

## LEICESTER RESEARCH GRANTS AND BOOKS

### PRESS COVERAGE OF RESEARCH GRANTS

The *Bulletin* is sent to the media as well as other external contacts. As a result, details of grants appearing in this section may stimulate press interest. The Press Office may also actively seek media coverage of particular grants detailed in this section. It is therefore the grantholder's responsibility to request that any grant of a sensitive/confidential nature be excluded from the *Bulletin*.

This can be done by contacting the Research Office, which has responsibility for compiling this Research section (2495).

#### ARCHAEOLOGY

Dr E Sauer

##### Alchester Roman Fort II

£2,500 Various

#### BIOCHEMISTRY

Dr T Herbert

##### Molecular Mechanisms of Nutrient

Regulation of Total Protein and Proinsulin Synthesis in Isolated Islets of Langerhans and the Pancreatic b-Cell Line MIN-6

£122,678 Diabetes UK

Prof N S Scrutton, Dr C R Bagshaw, Dr A Munro

##### Fluorimeter Equipment Grant

£17,286 Wellcome Trust

#### BIOCHEMISTRY, CELL PHYSIOLOGY & PHARMACOLOGY

Dr M L Leyland, Dr C Dart, Prof N Standen, Prof P Stanfield

##### PDZ Proteins in Coronary Artery: Their Role in the Control of the Inwardly Rectifying Potassium Channel Kir2.1

The dilation and constriction of small blood vessels controls overall blood pressure and blood flow. The action of potassium channels plays an important role in the regulation of this process. Control of potassium channel activity by signalling pathways therefore has a major impact on blood pressure. To allow the rapid and efficient transmission of signals the various components of signalling pathways are often concentrated to discrete sites within the cell. Scaffolding proteins containing specialised protein interaction domains promote the formation of these signalling complexes. Of particular importance is the PDZ domain that is essential for the clustering of many channels and receptors. We have demonstrated that PDZ proteins are present in the coronary artery and bind to the potassium channel Kir2.1. This project will aim to characterise these PDZ proteins and determine how they help regulate Kir2.1 activity.

£87,262 British Heart Foundation

#### CELL PHYSIOLOGY & PHARMACOLOGY

Dr B Grubb

##### Prostaglandin Receptor Distribution and Function in the Rat Peripheral and Central Nervous System

£115,586 Glaxo Wellcome Research & Development

#### CELL PHYSIOLOGY & PHARMACOLOGY, BIOCHEMISTRY

Dr J Blank, Dr M Dickens, Dr R Patel

##### The Role of the Stress-Activated Protein Kinases in Mitotic Cell Cycle Arrest

£188,196 BBSRC

#### CHEMISTRY

Dr E Raven

##### Active Site Architecture in Mammalian Peroxidase: Effect on Reactivity and Biological Function

Mammalian peroxidases catalyse reactions of crucial importance to a wide range of biological processes, including thyroid hormone synthesis, fertilisation processes and antimicrobial/antifungal action. The aim of this work is to provide a simplified system, based on the structurally well-characterised ascorbate peroxidase (APX) enzyme, to address fundamental mechanistic questions relating to the structural architecture, reactivity and function of the mammalian peroxidases. In particular, the mechanisms by which covalent links to the haem are established in the mammalian enzymes will be examined by the sequential introduction of new covalent structure into the existing haem architecture of APX. Specifically, this will involve formation of new sulphonium and ester linkages between the haem and thioether and carboxylate groups, respectively, and functional assessment of the effect of each alteration. The work provides a platform for more detailed understanding of the complex mammalian peroxidase enzymes and underpins current working hypotheses on the reactivity and function in these systems.

