

SCRI Research Programme

2003-2004

SEERAD funded research programme showing: Commissioning number; Title; Scientific Project Leader. In addition to this list, there are research projects undertaken on behalf of various bodies, including other governmental bodies, commerce and levy boards.

Core funded programme

SCR/538/00	Optimising production and biodiversity of arable plants and invertebrates at patch and landscape scales. I. Arable plants	Squire G
SCR/540/00	Genetics of cultivated potatoes	Bradshaw J E
SCR/541/00	Genetic approaches to evaluation and utilisation of soft fruit germplasm	Brennan R
SCR/545/00	Detection, diversity and epidemiology of important viruses and their vectors in berryfruit crops and strategies for their effective control	Jones A T
SCR/557/01	Targeted long-distance transport of macromolecules in plants	Oparka K
SCR/558/01	Resistance to potato viruses: exploitation of host gene resistance and transgenic resistance to study resistance mechanisms and to develop resistant germplasm	Barker H
SCR/559/01	Molecular biology of potato leafroll virus: aphid transmission and the establishment of infection in host plants	Barker H
SCR/560/01	Molecular bases of resistance and susceptibility in potato and barley	Birch P R J
SCR/561/01	Molecular bases of pathogenicity in potato cyst nematodes, <i>Xiphinema index</i> and <i>Phytophthora infestans</i>	Jones J
SCR/562/01	Genetics of seedling root traits in barley	Forster B
SCR/563/01	Conservation and utilisation of the Commonwealth Potato Collection	Mackay G R
SCR/564/01	A gene map of the interval between GP21 and GP179 on potato linkage group V	Bryan G
SCR/565/01	Identification and characterisation of bacterial artificial chromosome (BAC) clones from gene rich regions of the barley genome	Waugh R
SCR/566/01	Produce and maintain pathogen-tested stocks of Rubus, Ribes and Fragaria germplasm and index for infection material imported into SCRI	Jones A T
SCR/571/01	Ecological management and biotechnology	Squire G
SCR/572/01	Computational biology	Marshall D F
SCR/573/01	Functional analysis of novel genes from potato and barley	Lacomme C
SCR/574/01	Development and application of metabolic profiling technologies to enhance the understanding of metabolic and developmental processes in plants	Deighton N
SCR/575/01	Enhancing food quality and nutritional value through multidisciplinary approaches which exploit genetic and molecular diversity	Taylor M
SCR/576/01	Sequence diversity and horizontal genomics (targeted gene discovery)	Waugh R
SCR/577/01	Molecular plant diversity and germplasm resources	Waugh R
SCR/578/01	Parallel gene expression technologies supporting the discovery of plant and pathogen genes important to agriculture and biotechnology	Machray G C
SCR/580/02	Suppression of gene silencing by virus proteins	MacFarlane S

SCR/581/02	Cell and tissue engineering in barley and potato	Machray G C
SCR/583/02	Variation in pathogenicity in <i>Globodera</i> spp. in relation to host resistance	Phillips M S
SCR/584/02	Approaches to regulate the L-ascorbic acid content of commercially important plants	Viola R
SCR/585/02	Genetics of cultivated diploid potatoes	Bradshaw J E
SCR/586/02	Cell-to-cell trafficking of macromolecules in plants	Oparka K J
SCR/587/02	Optimising production and biodiversity of arable plants and invertebrates at patch and landscape scales. II. Invertebrates	Fenton B
SCR/590/03	Developing physiologically based models linking genetic variation among individuals to the sustainability of biodiversity at the scale of the community	Marshall B
SCR/591/03	Understanding the role and function of virus proteins in the establishment of systemic infection	Torrance L
SCR/592/03	Exploitation of barley mutant populations	Waugh R
SCR/593/03	Defining stability of host-pathogen dynamics of fungal leaf blights in heterogeneous barley and other graminaceous canopy structures	Newton A C
SCR/594/03	Biophysical and physiological interactions at the root-soil interface	Bengough A G
SCR/595/03	Interpretation and application of indicators of ecosystem sustainability	Griffiths B
SCR/596/03	Molecular mechanisms in alternative splicing	Simpson C
SCR/597/03	Population biology, molecular evolution and epidemiology of potato late blight (<i>Phytophthora infestans</i>)	Cooke D
SCR/598/03	An integrated and quantitative approach to the exploitation of sequence data from plant genomes	Marshall D
SCR/599/03	The bioavailability and bioefficiency of soft fruit antioxidants	Stewart D
SCR/600/03	Exploration and exploitation of phytochemical diversity in the Commonwealth Potato Collection through metabolite profiling	Davies H V
SCR/601/03	Characterisation of novel genes from the <i>Erwinia carotovora</i> subsp. <i>atroseptica</i> genome sequence and their effects on corresponding genes in potato	Toth I
SCR/602/03	Nuclear dynamics and small novel RNAs in the regulation of plant gene expression	Brown J W S
SCR/603/03	Gene based marker development for exploitation in barley	Russell J
SCR/604/03	Quantifying the role of environmental perturbation and plant genotypes in creating resilient and sustainable agroecosystems	Hallet P
SCR/605/03	Interpretation of microbial functional interactions in the carbon and nitrogen cycles for the effective management of sustainable arable ecosystems	Wheatley R
SCR/606/03	Connecting barley genotype to phenotype with focus on grain quality traits	Thomas W T B
Flexible funded programme		
SCR/516/97	Genetic mapping and molecular cloning of novel sources of resistance to <i>Globodera pallida</i>	Waugh R
SCR/522/98	Development of Rubus genotypes with transgenic resistance to raspberry bushy dwarf virus	Jones A T
SCR/555/00	Cereal transcriptome resources	Waugh R

