PRESS RELEASE

Mainz, 4 May 2026

2026 Boehringer Ingelheim Prize: Three Early-Career Researchers from Frankfurt and Mainz Are Finalists

Three researchers from the Rhine-Main region receive the finalist prizes // presentation of the finalist prizes and announcement of the winner of the 55,000 EUR main prize on 30 June in Ingelheim am Rhein

Dr Taniya Chakraborty and Dr Julian Wagner from Goethe University Frankfurt and Josef Shin, MD PhD, from the University Medical Center Mainz are the three finalists for the 2026 Boehringer Ingelheim Prize. The Boehringer Ingelheim Stiftung (BIS) recognises the three early-career researchers for an outstanding scientific publication. Each of them will receive a personal prize of 5,000 EUR. At the public award ceremony on 30 June in Ingelheim am Rhein, the BIS will also announce which of the three wins the main prize – along with flexible research funding of 55,000 EUR for a particularly creative research idea. The three researchers were selected by an independent panel of eight internationally renowned scientists, chaired by Professor Dr Peter B. Becker from Ludwig-Maximilians-Universität München.

"With the Boehringer Ingelheim Prize, we recognise three exceptionally talented early-career researchers from our home region for what they have already achieved. But we also look to the future, hence the idea of the main prize," says Christoph Boehringer, Chair of the Executive Committee of the BIS. "The research funding provides additional freedom to pursue one's own path with confidence – for a successful career and for strong science in the Rhine-Main region."

The finalists, along with their award-winning work, in detail:
Dr Taniya Chakraborty has been leading a junior research group at the Faculty of Biochemistry, Chemistry and Pharmacy of Goethe University Frankfurt since March 2025. She receives the finalist prize for her work in *bottom-up* synthetic biology. In her postdoc research, she used RNA origami – the controlled folding of RNA molecules with defined sequences – to generate structures that can serve as building blocks for an artificial cytoskeleton in synthetic cells. To achieve this, she introduced individual DNA molecules into membrane-enclosed lipid vesicles in a test tube, together with a minimal protein machinery for transcribing DNA into RNA. Depending on the DNA sequence, the RNA molecules formed straight or curved RNA origami filaments as well as ring-shaped structures while being transcribed. Her work demonstrates that RNA origami is a powerful technology for recreating complex cellular components – an important step towards a fully autonomous synthetic cell.

Josef Shin, MD PhD, is a resident physician and neuroscientist at the Department of Neurology at the University Medical Center Mainz. His research focuses on how immune cells and nerve cells interact to understand how autoimmune diseases of the nervous system – such as multiple sclerosis (MS) – arise and can be treated. He discovered a direct link between the chronic activation of B lymphocytes – a hallmark of MS – and the damage to nerve cells. Chronically activated B cells release a signalling molecule called lymphotoxin-alpha (LTα), which triggers a chain of reactions that first disrupts the transmission of signals along nerve cells and ultimately leads to their death. When Josef Shin blocked this LTα-induced signalling cascade using a known inhibitor of the protein BTK, the nerve cells

recovered. The BTK inhibitor used is already known to have beneficial effects on the clinical course of MS in patients. Josef Shin's work reveals a likely mechanism underlying this clinical effect and points to new therapeutic strategies to protect nerve cells and treat MS more effectively.

Dr Julian Wagner is a biologist who has been leading a junior research group at the Institute for Cardiac Regeneration in the Faculty of Medicine at Goethe University Frankfurt since February 2024. In his work, he identified the protein ZBTB16 as a key regulator of cardiac ageing. ZBTB16 is found predominantly in the cardiac endothelium – the cells that line the walls of blood vessels and form an essential component of heart tissue. Julian Wagner observed that levels of ZBTB16 in these cells decline during ageing. He was able to show that this decline accelerates the ageing of the cardiac endothelium and gives rise to functional impairments of the heart that are typical of old age. Increasing the expression of ZBTB16 in aged mice prevented the progression of age-related processes. His findings suggest that ZBTB16 in the cardiac endothelium regulates the function of heart tissue through so-called paracrine signals between the endothelium and other cells of the heart. In doing so, he has uncovered a previously unknown mechanism of action that could open up new treatment approaches for age-related heart disease.

About the Boehringer Ingelheim Prize
The Boehringer Ingelheim Prize recognises outstanding scientists conducting basic research in the biological, chemical, or medical sciences in the Rhine-Main region who have already taken their first steps towards an independent research career. The prize honours previous publication achievements with a personal prize of 5,000 EUR each for up to three finalists. One of the finalists additionally receives the main prize, worth 55,000 EUR, which can be used to realise an original research project and further develop the recipient's scientific potential.

About the Boehringer Ingelheim Stiftung
The Boehringer Ingelheim Stiftung is an independent, non-profit foundation that is committed to promoting the medical, biological, chemical, and pharmaceutical sciences. It was established in 1977 by Hubertus Liebrecht (1931–1991), a member of the shareholder family of the Boehringer Ingelheim company. Through its funding programmes CoMove, Exploration Grants, Plus 3, and Rise up!, the foundation supports excellent scientists during critical stages of their careers. It also endows awards for junior scientists in Germany. Additionally, it funds institutional projects in the life sciences, such as the AITHYRA Institute in Vienna and a new research department (BioAI) at the Center for Systems Biology in Dresden, which both combine biomedicine with AI. Other supported institutions include the Institute of Molecular Biology (IMB) in Mainz and the European Molecular Biology Laboratory (EMBL) in Heidelberg, both in Germany.

For more information: www.boehringer-ingelheim-prize.de

Original publications
Tran, M. P.*, **Chakraborty, T.*** et al. (2025) *Nature Nanotechnology,* 20: 664–671. doi: 10.1038/s41565-025-01879-3.

Shin J*, Götz P* et al. (2025) *Science Translational Medicine,* 17(822). doi: 10.1126/scitranslmed.adx2652.

Stilz KA, (…), **Wagner JUG#,** Dimmeler S# (2026) *European Heart Journal,* 2026. doi: 10.1093/eurheartj/ehaf1063.

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