Nuffield Foundation

Nuffield Foundation Science Bursaries for Schools and Colleges
Appendix to the Annual report for the 2010 Programme

An analysis of projects supported by the
Biotechnology and Biological Sciences Research Council

Projects in BBSRC Research Institutes

From an analysis of the database returns from the Nuffield Regional Coordinators for the 2010 programme, it is possible to identify 18 students who carried out projects in BBSRC sponsored Research Institutes as follows:

Babraham Institute		1 student
Institute of Food Research		2 students
John Innes Centre, Norwich		10 students
Roslin Institute		2 students
Rothamsted Research		3 students
	TOTAL	**18 students**

Listed below is a breakdown of the bursary placements offered at each of these institutes:

Babraham Institute:
'Lipid Signalling'
Project supervisor: Dr Simon Rudge
Please see http://www.nuffieldfoundation.org/kate-champion for a full case study of this project.

Institute of Food Research:
'Effects of plant natural products on inflammatory signalling'
Project supervisor: Tristan Bunn

'MS-based metabolomic profiling on healthy volunteers'
Project supervisor: Dr Gwenaelle Le Gall

John Innes Centre, Norwich
'Collating information from protein mass spectrometry'
Project supervisor: Alex Jones

'Characterising the interaction of bacteria with plant roots'
Project supervisor: Dr Phil Poole & colleagues

'Detecting plant signals needed for symbolic interactions with nitrogen-fixing bacteria'
Project supervisor: Jeremy Murray

'Probing plant starch metabolism using a bacterial sugar-metabolising enzyme'
Project supervisors: Christian Ruzanski and Alison Smith

'Natural variation in a small wild grass'
Project supervisor: John Doonan & colleagues

‘Why are some immature seeds 'blonde’’
Project supervisors: Carole Moreau and Clare Domoney

‘The effects of altered starch synthesis in developing barley grains’
Project supervisors: Tom Howard & Alison Smith

‘Molecular analysis of the formation of virus particles of cowpea mosaic virus’
Project supervisors: Keith Saunders and George Lomonossoff

‘Preferences of aphid parasitic wasps’
Project supervisor: Ian Bedford & Colleagues

‘Plant adaption to heat stress’
Project supervisors: Isabel Baurle & Simon Altmann

Bursary students who worked at John Innes this year and students from previous years were also involved in a long-running project which has now been published:
http://www.nuffieldfoundation.org/news/bursary-students-bumblebee-discovery

Roslin Institute:
‘Comparison of Sonic Hedgehog Expression in Chicken Breeds with Abnormal Limb’
Project supervisor: Dr Megan Davey

‘The Loss of the RIG-I gene During the Evolution of Avian Species: a Key Gene in the Detection of Viral Infections’
Project supervisor: Professor David Burt

Rothamsted Research
‘Investigation into Inducing a Stem-thickening Cell Multiplication Stress Response in Plants’
Project Supervisor: Julian Franklin

‘Characterisation of Insect Odorant-binding Proteins’
Project Supervisor: Dr Jing-Jang Zhou

‘Testing Agricultural Nets’
Project Supervisor: Graham Moores

Projects in Universities
In addition to the above placements in Research Institutes, 48 students also worked alongside researchers funded through BBSRC in universities.

Regional Coordinator	Project Provider	Project title	Supervisor
Kent	University of Canterbury	Study of enzymes in biosynthesis	Martin Warren
Kent	University of Canterbury	Molecular biology & genetics	Ilectra Adam
Kent	University of Kent	Molecular biology & genetics	Ilectra Adam
Kent	University of Kent	Study of yeast prion inheritence	Prof Mick Tuite
Cambs, Essex, Suffolk	Dept of Physiology, Development & Neuroscience, University of Cambridge	Studying the embryonic development of tooth-like scales(dermal denticles)that form the skin of sharks	Dr Andrew Gillis
Cambs, Essex, Suffolk	Dept of Plant Sciences, University of Cambridge	Explore various aspects of seed germination in the plant Arabidopsis	Jonathan Forster
Cambs, Essex, Suffolk	Department of Genetics, University of Cambridge,	Analysis of patterns of protein expression in embryonic stem cells	Dr Alfonson Martinez Arias
Lincolnshire	University of Nottingham	Cloning genes for pollen development Arabidopsis	Dr Zoe Wilson
Lincolnshire	University of Nottingham	Development of invertebrate host system to toxin release by bacteria	Dr Steve Diggle
Northern Ireland	School of Biological Sciences The Queen's University Belfast	Biochemistry of Proteins and Enzymes	Dr. David J Timson
Northern Ireland	Queen's University Belfast Centre for Vision & Vascular Science	Biomedical Science - How genes regulate	David Simpson
Northern Ireland	School of Biological Sciences The Queen's University Belfast	Drugs for the treatment of type 2 diabetes	Dr. Brian Green
Northern Ireland	School of Biological Sciences The Queen's University Belfast	Membrane protein structural biology / biochemistry	Dr. Christopher Law
Oxford	University of Oxford, Depatment of Zoology	Hox genes in silk moths.	Prof. Peter Holland
Surrey	University of London, Silwood Park	Faecal deposit response of Harlequin Ladybirds	Dr Simon Leather
Sussex	University of Brighton	Analytical detection of neurotransmitters	Dr Bhavik Patel
Sussex	University of Brighton	Induction of senescence by ceramide in human vascular smooth muscle cells	Prof Richard Faragher
Merseyside	School of Biological Sciences, The University of Liverpool	Design and Validation of Human-Specific Primers fro the Amplificaiton of the Following Genes expressed in Human Kidney Stem Cells: CD133, Nanog, Oct4	Dr Patricia Murray

