Nuffield Foundation

Nuffield Foundation Science Bursaries for Schools and Colleges
Appendix to the Annual report for the 2012 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 2012 programme, it is possible to identify 16 students who carried out projects in BBSRC sponsored Research Institutes as follows:

Agri-Food & Biosciences		1 student
John Innes Centre		9 students
Rothamsted Research		2 students
The Babraham Institute		3 students
The Roslin Institute		1 students
	TOTAL	**16 students**

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

	Project provider	**Project supervisor**	**Project title**
1	Agri-Food & Biosciences	Dr Michael Welsh	Characterisation of a Fish Alphavirus
2	John Innes Centre	Clare Lister/ Judith Irwin	How do plants know when to flower?
3	John Innes Centre	Ellis O'Neill/Matilde Aguilar-Moncayo	Discovering molecules involved in iron uptake by green algae
4	John Innes Centre	Ian Bedford/ Anna Jordan	Is aphid fecundity hereditary
5	John Innes Centre	Ian Bedford/Enrico Coen	Exploring ways to record bumblebee visits to different types of snapdragon flower
6	John Innes Centre	Kamil Witek/ Sebastian Schornak	Assessing late blight resistance in wild nightshades
7	John Innes Centre	Keith Saunders/ George Lomonossoff	Growing modified plant viruses
8	John Innes Centre	Prof Max Bush/ Robert Sablowski	Patterns of cell division in the Arabidopsis shoot meristem
9	John Innes Centre	Paul O'Maille	Engineering plant enzymes to make new natural products
10	John Innes Centre	William Heard/ Alex Jones	Uncovering and visualising protein interaction networks
11	Rothamsted Research	Julian Franklin	Evaluating the use of LED lighting for greenhouse usage as a replacement for SONT lighting
12	Rothamsted Research	Lesley Smart	Is the bird Cherry-oat aphid's preference for wheat varieties influenced by plant odours
13	The Babraham Institute	Dr John Pascall	Lymphocyte Signalling and Development
14	The Babraham Institute	Dr Jon Houseley	Creating and Auxotrophic marker for S. Cerevisiae Work
15	The Babraham Institute	Dr Simon Rudge	Identification of autotoxin binding proteins using SDS-Page, Western blotting …
16	The Roslin Institute	Dr Megan Davey	The development of multi-ciliated cells in chicken embryos

Projects in Universities

In addition to the above placements in Research Institutes, 83 students also worked alongside 68 researchers funded through BBSRC in universities.

	Project Provider	Regional Coordinator	Project title	Supervisor
1	Aintree University Hospital	Merseyside	Cytokine regulation of neutrophil function	R J Moots
2	Birkbeck University	London	Mould On Bones	Jane Nicklin
3	Cardiff University	Wales	Microbiology, Molecular biology, biochemistry	Anthony Lai
4	Cardiff University	Wales	Microbiology, Molecular biology, biochemistry	Anthony Lai
5	Cardiff University, School of Biosciences	Wales	Involvement of cartilage in osteoarthritis (biomed, biochem, mol bio)	Bruce Caterson
6	Cardiff University, School of Biosciences	Wales	Involvement of cartilage in osteoarthritis (biomed, biochem, mol bio)	Clare Hughes
7	Cardiff University, School of Biosciences	Wales	Relative gill size and structure in river invertebrates (biology/ecology)	Steve Ormerod
8	Cardiff University, School of Biosciences	Wales	STEM cells and connective tissue Biology	Charles Archer
9	Imperial College	London	Bacterial Transcription	Nan Zhang
10	Kings College London	Surrey	Developmental cell biology	Jeremy Green
11	Kings College London	Surrey	muscle biology	Robert Knight
12	Kings College London	London	Small molecular inhibitors for glycosyltransferases: manipulating Natures glycosylation machinery	Gerd Wagner
13	Leeds University	Yorkshire & Humberside	The efficiency of Millets to take up of Phosphorus with reference to drought resistance.	Alison Baker/Dr Ceasar
14	Medway School of Pharmacy	Kent	Molecularly Printed Polymers	M Keating
15	Newcastle University: Civil engineering and geosciences	North East	Green Potential of Urban Environments	Elisa Lopez-Capel/ Carla-Leanne Washbourne
16	Newcastle University: Civil engineering and geosciences	North East	Carbon Capture in Urban Environments	Elisa Lopez-Capel/ Carla-Leanne Washbourne
17	Newcastle University: Dept. of Chemistry	North East	DNA Chemistry	Eimer Tuite
18	Oxford Brookes University	Oxfordshire	Movement science	Helen Dawes
19	Oxford Brookes University	Oxfordshire	Movement science	Helen Dawes
20	Oxford University	Oxfordshire	To build a simple 'SpikerBox' amplifier, which will enable them to record electrical activity in brain tissue	Ed Mann
21	Plymouth University, Institute Biomedical & Clinical Science	Devon	The effect of fatty acids on neuronal form and function	John Chilton
22	Peninsula Medical School, Institute Biomedical & Clinical Science	Devon	Understanding the role of transcription factors in insulin secreting cells	Noel Morgan

