



## General Research Project Grants 2003

Grant Holder	Project Title
<b>Bio-materials and Bio-engineering</b>	
Dr Malachy O'Rourke Department of Mechanical Engineering University College Dublin Dublin 4	Investigation of Blood Flow Through Abdominal Aortic Aneurysms: Towards Reliable Rupture Prediction
Dr Abhay Pandit Department of Mechanical Engineering National University of Ireland, Galway Galway	Modulation of Impaired Wound Healing Response by Nitric Oxide Synthase Gene Transfer and the Ability of a Biodegradable Fibrin Scaffold to Deliver a Therapeutic Gene
<b>Cancer Biology and Haematological Diseases</b>	
Dr William M Gallagher Department of Pharmacology University College Dublin Dublin 4	Malignant Melanoma: Functional Studies Using DNA Methyltransferase Inhibitors and Genetic Suppressor Element Technology
Dr Heinz-Peter Nasheuer Department of Biochemistry National University of Ireland, Galway Galway	Physical and Functional Interactions of Replication Protein A in the Eukaryotic Cell Cycle. Analyses of the activities of the replication protein A and their regulation during the initiation and elongation process of eukaryotic DNA replication
Mr Aengus S O'Marcaigh Our Ladys Hospital for Sick Children Dublin 12	The pathophysiology of Venous-occlusive Disease: Novel Therapeutic Strategies
<b>Cardio-Respiratory and Renal Disease</b>	
Dr Orina Belton Department of Clinical Pharmacology Royal College of Surgeons in Ireland Dublin 2	Cyclooxygenases in atherosclerosis: exploring the cardiovascular risk of Cox-2 inhibitors
Dr Richard Costello Department of Medicine Beaumont Hospital Dublin 9	Neuro-immune interactions in allergic rhinitis
Dr Tara McMorrow Department of Pharmacology University College Dublin Dublin 4	Gene regulation and mechanism of epithelial-mesenchymal transdifferentiation (EMT) in a cyclosporine A -induced model.

<b>Grant Holder</b>	<b>Project Title</b>
Dr Clare O'Connor Department of Medicine and Therapeutics University College Dublin Dublin 4	Functional analysis of differential gene expression in IL-8 versus FMLP stimulated neutrophils with specific reference to migratory pattern
<b>Dental and Digestive Sciences</b>	
Professor Noel McElvaney Department of Medicine Beaumont Hospital Dublin 9	Alpha1-antitrypsin (A1AT)-induced ER stress: Intracellular stress mechanism associated with Alpha 1-Antitrypsin deficiency liver disease and development of potential therapeutic approaches
<b>Epidemiology, Health of the Population and Primary Care</b>	
Professor Hannah McGee Department of Psychology Royal College of Surgeons in Ireland Dublin 2	One-year Clinical Outcomes, Secondary Prevention Profile and Health Service Use in a National Sample of Hospital Admissions for Acute Coronary Syndromes in Ireland
<b>Genomics, Proteomics and Human Disease</b>	
Professor David Croke Department of Biochemistry Royal College of Surgeons in Ireland Dublin 2	A high resolution map of genetic variation in the Irish population
Professor Paul Engel Department of Biochemistry University College Dublin Dublin 4	The Molecular Basis of Autosomal Dominant Retinitis Pigmentosa RP10: Studies of IMP Dehydrogenase 1.
Dr Margaret Worrall Biochemistry Dept University College Dublin Dublin 4	Characterisation of the remaining human A-clade serpins
<b>Health Services Research and Practice Based Research</b>	
Dr Patrick Brennan School of Diagnostic Imaging University College Dublin Dublin 4	Radiation dose optimisation for interventional procedures
Professor John Feely Department of Pharmacology and Therapeutics St James's Hospital Dublin 8	Prescribing indicators in Primary care using a pharmacoepidemiological database
Dr Deirdre A Hurley School of Physiotherapy Mater Misericordiae Hospital Dublin 7	Randomised Controlled Trial of Hospital-based versus Community-based physiotherapy for patients with low back pain: Clinical Outcomes and Economic Analysis

<b>Grant Holder</b>	<b>Project Title</b>
<b>Immunology, Pathology and Mechanisms of Disease</b>	
Dr Andrew Bowie Department of Biochemistry Trinity College Dublin	Elucidating the role of IRAK-2 in interleukin-1 and Toll-like receptor signalling
Professor Patrick Collins Department of Biochemistry Royal College of Surgeons in Ireland Dublin 2	Membrane integrins as mediators of increased platelet aggregation in hyperhomocysteinaemic states.
Dr Evelyn Murphy Department of Biochemistry and Physiology Faculty of Veterinary Medicine University College Dublin Dublin 4	Orphan Nuclear Receptor Function in Human Inflammatory Joint Disease
Dr Jacqueline Nugent Department of Biology National University of Ireland, Maynooth Maynooth	Developing a plastid-based, multicomponent vaccine against Helicobacter pylori
<b>Mental Health and Clinical Neurology</b>	
Professor Eadbhard O'Callaghan Cluain Mhuire Service St Vincent's University Hospital Blackrock	A Randomised Control Trial of Carer Education in Bipolar Affective Disorder
<b>Metabolism, Endocrinology and Reproductive Medicine</b>	
Professor John Morrison Department of Obstetrics & Gynaecology University College Hospital, Galway Galway	Thrombin and Protease Activated Receptors (PARs) and Human Myometrium in Labour, Term and Preterm: Expression, Functional Modulation and Ion Channel Effects
Professor Timothy O'Brien Department of Medicine University College Hospital, Galway	Cytoprotection of Islets After Transplantation by Gene Transfer of Manganese Superoxide Dismutase
<b>Microbiology, Mechanisms of Infectious Diseases and Host Defence</b>	
Dr Alan Dobson Department of Microbiology University College Cork	Pathogenicity in Aspergillus Fumigatus - A functional genomics/proteomics approach
Professor Charles Dorman Department of Microbiology Trinity College	Analysis of switching bias in the fim genetic switch of Escherichia coli

<b>Grant Holder</b>	<b>Project Title</b>
Professor Dermot Kelleher Department of Clinical Medicine St James's Hospital Dublin 8	Transcriptomic and proteomic approaches for the study of the intestinal epithelial response to <i>Helicobacter pylori</i> soluble components in an ex vivo model for duodenal ulcerogenesis
<b>Molecular, Cell and Developmental Biology</b>	
Dr Breandan Noel Kennedy Department of Pharmacology University College Dublin Dublin 4	In vivo models of human blindness characterized by dominant cone-rod dystrophy
Dr Tom Moore Department of Biochemistry University College Cork Cork	JERKY Gene: Cellular and developmental function
Dr Paul Moynagh Department of Pharmacology University College Dublin Blackrock	Defining a Role for Human Cactin in Toll-like Receptor Signalling
<b>Neurosciences</b>	
Professor Marina A Lynch Department of Physiology Trinity College Dublin 2	Analysis of the cellular events leading to the protective effect of eicosapentanoic acid in the brain
Dr Justin V McCarthy Department of Biochemistry & Biosciences Institute University College Cork Cork	Glycogen Synthase Kinase-2B and serine phosphorylation: Unravelling the physiological functions of Presenilin-1 in Alzheimer's disease
Dr Kevin J Mitchell Department of Genetics Trinity College Dublin 2	The role of the transmembrane semaphorin Sema6A in axon guidance in the mammalian brain