



Boom in biotech due to COVID-19?

Interview with Michael Motschmann, General Partner and Board Member of MIG Capital AG

Hardly any industry has received as much attention due to the coronavirus pandemic as biotechnology. Yet, will the industry be able to profit from this in the long term? Despite a record level of financing in 2020, funding opportunities for the German biotech industry remain critical.

Bio^M: Mr. Motschmann, you're a General Partner and Board Chairman at MIG Capital AG. Through various MIG funds you provide financing to entrepreneurs and young companies at different stages of their development. How does your team go about its work, and can you explain it to us in more detail?

Motschmann: I'd be happy to. My response will be more about my personal work duties. About five percent of my work time goes toward the deal flow – i.e. searching for, evaluating, or rejecting new investment opportunities. This is primarily the responsibility of my colleagues, who of course have a deeper understanding of the technology, products, and markets. I focus on business models, management personnel, and operative implementation. These are the things I look at very closely. In this function, I see myself as a sort of company builder in the second or later phase, when we are invested. I'd say about 60 percent of my time goes into tending to the companies, especially in the difficult phases of their development. And when you invest, difficult times are sure to come. Then another five percent goes toward transactions. This means sales, mergers, IPO, basically utilization of the asset. For example, 20 percent goes into investor relations. More than anything, this means relations with our co-investors but also with our MIG investors. You're aware that we have a different type of fundraising. We're not the traditional VC funded by institutional investors; instead, we have many private investors. And I'd say about ten percent of my work goes into fund administration, especially since we are heavily regulated as a company under the oversight of BaFin.

What must a start-up have – besides excellent scientific data – to win over you as an investor?

First and foremost, like an entrepreneur, you have to think with the end goal in mind. This means I'm looking for a sophisticated and attractive business model, a comprehensible business plan up to realization of this business model, and – as you have rightly pointed out – enthusiastic yet modest managers who want to and can implement this plan. At least in our view.

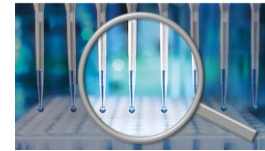


BioNTech, which is actually a biotech company that develops personalized cancer treatments, has achieved worldwide renown over for its coronavirus vaccine. You recognized the Mainz-based company's potential very early on. As early as 2008, BioNTech received investments from the Strüngmann brothers and from three MIG funds that you manage. What was it about BioNTech's mRNA technology that convinced you at the time?

In this case we have to look at the broader context. Our involvement with BioNTech actually began two years prior, in 2006, when I met the two founders Özlem Türeci and Uğur Şahin through their very first company, Ganymed. Ganymed Pharmaceuticals was an antibody company in which we invested in 2007 (and which we successfully sold to Astellas in 2016). It was in this context that I got the Strüngmann family involved in this investment in Ganymed. Then, getting to know Uğur Şahin and his visions, I felt more and more fascination over the coming months to implement further things. This resulted in BioNTech being founded in 2008. The mRNA technology, as you have already asked, was irrelevant at the time. It was just a means to an end. There could just as well have been other platforms, but mRNA is the one that worked. So the company is agnostic when it comes to technology. More importantly, in contrast to how scientists typically operate, the founders start their thought process from the end and work backward. In this respect, they are rather like engineers. Uğur Şahin refers to himself as an immune engineer. When all is said and done, an engineer is only ever interested in a product functioning, but not whether the technology is the best. I think it's very important to work that out. BioNTech's long-term goal at the time was personalized cancer immunotherapy – i.e. custom therapeutic vaccines against cancer – and that hasn't changed. The technology and resource requirements were presented in this plan accordingly. I found it fascinating how all decisions were based on and then made subordinate to this long-term goal. Of course, Uğur Şahin and Özlem Türeci are impressive people in their own right: highly intelligent, modest, ever curious, and able to learn. I really think they're a great team, so I quickly decided to become a founding investor in the company.

So, this wasn't a purely data-driven decision; instead, personal contact with the founders was very important for you.

Personal contact with the founder is always important, but it was special in this case because, when we invested in Ganymed in 2007, we got to know each other better. And I think they both saw the added value we can contribute, but their potential also became increasingly apparent to us.



