IMPRS Physics and Medicine
INTERNATIONAL MAX PLANCK RESEARCH SCHOOL

Open PhD position

"Unravelling molecular mechanisms underlying long-term maintenance of RNAs in the brain"

Prof. Dr. Tomohisa Toda

The diversity of brain cell types underlies the complex functions of the brain. Generating and maintaining this diversity of brain cells is therefore critical for brain function. Brain cells are mostly generated during brain development and have a limited ability to be replaced. Therefore, brain cells must maintain their cellular identity and function throughout our lives. However, it is still largely unclear how our brain cells function over decades.

Recently, the Toda lab has identified long-lived RNAs (LL-RNAs) in a specific subset of brain cells that are thought to be involved in brain cell longevity and ageing (Science, 2024, Zocher et al). The focus of the project is to identify the molecular mechanisms underlying the long-term maintenance of LL-RNAs by studying RNA binding proteins and/or chromatin.

Highly motivated and ambitious candidates with a Master's degree in Biochemistry, Molecular Biology, Biophysics, Computational Biology or related fields shall apply to Prof. Dr. Tomohisa Toda via **IMPRS-PM** (with a clear motivation letter and letters of reference).