£196,060 Wellcome Trust

#### CHILD HEALTH

Dr J Grigg

##### The Role of Air Pollution in Initiating Respiratory Disease in Young Children

£11,323 Leicester General Hospital

Prof M Silverman

##### Role of Air Pollution in Initiating Paediatric Respiratory Disease

£17,646 Medisearch

Dr M Willou

##### Supp. – Statistical Support

£1,200 Scottish Cot Death Trust

##### Further Statistical/Analytical Support – Project No. 232/5

£3,600 Foundation for the Study of Infant Deaths

#### ECONOMICS, EPIDEMIOLOGY & PUBLIC HEALTH WITH CAMBRIDGE UNIVERSITY

Prof S Pudney, Dr R Hancock

##### Stigma, Claim Costs and Means-Tested Pensioner Benefits

Nearly 40% of British pensioners receive means-tested income from the state. But some do not take up their entitlements to these benefits, suggesting there may be stigma and/or significant costs ('hassle') associated with claiming them. Neither is accounted for when gains and losses from changes in benefit rates and rules are assessed by changes in cash income alone. Non take-up of means-tested benefits implies that £1 of means-tested income is effectively valued less than £1 of other income.

The research aims to develop and apply a method of adjusting pensioners' incomes for any welfare loss incurred through means-tested benefits. Using the Cambridge tax-benefit model POLIMOD, entitlements to means-tested benefits of pensioners in the Family Resources Survey will be calculated. These will be used with information on their reported benefit receipts, to estimate an econometric model of benefit take-up which allows for stigma, claim costs and measurement error. Using the principle of revealed preference – that a pensioner who does not claim an entitlement to a means-tested benefit must be unaware of the entitlement or consider it insufficient to outweigh the stigma/ hassle of claiming – the approach will allow estimation of financial equivalents of the stigma/ hassle costs associated with means-tested benefits.

Value Reported in February *Bulletin*



# University of Leicester



## EDUCATION

**Prof A Osler**

**Development Education and Awareness Advice**

£9,220 *Department For International  
Development*

## ENGINEERING, PHYSICS & ASTRONOMY

**Dr E M Warrington, Dr A J Stocker, Prof T B Jones**

**Prediction Techniques for the Influence of Off-Great Circle Propagation on HF Radio Systems**

£120,947 *EPSRC*

## ENGLISH

**Prof M Stannard**

**Studies in European Cultural Transition**

Since 1996, under a Bilateral Agreement to encourage collaborative research, the Universities of Leicester and Pisa have hosted an Anglo-Italian colloquium studying European cultural transition. The British convener is Prof. Martin Stannard of the Department of English who has just submitted a successful bid to the British Academy (£2026.00) to support the Colloquium for the next year. Meetings take place annually, alternately in Leicester and Pisa, and have expanded to include several disciplines and universities. Proceedings of the first colloquium (Pisa, 1996) were published as *Scenes of Change*, eds. Carla Dente and Jane Everson (Pisa: Edizione ETS, 1998), of the second (Leicester, 1997) as *Romancing Decay: Ideas of Decadence in European Culture*, ed. Michael St. John (Ashgate, 1999). The latter volume forms part of a new series of Ashgate books, *Studies in European Cultural Transition* (General Editors Profs. Martin Stannard and Greg Walker), providing a major channel for research in European Studies. All future proceedings will appear in this series: those of the third colloquium ('Metamorphosis', Pisa, 1998), of the fourth ('Exile', Leicester, 1999), and of the fifth ('Transubstantiation', Pisa, 2000) are to appear in 2001, 2002 and 2003 respectively. The colloquium to be supported by the Academy is: 'Collaboration' (Leicester, 2001).

£2,026 *British Academy*

## EPIDEMIOLOGY & PUBLIC HEALTH

**Prof M Clarke**

**Supplement – Trent Institute for Health Services Research – Co-ordinator Support**

£14,614 *NHS Executive Trent via TIHSR Core Unit*

**Prof G Parker**

**Position Paper on Intermediate Care Services (Scoping Study)**

Intermediate care services help to avoid admission to hospital, promote early discharge and enhance rehabilitation in the community. They are usually provided by both health and social services. Intermediate care is a key plank in the NHS Plan and substantial investment has been promised over the next four years. The Department of Health has asked the Nuffield Community Care Studies Unit to produce a

report on intermediate care development to cover the following questions: how far have intermediate care services spread and how are they defined; what type of evaluative material is available about intermediate care services; what are the messages from this material about effectiveness and 'best practice'; what data might be collected in the future to give a national picture of the outcomes of intermediate care?