SCR/556/00	Comparison of the molecular bases of pathogenicity in the model oomycetes <i>Peronospora parasitica</i> and <i>Phytophthora infestans</i> through a genomics approach	Birch P R J
SCR/568/00	Significance and mechanisms of landscape-scale gene flow	Ramsay G
SCR/569/00	Phytophthora diseases of soft fruit: determining their prevalence and the source of new outbreaks in Scotland	Duncan J M
SCR/570/00	Mechanical properties of primary cell walls by micro-stretching <i>in vivo</i>	Bengough A G
SCR/579/01	Development of robust, broad based QTL maps to improve barley breeding	Thomas W T B
SCR/582/01	Cloning of avirulence genes from the oomycete plant pathogens <i>Peronospora parasitica</i> and <i>Phytophthora infestans</i>	Birch P R J
SCR/589/02	Novel methodologies and tools for the analysis of germplasm collections	Marshall D
SCR/808/94	Development of molecular biological and physiological techniques in studies of the interaction between microbes, nutrient cycling and vegetation among a range of agriculturally important pastures, to enable scaling from microcosm to field. Phase 2.	Griffiths B S
SCR/823/97	Significance of physical heterogeneity for scaling of solute chemistry in soils from fine scale to subcatchment	Bengough G
SCR/824/97	Efficacy studies on a plant virus-based expression system and on alternative delivery routes for peptides and proteins with pharmaceutical, therapeutic and related uses for improving animal health, nutrition and welfare	Brown J W S
SCR/832/99	Identification and assessment of nutritional relevance of antioxidant compounds from soft fruit species	Davies H V
SCR/833/00	Microsatellites as population genetic markers	Powell W
SCR/834/01	Assessment of plant germplasm for bioactive molecules	Ramsay G
SCR/835/01	Genomic sequencing and proteomic analyses of the potato pathogen <i>Erwinia carotovora</i> subsp. <i>atroseptica</i> (Eca) and the animal pathogen <i>Chlamydomydia abortus</i> (Ca)	Toth I
SCR/837/01	Biodiversity: taxonomy, genetics and ecology of Sub-arctic willow Scrub	Russell J
SCR/901/02	Soil stability and resilience: the interplay between biological and physical recovery from stress	Griffiths B S
SCR/902/02	Functional characterisation of appressorial infection stage-specific proteins from <i>Phytophthora infestans</i>	Birch P R J
SCR/903/02	A comparative snp based approach to identify and mime genes controlling root traits in the Triticeae	Waugh R
SCR/905/03	Develop a satisfactory detection method for <i>Phytophthora fragariae</i> var. <i>rubi</i> and <i>Phytophthora idaei</i> in high health Rubus mother plant stocks using water eluates from potted plants	Dolan A
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	Fenton B
SCR/907/03	Viral-based functional genomics of the Golgi apparatus	Boevink P
SCR/908/03	Post genomic analysis of <i>Erwinia carotovora</i> virulence responses in <i>in vitro</i> and <i>in planta</i> environments	Toth I