THE IXth EUROPEAN *Antirrhinum* MEETING

I would like to thank the Rennie Bequest for assisting me to attend this meeting, The following is an outline of the conference and how I have benefited from attending it.

The conference took place at San Lorenzo de El Escorial near Madrid in Hotel Victoria Palace, where everyone attending the conference was also accommodated, so there was ample opportunity to meet people attending the conference at all times of day. The conference lasted 3 days at the beginning of May 1999

Firstly attending the conference enabled me to learn a number of basic facts about plant development and research one or two of which I will outline below.

In the first session people spoke about cell cycle gene expression in meristems. They use histone sub-particle gene expression to mark populations of replicating cells because histones are produced specifically when cells are doubling their DNA and clearly need twice as many histone molecules. This struck me as being a particularly useful method which I had not seen demonstrated in plants and which could be useful in studies of plant development which frequently focuses on when and where cell populations proliferate and how this process is regulated.

Overlaying the basic facts that I learned was the opportunity to find out what was going on in *Antirrhinum* research and how it relates to my own research. This kind of up to date information is particularly useful since much of it is not published and will not be for several years.

The second session concerned vegetative development, the first speaker was Irene Weir who spoke about an *Antirrhinum* mutant called *cupuliformis* which cannot properly define the boundary of its lateral organs.

Then Martin Keiffer form Leeds University talked about two *Antirrhinum* mutants called *roulallis* and *rosulata* that show partial loss of dorsoventrality and formation of ectopic meristems on leaf petioles.

Susie Corley from John Innes Centre at Norwich spoke about insitu expression patterns of two TCP family transcription factors CYCLOIDEA and DICHOTOMA which when mutant cause *Antirrhinum* flowers to develop with radial symmetry instead of the wild type zygomorphic (has a plane of symmetry through the centre) flower form. A third gene "radialis" also causes this phenotype when mutant and encodes a single repeat myb homologue. Since leaves and the wild type *Antirrhinum* flowers have similar axes of symmetry it is important for us to look at the flower developmental control system for similarities with leaf developmental control especially as PHANTASTICA is also a myb repeat protein.

It was particularly useful to get a full update on these topics since they are so closely related to the primary focus of our research, that is how lateral organs such as leaves develop a dorsoventral axis and lamina.

As I have outlined below, several other speakers talked about topics closely related to another aspect of our research: the processes of lateral organ development in relation to meristem maintenance and partitioning of cells into lateral organ primordia:

Rudiger Simon from Cologne spoke about recent advances in understanding of *clavata*1 and *clavata*3 mutants which are a cell membrane receptor-protein and ligand that regulate meristem cell proliferation in *Arabidopsis*.

Richard Waites also from Cologne spoke about attempts to isolate the same genes from *Antirrhinum* from the starting point of transposon mutagenised plants that have a phenotype similar to the *clavata1* and *clavata3* mutants.

I was the last speaker on the morning of the first day. This gave me further experience of speaking at an international conference but also helped make me known to other members of the European *Antirrhinum* and *Arabidopsis* research community. In particular this enabled me to obtain access to stocks of DNA from 440 classical *Antirrhinum* mutants for the purpose of mutant screens. Although I could generate this material myself it would require considerable time, labour and space to grow the plants and purify the DNA with uncertain outcome and would not be feasible within the time remaining of my PhD.

To summarise, the grant that I received from the Rennie Bequest enabled me to attend the 9th European *Antirrhinum* meeting.

This broadened my knowledge of the research field in which I work and enabled me to see how my own research relates to the work of others.

Attendance at the conference provided me with an opportunity for networking which could be important for my career.

It enabled me to obtain resources which may assist my PhD research work and gave me further experience in speaking at international conferences.

Many thanks

Peter Newton