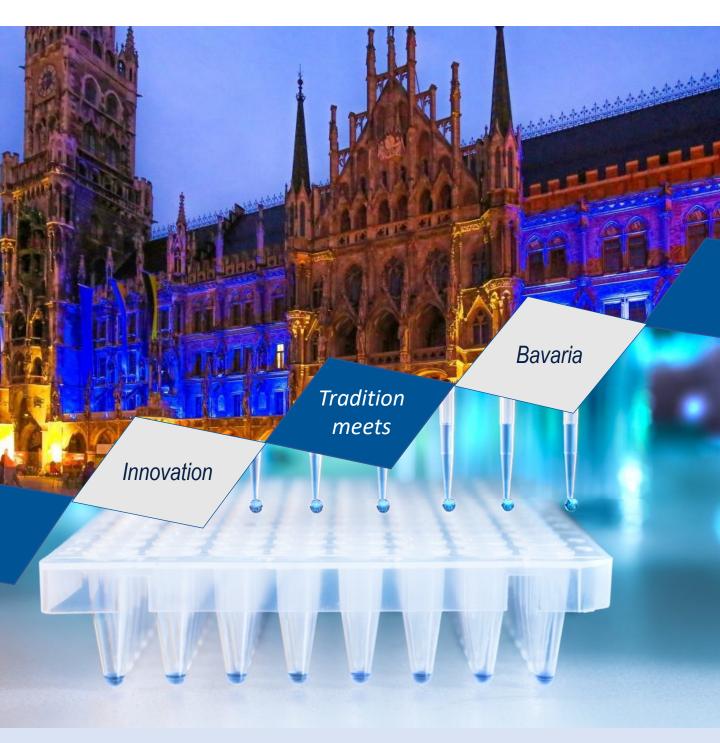
Bavarian Biotech News

March 2022





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Dear Reader,



In the middle of the omicron wave of the coronavirus pandemic, horrifying news about the war against Ukraine reaches us daily. The images from the war zone, the misery and desperation of the people leave us stunned. Just as during the pandemic, when many health care actors around the world pooled their expertise and resources, people are uniting to support Ukraine. The flood of aid needs to be managed, and money, supplies and medical care need to be brought to the people. Various initiatives, including those of cluster organizations, have created platforms for information and exchange. Below we have summarized some links to guide you if you want to help. Cooperation across national borders is enormously important right now.

Munich shows solidarity, as can be seen by the Munich City Hall, illuminated in the Ukrainian colors (title) and at demonstrations in Munich (below).

Let's stand together in these difficult times!

Your Bio^M team

Support for Ukraine

The people in Ukraine as well as refugees from the war-torn country urgently need support: They require medicine, food, clothing, tents and much more - also jobs.

Cluster Platform Germany

The <u>Cluster Platform Germany</u> has summarized how you can help and further information: <u>Ukraine: Information on support opportunities</u>

EIT Health - Ukraine appeal

<u>EIT Health</u> has launched the <u>Ukraine appeal</u> to facilitate the **supply of medical equipment** for Ukraine.

EU Clusters Support Ukraine Forum

<u>European Cluster Collaboration Plattform</u> has set up an **online exchange** for requests for help as well as offers of help: <u>EU Clusters Support Ukraine Forum</u>

Ukraine Health Connector | ECHAlliance

The **ECHAlliance group** publishes **offers of support for Ukraine** from the ECHAlliance network on its website under the title <u>"Ukraine Health Connector"</u>.

Job platform - UA Talents

Two Berlin-based Ukrainian entrepreneurs have launched <u>UA Talents</u>, a job platform where people can post **jobs** for Ukrainian tech professionals who have fled or are working remotely at safe places in Ukraine.

Read more...



Demonstrators against the invasion of Russia into Ukraine in the city center (Stachus) of Munich on February 27, 2022

Spotlight COVID-19



A spray against lung damage due to COVID-19

The start-up <u>rnatics</u> of the Technical University of Munich (TUM) has developed an RNA-based active substance against inflammatory lung damage resulting from severe COVID-19 courses. The German Federal Ministry of Education and Research (BMBF) is now supporting the further development of the drug with 7 million euros. The rnatics team is focusing on a substance that blocks a pro-inflammatory microRNA. Moreover, the approach is virus variant-independent.

