

# SCRI Research Programme

ongoing as at 1 October 2006

The research programme is commissioned by SEERAD and a variety of other funders. The list contains the body that awarded this grant and the title of the project and, in the case of SEERAD, the commissioning number.

## SEERAD 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

## SEERAD Flexible Fund

SCR/589/02	Novel methodologies and tools for the analysis of germplasm collections.
SCR/842/02	Elucidation of regulatory and signalling networks that control bacterial disease development.
SCR/906/03	Factors affecting the prevalence of clones of <i>Myzus persicae</i> in Scotland, particularly those with aphicide resistance, and implications for virus control in seed potatoes.
SCR/907/03	Viral-based functional genomics of the Golgi apparatus.
SCR/908/03	Post-genomic analysis of <i>Erwinia carotovora</i> virulence responses in <i>in vitro</i> and <i>in planta</i> environments.
SCR/909/04	Function of the exon junction complex in the plant nucleolus.
SCR/910/04	The genetics of gene expression in barley.
SCR/913/05	Characterisation and development of gene silencing in <i>Phytophthora infestans</i> for high-throughput determination of gene function.
SCR/915/06	Limiting the risk from <i>Phytophthora idaei</i> to the Scottish raspberry industry.
SCR/917/06	A review of the health benefits of oats.
BSS/842/04	Elucidation of regulatory and signalling networks that control bacterial disease development.
BSS/843/04	Control of pulmonary adenocarcinoma (jaagsiekte) in the Scottish sheep flock.
BSS/845/06	Epidemiology, population, health and infectious disease control.
BSS/035/06	Design of a sampling strategy for a survey to estimate the population density and distribution of badgers in Scotland.

## External research contracts

BBSRC	Visualisation and modelling of plant morphogenesis: a dynamic toolkit for cell expression and fluorescent cell reporters in roots.
BBSRC	Visualisation and analysis of biological sequences, alignments and structures.
BBSRC	Targeted induced mutation discovery in barley.
BBSRC LINK	Association genetics of UK elite barley.
BBSRC LINK	Role of inoculum sources in <i>Rhynchosporium</i> population dynamics and epidemics on barley.
BBSRC LINK	Testing trophic-functional relationships for modelling farmland diversity and functional dynamics.
BBSRC/University of Abertay	Plant root and microbial influence on soil water relations and structural stability.
British Council ARC Programme	A physically based understanding of crack genesis in soil and the impact of land management and biological processes.
British Potato Council	Developing effective integrated control measures for the control of black dot.
British Potato Council	Improving decision-making for the management of potato disease using real-time predictive diagnostics.
British Potato Council	Independent variety trials.
British Potato Council	Survey of GB blight populations.
British Potato Council	<i>Erwinia chrysanthemi</i> – the facts.
Carnegie Trust/British Ecological Society	New Zealand collaboration.
Commercial	Brassica breeding.
Commercial	Potato breeding.
Commercial	Molecular pathology.
Commercial	Blackcurrant breeding.
Commercial	Lipid analysis.
Commercial	Quality traits in fruit.
Commercial	Dormancy studies in potato.
Defra	Factors affecting cross-pollination in maize and oilseed rape crops growing under typical UK conditions.
Defra	Crop physiology.
Defra/HGCA	GREENGRAIN: Genetic reduction of energy use and emissions of nitrogen in cereal production (LINK).
Defra/SEERAD	Molecular breeding for root-rot resistant raspberries suitable for low input growing systems (HortLINK).
Defra/SEERAD	Integrated pest and disease management for high quality protected raspberry production.
EPSRC	Novel approaches to networks of interacting autonomes.
EPSRC/University of Dundee	A functional geotechnical study of how plant roots increase slope stability.
EU	ECOGEN: Soil ecological and economic evaluation of genetically modified crops.
EU	TREESNIPS: Developing single nucleotide polymorphism (SNP) markers for adaptive variation in forest trees.
EU	MABDE: Mapping adaptation of barley to drought environments.



EU	APOPHYS: Developing a physical and functional map of potato: creating new sources for molecular markers to breed cultivars with multiple resistance and quality traits.
EU	NOFORISK: Quantitative risk assessment strategies for novel foods.
EU	ALARM project.
EU	SIGMEA: Sustainable introduction of GM crops into European agriculture.
EU	SAFEFOODS: Promoting food safety through a new integrated risk analysis approach for foods.
EU	BIOEXPLOIT: Exploitation of natural plant biodiversity for the pesticide-free production of food.
EU	Improving seed quality in cereals by manipulating gene expression and partitioning.
EU	EURASNET: European alternative splicing network.
EU	EU-SOL: High quality solanaceous crops for consumers, processors and producers by exploration of natural biodiversity.
EU Marie Curie	Training site in plant virology.
EU Marie Curie	GENFUNDIV: Linking the genetic and functional diversity patterns of arbuscular mycorrhizal fungal communities in disturbed and undisturbed environments.
EU Marie Curie	Optimising the efficacy of phosphatase in the rhizosphere, increasing the sustainability of agricultural crops.
European Science Foundation	Exploiting genomics to understand plant–nematode interactions.
Food Standards Agency	Development of unified data models and data pre-processing strategies and the generation of meaningful, standardised statistical analyses of metabolome variability in crop plants.
HDC/SEERAD/Commercial	The breeding and commercial development of new raspberry varieties.
International Potato Center (CIP)	A saturated potato mutant population for functional genomics among Solanaceae and tuber crops.
MacRobert Trust	Biodiversity in Tayside.
Royal Society	Fundamental biophysical processes in the restoration of severely degraded soil by vegetation.
Royal Society	Involvement of the nucleolus in plant virus systemic infection.
Royal Society	Molecular basis of pathogenicity in the pine nematode <i>Bursaphelenchus xylophilus</i> .
Royal Society	Characterisation of plant genes that confer disease resistance to oomycetes.
Scottish Enterprise Tayside	Commercialisation award.
SEERAD Biodiversity Action Grants	The Living Field Study Centre.
SEERAD/BBSRC/GSK/HDC	Development of the physiological, agronomical and genetic tools for increasing L-ascorbic acid yield from blackcurrant bushes (HortLINK).
SEERAD/BPC/Commercial	Understanding and improving flavour characteristics of potato (LINK).
SEERAD/HDC	Developing a marker-assisted breeding toolkit for premium sensory characters in raspberries.
SHEFC	Scottish Bioinformatics Research Network (SBRN) maximising bioinformatics infrastructure for Scottish Health, Agriculture and Industry.