Interview: Laurent-Dominique Piveteau – CEO, Debiotech, Switzerland

"The central part of the spirit of Debiotech is to have an impact, and not just gain financial revenues."

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Laurent-Dominique Piveteau, CEO of Swiss medtech innovator Debiotech, discusses digital disruption, Swiss innovation, and future growth drivers.

As well as being CEO of Debiotech, you also lecture courses at EPFL on "Economics of Innovation in the Biomedical Industry". What are your thoughts on the incorporation of disruptive technologies in the medical world? Is the life sciences sector really ten years late to the party?

It is definitely ten years late, not due to a lack of interest, but because of regulatory difficulties. In our field, one has to be careful and come with mature technologies. So it is clearly coming later. We witness this in all kind of different fields, even in the current devices that are being developed; they are sometimes technologies that are maybe not the latest ones, but ones that have proven to be stable and reliable. That's the key issue we are facing in our industry. Blockchains, Big Data and all such related trends will come to our industry without a doubt. Now how will they be introduced? That's not necessary clear for now.

What we are starting to see however is the introduction of communication. This is something that has been occurring in our everyday lives for the past 15-20 years. It is now entering the medical device/pharma field, where you are starting to have instant communication and a lot of data transmission between the patient and the caregiver which means that the patient may leave the

hospital environment and may go back home with the same type of protection and safety around himself/herself. However, this is not easy; you need to make sure that you are not increasing the risk as you are removing the patient from this environment. The conclusion is yes, this will come, but it will be coming slightly later.

What do you think would be the role of a country like Switzerland in this digital revolution?

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The political environment of Switzerland is crucial for this type of development. We are talking about a lot of personal and sensitive data. The laws that are being discussed and implemented are designed to protect this data. It is important to note that there are different aspects when you talk about digital evolution. There is the pure transmission of data, but also some technical matters on how to transfer this data. The subsequent questions are then: what do you do with the data? How do you store it? I believe Switzerland is in a nice position to tackle such matters and this is based on our history and the global image of our country. Switzerland boasts a strong image for respecting privacy of data thanks its heritage stemming from the banking sector. Despite the current negative connotations surrounding the financial sector, it must be outlined that from a personal data and legal perspective, alongside a stable political context, Switzerland ranks highly. If you have a private, semi-public or public institution keeping your data, you want to make sure as a patient that over time this will remain the same and that things won’t change. You don’t want a change in the political environment tomorrow which will make digital data available to everyone. That is why stability is a crucial aspect.

Furthermore, we have the environment to set up the structure to store this data. Research centres and all concerned organizations have put in place these technologies for a long time. The knowledge they have developed is very important. The combination of the two makes Switzerland a very specific and unique environment to be an important player in the future, and there is certainly an opportunity here.

Although Switzerland is known as being a very innovative country, we as externals notice in some areas a certain form of caution. Perhaps this is cultural… Would you agree?

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It depends what you compare it to. If you compare it to the US, maybe Switzerland is more risk adverse. If you compare it to other European countries, I would disagree. In my opinion, Switzerland is between European countries and countries like the US. Switzerland, from an innovation point of view, is quite an open country, compared to a lot of its counterparts in Europe. If you look at academic or private research centres or even companies, they are open to a lot of foreigners and they attract overseas talent. They are bringing a lot of brain power from outside, they are inclined to mixing ideas and moving forwards.

Debiotech is one of the most innovative players in the medical device sector in Switzerland today. Could you introduce the company?

The company is 28 years old, and we are concentrated on developing medical devices. We don't directly sell devices and go to market, and that is a very unique business model. The devices we develop are based on breakthrough technology, that are different from what already exists. There needs to be some benefit for the patients or caregiver. We come up with a different technology because that is what you can propose to outside companies.

The way we approach the market is by taking a risk on our development. We are not a contract research organisation; we do not wait for a client to ask us to develop a device in one field. We develop our own devices based on technologies we identify. Then we determine the area of activity: what types of products we'd like to develop, where do we think we could bring something different based on the technologies we have. We subsequently develop the product, go to market approval and during this process we look for partners to commercialise the project. We are in an out-licensing model of operation, and that is quite unique. The objective is not to have a distributor at the end but to have a partner that will sell its own products. As a client, you are therefore buying a Debiotech product without knowing it is a Debiotech product. It is not something distributed for us. This means that at the end of the development, we partner with different companies, whether pharmaceutical or medical device players. We finalise a product with them, making sure it fits and is compatible within their portfolio, strategy and that it's not just something they want to add as an annex to their portfolio.

This is the global strategy, taking early ideas in the lab. That's why we have quite a few interactions with EPFL, other universities and small companies whom for example, are start-ups uncertain on what to do with the technology they have developed. We will license in these technologies and do the development, before licensing out.

You operate in some very large therapeutic areas such as diabetes, renal failure, CVD and cancer. Which areas are the main revenue generators today and how might this evolve in the future?

Today we have two areas of strong activities, which are diabetes and renal failure. We are working in the diabetes field because it is obviously a large market, although a difficult one. If you can develop a product to deliver insulin, it can be used in a lot of other fields and have other applications. Being present in diabetes drug delivery implies to have products with a very high accuracy rate and reliability. It is also a product one can use at home, so users are poorly trained and have a lot of extraordinary ideas of what to do with devices… There are therefore a lot of development and design constraints on the system to make it safe. If you can do that for diabetes, you can use the same technology or similar technologies for other fields. If you look at what the market is asking for now, especially in the biopharmaceutical field, you have more and more requests for pumps and body injectors for example, a natural extension of what is used today in the diabetes field.

You pride yourself for leading the medtech innovation sector. What characterises your innovation strategy?

It is all about developing and combining new technologies that will bring differentiation to the product. For instance, in the dialysis field, we are working on a peritoneal dialysis machine; we changed some of the technologies which are used for pumping, for different types of measurements and sensors. This is not just for the sake of changing it. By modifying these technologies, we can reduce the size of the machine by a factor of at least four, and can also divide the weight by 4. So instead of having a device that weighs between 16-20 kg, it would weigh below 5 kg. One needs to understand that we are talking about a machine, that you need to use daily, that you need to travel with when you do … Developing a device with technology that is easier to use might have a strong impact on the therapy. The same goes for insulin, where we are working hard on designing easier-to-use devices.

One crucial element of your business model is out-licensing. Can you tell us a bit more about this partnership strategy and how you identify partners that you believe will put into value the benefits of a Debiotech product?

We always know who is an ideal partner and we always select good partners! What is crucial is to have someone who is really willing to promote the product and make the product a success. The central part of the spirit of Debiotech is to have an impact, and not just gain financial revenues. We

want the product to be used, and this is of the engineers' motivation. That is really what we are looking for in partners: companies with the willingness to change their area and bring something new to patients. It helps knowing actors in the field, and being an established company is an advantage as we have many contacts in the field.

Looking to the future, what are the next steps to unrolling growth over the next five years? Can we expect to see Debiotech commercialise under its own name in the long term?

You will see some evolutions, but as of now we have no plan to commercialise our own solutions. This is really a very different business. We have built up competence in innovation and developing devices, and I believe we have enough opportunities to continue to grow this. There are excellent companies out there just doing that, and I am not sure it makes much sense to move in this direction. We shall however adapt depending on the market.

When we come back in five years, what will have changed at Debiotech?

I'd like to expand our portfolio. We have a few interesting products, and there are a few that are not public yet, as we are starting to develop them. These new products answer expectations from companies in new fields. We would like to complete this portfolio and then provide it to pharma and medical device companies.

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