KELLIE SMITH

I initially became interested in Plant science through the research experiences carried out in my Post-16 curriculum. A field-trip to Malhamdale gave me a great appreciation of the natural distribution and ecology of* Mercurialis perennis. *I then opted to take Plant science to a molecular level: looking at the effects of Pineapple bromelain enzymes on the digestion of gelatine.

First Degree

BSc Biological Science.
University of Leeds.
Completion by July 2012.

Sainsbury Undergraduate Studentship (2011-2012)
Vacation Research: Determining the different allelic strengths of natural variation in the *FRI* gene in orchestrating flowering development.
Location: John Innes Centre, Norwich.
Supervisor: Dr Caroline Dean.
Mentor: Professor Brendan Davies.
July - August 2011.

Summary of Vacation Project

The key genes and regulators involved in the plant flowering vernalization response are being studied in the model plant *Arabidopsis thaliana*. QTL analysis has mapped and identified the involvement of *FRI* and its downstream target, *FLC*. During the Summer, I will be analysing the natural variation of *FRI* present in three Swedish accessions, one from the North and two from the South. It is expected that these plants will have different allelic strengths of *FRI* to reflect their evolution and adaptation to local conditions. Research into the key genes in flowering response may have a wider impact in Brassica plants for example: the manipulation and control of floral meristems in Cauliflower and Broccoli.