## **Bavarian Biotech News**

May 2021





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### Dear Reader,



as you can see on our cover picture, May is the month of the traditional Bavarian maypole. Even if the coronavirus pandemic restricted this tradition in 2021, one can still dare to look positively into the future:

Vaccination rates are rising, incidences are falling and the biotechnology industry continues to be in the spotlight - with good reason. The biotechnological achievements are once again highlighting its key role. For the past year, the audit and consulting firm EY (Ernst & Young) even reported exploding figures in its biotech report. Financing for biotech companies in Germany reached a new record level in the year of the COVID-19 outbreak. We hope that biotechnology has received a sustainable boost and that its relevance will remain visible even in the future.

What the Bavarian biotech industry has achieved in the last months, we have summarized in the following.

Enjoy reading,

Your Bio<sup>M</sup> team

#### Bavaria invests EUR 500 million in Max Planck Campus in Martinsried

The Max Planck Society (MPG) plans to further develop the campus in Martinsried into a flagship for life sciences beyond Germany and Europe. The Free State of Bavaria is supporting the project with up to 500 million euros over the next ten years.

Martinsried has already developed into the center of the Munich biotech region. In addition to the Max Planck Institutes for Biochemistry and Neurobiology, the location also includes facilities from the University of Excellence Ludwig-Maximilians-Universität München (LMU) as well as a total of almost 100 biotech companies, some of which are globally active.



During the signing of the Memorandum of Understanding at the Max Planck House (© Axel Griesch / Max-Planck-Gesellschaft)

The internationally renowned Max Planck Institute for Neurobiology and the world-renowned Max Planck Institute for Ornithology, which is located in Seewiesen, will merge to form a joint new **Max Planck Institute for Biological Intelligence** and expand with additional departments over the next few years. At the same time, the Max Planck Institute for Biochemistry is to be further developed. Read more...

# Annual DigiMed Bayern Symposium: Translational Medicine in the Digital Era

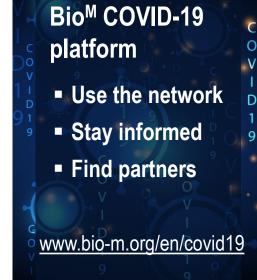
Nearly 300 participants met digitally for this year's <u>DigiMed</u>
<u>Bayern</u> Symposium "Translational Medicine in the Digital Era" on March 16<sup>th</sup> to 18<sup>th</sup>.

21 renowned speakers and participants from the international digital health sector presented and discussed about data-driven medicine and its potentials – for patients, for science, for the health system, for the economy and for the society.

Please find released **video recordings** as well as **presentations** of the symposium on the DigiMed Bayern Website:

www.digimed-bayern.de/en/symposium

Keep informed, follow and interact with us on **Twitter @DigiMedBayern**.



DigiMed

Bayern

### **Spotlight COVID-19**



#### University of Würzburg: Oral vaccination against COVID-19?

A team of researchers at the University of Würzburg is testing a novel approach for a vaccine against the coronavirus - to swallow. The advantages: Comparatively cheap to produce, easy to administer and relatively stable even at normal temperatures.

If Prof. Thomas Rudel from the <u>Julius Maximilians University of Würzburg</u> and the biopharmaceutical company <u>Aeterna Zentaris</u> in Frankfurt have their way, there could possibly be significant reinforcements in the fight against the global corona pandemic in the future: a vaccine that is not administered by syringe, but as a capsule that can simply be swallowed. Preclinical development has already begun. <u>Read more...</u>



#### Martinsried: Eisbach Bio and Formycon get funding for COVID-19 therapies

<u>Eisbach Bio</u>, a biotechnology company targeting the molecular machines that drive human disease gets additional financial support from the German Ministry for Education and Research (BMBF) for the clinical development of its first-in-class SARS-CoV-2 helicase inhibitor. Read more...



Formycon AG has received the approval of early action for its COVID-19 drug (FYB207) by the Bavarian Ministry of Economic Affairs, Regional Development and Energy (StMWi). The requested grant is expected to support the further development of FYB207 until the completion of clinical phase IIa and has an anticipated volume of approximately EUR 11 million. Read more...



# Vroni study enables SARS-CoV-2 antibody test in children

The <u>Vroni study</u> for the early detection of familial hypercholesterolemia in school children now also allows free testing for antibodies against SARS-CoV-2. In addition, possible consequences of a COVID-19 disease should be diagnosed and treated at an early stage.

