

PRESS RELEASE

Dorothee Dormann joins IMB as an Adjunct Director

1 April – *The Institute of Molecular Biology (IMB) is delighted to welcome Dorothee Dormann as an Adjunct Director. She will also be concurrently appointed as a Professor of Molecular Cell Biology at Johannes Gutenberg University (JGU). Prof. Dormann joins us from the Ludwig Maximilian University of Munich, where she was an Emmy Noether Group Leader. Her research focuses on understanding the molecular mechanisms of protein aggregation in neurodegenerative diseases.*

Neurodegenerative diseases such as frontotemporal dementia (FTD) and amyotrophic lateral sclerosis (ALS) are incurable disorders in which neurons and other cells of the nervous system gradually lose function and die, leading to loss of motor or mental functions with age. These diseases are characterised by the accumulation of insoluble protein aggregates in neurons and glia, which is thought to cause neuronal dysfunction and eventually neurodegeneration. In ALS and FTD, the main aggregating proteins are the RNA-binding proteins (RBPs) TDP-43 and FUS. These proteins are normally found in the nucleus, but in ALS and FTD they are mislocalised to the cytoplasm, where they form aggregates.

Dorothee's team works to understand the molecular mechanisms that cause RBPs to become mislocalised and aggregate in ALS and FTD. They have previously shown that RBP mislocalisation is linked to defects in transporting these proteins into the nucleus, while aggregation may be linked to aberrant phase separation – a process by which proteins are segregated into droplet-like organelles, similar to how oil is separated from water. Now Dorothee and her team will continue to work towards understanding how nuclear transport and phase separation are dysregulated in ALS and FTD, and whether these changes can be suppressed by modulating posttranslational modifications on TDP-43 and FUS. By understanding the molecular mechanisms of protein aggregation, Dorothee and her team hope to develop new therapeutic approaches to treat neurodegenerative disease.

Further details

Dorothee is an Adjunct Director at IMB and a Professor of Molecular Cell Biology at Johannes Gutenberg University Mainz. Further information about research in the Dormann lab can be found at www.imb.de/dormann.

About the Institute of Molecular Biology gGmbH

The Institute of Molecular Biology gGmbH (IMB) is a centre of excellence in the life sciences that was established in 2011 on the campus of Johannes Gutenberg University Mainz (JGU). Research at IMB focuses on three cutting-edge areas: epigenetics, developmental biology, and genome stability. The institute is a prime example of successful collaboration between a private foundation and government: The Boehringer Ingelheim Foundation has committed 154 million euros to be disbursed from 2009 until 2027 to cover the operating costs of research at IMB. The State of Rhineland-Palatinate has provided approximately 50 million euros for the construction of a state-of-the-art building and is giving a further 52 million in core funding from 2020 until 2027. For more information about IMB, please visit: www.imb.de.

About Johannes Gutenberg University Mainz

Johannes Gutenberg University Mainz (JGU) is a globally recognized research-driven university with around 31,500 students. Its main core research areas are in particle and hadron physics, the materials sciences, and translational medicine, while its most outstanding research achievements in the humanities have been attained in the fields of American Studies and Historical Cultural Studies. JGU's academic excellence is reflected in its success in the Excellence Initiative of the German federal and state governments: In 2012, the university's Precision Physics, Fundamental Interactions and Structure of Matter (PRISMA) Cluster of Excellence was approved and the funding of its Materials Science in Mainz (MAINZ) Graduate School of Excellence was extended. Moreover, excellent placings in national and international rankings, as well as numerous other honors and awards, demonstrate just how successful Mainz-based researchers and academics are. Further information at www.uni-mainz.de/eng

Boehringer Ingelheim Foundation

The Boehringer Ingelheim Foundation is an independent, non-profit organization that is committed to the promotion of 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 Perspectives Programme Plus 3 and its Exploration Grants, the Foundation supports independent junior group leaders. It also endows the international Heinrich Wieland Prize, as well as awards for up-and-coming scientists in Germany. In addition, the Foundation funds institutional projects in Germany, such as the Institute of Molecular Biology (IMB), the department of life sciences at the University of Mainz, and the European Molecular Biology Laboratory (EMBL) in Heidelberg.

Press contact for further information

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