New Executive Director at Fraunhofer IZI

Prof. Dr. Dr. Ulrike Köhl is the new executive director at the Fraunhofer Institute for Cell Therapy and Immunology IZI. As the newly appointed professor of immuno-oncology at Leipzig University, Prof. Köhl has also managed the Institute of Clinical Immunology at Leipzig University Hospital since mid-December. Previously, as a scientist specialising in cellular immunotherapies, she worked as a professor at the Hannover Medical School.

At present, immuno-oncology is considered an important and fascinating field of cancer research. In this context, the central question is how individual immune cells of a patient’s immune system can be specifically activated and used in fighting cancer. The approach is as follows: Immune cells of the patients concerned are modified with the help of “antigen receptors” so that they target – and destroy – cancer cells. “We
have already achieved very good results using this method in children and young adults suffering from a certain type of leukaemia – acute lymphatic leukaemia, B-cell type. Unfortunately, at present, this is not possible or not sufficiently successful for patients with tumours. However, worldwide, intensive efforts are underway to ensure that this treatment option can also be used for a range of types of cancer. In addition, and together with our cooperation partners, we are working to optimise these customised cancer therapies, for example as a combination of a cell product directly acting against the cancer cell and a so-called “immune checkpoint inhibitor” for immune system modulation so that the immune cell can specifically attack the cancer cell without being intercepted”, explains Prof. Ulrike Köhl, newly appointed professor of immune-oncology at Leipzig University and new head of the Institute of Clinical Immunology at Leipzig University Hospital.

For many years, Prof. Köhl has extensively researched in the field of cell and gene therapy – most recently at Hannover Medical School where she managed the Institute of Cell Therapeutics from 2012 onwards. Previously, the 54-year old biologist and medical expert worked in various functions at Frankfurt am Main University Hospital for many years. Moreover, her focus in experimental medicine and, in particular, the development of immune therapies also took her to the MD Anderson Cancer Center in Houston, USA.

“We are very pleased that Prof. Ulrike Köhl can now contribute her comprehensive experience and innovative approaches for the improvement of therapies to our team of cancer experts and immune specialists”, explains Prof. Wolfgang E. Fleig, Medical Director of Leipzig University Hospital. “As a result, we will be able to offer our cancer patients the latest developments in modern cancer therapy even earlier and, as a result, further improve their chances of recovery.”

Prof. Beate Schücking, President of Leipzig University, sees Prof. Köhl’s appointment as a special opportunity: “We hope that this further combination of a university professorship and the management of a Fraunhofer Institute in one person will provide new impulses for both sides”, emphasises the University’s President. “Connections of these types contribute to the strengths of Leipzig as a research centre focusing on life sciences which, as a result, we can develop into a promising field for the future.”

Prof. Köhl now hopes to continue and intensify her research on which so many hopes are pinned and which include the use of cell and gene therapy in transplants and in regenerative medicine. “This move to Leipzig and my new double role provide excellent conditions for my work”, confirms Prof. Köhl. “The connection with the University Cancer Centre Leipzig (UCCL), which is very well set up, chaired by Prof. Florian Lordick offers an excellent environment for joint work on cancer therapies.”

As a result of the planned intensification of the cooperation between Leipzig University Hospital and the Fraunhofer Institute in this respect, state-of-the-art procedures will in the future be put very quickly into operation in treating patients at UCCL.
At Fraunhofer IZI, Prof. Köhl will succeed the current director and founder of the institute, Prof. Frank Emmrich. “I am pleased to be able to hand over to such an experienced colleague with an excellent network who has successfully worked in the clinical development of pharmaceuticals for innovative therapies for many years”, explains Prof. Emmrich. The spatial and personal proximity between university and non-university research will establish a unique centre for the development, production and clinical testing of cell and genetic therapeutics in Leipzig. To achieve this Prof. Köhl will rely on establishing close connections between the comprehensive clean room capacity and the competence in pre-clinical development at Fraunhofer and the comprehensive clinical experience and treatment options of Leipzig University Hospital, while also expanding the cooperation with many other university and non-university partners. In addition to new therapeutic approaches, in future, new technologies for immuno-monitoring, functional assays and companion diagnostics are to be increasingly explored and automated production procedures are to be developed in a cooperation between the Fraunhofer IZI and Leipzig University Hospital.
The Fraunhofer Institute for Cell Therapy and Immunology IZI investigates and develops solutions to specific problems at the interfaces of medicine, life sciences and engineering. One of the institute’s main tasks is to conduct contract research for companies, hospitals, diagnostic laboratories and research institutes operating in the field of biotechnology, pharmaceuticals and medical engineering. The Fraunhofer IZI develops, optimizes and validates methods, materials and products for the business units Cell and Gene Therapy, Drugs, Diagnostics and Biosystems Technology. Its areas of competence lie in cell biology, immunology, drug biochemistry, biomarker, bioanalytics and bioproduction as well as process development and automation. In these areas, research specifically focusses on the indications oncology, neuropathology, autoimmune and inflammatory diseases as well as infectious diseases and regenerative medicine.

The Fraunhofer-Gesellschaft is the leading organization for applied research in Europe. Its research activities are conducted by 69 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of 24,500, who work with an annual research budget totaling 2.1 billion euros. Of this sum, 1.9 billion euros is generated through contract research. More than 70 percent of the Fraunhofer-Gesellschaft’s contract research revenue is derived from contracts with industry and from publicly financed research projects. International collaborations with excellent research partners and innovative companies around the world ensure direct access to regions of the greatest importance to present and future scientific progress and economic development.