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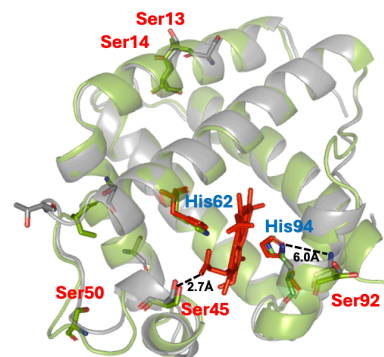
PhD position in Plant Biology

Functional analysis of leghemoglobins in nitrogen-fixing nodule symbiosis

Your Position: A PhD position is available in the group of Didier Reinhardt at the Department of Biology (University of Fribourg, Switzerland). We are looking for a motivated researcher with a keen interest in symbiotic plant-microbe interactions, and with a strong background in molecular biology. The successful candidate will explore the role of leghemoglobin (Lb) phosphorylation in nodule symbiosis of legumes. Lb are legume proteins that function analogous to human hemoglobin: They bind oxygen, thereby controlling oxygen concentration and supply to symbiotic bacteria (rhizobia). Lb can be phosphorylated during symbiosis at conserved serine residues (see scheme below), however, the significance of Lb phosphorylation is unknown.

The successful candidate will complement plants that lack Lb (ko mutants) with various forms of Lb that are phosphorylation-negative, or that mimic constitutive phosphorylation. He/she will then assess symbiotic traits in plants (employing various microscopic and proteomic techniques), and biochemical functionality (oxygen binding kinetics etc.) of the Lb versions expressed in bacteria.

Your profile: We are looking for a motivated and talented candidate with a MSc degree and with a solid background in molecular and cellular biology. Knowledge in tissue culture and plant transformation, and a basic understanding of plant biochemistry would be welcome. You are a collaborative and organized person with good communication skills and with a desire to collaborate in an international setting with European partners. Fluency in spoken and written English is a prerequisite.



Application: The position starts from Jan. 1, 2025 or upon agreement. Applications, including CV, a brief statement of research experience and interests as well as contact information of two referees, should be submitted to Didier Reinhardt (didier.reinhardt@unifr.ch).