



General Research Project Grants 2001

Grant Holder	Project Title
Bio-materials and Bio-engineering	
Dr Carmel B Breslin Department of Chemistry National University of Ireland, Maynooth	A study on the inclusion of hydroxyapatite particles into electroactive films on orthopaedic implant materials
Cancer Biology and Haematological Diseases	
Dr Judith Harmey Department of Surgery Beaumont Hospital Dublin 9	Novel angiostatic gene therapy for solid tumours
Dr Mark Lawler Department of Haematology St James's Hospital Dublin 8	Gene profiling and functional analysis of adhesion defects and apoptosis resistance in CML; understanding the mechanism of STI571 action in this disease
Dr Aideen Long Department of Biochemistry Royal College of Surgeons in Ireland Dublin 2	Investigation of COX induction and angiogenesis via CD44
Professor Gerald O'Sullivan Cork Cancer Research Centre Mercy Hospital Cork Cork	DNA methylation in micrometastatic stem cells: epigenetic regulation of metastatic tumour spread
Professor H Paul Redmond Department of Surgery Cork University Hospital Cork	Role of endothelial progenitor cells in the tumour angiogenesis
Cardio-Respiratory and Renal Disease	
Dr Orina Belton Department of Clinical Pharmacology Royal College of Surgeons in Ireland Dublin 2	Differential effects of conjugated linoleic acid isomers in cardiovascular disease
Dr Paul Cahill School of Biotechnology Dublin City University Dublin 9	Pulse-pressure induced vascular cell fate: the role of Notch receptor ligand interactions

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Dr Richard Costello Department of Medicine Beaumont Hospital Dublin 9	Eosinophils and nerve interactions in asthma
Professor James Docherty Department of Physiology Royal College of Surgeons in Ireland Dublin 2	Cardiovascular and autonomic actions of MDMA and other amphetamine-like agents involve adrenergic mechanisms
Dr B Therese Kinsella Biochemistry Department University College Dublin Dublin 4	The role of prostacyclin as a regulator of vascular smooth muscle mitogenesis
Professor Noel McElvaney Respiratory Research Division Beaumont Hospital Dublin 9	To examine the control mechanisms of mucin gene expression and its significance in Cystic Fibrosis
Professor Paul McLoughlin Department of Physiology University College Dublin Dublin 2	Somatic gene transfer (eNOS) in chronic lung infection
Dr Gerardene Meade Department of Clinical Pharmacology Royal College of Surgeons in Ireland Dublin 2	Targeting adhesion in thrombosis
Professor Timothy O'Brien Clinical Science Institute University College Hospital, Galway	Modulation of vascular tone and structure via nitric oxide synthase gene transfer
Dr Kay Ohlendieck Department of Pharmacology University College Dublin Dublin 4	Molecular pathogenesis of calcium-regulatory membrane complexes in dystrophic fibres from mdx heart and diaphragm
Dr Caroline Sharkey Department of Clinical Pharmacology Royal College of Surgeons in Ireland Dublin 2	Structural and functional analysis of novel hydroxamic acid inhibitors of prostaglandin H2 synthase
Cardiovascular Disease	
Dr Clare O'Connor Department of Medicine & Therapeutics University College Dublin Dublin 4	Evaluation of the effects of α 1- antichymotrypsin on bacterial killing in Cystic Fibrosis

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Dental and Digestive Sciences	
Dr Deirdre Campion Department of Veterinary Physiology & Biochemistry University College Dublin Dublin 4	Nerve-immune interactions in gut-associated lymphoid tissue
Dr Gary Henehan School of Food Science & Environmental Health Dublin Institute of Technology Dublin 1	Aldehyde metabolising enzymes of Helicobacter Pylori
Mr Tim Holland Department of Preventive and Paediatric Dentistry University Dental School, Cork Co Cork	Prevalence and distribution of dental caries amongst young adults
Professor Fergus Shanahan Department of Medicine Cork University Hospital Cork	Molecular mechanism of probiotic binding to intestinal epithelium
Dr Kieran Sheahan Department of Histopathology St Vincent's University Hospital Dublin 4	Molecular analysis of colorectal cancer: its role in detecting familial cancer and predicting response to chemotherapy
Epidemiology, Health of the Population and Primary Care	
Dr Shane Allwright Department of Community Health & General Practice AMNCH Dublin 24	In-depth study examining the determinants of hepatitis B, hepatitis C and HIV in Irish prisoners
Dr Catherine Woods Centre for Sport Science & Health Dublin City University Dublin 9	The development and validation of an Irish Physical Activity Questionnaire (IPAQ)
Genomics, Proteomics and Human Disease	
Dr Aiden Corvin Department of Psychiatry St James's Hospital Dublin 8	A genetic association study of Schizophrenia and related disorders
Dr Ziarh Hawi Department of Genetics and Psychiatry Trinity College Dublin 2	Structural and functional analysis of Dopamine DRD5 Receptor gene in Attention Deficit Hyperactivity Disorder (ADHD)

