

EMBLEM and Enzymicals AG announce a license and collaboration agreement to improve enzymatic production of chemicals

**Heidelberg & Greifswald (Germany), February 22nd 2021 – EMBLEM Technology Transfer GmbH and Enzymicals AG enter into a partnership on the use of innovative computational tools to feed the company's product pipeline.**

EMBLEM Technology Transfer GmbH, the exclusive technology transfer partner of the European Molecular Biology Laboratory (EMBL), Europe's flagship laboratory in the life sciences, and Enzymicals AG, a German enterprise focusing on industrial biocatalysis, today announce a non-exclusive license and collaboration. The parties will leverage Transform-MinER, a novel *in silico* tool package developed at EMBL's European Bioinformatics Institute (EMBL-EBI), to identify novel high value-added biosynthetic enzyme reactions with relevance to Enzymicals' proprietary product portfolio. This will enable Enzymicals to develop competitive production pathways for a range of chemicals.

Transform-MinER is a cheminformatics tool for enzyme reaction discovery that has been developed by Dr. Jonathan Tyzack in the group of Prof. Dame Janet Thornton at the EMBL-EBI. It employs high-throughput analytics to identify novel high value reactions for a given enzyme. The results can be used for the optimization of biocatalytic processes and allows for a more sustainable production of chemicals.

Enzymicals offers a broad selection of chemoenzymatically produced, high-quality chemicals. The production processes are developed internally based on Enzymicals technology platform and resulting products are available directly from the company at a kilogram-scale or bulk quantities within the company's industrial network. This collaboration enables Enzymicals to identify novel pathways or improve existing production and therefore expanding their product portfolio.

CEO of Enzymicals AG, Dr. Ulf Menyes, states "In addition to our successful activities in contract research and manufacturing, we have continuously been focused on expanding our own product-based business. We now have a proven track record for implementation of our biocatalytic processes at the sites of our clients and a well-established network of custom-manufacturing companies for bulk supply. Concomitantly, we have also built-up and expanded our own production capacities. This cooperation will further fuel our product pipeline and allow us to fully utilize the manufacturing capacities available at our sites in Greifswald and the new plant planned in Anklam. I am really pleased that with EMBL-EBI we have a strong collaboration partner with complementary technology and expertise."

Enzymicals co-founder and business development manager Dr. Rainer Wardenga adds "The tailored exploration of the chemical biosynthetic space by the use of Transform-MinER's ligand-based methodology with chemoinformatic fingerprints is beneficial for us to more efficiently commercialize our existing technology platform and its biocatalytic potential. We are convinced that the use of this early-stage tool in synthetic analysis will lead to the identification of many diverse business opportunities in field of chemical manufacturing."

"We are delighted to have Enzymicals, an innovative and growing enterprise as a partner and to contribute to their success. We will combine Transform-MinER, a sophisticated computational tool developed at EMBL-EBI, with the profound technical expertise of

Enzymicals, to advance and accelerate the development of novel, valuable biosynthetic pathways to high impact chemicals. Transform-MinER is very versatile and we are looking forward to using Transform-MinER in many such partnerships and numerous applications in future” says Dr. Birgit Kerber, Head Innovation and Translation EMBL-EBI at EMBLEM.

Dr. Gábor M. Lamm, Managing Director of EMBLEM adds: “EMBL is a very innovate institute at the forefront of life science research that aims to contribute to solving society’s most pressing challenges. Transform-MinER has the potential to replace inefficient and energy intensive traditional chemical syntheses with green biotechnology and it will be exciting to see the technology applied in a plethora of areas in the future.”

Industrial Biotechnology is gaining importance as the need for more sustainable production processes becomes compelling. Biocatalytic synthesis can perform important chemistry under mild conditions facilitated by enzymes and thus considerably reduces environmental and manufacturing costs. To succeed at scale it is imminent to combine excellent computational tools with cutting-edge production technologies.

### **About EMBLEM**

EMBLEM, established in 1999, identifies, protects and commercializes the intellectual property developed in the EMBL world, from EMBL alumni and from non-EMBL third parties.

EMBLEM currently manages a portfolio of more than 400 granted patents and patent applications, and, over term, has created more than 25 spin-out companies.

EMBLEM facilitates and accelerates the transfer of innovative technology from basic research to industry by working closely with industrial partners spanning the biotech, IT and mechanical/electrical engineering markets and currently has more than 400 licensees of EMBL technologies.

For more information, please visit <https://www.embl-em.de>

### **About EMBL-EBI**

The European Bioinformatics Institute (EMBL-EBI) is a global leader in the storage, analysis and dissemination of large biological datasets. We help scientists realise the potential of big data by enhancing their ability to exploit complex information to make discoveries that benefit humankind.

We are at the forefront of computational biology research, with work spanning sequence analysis methods, multi-dimensional statistical analysis and data-driven biological discovery, from plant biology to mammalian development and disease.

We are part of the European Molecular Biology Laboratory, EMBL, Europe’s flagship laboratory for the life sciences. EMBL is an intergovernmental organisation established in 1974 and are supported by 27 member states, 2 prospective member states and 1 associate member states.

EMBL-EBI is located on the Wellcome Genome Campus, one of the world’s largest concentrations of scientific and technical expertise in genomics.

## **About Enzymicals AG**

Enzymicals stands for tailor made enzymes, customized chemicals and individual process solutions.

Since its founding in 2009, the German enterprise Enzymicals AG has created a customer-oriented industrial platform for process development and piloting of chemo-biocatalytic synthetic routes for high-quality fine chemicals.

The company built a bridge between academic research to industrial application and focuses on the three business segments: Enzymes (production of biocatalysts), Chemicals (production of fine and special chemicals) and Solutions (customer-specific solutions to questions of chemo-biocatalytic synthesis, process development and piloting). This orientation is based on profound expertise in industrial biocatalysis and development of competitive enzymes for organic synthesis. Together with its network partners, the service can be expanded to cGMP production and bulk scale supply.

For more information, please visit <https://www.enzymicals.de>