**Value Reported in February Bulletin**

## EPIDEMIOLOGY & PUBLIC HEALTH WITH UNIVERSITY OF CABRIDGE

**Prof C Jagger, Prof G Parker**

**Forecasting Future Disability Levels and Care Needs Under Changing Patterns of Diseases**

The main causes of disability in later life are the consequences of both acute and chronic diseases and conditions such as cardiovascular disease and stroke, vision and hearing problems, arthritis, incontinence, dementia and depression. New treatments have made and will continue to make a positive impact on recovery, mortality and delaying onset but reductions in mortality may also impact negatively on the burden of disability. This project sets out to answer the question of the extent to which changes in diseases will affect the population with disability and their consequent need for care, given other demographic changes.

The project will use the MRC Cognitive Function and Ageing Study and is a collaboration between the Universities of Leicester and Cambridge, forming part of an important Medical Research Council Co-operative Group based in Cambridge.

**Value Reported in February Bulletin**

## GENERAL PRACTICE

**Ms S Redsell**

**Evaluation of "Solution-Focused Brief Therapy"**

This project is to evaluate the impact of a two-day training course on solution-focused brief therapy, which is being offered to every Health Visitor working in City West Primary Care Group.

The aim is to determine whether the training in solution-focused brief therapy has influenced Health Visitors practice. More specific objectives are to determine the take-up of solution-focused brief therapy in Health Visitors practice, the type of client difficulties it has been used for and whether there is any consensus about the kind of situations in which it works best. Information about the process of change in Health Visiting practice after the training days will also be collected. The approach taken will mainly be qualitative, with some baseline data collection.

£3,501 *City West PCG*

## GEOLOGY WITH ROYAL HOLLOWAY AND UNIVERSITY OF LEEDS

**Prof P Maguire**

**Seismic Survey in Ethiopia – Kinematics and Dynamics of Continental Break-Up Above a Mantle Plume – Anatomy of the Ethiopian Rift**

