

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 or 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).

MEDICINE FOR THE ELDERLY

Dr M Fotherby SAFE PACE Study

Falls are a common event in the lives of many older people, often with serious consequences. One reason for people falling is a drop in blood pressure leading to a reduced blood supply to the brain resulting in dizziness or loss of postural tone. This can be triggered by an abnormally sensitive reflex centred on the carotid artery found in the neck. This carotid hypersensitivity leads to a profound slowing of the heart rate often associated with a fall in blood pressure. The aim of the study is to determine whether pacemaker insertion by preventing the heart rate slowing can prevent falls in patients with carotid sinus hypersensitivity.
£6,000 (supp) Medtronic

MICROBIOLOGY & IMMUNOLOGY

Prof P Andrew Grant-In-Aid of Research

£14,000 *Rijksinstituut voor Volksgezondheid en Milieuhygiene*

Apoptosis in Pneumococcal Pneumonia - Bursary for Reagan L Blyth

£1,500 *Nuffield Foundation*

Dr P Freestone, Prof P H Williams The Effects of Catecholamine Stress Hormones, Inotropes and their Metabolites on the Physiology and Virulence of Coagulase-Negative Staphylococci

Opportunistic infections by bacteria normally resident in the body as harmless commensals are a major problem in the clinical care of patients in intensive care units. Particularly worrying is sepsis resulting from colonisation of intravenous catheter lines by the skin bacteria coagulase-negative staphylococci. Environmental factors that affect the growth and virulence of these bacteria are poorly understood. However, we have recently shown that catecholamine inotropes, a class of drugs

regularly administered via intravenous lines to maintain heart and kidney function, massively increase the growth of these organisms, and induce physiological changes that enhance their ability to grow within catheter lines. This project, funded by the Wellcome Trust, seeks to determine the mechanism by which these effects occur, so as to inform the development of inotropic treatments that will reduce the risks of catheter colonisation and sepsis. The ultimate aim is to improve the clinical care of critically ill patients.
£144,075 *Wellcome Trust*

Dr S Heaphy Vacation Scholarship for Miss Y Lin

£1,160 *Wellcome Trust*

MICROBIOLOGY & IMMUNOLOGY, PATHOLOGY

Dr M Browning, Prof J Pasi Semi-Autologous Antigen Presenting Cell/Tumour Cell Hybrids as Therapeutic Vaccines in Haematological Malignancies

£250,330 *Elimination of Leukaemia Fund*

MUSEUM STUDIES

Prof E Hooper-Greenhill, J Dodd Evaluation of the Open Museum, Glasgow

The Research Centre for Museums and Galleries has been awarded a grant of £5,000 from the Heritage Lottery Fund to evaluate the Open Museum. A pioneering museum project, the Open Museum, took as its model the idea of taking museum collections out into the community. It was established over a decade ago, working with some of the most excluded communities in the area, exploring many challenging contemporary issues. This evaluation will focus on the social impact of the Open Museum programmes, particularly on individual users; it will also look at the significance of the use of objects. The conclusions are likely to inform the future

developments of the Open Museum and other social inclusion initiatives.
Value Reported in June/July Bulletin

Evaluation of Museums and Gallery Education Programme

£95,725 *Department for Education and Employment*

OPHTHALMOLOGY

Prof I Gottlob, Dr F Proudlock Functional Magnetic Resonance

Imaging (MRI) in Vision

Functional Magnetic Resonance Imaging (MRI) is used to visualise brain activity. This is used to see a person's brain area responding to stimuli, which highlight the areas of the brain that are involved in a specific task. This support will enable the department to employ a MRI physicist. We are planning on investigating normal and abnormal eye movements, for example, in nystagmus, which is a condition where the eyes are moving constantly but it is unclear from where this activity is triggered in the brain. We are also interested in abnormal brain activity in amblyopia (lazy eye) and compensation mechanisms in visual field defects.
£84,891 *Ulverschroft Foundation*

Prof I Gottlob, Prof J Thompson, Dr F Proudlock

Effect and Compliance of Treatment of Strabismic Amblyopia Monitored with the Occlusion Dose Monitor (ODM)

If one eye turns in or out during childhood, visual input of that eye can be suppressed and the eye would become amblyopic (lazy eye). This would mean that the person would have low vision and disturbed visual functions. Patching the good eye, during childhood, can usually treat amblyopia. However, there are no standardised treatments for amblyopia. Preliminary studies have shown that the real time that patients would patch their eye differs from the prescribed time. In this study, we will

measure the effect of patching on vision, while a small thermo-sensitive monitor on the patch measures the real time of patching. With this study, we hope, on the one hand, to find out the causes for not patching and, on the other hand, to find out how much patching is required for different patients. We hope that this will help to provide better guidelines for treatment of amblyopia.
£23,431 *National Eye Research Centre*

