



## General Research Project Grants 2002

Grant Holder	Project Title
<b>Bio-materials and Bio-engineering</b>	
Professor Kenneth A Dawson Department of Chemistry University College Dublin Dublin 4	Determination of Factors Controlling Biocompatibility
Dr Alan K Keenan Department of Pharmacology University College Dublin Dublin 4	Adaptation of environment-sensitive hydrogels to local delivery of potential anti-reatenosis therapy
Dr Finbarr O'Sullivan Department of Statistics University College Cork Cork	Statistical Methods for Quantitative Imaging with Positron Emission Tomography
Dr Dmitri B Papkovsky Department of Biochemistry University College Cork Cork	Respirometric biochip and system for embryo assessment
<b>Cancer Biology and Haematological Diseases</b>	
Dr John Calvin Coffey Department of Academic Surgery Cork University Hospital Cork	On the TRAIL to Periperative Tumour Growth - An Evaluation of TRAIL Mediated Apoptosis Following Surgery
Dr MJ Duffy Department of Nuclear Medicine St Vincent's University Hospital Dublin 4	Role of ADAMs in Breast Cancer
Professor Noel F Lowndes Department of Biochemistry NUI Galway Galway	Biochemistry of the Brca1 tumour suppressor
Dr Olga N Tucker Department of Surgery Cork University Hospital Cork	The Role of the Arachidonic Acid Metabolic Pathway in Pancreatic Cancer

<b>Grant Holder</b>	<b>Project Title</b>
<b>Cardio-Respiratory and Renal Disease</b>	
Professor Desmond Fitzgerald Department of Pharmacology Royal College of Surgeons in Ireland Dublin 2	Cyclooxygenases in hypoxia-induced pulmonary hypertension
Dr Catherine Godson Department of Medicine and Therapeutics University College Dublin Dublin 4	An Investigation of the Potential Antifibrotic Actions of Lipoxins in Renal Cells
Dr B Therese Kinsella Department of Biochemistry University College Dublin Dublin 4	Investigation of the role of the calcium (Ca) - dependent and the Ca-independent/Rho A pathways in thromboxane receptor (TP) signalling within the vasculature
Professor P McLoughlin Department of Physiology University College Dublin Dublin 2	Angiogenesis in the pulmonary circulation: pathogenetic role in chronic lung infection
Professor Timothy O'Brien University College Hospital Galway Galway	A Gene Therapy Approach to Atherosclerosis by Paraoxonase Gene Transfer
<b>Dental and Digestive Sciences</b>	
Dr David Brayden Department of Small Animal Clinical Studies University College Dublin Dublin 4	Myosin light chain kinase inhibitors as potential therapeutics for inflammatory bowel disease
Professor David C Coleman Department of Oral Surgery, Oral Medicine & Oral Pathology Trinity College Dublin 2	Triclosan-based antagonism of the activity of azole antifungal drugs against oral Candida species
Professor Brian O'Connell Department of Restorative Dentistry Trinity College Dublin 2	Antifungal mechanism of human salivary histatin-identification and characterisation of molecular targets
Dr Joe O'Connell Department of Medicine Cork University Hospital Cork	Role of Fas ligand (FasL/CD95L) in metastatic colonisation of the liver by colon cancer cells
Professor Denis O'Mullane Department of Oral Health Services Research Centre Cork University Hospital Cork	A study of the Relationship among Oral hygiene habits, Salivary fluoride levels and Dental caries

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**Grant Holder****Project Title**

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**Epidemiology, Health of the Population and Primary Care**

Professor Ian Graham  
Department of Cardiology  
AMNCH  
Dublin 24

The role of endogenous arginine derivatives in atherosclerotic vascular disease

Dr Alan Kelly  
Department of Community Health & General Practice  
AMNCH  
Dublin 24

Access for All - A formal methodology for quantifying and planning access to health services in Ireland

**Genomics, Proteomics and Human Disease**

Dr Geraldine Butler  
Department of Biochemistry  
University College Dublin  
Dublin 4

