

## PhD position available

**Translational Control in Genotoxic Stress**

The position is available in the research group of Dr. Mikhail Schepetilnikov, Institute of Plant Molecular Biology (IBMP), University of Strasbourg, France. [IBMP website](#)

**Funding:**

A 3-year doctoral contract financed by MITI 80PRIME CNRS. The salary is 2300 € gross per month.

**Start date:** October 1, 2026

**Project:**

Our laboratory studies the factors and pathways involved in translation reprogramming under genotoxic stress in plants. Among these, the Target of Rapamycin (TOR) kinase, as a central regulator of cell growth and proliferation, coordinates autophagy, ribosome biogenesis and translation. While we have recently discovered the role of TOR in reinitiation of translation after short uORFs<sup>1</sup> and in cap-dependent initiation of translation<sup>2</sup> in plants, our understanding of TOR-mediated translational control in response to diverse stress conditions remains limited. This PhD project aims particularly to uncover the role of TOR in translational reprogramming in response to RNA damage induced by ionizing radiation. We use a unique model of genetically modified plants that lack the core components of the DNA Damage Response (DDR) pathway. This enables us to study with no health risk how radiation activates TOR independently of DNA damage. The research will integrate proteomics and ribosome profiling with radiochemical assays to map translational changes induced by therapeutically relevant doses of radiation.

**Qualifications (essential):**

- Master degree (or expected soon) in RNA biology relevant disciplines
- Motivation and passion for scientific research
- Strong communicative skills and ability to work in collaboration
- Proficiency in English

**Ideal candidate:**

- Experience in molecular biology or biochemistry
- Familiarity with ribosome profiling
- Basic bioinformatics skills
- Experience in plant biology is an advantage but not required

**Environment:**

We offer a creative and supportive international environment in a friendly and well-equipped laboratory with full access to advanced technologies in plant cell and molecular biology. The successful candidate will be enrolled in the Doctoral School of Life and Health Science, University of Strasbourg.

**Application:**

The PhD position will be advertised on the CNRS recruitment portal. Interested applicants should send the following documents to [mikhail.shchepetilnikov@ibmp-cnrs.unistra.fr](mailto:mikhail.shchepetilnikov@ibmp-cnrs.unistra.fr):

- Cover letter
- Academic transcripts
- Curriculum Vitae
- Contact information for two to three references

**Relevant publications:**

1. Mancera-Martínez (2021). Phosphorylation of a reinitiation supporting protein, RISP, determines its function in translation reinitiation. *NAR* 49, 6908–6924. [10.1093/nar/gkab501](https://doi.org/10.1093/nar/gkab501).
2. Dong (2023). Functional analogs of mammalian 4E-BPs reveal a role for TOR in global plant translation. *Cell Rep.* 42, 112892. [10.1016/j.celrep.2023.112892](https://doi.org/10.1016/j.celrep.2023.112892).