Within the Vroni study, led by the direction of the German Heart Center Munich, blood is taken from the fingertip of a paediatrician and examined for elevated LDL cholesterol levels in order to diagnose and treat the most common and serious congenital metabolic disorder, familialhyper-

cholesterolaemia (FH), at an early stage. The same blood sample can now also be used for a test for SARS-CoV-2 antibodies (CoVAK study) to determine whether a child has already had COVID-19. www.myvroni.de



# Leukocare partners with Malvern for better availability of COVID-19 vaccine

Martinsried-based <u>Leukocare AG</u> and <u>Malvern</u>

<u>Panalytical Ltd</u> intend to combine their expertise in vaccine formulation and stabilization to improve the availability of vaccines against COVID-19.

The two companies intend to combine Leukocare's expertise in biopharmaceutical formulation development with Malvern Panalytical's analytical know-how. The aim is to understand how the stability of vaccines can be improved to ultimately increase production and simplify distribution.

In addition to other projects, Leukocare is developing a novel adenoviral, vectorbased vaccine against COVID-19 with its partners Univercells (Belgium) and ReiThera (Italy). Leukocare contributes to the development process with a liquid vaccine formulation.

Read more...



#### **Recent Headlines**



#### Billion-dollar deal for Pieris

Munich-based <u>Pieris</u> enters into a research collaboration with Roche subsidiary <u>Genentech</u> on therapies for respiratory diseases and ophthalmology. Pieris will receive USD 20 million as an upfront payment and is eligible for more than USD 1.4 billion in additional potential milestone payments plus royalties on commercialized programs.



Pieris, a biotechnology company, is developing novel biotherapeutics for respiratory diseases, cancer and other indications using its proprietary Anticalin® technology platform. Under the terms of the collaboration with California-based biotechnology company Genentech, Pieris will discover, develop and commercialize locally administered therapies for respiratory and ophthalmic diseases using its Anticalin® technology. Pieris' expertise will be combined with Genentech's preclinical and clinical development expertise.

Read more...



#### AMSilk: EUR 29 million for bio-based silk

AMSilk GmbH, based in Planegg near Munich, Germany, has successfully closed a Series C financing of EUR 29 million for the commercialization of its bio-based high-performance silk polymers.

AMSilk is a leading global supplier of innovative, bio-based high-performance silk materials produced from plant-based raw materials by bacterial fermentation. The products find applications in many industries due to their special mechanical and



biochemical properties. In addition, the silk biopolymers can be fully recycled and are 100% biodegradable. With the help of old and new high-tech investors, AMSilk intends to accelerate the path to making its silk polymers available in industrial quantities to an even broader range of customers and industries. In addition to the initial investors MIG AG and Athos KG, the Danish Novo Holdings, the US American Cargill Group and ER Capital are also getting involved with AMSilk as part of the current financing round. Read more...

#### ITM closes EUR 90 million financing round

ITM AG, a radiopharmaceutical biotech company from Garching near Munich, has closed a financing round totaling EUR 90 million (USD 109 million) via convertible bonds. This financing is cited by Petrichor Healthcare Capital Management. ITM intends to use the proceeds to expand its precision oncology pipeline and support the late-stage development and market approval of its lead product candidate n.c.a. 177Lu edotreotide.



<u>ITM Isotope Technologies München</u>, founded in 2004, develops and produces precise cancer therapies with matching diagnostics by combining medical radioisotopes with tumor-specific targets.

N.c.a. 177Lu edotreotide is known as an agent for targeted radionuclide therapy and is currently in a Phase III trial for gastroenteropancreatic neuroendocrine tumors (GEP-NETs), for which there are currently few suitable and well-tolerated therapies. These tumors are often asymptomatic and difficult to diagnose. As a result, they are often detected too late to be successfully treated surgically.



Read more...

#### **Recent Headlines**



#### Multi-million euro seed funding for deepc

Munich-based MedTech startup <u>deepc</u> has successfully closed a seed financing round worth a mid-seven-figure sum. In addition to funding from the Initiative for Industrial Innovators, the company was also able to convince another well-known but undisclosed healthcare investor of its novel development.

deepc, founded in 2019, develops medical software products for imaging diagnostics, which can be used to set up and improve the workflow in radiology in the simplest possible way. The operating system developed by deepc is already being tested with leading Al/software partners and in larger hospitals in Germany.



🏥 deepc

The start-up, based at the WERK1 incubator, is grounded in years of experience in AI, data, software applications, healthcare, regulatory approval, and business model innovation in the medical field. deepc has already received numerous awards. Read more...

#### TU Munich best university in the EU - top positions for Bavaria's universities

In the current QS World University Ranking 2021, the Bavarian universities have confirmed their good reputation in the international science scene.

The <u>Technical University of Munich</u> (TUM) is the best university within the European Union with 50<sup>th</sup> place, the <u>Ludwig-Maximilians-Universität München</u> (LMU) makes it to 63<sup>rd</sup> place in an international comparison. Würzburg and Erlangen-Nuremberg are among the TOP 250, the University of Regensburg among TOP 400. Read more...

