



POSTDOCTORAL POSITION ON MOLECULAR MECHANISMS OF PLANT TOLERANCE TO VIRUSES

HEINLEIN team

IBMP, CNRS, France

The HEINLEIN team reveals molecular mechanisms of plant virus infection and develops approaches for crop protection. The team is seeking a postdoctoral scientist for the ANR-funded project **GreenTolerance**. **GreenTolerance** aims to uncover the mechanisms of tolerance, a defense strategy that allows infected plants to stay symptom-free. Tolerance prevents disease by optimizing plant fitness despite ongoing viral propagation. However, the determinants of plant tolerance to RNA viruses are poorly understood. Based on the foundation of results that we published in Kørner et al., 2018 *Nat Plants*, this project will: (1) determine how tolerance to RNA viruses differs molecularly amongst *A. thaliana* ecotypes, (2) study how endogenous siRNAs and systemic transport influence plant tolerance to RNA viruses, (3) dissect the role of RNA polymerase IV (Pol IV) in symptom recovery and tolerance, and (4) determine the genetic basis of *A. thaliana* tolerance to specific RNA viruses. Understanding the molecular and genetic basis of natural tolerance will help breeders to obtain virus-tolerant, disease-free plants, and thus to reduce crop losses.

This postdoc position will be at the IBMP in Strasbourg (France) with salary funded for 36 months, starting in January-March 2022.

Profile: We are looking for a highly motivated candidate with a recent PhD in plant biology and an excellent academic record. The candidate must have a strong background in plant molecular biology and experience in plant-pathogen interactions, virology and RNA biology. Practical skills in protein biochemistry and bioinformatics would be highly appreciated. The candidate should be able to think independently and creatively, and have excellent written and verbal communication skills in English. The postdoc will need to be a team player, supervise Master and PhD students, and present the project and results to both scientists and the public. She/he will participate in extensive collaborations with the two other partner labs involved in this ANR project, the BLEVINS (IBMP-CNRS) and SCHURDI-LEVRAUD (INRAE, Univ. of Bordeaux) teams.

Application: Please send a letter of motivation expressing your interest and qualifications for this project; your CV and publication list; and the names and e-mail addresses of three references to Manfred Heinlein (manfred.heinlein@ibmp-cnrs.unistra.fr).

The Institute of Plant Molecular Biology (IBMP; <http://www.ibmp.cnrs.fr/?lang=en>) is the largest CNRS institute dedicated to plant science in France. It is associated with the University of Strasbourg (Unistra) and with the Unistra Doctoral School of Life Sciences and Health. Currently, it hosts 16 research teams with 135 staff members, including 92 permanent personnel, and 44 postdocs and PhD students. IBMP is known for its expertise in plant genomics, genetics, metabolism, biochemistry, cell biology, and molecular physiology. Core facilities include high-end technological platforms for plant production, DNA sequencing and digital qPCR, bioinformatics, proteomics, microscopy, protein production, and metabolomics.

For further details and info, please contact Manfred Heinlein (manfred.heinlein@ibmp-cnrs.unistra.fr). The position will remain open until filled.