

Johannes Gutenberg University Mainz (JGU) is one of the largest universities in Germany. Thanks to its location in the Rhine-Main science region, the university can unfold to its full potential and showcase its innovative power and dynamism. Its status as a comprehensive university allows for multidisciplinary learning and teaching and has great potential for internationally renowned, interdisciplinary research. Almost all of its institutes are located on a single campus close to the Mainz city center – creating a lively academic culture for researchers, teaching staff, and students from every continent.

Faculty 10: Biology / Institute of Molecular Physiology / Molecular Plant Science of Johannes Gutenberg University Mainz

PhD student: Plant RNA Biology

part-time (65%)

The Wachter group at the **Institute for Molecular Physiology (Faculty 10: Biology** of Johannes Gutenberg University Mainz) investigates the molecular mechanisms and biological functions of alternative RNA splicing in plants (<https://mps-imp.biologie.uni-mainz.de/>).

Our recent work identified a structured mRNA element that regulates specific DEAD-box helicase genes and revealed their critical role in controlling alternative splicing (<https://www.biorxiv.org/content/10.64898/2026.01.23.701338v1>). Intriguingly, these functions appear to be linked to unique C-terminal features of the respective helicases.

As member of an interdisciplinary and international research team, you will investigate the molecular mechanisms underlying the splicing-regulatory activity of these DEAD-box helicases, with a particular focus on the functional relevance of RGG motifs, subcellular localisation, and their potential involvement in phase separation. In collaboration with the Weinberg group (University Halle-Wittenberg), you will also explore how helicase targeting of pre-mRNA structural elements may intersect with the binding of splicing regulators to determine splice site choice. Your research will employ a multidisciplinary approach that integrates molecular biology, RNA biochemistry, cell biology, and plant physiology, with *Arabidopsis thaliana* as the primary model system. You will benefit from extensive expertise, various core facilities, and a completely new research infrastructure. The PhD project is funded by the DFG and can be integrated in the international PhD programme (IPP) in Mainz.

Your tasks:

- Applying state-of-the-art techniques for gene-specific and genome-wide analyses of RNA biology, including transcriptome-wide profiling of alternative splicing and mapping of protein-RNA interactions
- Employing *in vitro* and *in vivo* experimental systems to address different levels of complexity and advance our understanding of the biological functions
- Contributing to teaching activities for Bachelor's and Master's students within our group
- Assisting with organizational and administrative tasks
- Presenting your research findings in oral and written form, including conference contributions, reports, and manuscripts

Your profile:

- A successfully completed scientific university degree in Biology or in a related field
- Practical experience with a spectrum of molecular methods
- A background in plant molecular biology and/or RNA biology
- Very good English language skills (at least level B2)
- A fascination for science, very good communication and teamwork skills

In addition to the general requirements according to public services law, applicants must meet the recruitment requirements stipulated in § 57 of the Hochschulgesetz of Rhineland-Palatinate.

Our benefits:

- Secure and transparent remuneration as well as additional benefits, such as an annual special payment and a company pension scheme
- Discounted Deutschlandticket
- Flexible working time arrangements
- A wide range of offers for the development of your talents and perspectives
- Opportunity to participate in general university sports programs

The position is paid according to **EG 13 TV-L** and can be filled from **12/01/2026** on. The position is limited initially to a period of 3 years and serves the purpose of academic qualification to obtain a doctorate (PhD).

JGU is diverse and welcomes qualified applications from people with various backgrounds.

We aim to increase the number of women in the field of research and teaching and therefore encourage female researchers to apply.

People with severe disabilities and people with disabilities who are treated equally in accordance with Section 2 (3) SGB IX will be given preferential consideration if they are suitable.

Are you ready for a new challenge and interested in this varied and responsible position? Then submit your complete application [cover letter, CV, certificates (with German recognition if applicable), references, and, if applicable, a list of publications] by **09/23/2026**, via the „Apply now“ button.

You may only be employed in the civil service of the state of Rhineland-Palatinate if you can guarantee that you will uphold the free democratic basic order as defined in the Basic Law and the Constitution of Rhineland-Palatinate at all times.

For questions and further information please contact Prof. Dr. Andreas Wachter by e-mail:
jobs-aw@uni-mainz.de.

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