

PhD Position in Molecular Biology / Biotechnology

Research area: Molecular Biology, Biotechnology, Microbiology

Place: BOKU University – Tulln, Austria

Department of Agricultural Sciences, Institute of Microbial Genetics (IMiG)

A PhD position is available in the research group of Dr. Lea Atanasova (AG Atanasova). The successful candidate will join a project exploring **novel biological roles of Lytic Polysaccharide Monooxygenases (LPMOs)** in the mycoparasitic and plant-associated fungus *Clonostachys rosea*.

Research objectives

This PhD project aims to **unravel the catalytic, molecular, and biological functions** of selected *C. rosea* LPMO enzymes. We will explore their **enzymatic diversity and functions and their potential involvement in plant colonization, pathogenic or effector-like interactions, and direct antagonism against other fungi**.

Experimental approaches

The project combines molecular genetics, microbiology, and biochemical methods, including **CRISPR/Cas9 genome editing** in *C. rosea*, **protein expression profiling** during plant or fungal interactions, **heterologous enzyme expression** with activity assays, **phenotypic and molecular characterization of mutants**, and the integration of **computational modeling** with in vitro assays to elucidate enzymatic and biological functions.

Your profile

We are looking for a highly motivated and curious candidate with:

- A **Master's degree (or equivalent)** in **Molecular Biology, Biotechnology, Microbiology**, or a related field.
- Strong interest in **fungal biology, plant-microbe interactions, and enzyme function**.
- Experience in molecular techniques (cloning, PCR, transformation, etc.) and microbial work.
- Excellent **English communication skills** (written and spoken).
- A proactive, analytical, and independent working style.

We offer

- A **PhD-position** funded by the **Austrian Science Fund (FWF)**.
- Access to **modern laboratory facilities** for molecular biology and microbiology research.
- **Supportive supervision** and collaboration within an international and interdisciplinary research team.
- A **dynamic and collegial working atmosphere** at **BOKU University**.
- Eligibility for the **Pendlerpauschale** for commuting to the Tulln campus (if applicable).

The **gross monthly salary** (14× per year) follows the **FWF salary scheme** for PhD students.

Application

Please send your **letter of motivation** (including a short description of your technical skills), **CV**, **academic transcripts**, and **contact details of at least two referees** (name, email address) as a **single PDF** file to the contact below, using the **reference code: PHD-CrLPMOs**.

The application deadline is **December 23, 2025**.

For any inquiries, please do not hesitate to contact us.

Contact: Dr. Lea Atanasova, lea.atanasova@boku.ac.at