£119,364 *NERC*

## MANAGEMENT CENTRE (ECONOMICS)

**Mr M Burridge, Dr N K H Tang**

**E-Business Management Laboratory for East Midland SMEs**

£7,517 *Centre for Enterprise Ltd*

## MATHEMATICS & COMPUTER SCIENCE

**Dr J Levesley**

**Convergence of Multilevel Methods for Radial Basis Approximation – Visiting Fellowship, Dr A Iske**

£1,800 *EPSRC*

## MEDICINE

**Dr S Pavord**

**Grant In Aid – Women in Pregnancy**

£5,000 *Pharmacia & Upjohn Limited*

## MEDICINE & THERAPEUTICS (CARDIOLOGY)

**Dr R Singh**

**Supplement – Research Fellowship**

£33,938(supp) *British Cardiac Society*

## MICROBIOLOGY & IMMUNOLOGY

**Prof P H Williams**

**Supplement – Commercial Development of Bacterial Autoinducers**

£24,900 *Bionatrix LLC*

## OBSTETRICS & GYNAECOLOGY

**Mr M Habiba**

**Menorrhagia: Iry and 2ry Care Interface Audit**

£4,000 *Leicestershire Health*

## PATHOLOGY

**Dr W Lawley, Dr K Herbert**

**Oliver Bird Fund – PhD Studentship**

£6,460(supp) *Nuffield Foundation*

## PATHOLOGY (CHEMICAL) WITH KINGS COLLEGE, LONDON

**Dr A Goodall**

**Quantification of the Optimal n-6/n-3 Ratio in the UK Diet (the OPTILIP Study)**

The Vascular Research Group of the Division of Chemical Pathology, headed by Dr Alison Goodall, and based at the Clinical Sciences Wing of Glenfield Hospital, is involved in a large, multicentre study, funded by the Food Standards Agency to determine the optimal intake of fatty acids in the UK diet. Dietary fats are an important part of the diet, but too much of the wrong type of fats can be harmful, leading to atherosclerotic diseases such as heart attacks and strokes and to poor immune function. This study is being carried out in collaboration with researchers at Kings College London, University of Surrey and the MRC Unit at the Wolfson Institute in London, with funding of £1.4m. Healthy, middle aged men and women are being asked to follow one of 5 diets for 6 months, each containing different types of dietary fats. At the start and end of their diets they are investigated for differences in arterial function, and insulin sensitivity (to assess their susceptibility to atherosclerosis and diabetes), and their blood will be tested for changes in blood lipids, factors that affect blood clotting and immune function. The



results of this study will provide evidence for the FSA to inform decisions about dietary advice to the UK population.

£97,560 Food Standards Agency via Kings College, London

## PHYSICS & ASTRONOMY

Dr J Pye

### CATSAT Ground Station Installation Programme

The Cooperative Astrophysics and Technology Satellite (CATSAT) is a 'University Explorer' (UNEX) Class Mission, that is being constructed by the University of New Hampshire (UNH) and the University of Leicester. The primary scientific goal of the mission is to study astrophysical gamma-ray bursts – amongst the largest explosions known in the Universe. CATSAT is scheduled for launch in December 2001, into a 590-km altitude polar orbit. Twin mission control centres will be sited at UNH and Leicester. Our control centre is being built at the University's Space Science Research Unit, which is part of the Space Research Centre, and physically located at the National Space Centre (NSC) at the Abbey Meadows site. Both CATSAT control centres will be used to track, command, receive and process data from CATSAT on a daily basis throughout the mission life.

The Leicester control centre has additional functions as an integral part of the National Space Centre. It will function as a Space Operation Centre for other missions, such as the Beagle 2 mission to Mars, and will also be able to relay direct TV coverage from NASA and ESA space missions for public display in the National Space Centre. The work of the Operations Centre will be viewed directly by NSC visitors and school parties through a viewing window in the 'Space Now' area, and by computer displays 'piped'

from the Operations Centre.

This contract funds University staff resources to define the Control Centre requirements, work with the NSC in procuring the 'hardware' (computers, antennae, radio-frequency transmitters and receivers), and develop the associated computer software and databases in collaboration with UNH.

£40,327 NSSC Property Ltd

### Supplement – Contract for Experimental Spectroscopist

£56,875.20 UKAEA

Dr J Remedios

### MAPSCORE – Mapping of Polar Stratospheric Clouds and Ozone Levels Relevant to the Region of Europe

£141,637 CEC

### Compilation of Enhanced Climatology Profiles for Use in MIPAS Auxiliary Database Optimisation

£10,606.63 University of Oxford

Prof A Wells, Prof G Fraser

### TCS Programme – Company Contribution

£28,000 JRA Aerospace & Technology Ltd

## PSYCHIATRY

Dr R L Palmer

### Analysis of Eating Disorders Database

£4,507 Leicestershire and Rutland Healthcare NHS Trust

## PSYCHOLOGY (APPLIED) CLINICAL SECTION

Dr F Furniss

### DAPHNE – Recognition, Prevention and Treatment of Abuse of Older Women

The problem of violence against women is widely recognised, but there is a lack of information about violence towards older women. It is

however known that abuse of older persons is predominantly directed towards women and that persons with physical or mental impairments, such as dementia, are particularly at risk. Existing research on these issues however comes almost exclusively from the USA, and better understanding of the European situation is urgently needed. The aims of the current project are as follows:

- i) To investigate the nature and the scale of the problem in four European countries.
- ii) To promote social awareness of these problems, in the general population, in associations concerned with older persons, and in services supporting female victims of violence.
- iii) To stimulate the exchange of information and good practice in preventing and responding to abuse.