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Dr Patricia B Maguire Department of Clinical Pharmacology Royal College of Surgeons in Ireland Dublin 2	To identify novel proteins associated with the GPIb receptor complex in platelets using proteomics
Health Services Research and Practice Based Research	
Dr Kathleen Bennett Department of Therapeutics St James's Hospital Dublin 8	Modelling adherence to medication using a national prescribing database
Dr Patrick Brennan UCD School of Diagnostic Imaging University College Dublin Dublin 4	Image quality standardisation within diagnostic imaging departments
Dr Anna Clarke Department of Public Health Medicine & Epidemiology University College Dublin Dublin 2	Women asylum seekers/refugees delivering in Dublin maternity hospitals and their children: health needs, pregnancy outcomes and satisfaction
Dr Walter Cullen Department of General Practice Coombe Women's Hospital Dublin 8	Initiative to improve management of hepatitis C virus (HCV) among drug users attending general practice
Dr Frances Horgan School of Physiotherapy Royal College of Surgeons in Ireland Dublin 2	Validation of a stroke recovery scale
Dr Breda McLeavey Department of Psychiatry Cork University Hospital Cork	A large-scale parasuicide intervention programme: Evaluation of interpersonal problem-solving training as an alternative treatment approach
Professor Colm O'Morain Department of Medicine AMNCH Dublin 24	Development and evaluation of a screening clinic for family members of patients diagnosed with colorectal cancer
Dr Donal O'Shea School of Biotechnology Dublin City University Dublin 9	Automated grading of ductal carcinoma In Situ
Immunology, Pathology and Mechanisms of Disease	
Dr Paula Catherine Byrne Department of Pathology University College Dublin Dublin 4	Functional analysis of spastin, a novel protein implicated in the degenerative spinal chord disorder, hereditary spastic paraplegia

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Professor Thomas G Cotter Department of Biochemistry University College Cork Cork	Exploring the role of caspases and apoptosis in animal models
Dr Eamon G Kavanagh Departments of Surgery, Medicine and Microbiology University College Cork	The interaction between dendritic cells and regulatory T-cells in the host immune response to bacterial and self-antigens in inflammatory bowel disease
Dr Bernard P Mahon Mucosal Immunology Laboratory National University of Ireland, Maynooth Maynooth	The role of the novel chemokine, CCL28, in pathogenesis and protection against respiratory disease
Professor Kingston HG Mills Department of Biochemistry Trinity College Dublin 2	Nasal vaccination - a balance between beneficial immunity and neurotoxicity
Dr Evelyn Murphy Department of Rheumatology St Vincent's University Hospital Dublin 4	The proinflammatory effects of corticotropin releasing hormone in human arthritis
Dr Eleanor Ryan Centre for Liver Disease Mater Misericordiae Hospital Dublin 7	Molecular pathophysiology of iron metabolism:An investigation of the molecular interactions of HFE with key components of cullurar iron homeostasis
Mental Health and Clinical Neurology	
Professor Brian A Lawlor Department of Psychiatry St James's Hospital Dublin 8	The utility of measures of electrophysiological and information processing variability in distinguishing between normal age-related cognitive decline, Mild Cognitive Impairment (MCI) and Alzheimer's disease (AD)
Metabolism, Endocrinology and Reproductive Medicine	
Dr David Croke Royal College of Surgeons in Ireland Dublin 2	Genetic variation at the Phenylalanine Hydroxylase (PAH) locus and the population history of Phenylketonuria in Europe
Professor Andrew Green Department of Medical Genetics Our Ladys Hospital for Sick Children Dublin 12	Expanding the phenotype of human MECP2 muatations beyond classic Rett syndrome
Dr Grainne Marie Kearns Rheumatology Section Beaumont Hospital Dublin 9	Gene mapping for human systemic lupus erythematosus in a cohort of Irish families