23	Reading University	Surrey	Investigating changes in kale yields	Carol Wagstaff
24	Reading University	Surrey	Investigating changes in kale yields	Carol Wagstaff
25	Royal Veterinary College	Manchester	Analysing Gaits in Mice with an eye towards Neuroscience & Neurology	Andrew Spence
26	Southampton University	Hampshire	Development of biocompatible polymers for ocular application	M Grossel
27	Surrey University	Surrey	Effects of exercise on visceral fat	Fariba Shojaee-Moradie
28	Surrey University	Surrey	Vit D Dietary investigation	Laura Tripkovic
29	Surrey University	Surrey	PCOS dietary project	Laura Tripkovic
30	The Royal Veterinary College	London	Tendon Disease in Horses	Jay Dudhia
31	University College London	London	Researching blind cavefish evolution	Yoshiyuki Yamamoto
32	University College London	London	Investigation of the antimicrobial properties of synthetic isoquinoline alkaloids	John Ward
33	University of Aberdeen	Scotland	University of Aberdeen, The genetic and environmental factors underlying clubfoot	Martin Collinson
34	University of Bath	South West	*tbc*	Giordano Pula
35	University of Birmingham	West Midlands	Aim will be to purify the Protein-Protein Interactions of the Tollip Protein	Michael Overduin
36	University of Brighton	Sussex	Composite electrochemical sensors for bioanalysis	Bhavik Patel
37	University of Bristol	South West	Understanding the development of hearing	Helen Kennedy
38	University of Bristol	South West	Protein analysis with NMR spectra	Matthew Crump
39	University of Bristol	South West	Manufacture and testing of polymer composites for aerospace structures	Sameer S Rahatekar
40	University of Bristol, Dept of Clinical Veterinary sciences	Merseyside	'Bone Mineral Density and Biomechanical Relationships Between the Keel, Humerus and Tibia in Free-Range Laying Hens'	Michael Toscano
41	University of Cambridge, McDonald Institute for Archaeological Research	East Anglia	Plant Evolutionary Biology	Harriet Hunt
42	University of Edinburgh and NHS Lothian	Scotland	Input of different cell types to synthesis of extracellular matrix proteins in breast cancer	Mike Dixon
43	University of Exeter	Devon	Purification of enzymes & their properties	Jenny Littlechild
44	University of Exeter	Devon	Nano Particulate glycoconjugate vaccines	Richard Titball
45	University of Exeter, Centre for Ecology & Conservation	Cornwall	Is sexual selection adaptive?	David Hosken
46	University of Exeter, College of Engineering, Mathematics and Physical Sciences	Cornwall	Modelling population dynamics - from experiments to equations". (a) Explore simple population models based on contest and scramble. This involves applying different rules to generate time-	Stuart Townley

