

JAMES RENNIE BEQUEST

REPORT ON EXPEDITION/PROJECT/CONFERENCE

Expedition/Project/Conference Title:

Contribution of *miR171* to the control of *SCL6/22/27* expression on the histological level and its effect on vascular development in *Arabidopsis thaliana*

Travel Dates: 3rd June - 29th July 2007

Location: GMI – Gregor Mendel Institute of Molecular Plant Biology GmbH in Vienna (Austria)

Group Member(s): Paulina Chilarska.....

Aims and outcome:

Initially the aims of the project were:

- 1) To analyse an miR171 insertion line in order to see how its expression is changed and whether this affects the expression levels of *SCL6/22/27*;
- 2) To analyse the vascular phenotype in *slc6/22/27* triple mutant with a focus on secondary growth;
- 3) Time allowing, to generate crosses of the miR171 insertion line with GUS lines marking different stages of vascular development and to analyse the expression of GUS reporter genes in that background;
- 4) Concurrently with 1- 3), to investigate the histological distribution of wild type miR171;

This plan had to be modified for practical reasons (including late arrival of the insertion line) to:

- 1) Histology of wt and *slc6/22/27* triple mutant stems;
- 2) *in situ* hybridisation with an LNA (Locked Nucleic Acid) miR171 probe;
- 3) RT-PCR (Reverse Transcriptase PCR) on the miR171 insertion line;
- 4) Histology of the insertion line

Publication of the results and discussion section was disallowed by the host laboratory. For more information, please contact the author.

The project was an excellent opportunity for me to join a working group of scientists and actively participate in their proceedings. Not only was I patiently taught many basic laboratory techniques and collected a large pile of unique lab notes but even more importantly took part in question asking process where my opinions and ideas were sought and kindly valued. I had also a chance to give a thoroughly prepared PowerPoint presentation of results at the end of my stay which gave me a great personal satisfaction.

It has been clear for me ever since that I would do a PhD. The project set me firmly in my views on future and convinced me that a research scientist is exactly the career I want, though I have fondness for teaching too. The project was a great experience in every respect which added a lot to my personal development as a science student and far beyond academia.