Merseyside	School of Biological Sciences, The University of Liverpool	Mycorrhizal associations in grasses	Dr James Hartwell
Merseyside	School of Biological Sciences, The University of Liverpool	Design and validation of sepcies-specific primers for the amplification of the following genes expressed in renal distal tubes/collecting ducts: uromodulin, calbindin, aquaporin 2.	Dr Patricia Murray
Merseyside	The University of Liverpool, School of Biomedical Sciences	The role of the microenvironment in cancer progression to study how cells interact with each other	Professor Andrea Varro
Merseyside	The School of Biological Sciences, Bangor University	Sampling and Analysis of Single Plant Cells	Professor Deri Tomos
Merseyside	The University of Liverpool, School of Biomedical Sciences	Design and Validation of Human-Specific Primers fro the Amplificaiton of Genes expressed in Proximal Tubule Cells	Dr Patricia Murray
Merseyside	School of Biological Sciences, The University of Liverpool	Design and Validation of human specific primers for the Amplification of Wt1, GDNF and Six2 Genes expressed in the Metanephric Mesenchyme	Dr Patricia Murray
Merseyside	School of Biological Sciences, The University of Liverpool	Investigation into the Mechanisms of Imatinib Resistance in Chronic Myeloid Lieukemia	Professor Steven Edwards
Merseyside	School of Biological Sciences, The University of Liverpool	Design and Valildate Human-Specific Primers for the Amplification of Genes Expressed in Metanephric Mesenchyme	Dr Patricia Murray
Merseyside	School of Biological Sciences, The University of Liverpool	Design and Valildation of Human Specific Primers for the Amplification of Genes Expressed in Podocytes	Dr Patricia Murray
Merseyside	School of Biological Sciences, The University of Liverpool	Investigating the Role of Kinases in Cell Migration	Neville Cobbe
Merseyside	School of Biological Sciences, The University of Liverpool	Investigating the Role of Phosphatases in Cell Migration	Neville Cobbe
Manchester	University of Manchester	Biomedical Image Analysis	Alexandra Morgan
Manchester	University of Manchester	Analysis of Phosphorylation-mediated control of alpha-helix spectrum	Dr J Warwicker
Scotland	University of Glasgow, Faculty of Medicine Research	D6 Expression and Function in Rheumatoid Athritis	Professor Gerard Graham
Scotland	Royal Botanic Gardens,	Does Ecophysiological Traits	Dr Catherine

	The Herbarium	Vary Between Two Central American Begonia Species?	Kidner
Scotland	University of Dundee, School of Life Sciences	Understanding Hydrogen Metabolism in Bacteria	Professor Frank Sargent
Scotland	University of Glasgow, Glasgow Biomedical Research Centre	Investigating Oral Pathogens to Improve Oral Health	Professor Paul Garside
Scotland	University of Aberdeen, Department of Molecular & Cell Biology	Osmotic Stress Causes G1 Cell Cycle Arrest in Candida albicans	Professor Al Brown
Scotland	University of Glasgow, Glasgow Biomedical Research Centre	The Effect of Micro-Grooved Topographies on the Growth of MG-63 Cells	Dr Mathew Dalby
Scotland	University of Glasgow, Glasgow Biomedical Research Centre	Investigating the Interaction Between the Signal Recognition Particle and a Membrane Insertase in Escherichia Coli	Dr Cheryl Woolhead
Scotland	University of Glasgow, Faculty of Veterinary Medicine	The Role of MHC in Resistance to Nematode Infection in Scottish Blackface Sheep	Professor Mike Stear
Scotland	University of Aberdeen, Department of Molecular & Cell Biology	Impact of Growth Temperature of Stress Sensitivity in Candida albicans	Professor Al Brown
Yorkshire & Humberside	Sheffield Hallam University	Subcellular protein targeting, including the localisation of proteins to chloroplasts	Dr Nicola Woodroofe/Dr Ben Abell
West Midlands	University of Birmingham	Reducing the Environmental Impact of Industrial Cleaning	Dr P T Robbins
Hertfordshire	Open University	An investigation into the role of the gene dpld in the immune response of drosophila melanogaster	Robert Saunders
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Hampshire	University of Surrey	Research into Pulmonary Tuberculosis	Dr Audrzej Kierzek
Hampshire	University of Portsmouth	The Function of Histone H/X in Early Development	Professor Matt Guille
Oldham	University of Manchester	Neuroscience	Dr. M Canal
Oldham	University of Manchester	Genomics	Dr. Bergman