			series for population data (b) Develop concepts and models for the p	
47	University of Exeter, College of Engineering, Mathematics and Physical Sciences	Cornwall	"Signal processing - from musical instruments to marine acoustics and beyond"	Stuart Townley
48	University of Glasgow	Scotland	Characterisation of catalyst preparation	David Jackson
49	University of Glasgow	Scotland	Dehydrogenation of 1-penten-3-ol over silver and copper catalysts	David Jackson
50	University of Glasgow	Scotland	Protein crystallography	Adrian Lapthorn
51	University of Glasgow	Scotland	Colligative property measurement – the development of an undergraduate practical experiment	Beth Paschke
52	University of Glasgow	Scotland	Monitoring Bacterial Protein Targeting using Green Fluorescent Protein	Cheryl Woolhead
53	University of Glasgow	Scotland	Monitoring Bacterial Protein Targeting using Green Fluorescent Protein	Cheryl Woolhead
54	University of Glasgow	Scotland	Cell response to micro/nanostructured surfaces	Matthew Dalby
55	University of Glasgow	Scotland	Cell response to micro/nanostructured surfaces	Matthew Dalby
56	University of Liverpool	Merseyside	Assessing the role of the Plant Nuclear Complex in the growth response to abiotic stress	Geraint Parry
57	University of Liverpool, Institute of Integrative Biology	Merseyside	Assessing the role of the plant nuclear pore complex in the growth response to abiotic stress	Geraint Parry
58	University of Liverpool, Biosciences Building	Merseyside	'Imatinib sensitive and resistant Chronic Myeloid Leukaemia cell lines	S.W. Edwards
59	University of Liverpool, Institute of Infection & Global Health	Merseyside	Disease & Climate	Matthew Baylis
60	University of Liverpool, National Centre for Zoonosis Research,	Merseyside	the recovery and variation in staphylcococcal species in dogs, comparing nasal, perineum and gum sites.	Nicola Williams
61	University of London, Royal Holloway	Surrey	*tbc*	Laszlo Bogre
62	University of Manchester, Faculty of Life Sciences	Manchester	Muscle loss in shoulder injury	Anthony Freemont
63	University of Manchester, Faculty of Life Sciences	Manchester	Fracture Risk and Bone Loss	Anthony Freemont
64	University of Manchester, School of Medicine	Manchester	Chemical reactions occurring in skin when ultraviolet radiation from sunlight contacts it.	C O'Neill
65	University of Manchester, Faculty of Life Sciences	Manchester	Mammalian Tollopids and their role in extra-cellular matrix assembly	Chris Bayley
66	University of Manchester, Faculty of Life Sciences	Manchester	Recombinant, full-lengthPg1B1 protein in E.coli	Dennis Linton
67	University of Manchester, Faculty of Life Sciences	Manchester	Recombinant full-lengthPglB1 protein in E-coli	Dennis Linton
68	University of Manchester,	Manchester	Proactive peptide materials	David Berrisford

	School of Chemistry			
69	University of Manchester, Faculty of Life Sciences	Manchester	Microbiology: gene cloning. Study of Pathogens	Ian Roberts
70	University of Manchester, Faculty of Life Sciences	Manchester	Food-born Salmonella infections	Jen Cavet
71	University of Manchester, School of Chemistry	Manchester	Extraction of the Alkaloid Cytisine from the seeds of the Laburnum Tree	Jonathan Clayden
72	University of Manchester, Dalton Cumbrian Facility	Manchester	Behaviour of Charged Particles in Materials	Kevin Warren
73	University of Manchester, Outstation	Manchester	Control of Autonomous	Kevin Warren
74	University of Manchester, Dalton Cumbrian Facility	Manchester	Behaviour of Irradiated polymer systems	Kevin Warren
75	University of Manchester, Faculty of Life Sciences	Manchester	Neurobiology	Maria Canal
76	University of Manchester, School of Physics & Astronomy	Manchester	Photon Physics	Mark Dickinson
77	University of Manchester, Faculty of Medical & Human Sciences	Manchester	Molecular Genetics	Mike Dixon
78	University of Manchester, Faculty of Life Sciences	Manchester	Plant science: Connection between cell wall structure, nutrient sensing and root architecture	Thomas Nuhse
79	University of St Andrews	Scotland	The CRISPR system for prokaryotic antiviral defence	Malcolm White
80	University of Strathclyde	Scotland	Characterising discharge capillary waveguides for laser-plasma experiments	Dino Jarozynski
81	University of Strathclyde	Scotland	Relativistic electron beam generation in a laser wakefield accelerator	Dino Jarozynski
82	York Life sciences	Yorkshire & Humberside	Prostate Cancer Studies	Maitland/ Michelle Scaife
83	York University Biology	Yorkshire & Humberside	Cell and Molecular Biology. Immunohistochemistry to investigate antibodies to assess the expression of proteins within tissues.	J Southgate/Dr Amy Glover