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Dr Timothy Mantle Department of Biochemistry Trinity College Dublin 2	Structural and functional studies on biliverdin reductases A and B (BVR-A and BVR-B)
Professor John Morrison Department of Obstetrics & Gynaecology University College Hospital, Galway Galway	Myometrial beta-3 adrenoreceptors and human labour, term and preterm
Dr Philip Newsholme Department of Biochemistry University College Dublin Dublin 4	Development of high density cell perfusion systems for the study of insulin secreting cell line performance and metabolism
Professor Brian Sheppard Department of Obstetrics & Gynaecology St James's Hospital Dublin 8	The role of trophoblast cells in maintaining uteroplacental blood flow in pregnancy
Dr Peter Smyth Endocrine Laboratory University College Dublin Dublin 4	Control of iodide uptake in the human breast
Microbiology, Mechanisms of Infectious Diseases and Host Defence	
Dr Angus Bell Department of Microbiology Trinity College Dublin 2	The Plasmodium Falciparum P-glycoprotein homologue (Pgh1) and its role in the antimalarial action of cyclosporin and other drugs
Dr Desiree Bennett The Meningococcal Reference Laboratory The Children's Hospital Temple Street Dublin 1	Impact of emerging drug resistance in N. meningitis on the treatment of invasive meningococcal disease in Ireland: antimicrobial susceptibility testing and molecular analysis of the organisms
Dr Dermot Cox Department of Clinical Pharmacology Royal College of Surgeons in Ireland Dublin 2	Role of Staphylococcus aureus surface proteins in platelet activation
Dr Derek Doherty Department of Biology National University of Ireland, Maynooth Maynooth	The role of intraheptic yo T cells in immunity against hepatitis C virus
Professor Charles Dorman Department of Microbiology Trinity College Dublin 2	DNA gyrase gene regulation in Samonella Enterica

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Professor Conor Keane MRSA Reference Laboratory St James's Hospital Dublin 8	Epidemiological typing of MRSA isolates submitted from Irish hospitals participating in the European Antimicrobial Resistance Surveillance System
Dr Wim Meijer Department of Industrial Microbiology National University of Ireland, Dublin Dublin 4	Molecular analysis of the VirR regulon of the the intracellular pathogen Rhodococcus Equi
Dr Anthony Moran Department of Microbiology National University of Ireland, Galway Galway	Studies on the role of Lewis antigen mimicry in Helicobacter pylori lipopolysaccharides in the development of autoreactive antibodies against the gastric mucosa
Professor Fergal O'Gara BIOMERIT Research Centre University College Cork Cork	The regulation of signal mediated virulence and biofilm formation in Pseudomonas Aeruginosa
Dr Stephen Smith Department of Microbiology Trinity College Dublin 2	Pathogenesis of Escherichia Coli neonatal meningitis: mechanisms of adhesion and invasion
Molecular, Cell and Developmental Biology	
Dr Andrew Bowie Department of Biochemistry Trinity College Dublin Dublin 2	Use of the vaccinia virus proteins A46R and A52R to characterise interleukin-1 and toll-like receptor signalling pathways with a view to therapeutic intervention
Dr Catherine Godson Department of Medicine and Therapeutics University College Dublin Dublin 4	Functional proteomics of Lipoxin-stimulated macrophages
Professor Finian Martin Department of Pharmacology University College Dublin Dublin 4	Strategies determining mammary epithelial cell survival
Dr Mary McCaffrey Biochemistry Department University College Cork Cork	Investigation of the role of phosphoprotein 75 in receptor-mediated endocytosis
Dr Paul Moynagh Department of Pharmacology University College Dublin Blackrock	IkBB: The Key to sustained activation of NFkB

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Dr Cliona O'Farrelly Education & Research Centre St Vincent's University Hospital Dublin 4	Adult stem Cells: Development of T cells in the human intestine
Neurosciences	
Dr Veronica Campbell Department of Physiology Trinity College Dublin 2	Analysis of the effects of cannabinoids on cortical neurones
Professor Michael Gill Department of Psychiatry St James's Hospital Dublin 8	Attention deficit hyperactivity disorder: deficits in attention and executive function in relation to genotype
Professor Marina Lynch Department of Physiology Trinity College Dublin 2	Can the IL-1B-induced compromised in hippocampal synaptic function be inhibited by the anti-inflammatory cytokine, IL-10?
Dr Gethin McBean Department of Biochemistry University College Dublin Dublin 4	Molecular mechanism of sodium-dependent L-cystine transport
Mr Colm O'Brien Mater Misericordiae Hospital Dublin 7	The role of nitric oxide in retinal ganglion cell death following retinal ischemia-reperfusion injury: Implications for glaucoma
Dr Shane O'Mara Department of Psychology Trinity College Dublin 2	The effect of interferon alpha on synaptic transmission, synaptic plasticity and learning
Professor Ciaran Regan Department of Pharmacology University College Dublin Belfield	Investigation of putative memory-related functions for the low density lipoprotein receptor-related protein (LRP) - relevance to the aetiology of Alzheimer's Disease
Professor Keith Tipton Department of Biochemistry Trinity College Dublin 2	Cytoprotective actions of taurine
Dr Clive Williams Department of Biochemistry Trinity College Dublin 2	Regulation of serotonin transporter function by the neuronal SNARE protein syntaxin 1A