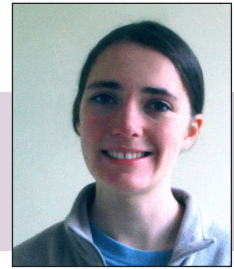


CAROLINE WOOD



“The plant sciences continually stimulate my curiosity for the natural world, with my particular interests focusing on plant sensory mechanisms. I recognise that plants have a vital role towards combating issues such as climate change/food security and I would like to contribute towards shaping our ability to address these concerns.”

First Degree

BSc Cell Biology
Durham University
Due to Graduate 2013

Sainsbury Undergraduate Studentship (2011-2012)

Vacation Research – The genetic basis of temperature sensing in *Arabidopsis Thaliana*.
John Innes Centre
Supervisor – Dr Philip Wigge
Mentor - Professor Keith Lindsey

Summary of Vacation Project

It has been found that the alternative histone, H2A.Z, is strongly associated with promoters of temperature regulated genes and that suppressing the H2A.Z gene causes a constitutive whole organism warm temperature response. This presents a model of temperature sensing by chromatin remodelling, with a rise in ambient temperature evicting H2A.Z from the promoter region, allowing access of transcription factors. I hope to investigate how chromatin remodelling may regulate transcription of temperature sensitive genes and whether this forms the basis of natural variation in temperature responses in *Arabidopsis*. The reporter genes HSP70 and CBF will be used to try to identify quantitative trait loci responsible for temperature induced responses. Candidate genes will then be investigated through producing over-expression and knockout lines.
