PRESS RELEASE

Push for medical research

New Fraunhofer Institute for Translational Medicine and Pharmacology ITMP

In 2012, a Fraunhofer project group for Translational Medicine and Pharmacology TMP was established at the Fraunhofer Institute for Molecular Biology and Applied Ecology IME in association with the LOEWE program (Hessian Initiative for the Development of Scientific-Economic Excellence). The aim of this group was to expand the Fraunhofer-Gesellschaft’s portfolio in the field of drug research and development. Over the last number of years, the former Fraunhofer project group TMP has achieved international recognition in the area of immune disorders due to its extensive expertise in areas such as drug identification, pharmaceutical technology, highly differentiated and indication-specific pharmacological models, and clinical research. As a result of these advances, the TMP branch of Fraunhofer IME is set to become an independent institute with headquarters in Frankfurt am Main and locations in Hamburg and Göttingen as of January 1, 2021.

The strategic establishment of the TMP Fraunhofer project group at Fraunhofer IME began in 2012, in close collaboration with Goethe University Frankfurt as part of the LOEWE-Center TMP, funded by the state of Hessen. In 2014, the ScreeningPort location in Hamburg was integrated into Fraunhofer IME so that its expertise in the area of small molecules and drug repurposing could be incorporated into the development of drugs, thus completing the existing value chain at Frankfurt am Main. Due to the successful development of both locations, the project group was expanded into a branch of Fraunhofer IME in 2017 as part of a restructuring process.

In recent years, the TMP branch of Fraunhofer IME has become an increasingly important part of Fraunhofer’s health research efforts, not least due to the establishment of cost intelligence in medicine, the proof-of-concept platform, the establishment of the Fraunhofer Cluster of Excellence for Immune-Mediated Diseases CIMD, and the various elements of its 4D strategy, which brings together the four major areas of health research — drugs, diagnostics, devices, and data — to create high added value for patients through application-oriented research. This development is now reflected in the establishment of the independent Fraunhofer Institute for Translational Medicine and Pharmacology ITMP.

The effective transfer of innovative ideas, technologies, and methods from biomedical research for medical application and industry is at the core of the new institute’s scien-
tific objectives. The main focus is the systematic integration of future-oriented technologies as part of a translational cycle for the benefit of patients. Starting with the patient’s disease, this cycle encompasses the Drug Discovery and Preclinical and Clinical Research departments, and aims to clarify information on disease mechanisms as well as the discovery of new drugs with subsequent preclinical and clinical validation. Findings from patient care are then in turn to be made directly available for research.

At the newly established location in Göttingen, new diagnostic and therapeutic solutions are being developed for inflammatory and degenerative diseases of the central nervous system (CNS). With its expertise in the area of CNS immune disorders, the Göttingen location adds to the existing main indication areas at the Frankfurt am Main location in the field of immune-mediated diseases of the musculoskeletal system, skin, and gastro-intestinal tract. Furthermore, high-resolution microscopy methods for biomedical problems are being further developed, modularized, and automated at Göttingen in order to expand their current areas of application.

Key societal challenges

In the words of Hessen’s Minister President Volker Bouffier: “The transition by LOEWE-Center TMP into an independent Fraunhofer Institute is a well-deserved acknowledgment of its scientific excellence and will further strengthen Hessen as a center for science. In addition, this success was only made possible thanks to Hessen’s unique scientific funding program — the LOEWE program.”

Katharina Fegebank, Senator for Science, Research, Equality and Districts of the Free and Hanseatic City of Hamburg: “Health research in all its diversity plays an enormously important role, especially in the wake of the Corona pandemic. It is all the more significant that the Fraunhofer ITMP is now advancing its basic biomedical research as an independent institute. I am pleased that the Fraunhofer ScreeningPort, with the great expertise in drug research that it provides, can contribute to the innovative capacity of the new institute. Particularly in the field of infection research, the scientific findings from the ScreeningPort can form a valuable basis for the development of medication and treatment options. This will benefit many patients, even beyond Corona. Therefore, the objective in Hamburg is to bundle the expertise in infection research even more comprehensively and to expand it sustainably. I heartily welcome the inclusion of this important research field at the new Fraunhofer ITMP and wish the best of success to those responsible.”

According to Prof. Reimund Neugebauer, President of the Fraunhofer-Gesellschaft, “The provision of intelligent and affordable medicine is a key societal challenge — worldwide. Health research is therefore a significant area of activity for the Fraunhofer-Gesellschaft. Based on excellent preparatory work and expertise accumulated over many years in the area of research, the new Fraunhofer Institute for Translational Medicine and Pharmacology ITMP has the potential to strengthen the German health care sector in a sustainable way through systematic translational research, demand-driven
development services, and the effective transfer of innovations for the benefit of patients. The 4D strategy, in particular, which optimizes interdisciplinary and transdisciplinary health research, thus improving the treatment of patients from a qualitative and cost-efficient perspective, will continue to be advanced further as a result of Fraunhofer ITMP’s independent status.

Prof. Gerd Geißlinger, managing director of Fraunhofer IME and future director of Fraunhofer ITMP, explains: “Our aspiration for the new Fraunhofer Institute is that promising ideas resulting from basic biomedical research will be translated and applied for the benefit of patients and society in general. I am very grateful to the Hessian state government for the LOEWE program; as without it, this new institute would not exist. With the support of LOEWE-Center TMP coupled with Fraunhofer’s excellence in application-oriented research, we were able to create the structures needed for effective biomedical research at the Frankfurt am Main, Hamburg, and Göttingen locations, which now form the cornerstones of the new institute.”

In collaboration with industry partners and with the help of public research projects, Fraunhofer ITMP will implement innovative solutions that are associated with competitive advantages and added value for society. The clear objective here continues to be the efficient transfer of innovative ideas into medical practice, and the training of future leaders in the field of biomedical research.