



Cellular and molecular basis of floral organs

From 2011-present | Budget € 300,000

The major challenge of modern agriculture is to produce increasing amounts of high-quality biomass for food, feed, and bio-based products, with a minimal ecological footprint. Final yield and quality of crops strongly depends on plant architecture, organ growth, and tissue longevity. Therefore, it is of utmost importance to identify and characterize the key regulatory genes involved in these yield and quality-determining biological processes. In several 'CAPES-NUFFIC & FAPESP'-financed projects, the Brazilian research groups of Professor Marcelo Dornelas (University of Campinas), Professor Adriana Pinheiro Martinelli (USP), and the WUR research group of Professor Gerco Angenent (including Prof. Richard Immink and dr. Ruud de Maagd) have joined forces to address this challenging goal. The expertise of the groups is perfectly complementary, with state-of-the-art microscopy, cell biology and knowledge of passiflora in Brazil, and 'omics', gene editing (CRISPR), and expertise with tomato and the model species *Arabidopsis thaliana* in the Netherlands. Over recent years there has been fruitful exchange of staff and training of young Brazilian academics. The success of this is shown by the appointment of several visiting Brazilian PhDs as professor and various successful careers in the agricultural business.

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