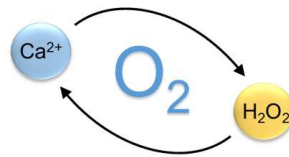


# PhD position in Molecular Plant Biology

## Calcium-ROS crosstalk during oxygen sensing and signalling in Arabidopsis



A PhD position in plant molecular biology is currently available at the laboratory of Prof. Joost van Dongen of the research unit Molecular Ecology of the Rhizosphere, RWTH Aachen University, Germany, under the supervision of Prof. Joost van Dongen and Dr. Romy Schmidt.

We are interested in understanding the molecular mechanisms controlling plant adaptation responses during low-oxygen conditions. This is especially relevant when realizing that the current climate change increases the frequency of flooding events, which results in low-oxygen stress for plants. Previously, we identified a novel oxygen signaling pathway in plants (see Licausi et al., 2011, Nature, 479:419-22). The here proposed project focusses on the role of calcium and reactive oxygen species (ROS) as signalling molecules during low-oxygen stress. Interestingly, we observe during oxygen limitation a calcium influx and an oxidative burst (increased ROS production) within minutes after the onset of stress. Here we aim at revealing the molecular components of the signalling pathways, their cross-talk and their impact on the transcriptional reprogramming during stress. For more background information please contact us directly by email: [roschmidt@bio1.rwth-aachen.de](mailto:roschmidt@bio1.rwth-aachen.de) & [dongen@bio1.rwth-aachen.de](mailto:dongen@bio1.rwth-aachen.de).

We look for a motivated PhD candidate with a genuine interest in plant science, molecular biology and protein science. Practical experience in molecular biology, biochemistry and plant growth will be of benefit. The applicant should hold a Master degree (or equivalent) in Biology or another relevant subject such as Biochemistry or Biotechnology. Very good language skills in either English or German are required.

Please apply by email submitting a single PDF document in English or German containing a detailed CV, a brief summary of previous research projects, and the names of two potential referees by **30th of November 2017** to: Christiane Welsch, [welsch@bio1.rwth-aachen.de](mailto:welsch@bio1.rwth-aachen.de).

Aachen, 10.10.17