The coronavirus pandemic provided a major impetus not just to BioNTech and other vaccine manufacturers, but also to the entire biotech industry. Do you think that, in the future, companies in this sector will have an easier time finding parties interested in making considerably sized investments?

Well, if the companies take the right approach, then yes. Even the investors who thought biotechnology was a very risky billion-dollar gamble have woken up. Now some of them are willing to invest in biotechnology. It's more widely understood that these industry risks are more manageable than they were, say, 20 years ago. We're seeing the start of the second wave or generation of biotechnology entrepreneurs: People who have seen their projects collapse and now have a better idea on how to succeed. And it's not a negative thing to fail at something and then get back up on your feet. People need to be given the chance to get back on their feet.

In your opinion, how long will the pandemic-fuelled boost in the biotech industry last?

I think it depends on whether, and to what extent, the industry learns from the BioNTech success stories. In my opinion, a strong emphasis on the product and its market is crucial, along with far-reaching vision for the necessary resources. By that I mean, for example at BioNTech, big data, data analytics, artificial intelligence, machine learning, robotics, automation – all of these are relevant within the industry. Always staying agnostic when it comes to the technology, as I mentioned earlier. No vanity concerning the origin of these technologies, quick decisions, and actually making decisions. It's better to be incorrect, correct yourself, and then take the right path. That's what it means to make a decision. Clarity and acceptance that it can and will take a long time. And all of us who have worked in biotechnology for years know that it will always ultimately be a little more expensive.

BioNTech originated with funding under the GO-Bio initiative from the German Federal Ministry of Education and Research, which funds entrepreneurial researchers with innovative ideas from the life sciences. This program was put on hold in 2018. What does BioNTech's success say about the suspension of this funding program?

GO-Bio was an outstanding program that was managed very, very well. From early on, it showed founders the high standards that professional investors hold and gave rise to excellent teams because of its selection process. Personally, I find it regrettable that this program isn't around anymore, and in my view, consideration should be given to reinstating it.



You're calling for it to be relaunched?

Urgently. I'm thinking of all the projects that have proven themselves, and with GO-Bio it's not just BioNTech. There are other companies. I remember Corimmun, which also successfully made its way from our portfolio to a large pharmaceutical company. They also benefited from GO-Bio projects. So like I said, it was a good program for promoting and funding excellent teams.

To what extent should policy support and promote innovation?

To the greatest extent possible. That's a rather bold and generic statement, of course. But here's what I mean by that. If Germany wants to play a serious role as an international leader in technology, our government must reach a broad consensus, regardless of the party leading the way. It's a matter that concerns society as a whole. Only if innovation – including outside of biotechnology – is explicitly seen as a pillar of our future economy can the funding be provided by lower-level bodies, both large and small. It's really about achieving a general social consensus. One good example in which you can see the potential that this holds is ESG, which concerns matters of sustainability such as climate protection. It illustrates what can be achieved when you really strive for something. And to return to the issue of Covid-19, the development of the Comirnaty vaccine from BioNTech shows what can be achieved in our society when everybody shares a common goal. Nobody would have thought that within ten months, the most successful and perhaps the best vaccine in the world would come from Germany, in the form of a technology lacking validation among products already on the market.

As is often the case in fundamental research, a research grant does not usually cover the typically later, cost-intensive phase of pharmaceutical development. How can the conditions for growth financing in Germany be improved so that investors can invest more money in biotech firms?

It's a very broad field, of course. For example, the tax recognition of investments through immediate write-offs, entirely or partially – i.e. taxation only in the event of success – is one possible fiscal approach to this. The second request is for bailouts on tax losses carried forward when owners are changed. That's an important topic, I believe we've been discussing it for decades. I think the taxation of ESOPs, meaning the stock option programs these young companies set up, is an important point. They should be taxed as capital gains and not as income, i.e. at a different tax rate. And one final point that's very important to me is a possible change to stock corporation law, such that stock options can also be given to supervisory boards in large biotechnology companies because it is the only way they can attract



the members necessary for those boards. At some point the risk people take has to be proportionate to the upside that they thus stand to gain.

