PRESS RELEASE

Onco-immunologist develops new cancer therapies

Aleksandra Pandyra is Professor of Translational Immunology at the University Hospital Bonn

Bonn, December 15 - Prof. Aleksandra Pandyra has taken up the professorship of "Translational Immunology" at the Institute of Clinical Chemistry and Clinical Pharmacology at the University Hospital Bonn (UKB). The specialist is developing new therapeutic approaches against cancer and viral infections. To this end, she combines molecular oncology with immunology to investigate anti-tumor and anti-viral immune responses. A central question is how immune cells in the tumor microenvironment influence the progression of disease. Prof. Pandyra completed her scientific education in Canada. She now comes from Düsseldorf University Hospital.

While in Canada, Prof. Pandyra researched the potential application of statins, which are commonly used as cholesterol-lowering drugs, as anti-cancer agents. In her current preclinical translational research, she is further focusing on new indications for existing active ingredients, known as drug repurposing, in the context of viral infections and malignant tumors. "My aim is to use this approach to discover new substances that modulate the immune system's response," says Prof. Pandyra. Her working group is testing the potential efficacy of such novel antiviral and antitumor drug candidates in mouse models.

Vaccines as trainers of the immune system

Prof. Pandyra is further focusing on myeloid cells, which are part of the blood-forming system. She is investigating their effects on infections and on the non-malignant tissue closely surrounding the cancerous tumor. This microenvironment influences the growth and spread of the tumor. Prof. Pandyra's team manipulates specific genes in myeloid cells and investigates how this affects anti-viral and anti-tumor immunity.

Prof. Pandyra is also reviewing options for certain vaccines. "Can vaccines train the immune system to mitigate the harmful effects of a chronic viral infection and the progression of the tumor?" says Prof. Pandyra, summing up the question.

"Happy to come to Bonn because of the world-class immunology research"

For Prof. Pandyra, the most exciting thing about starting at the Institute of Clinical Chemistry and Clinical Pharmacology at the UKB is that it offers an ideal environment for translational research. The institute has the clinical study center, the Phase I unit, the biobank, laboratory diagnostics and an outstanding, excellent research environment with a number of working groups in the fields of immunology and infection - "all under one roof". In addition, the UKB
Institute is integrated into the ImmunoSensation2 Cluster of Excellence at the University of Bonn, an internationally recognized center for immunological research. "The excellence of the environment is further enhanced by the German Center for Infection Research. I am very pleased to be here and to have the opportunity to work in this environment," says Prof. Pandyra.

Image material:

Caption: Onco-immunologist develops new cancer therapies
Prof. Aleksandra Pandyra has taken up the professorship of "Translational Immunology" at the Institute of Clinical Chemistry and Clinical Pharmacology at the University Hospital Bonn (UKB).

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About Bonn University Hospital: The UKB treats around 500,000 patients per year, employs around 9,000 staff and has total assets of 1.6 billion euros. In addition to over 3,300 medical and dental students, a further 585 people are trained in numerous healthcare professions each year. The UKB is ranked first among university hospitals in NRW in the science ranking and in the Focus clinic list and has the third highest case mix index (case severity) in Germany. In 2022 and 2023, the F.A.Z. Institute recognized the UKB as Germany's most desirable employer and training champion among public hospitals in Germany.