Severe inflammation and scarring of the lung tissue are possible consequences of SARS-CoV2 infections.

They can limit lung function in the long term and are one of the causes of the "long covid" phenomenon. A team led by **Stefan Engelhardt**, Professor of Pharmacology and Toxicology at TUM, has now developed a new RNA agent that can prevent this inflammatory lung damage.

To this end, the active ingredient inhibits a specific microRNA in macrophages of the lung, which promotes the inflammatory process and occurs in very high concentrations in the lungs of COVID-19 sufferers.

In the mouse model, it has already been shown that the new active substance specifically blocks the microRNA molecule. As a result, there was significantly less inflammation and lung damage, and lung function clearly improved. The therapeutic is based on the active ingredient RCS-21, a novel ligand-coupled oligonucleotide inhibitor. The RNA drug would be the first in its drug class to be targeted to macrophages. <u>Read more...</u>

Ethris continues research on mRNA therapeutics with fresh USD 26.3 million

Planegg-based biotechnology company Ethris has raised USD 26.3 million in a Series B funding round led by Laureus Capital. Ethris plans to use the money to further develop its mRNA therapeutics and proprietary platform, and to expand the company's production capacity.

Ethris has been researching mRNA as therapeutics for more than 10 years, using its proprietary and technology platforms to develop therapies for various respiratory diseases with high unmet medical needs. Proceeds from the current financing will now be used primarily to investigate the company's two lead programs in clinical trials:

ETH47 for influenza and SARS-CoV-2



The company's ETH47 therapy candidate contains the mRNA blueprint for the type III interferon IFN- λ , which can be administered as a nasal spray directly into the respiratory tract. It locally activates the innate immune system at the virus entry site and acts broadly against respiratory viruses.

Protein replacement therapy for primary ciliary dyskinesia (PCD)

ETH42 is a protein replacement therapy for primary ciliary dyskinesia (PCD). PCD is a rare congenital disease due to structural defects or absence of the cilia that line our airways. In Germany, about 4000 patients suffer from it. The lack of mobility of the cilia leads to an inability to adequately clear the airways, which can often lead to permanent lung damage. Read more...



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Spotlight COVID-19



Three Munich scientists honored for their efforts during the pandemic

Prof. Ulrike Protzer from the Technical University of Munich as well as Prof. Oliver T. Keppler and Prof. Michael Hoelscher from the Ludwig-Maximilians-Universität München (LMU) were honored by Bavarian Minister President Dr. Markus Söder with the Bavarian Order of Merit for their efforts in the fight against the coronavirus pandemic.

As a sign of honorable and grateful recognition for outstanding services to the Free State of Bavaria and the Bavarian people, the three scientists from life sciences received the Bavarian Order of Merit, the Free State's highest honor.

Virologist **Prof. Ulrike Protzer** from the Technical University of Munich (TUM) has dedicated herself with great effort to SARS-CoV-2 research and elucidation over the past two years. Prof. Ulrike Protzer has held the chair of virology at TUM since 2007 and has since been director of the Institute of Virology at TUM and Helmholtz Zentrum München.

Prof. Oliver T. Keppler, virologist and director at the Max von Pettenkofer Institute for Hygiene and Medical Microbiology (LMU), has helped as a fellow campaigner in the fight against the spread of the disease since the beginning of the coronavirus pandemic, including as an advisor to the Bavarian State Government, Söder said in his laudation.