Genomic analysis of the transcriptional response of human macrophage cells to infection with the pathogenic yeast *Candida albicans*

Dr Michael P Carty  
Department of Biochemistry  
NUI Galway  
Galway

Analysis of polymorphisms and mutations in the human RAD30 cancer susceptibility gene

Dr Louise Gallagher  
Department Genetics  
Trinity College  
Dublin 2

Using a deletion within the Autism linked region on chromosome 2 as a tool to map the gene(s)

Dr Ziarh Hawi  
Department of Genetics  
Trinity College  
Dublin 2

Linkage Disequilibrium Mapping and mutation Analysis of Serotonergic Candidate Genes in Attention Deficit Hyperactivity Disorder (ADHD)

Dr Desmond Higgins  
Department of Biochemistry  
University College Cork  
Cork

Computer-aided cancer identification from gene expression profile data

**Health Services Research and Practice Based Research**

Dr Michael Barry  
Department of Clinical Pharmacology & Therapeutics  
Trinity College  
Dublin 2

The cost effectiveness of three antiretroviral drug regimens for the prevention of mother-to child transmission of HIV disease

Dr Kathleen Bennett  
National Medicines Information Centre  
St James's Hospital  
Dublin 8

Influence of deprivation and geographical region on prescribing patterns

<b>Grant Holder</b>	<b>Project Title</b>
Dr Padraic Mac Mathuna Gastrointestinal Unit Mater Misericordiae Hospital Dublin 7	Development of a Model Colorectal Cancer Screening Clinic
Professor Ivan Perry Department of Epidemiology & Public Health University College Cork Cork	The Diabetes QoL Study: determinants of quality of life in Irish patients with diabetes
Dr Helen Whelton Oral Health Services Research Centre University Dental School Cork	Economic Modelling of Services Utilisation Data and Epidemiological Data for Oral Health Services
<b>Immunology, Pathology and Mechanisms of Disease</b>	
Professor Gregory Julian Atkins Department of Microbiology Trinity College Dublin 2	Biosafety of the Semliki Forest virus vector: abrogation of virus-induced demyelination
Dr Clair M Gardiner Department of Biochemistry Trinity College Dublin 2	Investigation of the functional polymorphism of KIR 3DL1 receptor expressed by NK cells
Dr Aideen Long Department of Biochemistry Royal College of Surgeons in Ireland Dublin 2	Transcriptional regulation of Protein Kinase C isoforms in response to T cell activation
Dr Hilary McMahon Department of Industrial Microbiology University College Dublin Dublin 4	The prion proteins role in the cellular oxidative state
Professor Luke O'Neill Department of Biochemistry Trinity College Dublin 2	Signal transduction pathways activated by the novel adapter protein Mal (MyD88 adapter-like), a critical participant in Toll-like receptor-4 action
Professor Denis J Reen Children's Research Centre Our Ladys Hospital for Sick Children Dublin 12	Regulation of monocyte responses by apoptotic cells
Dr Clifford Taggart Department of Medicine Beaumont Hospital Dublin 9	Inhibition of the ubiquitin-proteasome pathway by secretory leucoprotease inhibitor