Are the currently common fund structures, which typically last from ten to 12 years, even suitable for investments in biotech companies?

Honestly, ten years is the lower limit. What happens if something goes wrong – e.g. if the important clinical study doesn't pan out and has to be restarted? I'd say 15 years would be better. Yet, sometimes you have to admit that a company's chances are low, phase out the investment, and give up on it. That's a part of our business. Longer terms are definitely better. For example, our newer funds have a duration of 14 years.

Why is it so much easier for investors from the US than it is for German investors to invest large sums of venture capital in young companies?

This response could be summed up under the term "ecosystem." The USA has a completely different ecosystem. There's more money in the market, such as in pension funds, hedge funds, crossover investors, foundations. It boasts a functioning capital market with a considerably higher share quota than in Germany. In Germany, our problem is that private investors have too few shares in their portfolios. When it comes to the economy, a higher share quota is an important point that I would like to address here – and not just for this reason. I think that, with regard to our retirement planning, a higher share quota and trust in our own economy is crucial. Of course, they are more willing to take risks over there. This openness to risks has developed over time because they have more experience. So it's easier to assess the risk. And the investment banks have outstanding, highly qualified analysts. That's something that we in Germany – just think of the years 2000 and beyond – have lost, unfortunately, because all the banks' equity capital market departments and analyst teams were downsized. After there were fewer initial public offerings on German trading floors, the banks took action. Just as they expanded drastically in the late '90s, they drastically drew back in the early 2000s. And so there's a whole other approach to biotechnology, or young technology. That doesn't apply only to biotechnology, but also extends to many, many fields of technology. This is a challenge to us all. What I mean is: the challenge of giving this technology a crucial position with regard to future technologies is one for us all. You cannot forget that humanity's greatest challenge after the war – which the pandemic certainly is – was resolved by science, and specifically biotechnology. When you look at the opportunities we have in Germany and how little arose from these chances in the past 20 years, it's a shame on the one hand,



and on the other hand a logical approach to changing course and daring to have more faith in our technology and our entrepreneurs. This will pay off in the end, and ultimately it's about transforming our economy.

So we do have the brains here in Germany.

That we do. We need to fundamentally increase the level of social awareness on the issue. It comes down to education. We don't want to create a gambling mentality in Germany; instead, we want to gain serious investors who work on the basis of knowledge in the topic. But if, for example, you ask me as an investor, I must say that we have made the highest returns on investment in biotechnology and we don't even invest solely in biotechnology. Whether they were companies like SuppreMol from here in the Munich area, or Corimmun or Brain AG who we brought to the stock exchange, or white biotechnology, red biotechnology, companies like Ganymed, BioNTech, Immatic, whether Nasdaq or the German stock market – we have had so much success in this segment that I think biotechnology has different risk figures than is commonly believed.

How critical do you believe it to be that young, promising German companies are bought up by US market players, who then market Made in Germany technologies? Could the revised German Foreign Trade and Payments Act from 2020 help here, as it earmarks much stricter investment auditing for major company acquisitions from overseas? Or will the act scare away international investors?

I'd like to start from the beginning. Of course, it would be nicer if start-ups stayed in Germany and their added value brought benefit to the German economy. That said, in today's world, share holdings are global. This means the owner structure is less important than many think. However, a physical base in Germany is important for other reasons. Jobs, industry, and income tax only occur at the location where the company is active. The new ordinance of the German Foreign Trade and Payments Act is, as is often the case with politics, well intentioned, but prevents biotech and deep tech start-ups from becoming successful. For many, the sale to or financing through foreign investors is the only realistic option. If you look at how many of the companies have been financed by foreign investors or sold overseas in the last 20 years, the number is overwhelming. I could write a book about the cases from my own portfolio. As an aside, restrictive measures rarely help. Instead, companies need incentives to stay here – ideally in the form of sufficient financing. If our state improves the conditions for this and helps us, for example by mobilizing a small portion of the EUR 6,000 billion in assets and private budgets, that's probably much more helpful than any restriction.