

# SCRI Research Programme

ongoing as at 1 October 2010

The research programme is commissioned by RERAD (Scottish Government: Rural and Environment Research and Analysis Directorate) and a variety of other funders. The list contains the body that awarded the grant and the title of the project and, in the case of RERAD, the commissioning number.

## RERAD Core – Programme 1

Workpackage 1.1	Barley Genetics
Workpackage 1.2	Potato Genetics
Workpackage 1.3	Soft Fruit Genetics & Pathology
Workpackage 1.4	Barley Pathology
Workpackage 1.5	Potato Pathology
Workpackage 1.7	Sustainable Crop Systems

## RERAD Contract Research Funding

SCR/850/10	Support for additional knowledge exchange activities: Phase 2.
SCR/918/07	Genomics-assisted dissection of barley morphology and development.
SCR/919/07	<i>Dickeya dianthicola</i> – a threat to Scottish seed potatoes.
SCR/921/09	Cell wall lignin programme: Manipulating lignin to improve biofuel conversion of plant biomass.
SCR/925/09	Study the epidemiology of <i>Phytophthora ramorum</i> and <i>Phytophthora kernoviae</i> in managed gardens and heathland in Scotland.
SCR/926/09	Functional characterisation of novel pathogenicity genes of the parasitic nematode <i>Globodera pallida</i> .
BSS/038/10	Integrating the use of climate impact projections in the MRPs.
BSS/845/06	Epidemiology, population, health and infectious disease control.
BSS/850/10	Support for additional knowledge exchange activities: Phase 2.

## External research contracts

Aviagen Ltd	Development of software package for the semi-automatic tracing of longitudinal cross-sections of poultry breast images.
BASF plc	Impact of fungicidal treatments on quality blackcurrant fruit and identification of active ingredients.
Bayer Crop Science	Comparison of fungicide treatments and spray programmes for crop safety and disease control in raspberries 2010.
Biotechnology and Biological Sciences Research Council (CSI)	Exploiting the <i>Phytophthora infestans</i> genome to identify gene targets for sustainable potato protection.
BBSRC (via University of Dundee)	LoLa: What are the roles of oomycete RXLR effectors in the establishment of plant disease?
BBSRC (via University of Birmingham)	LoLa: Meiosis in barley: Manipulating crossover frequency and distribution.



Bioforsk	Plant metabolites for healthy plants and healthy people.
British Council	British–Italian Partnership Programme 2009–10: Identifying quality–structure relationships for lipase inhibition amongst the natural variation of ellagitannins from <i>Rubus</i> species.
British Ecological Society	Climate change in the underworld: how elevated CO <sub>2</sub> affects root–herbivore interactions.
Carnegie Trust	Trophic cascades in a changing climate: The impact of elevated CO <sub>2</sub> on above- and below-ground interactions.
Commercial	Brassica breeding.
Commercial	Soft fruit analysis.
Commercial	Potato breeding.
Commercial	Blackcurrant breeding.
Commercial	Lipid analysis.
Commercial	Barley analysis.
Department for Environment Food and Rural Affairs (Defra)	Development of appropriate variety testing methodology for assessing nitrogen requirements of new varieties in trials undertaken for national listing.
Defra (via Duchy College)	Micropropagation for the conservation of rare species under threat of infection by <i>Phytophthora ramorum</i> and <i>P. kernoviae</i> in the UK.
Defra (via Greenwich University)	Reducing energy usage and wastage by improving ethylene control of potato sprouting.
Defra (via SAC)	Sustainable and effective control of potato blight: Matching fungicide inputs to cultivar resistance level.
Defra (via SAC)	Welfare costs and benefits of existing and novel on-farm culling methods of poultry.
Defra LINK (via ADAS)	TRAMLINES: Practical cost-effective techniques to reduce pollution from tramlines in combinable crops: A field and catchment scale evaluation.
Defra LINK (via East Malling Research)	Developing biocontrol methods and their integration in sustainable pest and disease management in blackcurrant production.
Defra LINK (via SAC)	CORACLE: Control of <i>Ramularia</i> leaf spot in a changing climate.
Defra/RERAD	Integrated pest and disease management for high quality protected raspberry production.
Defra/RERAD LINK	QUOATS: Harnessing new technologies for sustainable oat production and utilisation. (SCR/928/09)
European Union (EU)	EURASNET: European alternative splicing network.
EU	EU-SOL: High quality solanaceous crops for consumers, processors and producers by exploration of natural biodiversity
EU	BIOEXPLOIT: Exploitation of natural plant biodiversity for the pesticide-free production of food.
EU	GENBERRY: European small berries.
EU	SPICY: Smart tools for prediction and improvement of crop yield.
EU	<i>Triticeae</i> Genome: Genomics for <i>Triticeae</i> improvement.
EU	PLAPROVA: Plant production of vaccines.
EU	BrainHealthFood: Bioactive compounds from blackcurrant processing waste for brain health.
EU	Meiosys: Systematic analysis of factors controlling meiotic recombination in higher plants.
EU	NUECrops: Improving nutrient efficiency in major European food, feed and biofuel crops to reduce the negative environmental impact of crop production.

