

BioRegio STERN interview with Dr. Dominik Maurer, Vice President Immunology at Immatics. The original interview has been conducted in German and then translated into English.

The company, now listed on Nasdaq in the US, is a spin-off of the Department of Immunology at the Interfaculty Institute for Cell Biology (IFIZ) of the Eberhard Karls University, Tübingen, Germany, and develops cancer immunotherapies. Maurer, immunologist by training, joined the company shortly after it was founded twenty years ago. In addition to his scientific role he acts as chairman of the site leadership team in Tübingen since 2020. He talks about the objectives Immatics has in the region and beyond.

The development of cancer immunotherapy benefits the coronavirus vaccine research – and vice versa

Immatics develops cancer immunotherapies. What does that mean?

Each day, mutations occur in the body that can potentially develop into cancer. Our immune system detects these mutations and fights them. Unfortunately, this sometimes doesn't work sufficiently, because our immune defence is distracted or weakened. These mutations can then further develop, undetected by the immune system and this is where our cell therapy comes into play. It has the advantage that it can combat tumours in a very targeted way in the hope of an improvement or cure with few side effects – unlike standard cancer treatments using chemotherapy or radiotherapy.

Please explain this cell therapy in more detail.

Thanks to our technology platforms, we know which target structures are presented on tumours and not or to a far lower extent on normal tissues. Specific immune cells, T cells, naturally bind to the target structures using so called T-cell receptors and fight the tumour. Sometimes, the immune system has “forgotten” and is unable to fight tumours via those target structures. We can then

support the immune system by providing additional information: this is the target structure you missed, this is what you have to identify, this is what you have to fight. We therefore, improve the immune cells by equipping them with engineered T-cell receptors (TCR), which bind to the target structure. We have previously identified, characterised and developed these T-cell receptors so that they have an optimal impact against this particular cancer. As a result, the immune system is again able to combat the cancer.

What makes Immatix unique?

Two things. Firstly, as far as we know, Immatix has the largest database in the field of target structures. Dr. Toni Weinschenk, Chief Innovation Officer at Immatix, is the inventor of XPRESIDENT[®], the technology platform that makes it possible to identify cancer-specific target structures. Our platform is one of the most sensitive and accurate technologies, using a high throughput approach to identify target structures in virtually any type of cancer. The second technology that makes us unique is the XCEPTOR[®] technology platform, which I developed together with my team. It enables us to identify, characterise and improve the T-cell receptors that detect the target structures. These two technology platforms are the unique selling point of Immatix. We use them for two treatment modalities. One is our cell therapy approach, which we call ACTengine[®]. This involves equipping the patient's own T cells with potent, highly specific TCRs. This method is currently being tested in three ongoing clinical trials. We're also developing bispecific TCR molecules – TCER[®]. These are antibody-like biologics that utilise the body's own immune system by activating T cells and positioning them against cancerous cells expressing a specific target structure.

What has changed as a result of the Nasdaq-listing last year?

As a listed company, there are new challenges and rules we have to follow. We intensively prepared our teams at all Immatix' sites accordingly. The additional money that the company raised by going public gives us the opportunity

to plan for the long term and operate as a growth company. With the additional money we are also well prepared to further advance our vision of targeted immunotherapy – to potentially beat cancer and cure cancer patients.

You recently became site manager in Tübingen. What's the outlook for this site?

Both Immatix and CureVac were founded as spin-offs of the Department of Immunology, headed by Prof. Hans-Georg Rammensee, at the Interfaculty Institute for Cell Biology (IFIZ) of the Eberhard Karls University, Tübingen. The world-leading scientist in the field of antigen-specific immunobiology is a co-founder of Immatix and member of its Scientific Advisory Board. Tübingen is the birthplace of Immatix, and we are deeply committed to it. The basic technologies we use to develop our therapeutic approaches are closely linked to the people working in Tübingen. For example, this is where the development of our bispecific TCR molecules (TCER[®]) takes place. At our company headquarters in Paul-Ehrlich-Strasse, we will create additional office and lab space for about 100 employees. There are currently around 150 employees working at the Tübingen site, 80 in Houston, Texas, and 20 in Munich. We aim to position and present ourselves even more prominently in the region also as a top employer. This campus has a very good ecosystem with various biotech and pharmaceutical companies with whom we are in a healthy, positive competition when it comes to attracting high potentials in the life sciences sector and first-rate scientists from the university and the university hospital. And we do not have to shy away from the comparison, as we offer not only our excellent, innovative and internationally renowned research but also outstanding working conditions. For example, we put special emphasis on having a very open, respectful and collaborative working atmosphere and offer a range of social benefits, such as our childcare benefits.

What is the importance of scientific work for you personally?

At heart, I'm a scientist. To reconcile this with my work as a site manager, I need to be disciplined. I'm honoured to have fantastic team members who do their job with a high level of personal responsibility – thus I have to provide only limited support. We all aim to develop cancer treatments that will ultimately extend the lives of cancer patients. That's the motivation that has kept also me in the Immatix family for such a long time.

What does a network such as the STERN BioRegion mean to you?

The network is particularly important when it comes to start-ups and young companies. We definitely need such a network, and we want to strengthen our involvement even further and give something back. After all, Immatix also benefited greatly from BioRegio STERN Management GmbH 15 years ago. It's important for us to give young innovative companies a jump-start, at least in terms of know-how. We can then benefit from these innovations in addition and collectively give an added boost to this biotech business hub. The STERN BioRegion is an essential piece of the puzzle in this overall concept.

Is cancer treatment being neglected during the COVID-19 pandemic?

It's certainly true that cancer treatment is perhaps not on everyone's radar at the moment. It's also the case that, due to the COVID-19 pandemic, some hospitals are potentially facing difficulties to carry out other treatments. Yet cancer therapy *research* is not being neglected as a result of COVID-19. At the end of the day, the mRNA technology on which, for example, the BioNTech, Moderna and CureVac vaccines are based on, was developed in conjunction with cancer research. And conversely, the information we're currently getting from the vaccine studies is also useful in our research for novel cancer therapies. The knowledge we're now generating in relation to the pandemic is helping us advance our research.

What's your assessment of the current situation in the biotech sector?

There is a new appreciation of the biotech sector, and the sector is gaining additional visibility. That also has an impact on the financing of such companies. It has become clear that innovative biotech companies in particular play a very important role in the fight against diseases, regardless of whether those are cancer or viral infections. It has also become clear that these companies need to be strengthened to be equipped to combat future diseases or pandemics that will affect us all.

www.immatics.com

About BioRegio STERN Management GmbH:

BioRegio STERN Management GmbH promotes economic development in the life sciences industry, helping to strengthen the region as a business location by supporting innovations and start-up companies in the public interest. It is the main point of contact for company founders and entrepreneurs in the Stuttgart and Neckar-Alb regions, including the cities of Tübingen and Reutlingen.

The STERN BioRegion is one of the largest and most successful bioregions in Germany. Its unique selling points include a mix of biotech and medtech companies that is outstanding in Germany and regional clusters in the fields of automation technology and mechanical engineering.

Press contact:

BioRegio STERN Management GmbH
Dr. Klaus Eichenberg
Friedrichstrasse 10
70174 Stuttgart
+49 711-870354-0
eichenberg@bioregio-stern.de

www.twitter.com/BIORegioSTERN

Editorial department:

Zeeb Kommunikation GmbH
Anja Pätzold
Alexanderstrasse 81
70182 Stuttgart
+49 711-6070719
info@zeeb.info