

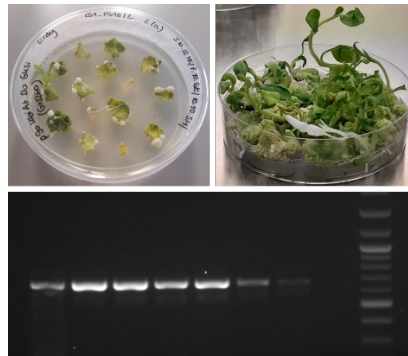
## Bachelor or Master topic “Optimisation of the Petunia transformation protocol”

### Background:

Petunia is an economically important ornamental plant that is propagated vegetatively via cuttings. It serves as a model plant for research on adventitious root formation, which has led to new insights into the molecular control of this process in recent years. In order to investigate the function of certain candidate genes in more detail, they are to be mutated using gRNA/Cas9. This first requires an efficient transformation protocol and the basis for successful transformation of petunias has been laid. The aim of this project is to further optimise the current transformation protocol in order to increase transformation efficiency and thus targeted mutagenesis.

### Work packages:

- *In vitro* cultivation of Petunia plants including maintenance and medium preparation
- Optimisation of different transformation steps
- Assessment of callus formation, regeneration and transformation efficiency
- Analysis of regenerated (transgenic) shoots (DNA extraction, PCR)



We are looking for a highly motivated student with strong interest in plant cell culture, transformation and molecular analysis.

Join a research project in an interdisciplinary, innovative research area and an open and friendly working environment.

The workplace is located at the Erfurt Research Centre for Horticultural Crops (FGK), University of Applied Sciences Erfurt, Kühnhäuser Straße 101, 99090 Erfurt.

The thesis can be prepared in **English** or **German** language.

If you are interested, then please contact Dr. Sindy Chamas by email (sindy.chamas@fh-erfurt.de) or by phone (0361 6700 3456). Further information is available at <https://www.fh-erfurt.de/fgk>.