

LAURA NEILL

Department of Plant Sciences, University of Oxford, South Parks Road, Oxford, OX1 6AY

01865 245767 laura.neill@plants.ox.ac.uk

RESEARCH EXPERIENCE

Postdoctoral Research Scientist, 2011-2014
Department of Plant Sciences, University of Oxford

- Senior post-doctoral scientist investigating genes regulating differentiation, development and photosynthesis in flower development
- Cloning and functional characterisation of novel genes regulating flower development
- Analysis of gene and protein expression during development in mutant and wild-type plants
- Identification and assessment of novel protein function through biochemical methods
- Fulfilment of research objectives within grant timelines
- Publishing of scientific papers in peer-reviewed journals to support the research programme
- Regular attendance and presenting of results at national and international meetings to publicise and promote the research

PhD Research 2007-2011
Department of Biology, University of Nottingham

- Utilising molecular and biochemical techniques to investigate the role of pectin esterase iso-enzymes, active in cell wall-degradation, during tomato fruit ripening and softening
- Characterisation of wild-type, mutant and transgenic plants, to assess gene function
- Identification and patenting of a gene involved in tomato fruit-softening
- Gaining expertise in a broad range of molecular and biochemical techniques
- A SERC CASE award in collaboration with ZENECA Plant Science
- Awarded Mabel Pannel Postgraduate Scholarship for outstanding progress in research

RELEVANT RESEARCH SKILLS

- Gene cloning and characterisation e.g. generation of gene libraries, screening, and sequencing of genes
- Analysis of gene expression e.g. microarray generation and analysis, southern northern blots *in situ* hybridisation
- Use of bioinformatics packages to assist in identification of putative gene function for novel genes e.g. transcription factors
- Assessment of protein function using biochemical methods e.g. hybrid systems, enzyme assays

- Generation and analysis of transgenic plants e.g. via ELISA, western blot

AWARDS

NERC PhD Studentship Award (£50000) **2007**
Nuffield Foundation Undergraduate Studentship Award (£5000) **2003**

TEACHING EXPERIENCE

Tutor **2007-2014**
University of Oxford and Nottingham University

- Delivering practical and tutorial sessions for courses in Molecular Biology and Developmental Biology for groups of up to 30 students
- Responsible for prior-assessment of curriculum, development of suitable resources in collaboration with other presenters, organisation and delivery of sessions and course work marking

Mentor/Supervisor **2011-2014**
University of Oxford

- Training junior lab members in practical techniques to ensure competence and personal safety

Demonstrator **2011**
The Open University

- Level 2 course, Plant Physiology Summer School
- Assisting with the delivery of this pre-designed practical course, helping students to run their experiments and analyse the results

ADDITIONAL RELEVANT EXPERIENCE

Assistant Information Officer **2001-2002**
ICI Agrochemicals

- Working as part of a team of four to provide a scientific and commercial information service to more than 200 scientists at an international research centre
- Assisting in the training of scientists in the use of information retrieval tools

Laboratory Assistant **1997-1998**
British Gas plc

- Temporary gap year position, assisting with chemical sample analysis from research pipeline

EDUCATION

PhD Biology University of Nottingham	2007-2011
BA (Hons) Pure & Applied Biology, 2.1 University of Oxford	2003-2006
Tudor Grange Comprehensive School, Solihull 3 A Levels in Chemistry (A), Physics (B) & Biology (A); 9 GCSE level	1997-2002

RELEVANT SKILLS & COURSES

- Teaching Skills (Level 1) - introduction to teaching and lecturing methods (2 day course; Oxford University, 2012); Supervising DPhil students (Oxford University, 2013)
- UK GRAD School (Nottingham, 2010) – a 4 day residential course developing communication, team working, leadership, commercial awareness and problem solving skills through experiential activities with other post-graduate researchers
- Microsoft Office: daily use of Microsoft Word (thesis and publications), PowerPoint (conference presentations), Excel (data analysis); FrontPage (lab web design)

MEMBERSHIP OF PROFESSIONAL SOCIETIES

International Society for Plant Molecular Biology	2007-present
Biochemical Society	2007-present

REFEREES

Prof David Thomas,
Dept. Plant Sciences, Oxford University,
Tel. 01865 673124
david.thomas@plants.ox.ac.uk

Prof John Townsend,
Nottingham University,
Tel. 01509 443675
john.townsend@notts.ac.uk

PUBLICATIONS

- Neill LN, Matthews S, Thomas J. 2014 *Greenfinger*, a novel transcriptional regulator of flower development. *Plant Cell*, 20:934-939
- Neill LN, Matthews S, Thomas J. 2013 Mutations affecting flower development. *In SEB Symposium 62: Control of Plant Development: Genes & Signals* Eds. James G. and Freer, D., The Company of Biologists Ltd., Cambridge
- Neill LN, Thomas JA. 2013 Molecular analysis of *greenfinger* *J Exp Bot* 55 Suppl pp.13
- Neill LN, Thomas J. 2012 Tansley review # 96: Molecular genetics of flower development. *New Phytologist* 139:533-553
- Randall R, Neill LN, Matthews S, Thomas J. 2013 *Swirl*, a mutation disrupting flower differentiation. *J Exp Bot* 57 Suppl pp. 27

- Randall R, **Neill LN**, Matthews S, Thomas J. 2013 *Swirl*, a mutation disrupting flower differentiation. *Plant Cell* 20:920-928
- Thomas J, **Neill LN**, Matthews S. 2013. Control of differentiation in flower development. *Proc Royal Soc London Ser B* 450:63-67
- Thomas J, **Neill LN**. 2013 *Greenfinger* gene action in flower development. *J Cell Biochem Suppl* 31A pp.446
- Dray B, Townsend J, **Neill LN.**, Zeneca Ltd. 2011 DNA, DNA constructs, cells and plants derived therefrom. US6659121
- Dray B, Townsend J, **Neill LN.**, Imperial Chemical Industries, UK 2011 Cloning of pectin esterase cDNA of tomato for altering ripening properties of fruits. WO200313212
- Graham, P, **Neill L**, Richards F, Townsend J. 2010 Use of antisense RNA technology to study pectin degradation in tomato fruit. *New Zealand J Hort Crop Sci* 30:119-124
- Neill LN**, Clive CR, Dray B, Graham P, Townsend J. 2012 Molecular characterisation of cDNA clones representing pectin esterase isoenzymes from tomato. *Plant Molecular Biology* 25: 313-318
- Neill LN**. 2008 Organisation and expression of pectin esterase isoenzymes in tomato. *PhD thesis, Nottingham University*

CONFERENCE PAPERS

- Neill LN**. Mutations affecting flower development. SEB Cell Symposium 2009, University of Durham, 24th - 26th August 2012 (INVITED).
- Neill LN**. Molecular characterisation of cDNA clones representing pectin esterase isoenzymes from tomato. Association of Applied Biologists, Royal Botanic Gardens of Edinburgh, 20th Oct 2011.