The LMU is furthermore the top-ranked German university in the newly published NATURE Index.



© Astrid Eckert / TUM

## NanoTemper and PharmAI: together faster to new drugs

<u>NanoTemper Technologies</u> and <u>PharmAl</u> collaborate to find suitable drug candidates by screening huge amounts of data.

Finding new drugs faster and easier: That's the goal of the collaboration between Dresden-based start-up PharmAl and Munich-based NanoTemper Technologies. The two partners want to contribute their respective expertise to the collaboration and enable even small laboratories to enter the field of drug discovery.



This would enable research into drugs against rare diseases, for example, the development of which is currently rather unprofitable for large pharmaceutical companies.

NanoTemper Technologies develops devices and software solutions for the analysis of biomolecules. To this end, the company combines various optical measurement methods that allow important statements to be made about molecules in terms of size, composition, durability or potential use as active ingredients. PharmAI, in turn, uses the company's own DiscoveryEngine software to track down suitable drug candidates with the help of artificial intelligence in large databases based on protein structure data. Read more...

#### **Recent Headlines**



#### S4DX: EUR 5 million for digital fingerprinting of human blood samples

EIT Health-backed <u>Smart4Diagnostics</u> GmbH has closed a series A financing of five million euros. The financing comes from private investors, including SARSTEDT AG & Co. KG, as well as the EIC Fund. The Munich-based company intends to use the money to expand its innovative blood collection system, which has already been launched in Germany, to other markets.

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The start-up, which has since won several awards and was founded in 2018 as part of the EIT Health Wild Card program, focuses on the digitalization of pre-analytical processes of human sample collection.

To this end, Smart4Diagnostics has developed the "digital fingerprint of human blood samples", from collection to arrival in the laboratory. In contrast to manual processes of blood collection, the human samples are digitally and uniquely assigned to the patient. After sample collection, the S4DX software confirms whether all order-related tubes have been registered, checks the filling volume, the collection time and the correct label application. Read more...

#### Neuron23 closes series A and B financing of USD 113.5 million

Origenis GmbH from Martinsried has announced the founding and financing of the biotech company Neuron23 Inc. in South San Francisco. Neuron23 was launched in October 2018 through a partnership with the biotechnology company Origenis and venture capitalist Kleiner Perkins (KPCB).



With the successful Series A and B financing totaling USD 113.5 million, Neuron23 Inc. will focus on clinical development of precision medicines for genetically defined neurological and immunological diseases. Since its founding, Origenis and Neuron23 have been working together under radar but at full speed to prepare for entry into clinical phases. In December 2020, the founding and funding of Neuron23 was publicly announced. Series A funding of USD 33.5 million is led by Westlake Village BioPartners and Kleiner Perkins. The Series B financing of USD 80 million is led by Redmile Group. Other Series B investors included Westlake Village BioPartners, Kleiner Perkins, Cowen Healthcare Investments, Acorn Bioventures, HBM Partners, Perceptive Advisors and Surveyor Capital.

According to Origenis, it plans to launch other new companies along the model of Neuron23. Programs advanced enough will be spun out as start-ups to fund preclinical and clinical development with strategic investors, through IPOs or pharma partnerships. Origenis develops IP-protected chemical entities that can cross the blood-brain barrier with particular expertise in drug design, synthesis and characterization. Read more...

#### Mikrogen acquires Lophius Biosciences

The diagnostics company <u>Mikrogen</u> GmbH from Neuried has acquired Lophius Biosciences GmbH from BioPark Regensburg to enter the future market for T-cell-based tests. Immunodiagnostics play a major role in the fields of transplantation and infectious and autoimmune diseases.

Mikrogen in Neuried near Munich has been producing antigens for clinical diagnostics since 1989. As a global provider of system solutions for medical laboratory diagnostics, Bavaria's oldest biotechnology company offers a wide range of serological and molecular diagnostic systems. 150 employees currently work at the Neuried site. Following the acquisition of Lophius Biosciences GmbH, which was spun off from the University of Regensburg in 2002, more will now come on board. Read more...





## **BioEntrepreneurs in Bavaria**



#### Searching for clues with gold antennas

NanoStruct GmbH from Würzburg, newly founded in February, wants to improve and simplify the detection of the smallest amounts of certain substances. With special gold nanostructures, the start-up can detect even the smallest traces of impurities in food, water or pharmaceutical products.

The uniqueness of NanoStruct's product for using in Raman spectroscopy lies in two points: The self-produced, unique starting material and the structuring method tailored to it. Thus, even the smallest amounts of molecules can be detected consistently - hence reproducibly - from measurement to measurement.