Prof. Michael Hoelscher

Prof. Ulrike Protzer



Prof. Oliver T. Keppler (left), with Bavarian Minister President Dr. Markus Söder

Prof. Michael Hoelscher, a specialist in tropical medicine and head of the Department of Infectious and Tropical Medicine at the University Hospital in Munich (LMU), was honored for his commitment to improving health care in Africa during the coronavirus pandemic. In addition, he had provided his expertise as a member of the Bavarian State Government's Council of Experts since the beginning of the coronavirus pandemic and had made an important contribution to combating the pandemic. At his institute, an infection with the SARS-CoV-2 virus was diagnosed for the first time in a patient in Germany in 2020. <u>Read more...</u>

Research on therapeutics against COVID-19: Ilse Aigner visits Pieris

State Parliament President IIse Aigner and other political representatives visited the biotech company Pieris Pharmaceuticals in Hallbergmoos, near Munich. Pieris is developing a therapeutic against COVID-19 with funding from the Free State of Bavaria.

In July 2021, the first funding decision under the 50-million-euro Bavarian Therapy Strategy went to <u>Pieris Pharmaceuticals GmbH</u>. Pieris intends to use the EUR 14.2 million to accelerate the clinical development of its product candidate. PRS-220 is an inhalable therapeutic for the



treatment of SARS-CoV-2 induced lung injury. It will be evaluated for its efficacy in treating fibrotic lung injury as a late a late side effect of COVID-19 disease. <u>Read more...</u>



Roche Penzberg: Groundbreaking ceremony for 250 million euro building

At Roche in Penzberg, the start signal has been given for the construction of the new diagnostics research building LEAP. The groundbreaking ceremony marks the official start of construction work. The building is intended to set new standards for the research and development of diagnostic tests.

The six-story building called LEAP (Laboratory Excellence Accelerator Penzberg), in which <u>Roche</u> is investing up to EUR 250 million, is being built in the south of the site. It is scheduled for completion in 2024



© Roche Diagnostics GmbH

and will be the new workplace for more than 800 employees currently housed on the site and in Munich.

"The investment in the new building is a clear commitment by the Roche Group to Germany as a research and development location," plant manager **Dr. Ulrich Opitz** makes clear. "It will be an important part of our global competence network in the development of diagnostic tests and will strengthen the attractiveness of Penzberg as a location for science and innovation."

The Roche site in Penzberg, which currently employs 7,200 people, is a very important economic pilar for Penzberg and the entire region. <u>Read more...</u>

BioNTech and Medigene co-develop T-cell receptor immunotherapies against cancer

The Mainz-based company BioNTech SE and the biotechnology company Medigene AG in Martinsried intend to jointly develop T-cell receptor-based immunotherapies for the treatment of cancer as part of a global collaboration. Under the terms of the agreement, Medigene will receive an upfront payment of EUR 26 million and be eligible for milestone payments.

T-cell therapy has emerged as a promising treatment for cancer patients. This immunotherapeutic approach attempts to overcome the existing tolerance to cancer cells and tumorinduced suppression of an immune response.

As part of the collaboration, <u>Medigene</u> will contribute its proprietary TCR platform to develop T cell receptors against various targets selected by BioNTech to address a variety of solid tumors.

BioNTech will acquire Medigene's next generation preclinical TCR program, which combines TCR-4 of Medigene's MDG10XX program targeting PRAME with Medigene's proprietary PD1-41BB switch receptor technology. BioNTech will also obtain the exclusive option to acquire additional existing TCRs in Medigene's discovery pipeline and will receive licenses to the company's PD1-41BB switch receptor and precision pairing library. This has the potential to augment TCR cell therapy efficacy and can be applied to all BioNTech cell therapy programs.

Medigene will receive EUR 26 million upfront, as well as research funding for the period of the collaboration. BioNTech will be responsible for global development. <u>Read more...</u>

Recent Headlines

Healthy lifestyle to combat heart attacks: Health Minister Holetschek launches "Hand on the heart" campaign

Cardiovascular diseases were the most common cause of death in Bavaria in 2020 with about 50,000 individuals. Bavaria's Health Minister Klaus Holetschek launched the "Hand on the heart" campaign for heart attack prevention in Munich on March 21 to inform people about the risk factors and promote prevention.

The aim of the <u>"Hand on the heart"</u> campaign is to educate people about the risk factors for a heart attack and how to avoid them. In addition, citizens are informed about the

signs by which a heart attack can be recognized - in order to be able to react quickly and correctly in an emergency.

