

Mechanical stress and the Lateral Root Initiation Network in Arabidopsis: Patterning under Pressure.

A fundamental question in biology is how stem cells are specified and maintained. The Plant Developmental Biology group has extensive experience in the identification and analysis of stem cell factors in plants (<http://www.wageningenur.nl/en/Expertise-Services/Chair-groups/Plant-Sciences/Plant-Developmental-Biology.htm>). For this project, the group will collaborate extensively with Dr. J. Vermeer in Zurich. Within the project, formation of lateral roots by an interaction between local signalling molecules, physical stresses and transcription factors will be analysed using gene editing, genomics and cell biology approaches. This work is expected to yield novel insights into the generation of root architecture, a key determinant of plant yield and resistance.

The Laboratory of Plant Developmental Biology is part of Wageningen University and works closely together with other groups of Wageningen University and partners worldwide. The group investigates gene regulatory networks in plant development and is internationally well-known for the discovery of key regulatory factors that guide the development of stem cells and their immediate daughter cells. We have predominantly used the model organism Arabidopsis but are now branching out to other species and to applications for our fundamental knowledge.

The candidate for this 4-year PhD position is enthusiastic and motivated, and preferably experienced in molecular biology, developmental biology, genomics approaches, and microscopy. She/he will work in a multidisciplinary and international team, possesses excellent communication skills in English, has strong science-driven curiosity paired to a practice-oriented attitude, and is a result-driven team player.

The position is full-time (38 hours/week), initially for 1 year after which a go/no-go decision will be taken on extension with another three years. The gross salary in the first year is € 2125,- per month rising to € 2717,- in the fourth year for a full-time appointment. The salary will not be less than the amounts specified for early stage researchers in the MSCA Innovative Training Network grant rules.

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