Currently, in addition to prototype development, the start-up is also looking for interested Raman users in industry or those who are trying out this method or are already planning to establish it in their analytics.



Microscopy image of an antenna array © NanoStruct



#### **EUR 65 million for Kaia Health**

The Munich start-up <u>Kaia Health</u> has completed a EUR 65 million Series C financing round.

The company develops digital therapies for back pain, osteoarthritis and the chronic obstructive pulmonary disease COPD.

The company plans to use the funds to improve the

treatment of musculoskeletal conditions (MSK) and COPD with digital products and provide broader access to effective therapies. Read more...



kaia

health



# © Xais He

#### BioEntrepreneurshipsummit 2021



#### October 19-21, 2021 - BioEntrepreneurship Summit 2021

The BioEntrepreneurship Summit 2021 will bring together all relevant stakeholders of the bioentrepreneurial and health tech ecosystems.

#### www.bioentrepreneurshipsummit.org



#### **Bavaria International**



#### Bio<sup>M</sup> – European Gold Label

Bio<sup>M</sup> Biotech Cluster Development GmbH has been awarded the Gold Label of the European Cluster Excellence Initiative (ECEI) for the second time. The cluster management organization for the biotechnology and pharmaceutical industry in Munich and Bavaria receives this recognition



after a careful and successful quality assessment by designated experts. The renewed certification confirms that Bio<sup>M</sup> is one of the leading cluster organizations in Europe.

Bio<sup>M</sup> has proven its outstanding quality during the assessment for the "Cluster Management Excellence Label GOLD - Proven for Cluster Excellence" of the European Cluster Excellence Initiative. Through its highly professional management, Bio<sup>M</sup> provides important added value to the Munich biotechnology cluster, and promotes its further targeted development to an internationally visible leading-edge cluster.

The ECEI GOLD Label "Excel in Cluster Excellence" is an independent certification and is awarded to cluster management organizations that demonstrate high-quality and sophisticated cluster management. Read more...

#### Bio<sup>M</sup> x Tsukuba x Kawasaki - Business Matching Event

This event will be held under the theme of "Drug Discovery and Drug Discovery Platforms" to introduce cutting-edge technologies and to create business matching opportunities. Presentations will come from the biomedical cluster of Munich (Germany) and the life science industry hotspots of Tsukuba and Kawasaki (Japan).

- When: 8<sup>th</sup> of June, 2021, 9 am -11:40 am (CET) / 4 pm 6:40 pm (JST)
- Where: online
- Registration: the seminar is free to attend but registration is necessary under: https://intergroup.zoom.us/webinar/register/WN\_h7lqY-8ZSQuM0nvaJ4qmBQ
- Organizers: Bio<sup>M</sup>, Tsukuba Center Inc, Kawasaki Institute of Industrial Promotion, Tsukuba Life Science Promotion Association (TLSK)
- More information: Bio<sup>M</sup> x Tsukuba x Kawasaki Business Matching Event



#### Greater Bay Area (GBA) Healthcare Seminar Series - entering Chinese market

Over 50 participants participated in the 4<sup>th</sup> Volume of the GBA Healthcare Seminar Series that featured 7 international speakers and 5 discussion panels on 29<sup>th</sup> of April. The seminar's focus was on business incubation models in the Chinese healthcare industry.

#### Main takeaways:

- As China's industrial stronghold the Greater Bay Area will continue to rapidly advance as the future economy innovation hotspot
- Innovative healthcare start-ups should consider China as a starting point in their internationalization roadmap
- Onsite incentives supported by an innovative economic ecosystem and speedy implementation make Huangpu an ideal place for business development.

The event was organized by the <u>Huangpu, Guangzhou Development District</u>'s office in Europe in partnership with the leading European healthcare clusters: Bio<sup>M</sup>, BioRN, BioCon Valley, Biocat, Medical Valley, as well as with the support from Catalonia Trade & Investment/Barcelona, SCI Group/Guangzhou, and Sino-German High-Tech Park/Heidelberg.

Stay tuned for the next event: Bio<sup>M</sup> events

#### **Events**



#### ONLINE Bio<sup>M</sup> Crash Course **Drug Development 2021** (English version)

7-week online course every Thursday, June 10, 2021 until July 22, 2021, 4 p.m. – 6 p.m.



BIO KOREA, Seoul: June 9 – 11, 2021

BIO International Convention virtual June 14 - 18, 2021

Deutsche Biotechnologie Tage, Stuttgart: September 20 – 21, 2021

BioJapan October 13 -15, 2021

BIO-Europe Delivered Digitally, October 25–28, 2021

Please find current event information on our website www.bio-m.org/en/events. Due to the COVID-19 pandemic, short-term changes can occur.

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