HerzFit app to be launched at the end of April

The <u>DigiMed Bayern</u> project, which is funded by the Ministry of Health, has developed the *HerzFit* app together with the German Heart Foundation and the Deutsche Hochdruckliga. The app is based on the user's preferences and goals. This results in a personal program for healthy eating, exercise or stress reduction. The app is expected to be available in the app stores from the end of April." <u>Read more...</u>

Million-euro funding for innovative health research

Bavaria's health politicians are pushing forward groundbreaking projects in medicine and health research. The funds will be used, for example, to advance transplant medicine, research into chronic fatigue syndrome (CFS), novel cancer therapies and improvements in midwifery training.

"We have paved the way for important innovations in healthcare that will directly benefit seriously ill people in our state," explained **Bernhard Seidenath**, CSU member of the state parliament, who also heads the health and care committee in the state parliament.

A total of 16 projects are being funded to improve the health of Bavaria's citizens. Read more...

ITM receives a total financing of EUR 58 million

ITM Isotope Technologies Munich SE, a leading radiopharmaceutical biotech company successfully closed an equity investment totaling EUR 33 million. The capital increase follows the recently announced EUR 25 million equity investment from ITM's strategic partner, Grand Pharma, bringing the total amount of cash raised in 2022 to EUR 58 million in this financing round.

The proceeds will primarily be used for the finalization of the development of the company's lead candidate ITM-11 (n.c.a. 177Lu-edotreotide), a targeted radiopharmaceutical currently being evaluated in two phase III clinical trials for the treatment of gastroenteropancreatic neuroendocrine tumors (GEP-NETs). <u>Read more...</u>





Bavaria's Health Minister Klaus Holetschek







www.bio-m.org

Start-ups looking for funding at the 11th Bio^M-BioAngels Pitch Day

Six selected founding teams presented their business ideas to interested investors and business angels at the 11th BioAngels Pitch Day. At Bio^M's exclusive matchmaking event, the potential of the life science scene with innovative ideas in the fields of drug development, digital health and medical technology was once again demonstrated.

At the **11th BioAngels Pitch Day**, promising pre-seed teams and startups again had the opportunity to convince potential funders with

an investment focus on life sciences and healthtech of their technology and business model - in just 10 minutes, with scientific data and a sound business strategy. The BioAngels pitch event was again very well received by the start-ups as well as the investors. Due to the intensive pitch training by Bio^M in advance, the teams were well prepared for the indepth guestions of the invited investors after the pitches.

The business ideas were broad. With the goal of raising seed funding successfully, new solutions in **medical technology** and **telemonitoring** were presented in addition to the development of innovative drugs for the treatment of **tumor diseases**.

As part of its virtual incubator <u>inQlab</u>, Bio^M helps with the BioAngels matchmaking event young bioentrepreneurs find the right contacts with potential investors in the biomedical field. The next <u>BioAngels Pitch Day</u> will take place in the fourth quarter of 2022. <u>Read more...</u>

m⁴ Award winners on the path to success

Three winners of the <u>m⁴ Award</u> pre-seed competition have been successful. The Munich-based start-ups INVITRIS and Smartbax have received funding as part of <u>INCATE</u>. They want to find solutions against antibiotic resistances that are increasing worldwide and threatening health. The Knowing01 team has been awarded the Women TechEU grant, which aims to support women-led start-ups in cutting-edge technology.

• Against drug-resistant pathogens: funding for INVITRIS and Smartbax

INVITRIS uses **bacteriophages** for the therapy of antibiotic-resistant infections and has developed a special technology with which it is possible for the first time to produce genetically optimized bacteriophages in vitro for the therapy of antibiotic-resistant infections.

<u>Smartbax</u> is a spin-off of the Technical University of Munich and was founded in April 2021. The start-up is developing novel antibacterial compounds against **multidrug-resistant bacteria** and difficult-to-treat biofilms.

Women TechEU grant for Knowing01

<u>Knowing01</u>, a spin-off of the Institute of Computational Biology at Helmholtz Zentrum München, can also announce a success. Founded in early 2020, the start-up has developed **software for processing Big Data** to identify biomarkers and drug targets for personalized therapies.