£17,442 CEC

## RICHARD ATTENBOROUGH CENTRE (ADULT EDUCATION)

Mr P Herbert

### Celebrating Cultural Diversity: Musician in Residence at the RAC

£30,000 Foundation for Sport and the Arts

## SCARMAN CENTRE

Dr T Skinner

### Evaluation of the CRP Violence Against Women Rape Projects and a Linked National Evaluation of Sexual Assault Referral Centres

£24,340 Home Office via University of North London

## SOCIOLOGY (CENTRE FOR LABOUR MARKET STUDIES)

Dr A Felstead

### SKOPE Skills Survey 2001

£33,116 Department for Education and Employment via University of Oxford

## GENDER AND SOVEREIGNTY Feminism, the State and International Relations

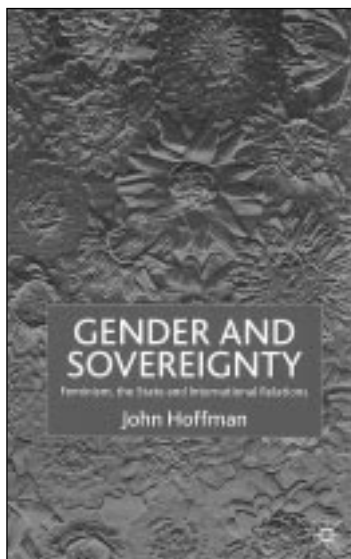
Professor John Hoffman (Department of Politics)

Palgrave Publishers Limited, January 2001, normal price £40.00 (launch price £20.00) (hardback)

Available from the Bookshop

ISBN 0 333 75140 X

*Gender and Sovereignty* seeks to reconstruct the notion of sovereignty in post-patriarchal society. Sovereignty is linked to emancipation, and an attempt is made to free both concepts from the static characteristics which derive from



the Enlightenment and an uncritical view of the state. To reconstruct sovereignty, we must look beyond the state. Sovereignty, analysed in relational terms, becomes aligned with autonomy and self-determination in a world in which men and women can only be sovereign when they empower one another.

- John Hoffman is Professor of Political Theory, Department of Politics at the University of Leicester. His research interests include the state, sovereignty, feminism and Marxism. He is the author of *Beyond the State* (1995) and *Sovereignty* (1998).



# Books



## CHALLENGES IN ACUTE CORONARY SYNDROMES

Edited by Professor David de Bono (formerly Professor of Cardiology and Head of the Division of Cardiology) and Professor Burton E Sobel (Department of Medicine, University of Vermont)

Blackwell Science, December 2000, £49.50 (hardback)

Available from the Bookshop

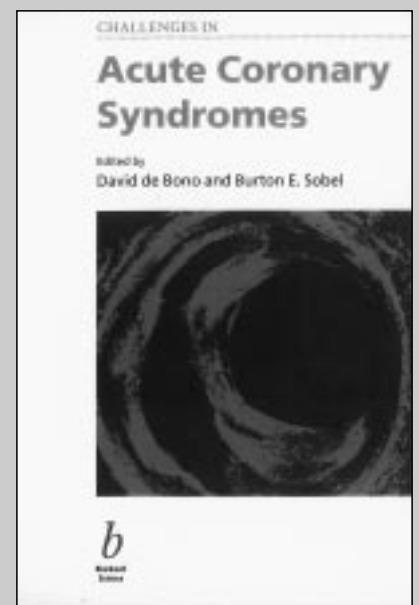
ISBN 0 632 05579 0

Acute coronary syndromes are responsible for the extensive morbidity and mortality of ischaemic heart disease and encompass clinical disorders such as unstable angina and acute myocardial infarction. They are a focus for much research and continue to be difficult to manage.

