rate. From 2006 onwards we have consistently added people, projects, customers and revenues. We are not investor-driven, which allows us to take a long-term perspective on investments in innovative projects. The pharmaceutical industry is fuelled by constant innovation, with new experimental technologies appearing almost every month. It is our goal to support our customers in bringing these innovations efficiently to use, and this strategy has allowed us to maintain our growth momentum over the years.

Genedata's two key software solutions are: Genedata Biologics and Genedata Screener. How exactly do they create added value for your clients?

The concept of our company is to focus on key R&D processes that are both, highly complex and data-rich. The two solutions you mention focus on screening processes and the biologics discovery workflow. Both solutions increase the efficiency of those R&D processes. They reduce the time it takes to get experimental data integrated and analysed and they reduce the error rates in the analysis results. They enable numerous people to work together on the same data, often across different continents, and allow them to share, integrate and analyse a variety of experimental data as they are generated across different labs.

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For example, a key process in pharmaceutical R&D initiatives involves screening of sometimes very large compound libraries, and Genedata Screener harmonizes screening processes across the whole organization. The concept of screening has existed for around 50 years, but over the last two decades it has become increasingly advanced and automated, allowing for larger screens and more complex samples. Technologies that were previously only used late in the research process can now be used for early screening—for example, imaging technologies capture far more information per sample, which leads to more information being available earlier. In other words, the data volume and complexity per screening campaign has increased tremendously. Our Genedata Screener platform covers all these screening processes and quickly produces high-quality analysis results, regardless of data scale or complexity.

Similarly, with Genedata Biologics, we harmonize discovery and development of biologicals across a whole R&D organization, capture all experimental data in one system and provide access to that experimental data to scientists downstream. We thus eliminate time-consuming and error-prone data handling processes and save our customers millions of dollars by improving the basis for their

daily decision making.

How much of an obstacle are the increasing concerns around privacy issues, when it comes to collecting data to Genedata's development?

Actually, we do not see it as an obstacle, but as an opportunity for our software to prove value. Our Genedata Profiler system enables our customers to work with patient data (which of course needs to be fully protected) and use it to conduct innovative research in a translational research setting. Genedata Profiler addresses the privacy concerns and at the same time enables our customers to get maximum value from genomic information of patients to develop better drugs faster.

You say that Genedata helps clients to develop novel drugs, bringing them to market quickly, while keeping costs under control. Does an environment where the focus is increasingly on cost containment measures present a particular window for Genedata?

Indeed those cost containment measures provide a window of opportunity for Genedata. Today, we are already making a significant contribution by reducing drug discovery costs. You could say that what Genedata is all about is helping our customers to minimize the number of people that have to look at data before making decisions. Our ambition is to automate, as far as possible, the data analysis process in pharmaceutical R&D; harmonizing data analysis processes across different sites, and standardizing certain research processes across an entire research organization, so that it is easy to understand what has happened to the raw data when making decisions.

We see more and more technology giants with massive financial resources entering the healthcare industry, the likes of Apple and Google setting up partnerships with Sanofi. What exactly is Genedata's' competitive advantages in the digital sphere?

We welcome technology giants entering the market. This will strengthen the domain and enable us also to be more successful by entering into partnerships with those giants. I believe Genedata is already today a global software leader in the biopharmaceutical R&D space. What makes Genedata unique is our mix of scientific expertise, coupled with excellent IT capabilities, alongside what I call deep business domain expertise. Such a combination of skills is not something that you can acquire overnight. Ultimately, the key is to have a long-term plan in place that is focused on adding value to the pharmaceutical R&D industry. For example, Google is good at collecting massive amounts of data, which is certainly required for R&D. But it is also perfectly complementary to what we are doing here at Genedata with our focus on data analysis.

To what extent has your growing involvement and presence in the world's largest market, the US, alongside your office in Japan, contributed to Genedata's success?

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The key to us is to be close to our customers – we currently work with all top 25 pharma companies and also some of the leading biotechs. We set up our offices where the leading pharma companies are doing R&D: in Basel, but also in Boston and the Bay Area in the US. We are also in Tokyo, Japan, where you have a number of the top 50 pharmaceutical companies in the world. We want to continue to work with the leaders in the field, small or large; not merely providing them with software, but also sharing our expertise by consulting with them on optimizing their data processes and further developing our software together to fit their requirements and processes. We need to be close to our partners and therefore our offices worldwide are a very important part of our international expansion strategy.

The Swiss Pharma sector remains one that is admired for its truly innovative nature. Indeed, the Swiss spend twice as much on R&D as rest of Europe (2.2 percent vs 1.1 percent of GDP). To what extent has this provided an ideal environment for Genedata to prosper – could your story have occurred in any other European market?

There is certainly a considerable benefit to being a Swiss company. It is also true that I would not have had the domain knowledge to start this company, had I not previously worked for a big pharma here. Another reason the Swiss environment has been important to our development is the excellent Swiss education system, with the likes of ETZ Zurich and the École Polytechnique Fédérale de Lausanne. That is not to say that it could not have been done in Boston, or the Bay Area, both areas with leading universities, but having such a highly skilled pool of talent so close to us has been a considerable advantage. For those who are not already in Switzerland, people are attracted by the high standards of living to come and work here.

What are some of your key goals to take Genedata to the next stage of its development over the next five years?

I see a very bright future for our company in the next five years. We are well on track to grow to 500 employees and a significant revenue stream. Our focus remains to keep customer satisfaction high, while continuing on our innovative path by expanding our product portfolio. We will also expand our service offering to share our know-how with customers. Of course, in addition to continuing to invest in our existing businesses, we will move further in the area of biopharmaceutical R&D and manufacturing, including exciting new fields for us like biosimilars and

cell line development. Genedata is also heavily investing in genomic patient profiling, addressing the security and safety questions that we see arising. Beyond the biopharmaceutical industry, we are also interested in some current niche markets, such as improving the efficiency of agrochemical R&D, plant breeding, food and beverages and industrial biotechnology. Exciting!

What is it that keeps you motivated to this day, 20 years on from founding the company?

I enjoy working with people that have a similar mindset to me; people that ask challenging questions, and want to solve them. I remain very interested in the intersection between science and IT technology. Ultimately, being able to make a contribution to lowering the costs of clinical development and helping to bring novel drugs to market quickly for the benefit of patients is extremely motivating.

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