EU	METAPRO: The development of tools and effective strategies for the optimisation of useful secondary metabolite production in plants.
EU	TiMet: Linking the circadian clock to metabolism.
EU	Legume Futures: Legume supported cropping systems for Europe.
EU Interreg IVB	Climafruit: Future proofing the North Sea berry fruit industry in times of climate change.
European Science Foundation	Exploiting genomics to understand plant–nematode interactions.
Home-Grown Cereals Authority (HGCA)	Fungicide performance information for barley growers.
Horticultural Development Council (HDC)	Assessment of plant elicitors to induce resistance against head rot in broccoli.
International Atomic Energy Agency	SCRI barley mutation grids.
Just the Berries Ltd	Blackcurrant spinal blood testing for Parkinson's disease.
Ministerio de Educacion y Ciencia (CICYT) in Spain	Study of the effect of the treatment with methyl jasmonate on the bioformation of chiral volatile compounds in vegetal foods.
Natural Environmental Research Council (via University of Stirling)	Microbial diversity in Antarctic soils.
Norwegian Research Council	Metabolic profiling of <i>Rubus</i> (cloudberry and raspberry): Effect of inheritance and environment on phytochemicals beneficial to human health and the identification of viable targets for nutritional enhancement.
Potato Council Ltd	Independent variety trials.
Potato Council Ltd	GB late blight populations: Monitoring and implications of population changes.
Potato Council Ltd	Informing management of potato diseases through epidemiology and diagnostics.
Potato Council Ltd	Aphids and virus transmission in seed potato crops.
Potato Council Ltd	Review of umami in potato.
Potato Council Ltd	Research to support further development of the PCN model: Understanding interactions in mixed populations and the potential for a second generation of PCN.
RERAD/Agriculture and Horticulture Development Board (AHDB)	A raspberry ( <i>Rubus idaeus</i> ) breeding consortium for the UK. (MRS/008/09)
RERAD/Defra/Potato Council Ltd	Sequencing the 'gene space' of potato chromosome IV, comparative analysis with tomato and development of a gene-based mapping platform. (SCR/920/08)
RERAD/Defra LINK (via John Innes Centre)	INSPYR: Integrated strategy to prevent mycotoxin risks.
RERAD/GSK (HortLink)	Development of high profile germplasm for UK production of blueberries. (MRS/007/09)
RERAD/HDC (HortLink)	Developing breeding and selection tools to reduce spoilage of soft fruits and wastage in the supply chain. (SCR/924/09)
RERAD/Rothamsted International LINK	Producing low acrylamide risk potatoes. (SCR/923/09)
RERAD (via SAC)	Research towards an integrated measurement of meat eating quality.
Royal Society	A novel caspase-like protease for plant programmed cell death (PCD).



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Royal Society of Edinburgh/ Scottish Government/Marie Curie Actions 2010	Personal Research Fellowship – Dr Jorunn Bos.
Scottish Agricultural College (SAC)	Study to assess the subjective experience, including pain, of broiler chickens with different gait scores.
Scottish Agricultural College	Strategies for the eradication of bovine tuberculosis.
Scottish Agricultural College	Early environment effects on welfare, health and productivity.
Scottish Agricultural College	Novel approaches for the management of cabbage root fly.
Scottish Agricultural College	WildTech: Novel technologies for surveillance of emerging and re-emerging infections of wildlife.
Scottish Government	Malawi Development Fund: Strengthening potato development.
Scottish Funding Council	Scottish Bioinformatics Research Network (SBRN) maximising bioinformatics infrastructure for Scottish health, agriculture and industry.
Technology Strategy Board	Breeding for physical resistance traits – protecting soft fruit crops from pests and pathogens.
Technology Strategy Board	MIDRIB: Molecular improvement of disease resistance in barley.
Technology Strategy Board	SIBLINGS: Symptomless infection of barley–resistance breeding and integrated crop protection strategies.
Tio Ltd & Innovation Portal	Shelf life extension in carrots.
Universidade de Evora, Portugal	Genomic analysis of bacteria associated with pinewood nematode infection.
University of Aarhus, Denmark	Ultrastructural analysis of rhizobial endocytosis in the model legume <i>Medicago truncatula</i> .
University of Ghent, Belgium	EUMAINE: European Master of Science in Nematology.