Read more







Automated protein analysis to raise EUR 13.5 million for PreOmics

Martinsried-based PreOmics has received EUR 13.5 million in Series B financing from Bruker Cooperation. This is intended to accelerate the research, development and commercialization of proteomics applications and consumables.

<u>PreOmics GmbH</u> develops innovative automation and sample preparation tools and consumables for proteomics analysis using mass spectrometry.

The company won the $\underline{m^4 \text{ Award}}$ pre-seed competition in 2013 and was founded in 2016 by **Dr. Garwin Pichler** and **Dr. Nils A. Kulak** as a spin-off from the laboratory of leading proteomics researcher **Prof. Matthias Mann** at the Max Planck Institute of Biochemistry in Martinsried.

PreOmics' technologies for automated sample processing for mass spectrometry-based protein analysis have been stated to be a good fit with <u>Bruker</u>'s high-performance instruments as well as proteomics mass spectrometry systems from other leading proteomics companies. <u>Read more...</u>

Climedo raises EUR 5 million for digital clinical trials

Munich-based health tech company Climedo has received EUR 5 million in a seed financing round. The lead investor is the pan-European venture capital firm Nauta Capital. Climedo intends to use the capital to further develop its digital platform for electronic data collection in the context of decentralized clinical trials. The software is thus to become even more patient-oriented.

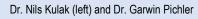
<u>Climedo</u> offers a digital platform for decentralized clinical trials and has set itself the goal of achieving the best possible medical treatment by means of

intelligent software solutions. To this end, the company has developed a cloud-based platform for the clinical validation of medical and pharmaceutical products with leading European hospitals, such as the Charité in Berlin. <u>Read more...</u>

Parkinson's and multiple sclerosis: Regensburg-based Lifespin continues research with EUR 2.5 million

Regensburg-based Biopark Lifespin GmbH has successfully closed a EUR 2.5 million bridge financing. The diagnostic data company is working on an AI-based health platform that can measure key metabolic parameters in patients and plans to raise Series A funding in 2022.

Founded in 2017 at the <u>BioPark Regensburg</u>, <u>Lifespin</u> is one of the so-called "deep data companies" and is developing its own **AI-based health testing platform** to measure quantitative **metabolic data in patient samples**. An interdisciplinary team of currently 17 employees combines diagnostic and bioanalytical methods with software solutions, in particular the use of artificial intelligence (AI). <u>Read more...</u>





lifespin









CE4BIG – European cluster network focusing on personalized medicine

After two challenging, but successful years, the CE4BIG project – Cluster Excellence for Business, Innovation and Growth in the health sector – is coming to an end of its funding period. The four European healthcare clusters Atlanpole Biotherapies (France), Bio^M (Germany), BioWin (Belgium), and Klaster Life Science Krakow (Poland) joined forces and carry on as the CE4BIG alliance in personalized medicine.

The project aimed at building up cluster management excellence and optimizing cluster services for SMEs in the personalized medicine sector. Despite the fact that the CE4BIG project ran almost entirely throughout the COVID-19 pandemic – from February 2020 to February 2022 – it has nonetheless contributed to stimulating innovation, mainly through virtual exchanges and SME trainings. The four clusters were also awarded ESCA Cluster Excellence labels.

Impact for SMEs and other Cluster Members

A series of activities were organized for cluster members throughout the CE4BIG project:

- Training courses for SMEs
- Bioproduction networking week
- Info sessions on European funding opportunities for SMEs
- Life Science Open Space Forum
- Session on "Green Transition in Life Sciences"

The CE4BIG cluster alliance will continue its work in response to European challenges in the field of personalized medicine: <u>http://ce4big.lifescience.pl/</u>



> 1300 participants coached



25 companies pitched to find European partners



> 30 B2B meetings



Co-funded by the COSME programme of the European Union

Cooperation and business relations with China - Bio^M services and support

As the world's second largest economy and with the rapid development in the healthcare sector in recent years, China offers countless opportunities for biotech and biopharma companies. According to the study "Biotechnology and Pharmaceutical Industry in the European Metropolitan Region Munich (EMM) 2021", 34% of the companies have already on-going activities in China, 51% are interested in the Chinese healthcare market.