Relatively little is understood about the biology and pathophysiology that leads to these syndromes. Many of the therapies available are aimed at reducing risk factors or lessening the likelihood of further acute events and death. New research means that the armoury of available drugs is ever increasing, but there are no simple answers in the choice of treatment.

This book aims to provide some answers to the most

difficult questions faced by clinicians managing ACS. Internationally known cardiologists and cardiovascular researchers critically appraise the literature and combine this with their own clinical and research experience to present an informed view of a range of issues, including diagnosis, prevention and treatment. Topics that are already well covered in the standard textbooks have been avoided, so that only subjects of real controversy are explored.



## PRAISE FOR PROJECT

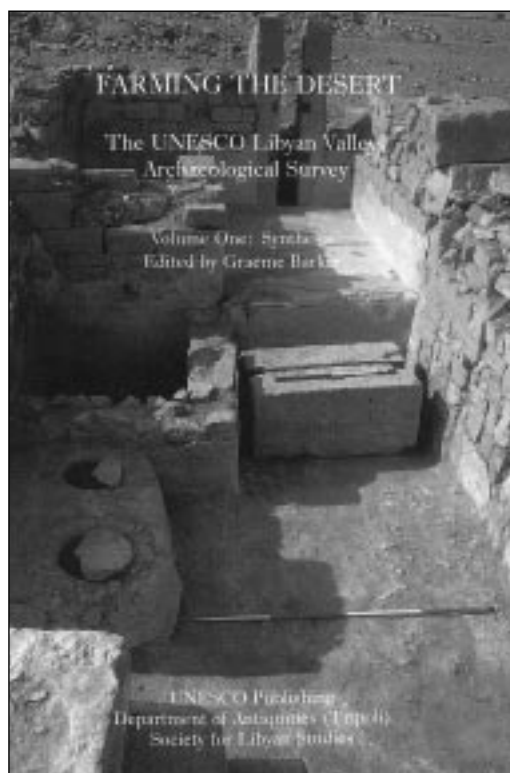
FEBRUARY's *Bulletin* reported that the Archaeological Institute of America has awarded the James R Wiseman Book Award to Graeme Barker, David Gilberston, Barri Jones, and David Mattingly, for *Farming the Desert: The UNESCO*

*Libyan Valleys Archaeological Survey; Vol. 1: Synthesis, edited by Graeme Barker, and Vol. 2: Gazetteer and Pottery, edited by David Mattingly (UNESCO Publishing; Department of Antiquities, Tripoli; and Society Libyan Studies; London, 1996).*

permanent settlement, bristles with remains of ancient wall systems and farmsteads, previously unexplained. *Farming the Desert* catalogues these remains in a useful and well-illustrated Gazetteer, and documents the artifacts and pottery associated with them.

"But it goes beyond that to assemble the evidence for all aspects of the interaction of an ancient population with landscape, society and the wider world. *Farming the Desert* reconstructs a sophisticated system of floodwater farming, and explains why these settlements and the way of life associated with them appeared, flourished for six centuries, and were finally abandoned.

"What is more, despite overwhelming logistical problems, the UNESCO Libyan Valleys Survey also stands as a model multicultural and interdisciplinary team. Its work shows the relevance of archaeology to contemporary life and to current issues."



The citation, signed by the president, Nancy C Wilkie, reads "There have been many fine archaeological projects in more well-known parts of the ancient world in recent years. But few can claim to have filled such an enormous gap in our knowledge as the UNESCO Libyan Valleys Survey.

"*Farming the Desert* presents the results of only five seasons of fieldwork, but is based on decades of research by a wide range of specialists, synthesized into these clear and well-written volumes. They illuminate one of the least-known Mediterranean landscapes, the Tripolitanian pre-desert plateau. This dry and difficult land, now almost bare of