<b>Grant Holder</b>	<b>Project Title</b>
<b>Mental Health and Clinical Neurology</b>	
Professor Timothy G Dinan Department of Pharmacology and Therapeutics Cork University Hospital Cork	Overactivation of Hypothalamic-Pituitary-Adrenal Axis in Melancholic Depression: Studies on the Role of Vasopressin
Professor Michael Gill Department of Psychiatry Trinity College Dublin 2	A prospective study of the clinical genetics of methylphenidate response in children with ADHD
<b>Metabolism, Endocrinology and Reproductive Medicine</b>	
Professor Hugh Brady Department of Medicine and Therapeutics Mater Misericordiae Hospital Dublin 7	Molecular mechanisms of tubulointerstitial fibrosis in diabetic nephropathy
Professor Finian Martin Department of Pharmacology University College Dublin Dublin 4	Functional and Morphological Maintenance of Mammary Epithelial Structures by the Combined Action of Extracellular Matrix Components and Glucocorticoids: Studies on a Novel Cell Culture Model System
Professor TJ McKenna Department of Endocrinology St Vincent's University Hospital Dublin 4	Structure and etiology of macroprolactin
Professor John Morrison Clinical Science Institute NUI Galway Galway	The Rho/Rho-kinase system and regulation of maternal, placental and fetal vascular smooth muscle in normal pregnancy, pre-eclampsia and fetal growth restriction
Dr Philip Newsholme Department of Biochemistry University College Dublin Dublin 4	Nutrient, hormone and sulphonylurea regulation of metabolic/secretory pathway activity and gene expression in pancreatic beta cells - Use of Expression profiling and NMR to probe beta cell function
<b>Microbiology, Mechanisms of Infectious Diseases and Host Defence</b>	
Professor Kevin Devine Department of Genetics Trinity College Dublin 2	Investigation of the Essential Two-Component System YycFg in Staphylococcus aureus, to establish its potential as a novel therapeutic target
Professor Timothy Foster Department of Microbiology Trinity College Dublin 2	Adherence of Staphylococcus aureus to elastin is promoted by the fibronectin binding proteins

<b>Grant Holder</b>	<b>Project Title</b>
Dr Anthony Moran Department of Microbiology NUI Galway Galway	Characterization of the capsular and exopolysaccharides of <i>Campylobacter jejuni</i> and <i>Campylobacter coli</i> and studies on their biological relevance
<b>Molecular, Cell and Developmental Biology</b>	
Dr Gwyneth Jane Farrar Department of Genetics Trinity College Dublin 2	Exploration of ribozyme-based suppression of thyrotropin-releasing hormone-degrading ectoenzyme (TRH-DE) gene expression as a novel therapeutic approach for CNS injury
Dr John James Mackrill Department of Biochemistry University College Cork Cork	Relationships between hypoxia and Ca signalling in a human Neuroblastoma Cell Line
Dr Paul Moynagh Department of Pharmacology University College Dublin	Exploring the Role of PRISM in Inflammatory Signalling Pathways
Dr Catherine M Nolan Department of Zoology University College Dublin Dublin 4	Is translation of the IGF-I receptor coding sequence negatively regulated by an upstream open reading frame?
Dr Rosemary O'Connor Department of Biochemistry University College Cork Cork	Role of RACK-1 and Serine phosphorylation in IR/IGF-1R function
Dr Dermot Walls School of Biotechnology Dublin City University Dublin 9	bfl-1/A1, a target for the Epstein-Barr virus LMP1, EBNA2 and related cell signalling pathway
<b>Neurosciences</b>	
Dr Sean Commins Department of Psychology NUI Maynooth Maynooth	Neurophysiology and Neuroanatomy of Hippocampal-Cortical Interaction: The role of the Subiculum and Entorhinal Cortex
Professor Brian Lawlor Mercer's Institute for Research on Ageing St James's Hospital Dublin 8	The role of Haemochromatosis mutations in Alzheimer's disease
Dr John P Lowry Department of Chemistry NUI Maynooth Maynooth	The role of astrocytes in brain energy metabolism

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<b>Grant Holder</b>	<b>Project Title</b>
Dr Kieran McDermott Department of Anatomy University College Cork Cork	Astroglial diversity and selective dopaminergic neuronal degeneration: implications for Parkinson's disease
Dr Kay Ohlendieck Department of Pharmacology University College Dublin Dublin 4	Proteomics analysis of adult skeletal muscle fibre transformation, a neurobiological model system of electro-stimulation therapy
Dr Cora O'Neill Department of Biochemistry University College Cork Cork	Characterisation of beta-site amyloid precursor protein cleaving enzyme (BACE) in Alzheimer's disease brain
Dr Aideen Sullivan Department of Anatomy University College Cork Cork	Establishment of neurotrophin-expressing dopaminergic cells for transplantation in Parkinson's disease

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