German-Chinese Working Group for the Promotion of the Health and Medical Industry

With the establishment of this working group Chinese and German companies are to receive support in expanding their activities in the other country.

Bio^M China Workshop:

In order to serve the unmet needs of our cluster companies, a China Workshop is going to be carried out on April 6 - 7, as an on-site event at Bio^M.

ChinaBio® Partnering Forum:

Bio^M is able to provide Bavarian biotech companies with a Bavarian joint booth, discounted (virtual) tickets and support during the conference.

For specific questions regarding activities of your company targeting China, please contact **Mrs. Dr. Ruoyu Sun:** <u>sun@bio-m.org</u>.

Bio^M Events



FORUM Science & Health 2022 – Medicine of the Future

Welcome to the 3rd FORUM Science & Health – on-site July 5 - 6, 2022

After missing out on this great event last year, we are happy to welcome you in person!

The theme of this year's conference is the **Medicine** of the Future. We will set the main focus on the latest developments in novel technologies, therapies and big data – fields that will have great impact on the way we approach, prevent, diagnose and treat diseases in the future.

- Meet international experts in an inspiring atmosphere
- Get insights into cutting-edge R&D activities
- Take part in interactive sessions and discuss current topics
- Pitch your research ideas and share your expertise
- Enjoy networking with barbecue and live music



Stay tuned for more information: www.bio-m.org/forum

China Workshop - Establish cooperation and business relations with China

Bio^M China Workshop:

As the world's second largest economy and with the rapid development in the healthcare sector in recent years, China offers countless opportunities for Bavarian biotech and biopharma companies.

In order to serve the unmet needs of our cluster companies, experts from different areas, such as cluster organization, investment promotion agency, business development and law firm are invited to give an insight into this important international market. They will also answer specific questions to prepare interested companies for their market entry, business relations, and for dealing with the legal framework.



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A highlight of this workshop is the virtual delegation trip across the country. The most relevant Chinese bio-regions (Beijing, Shanghai, Guangzhou & Hongkong) are invited to showcase their regional focus areas and special soft-landing services.

Wednesday, April 6, 2022, 9:00-16:00 & Thursday April 7, 2022, 9:00-16:00, On-Site Event @ Bio^M

Registration & Agenda: https://www.bio-m.org/veranstaltungen/detail/biom-china-workshop.html

www.bio-m.org



Science & Health July 5 - 6, 2022 Veranstaltungsforum Fürstenfeld near Munich

Medicine of the Future

Innovative technologies & therapies New opportunities and approaches for a healthy future

- Meet international experts in an inspiring atmosphere
- Get insights into outstanding R&D activities
- Take part in interactive sessions and discuss current topics
- Pitch your research ideas and share your expertise
- Enjoy networking with barbecue and live music





Events



Biovaria 2022 May 10 - 12, 2022 I Munich and digital

ChinaBio® Partnering Forum May 10 - 13, 2022 | Beijing and digital

BIO KOREA May 11 - 13, 2022 I COEX, Seoul

BIO International Convention June 13 - 16, 2022 | San Diego

Analytica 2022 June 21 - 24, 2022 | Messe München

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.

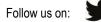
Contact

Bio^M Biotech Cluster Development GmbH Am Klopferspitz 19a 82152 Martinsried, Munich, Germany



www.bio-m.org +49 (0) 89 89 96 790

0 info@bio-m.org







Editorial staff



Gabriele Klingner klingner@bio-m.org



Dr. Christina Grimm grimm@bio-m.org

International Affairs

Dr. Stephanie Wehnelt

wehnelt@bio-m.org

Dr. Ruoyu Sun

sun@bio-m.org

Founders & Investors



Dr. Petra Burgstaller, burgstaller@bio-m.org



Christina Enke-Stolle enke-stolle@bio-m.org

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