PATHOLOGY

Dr M J S Dyer, Dr E L Karran Development and Assessment of Diagnostic and Possible Therapeutic Role of MABs to BCL12-17 (NTC)

£22,254 *Cancer Research Campaign*

Dr J L Jones

Molecular Studies in Cancer Invasion

When malignant tumours invade, many changes take place in the surrounding host stroma which facilitate the invasive process. These studies are focused on dissecting the role of tumour-stroma interactions in promoting tumour cell invasion using a series of co-culture model systems. This may identify novel targets for therapeutic intervention.
£3,500 *Dermatopathology Trust Fund*

Analysis of the Tumour-Suppressor Role of Breast Myoepithelial Cells

The features that characterise a malignant tumour are disordered growth control, loss of tissue structure and invasion of the surrounding tissue. Signals from the surrounding environment control these cellular functions in normal tissue. In the normal breast, myoepithelial cells form the major interface with the surrounding basement membrane, but these are lost in invasive breast cancers. We have preliminary evidence to indicate that myoepithelial cells can suppress tumour invasion. The aim of this study is to use 3-dimen-





sional model systems to analyse the full extent to which myoepithelial cells can modulate the malignant phenotype and to address the mechanisms involved.
Value Reported in October 2000 Bulletin

PATHOLOGY (CHEMICAL)**Dr A Goodall****Vacation Scholarship – Ms Dionne Catton**
£1,160 *Wellcome Trust***PATHOLOGY (CHEMICAL) WITH KINGS COLLEGE LONDON****Dr A Goodall****Quantification of the Optimal n-6/n-3 Ratio in the UK Diet (Supplement)**
£14,822 (supp) *Food Standards Agency via Kings College London***PHYSICS & ASTRONOMY****Prof G W Fraser, Dr J F Pearson****Design and Provision of a Fast Microchannel Plate Detector for the TEARES Spectrometer**
£76,500 *CLRC***Prof T B Jones****Does a Solar Eclipse Produce****Atmospheric Waves? Emeritus Fellowship**
During the last total eclipse of the sun visible in the UK, the Radio and Space Plasma Physics Group collected an unique data set on the changes produced in the Ionosphere by this event. Amongst the expected changes, there is unexpected evidence for the generation of internal atmospheric acoustic gravity waves. The Fellowship will enable a detailed examination of the data to be undertaken as well as an analysis of the physical processes involved.
£11,257 *Leverhulme Trust***Prof A R King, Dr D J Raine, Dr M B Davies, Dr G A Wynn, Dr P J Wheatley, Dr J R Murray****Research in Theoretical Astrophysics**
£423,644 *PPARC***Dr J Lees****Construction of MCP Detector**

It is well known that some organophosphorus pesticides appear to produce adverse effects in man and animals at low exposure levels. A research project has recently begun in the University of Nottingham, lead by Prof. David Ray and funded by MAFF, to find the protein targets in the brain which are effected by such pesticides. Specific adverse health effects can then be linked to specific protein targets.

As part of the project Prof. Ray has contracted the Biolmaging Unit in the Space Research Centre to build a digital imager capable of detecting the low levels of protein (~ femto-moles) that have been labeled with radioactive hydrogen (3H).
The new camera will be capable of

imaging a variety of radiolabeled biological samples, ranging from lymphocyte proliferation assays to semi-thin whole body tissue slices, with high spatial resolution and high sensitivity over a wide dynamic range.

Such basic research should identify novel protein targets, and if expressed in accessible tissues such as blood, will provide new and more sensitive biomarkers of human organophosphate exposure.

£150,000 *University of Nottingham*

Dr J Remedios**Measurements of Organic Compounds in the Upper Troposphere**
£23,573.83 *NERC***ACE – Definition of Observational Requirements for Support to a Future Earth Explorer Atmospheric Chemistry Mission**

£3,665 *European Space Agency via CCLRC*

Vertical Profiles of Greenhouse Gases from the MIPAS Instrument on ENVISAT
£49,784 *NERC***Dr G C Stewart****Observation of Low Luminosity Clusters and Groups of Galaxies with the European Astrophysics X-ray Mission XMM**
£4,000 *The British Council***PHYSICS & ASTRONOMY, CHEMISTRY****Prof A Wells, Dr P Monks**
Supplement – Sub-contract for Estec Contract No. 14339/00/NL/DC – Analysis of Candidate Missions for Remote Sensing from Geostationary Earth Orbit
£9,412 (supp) *Astrium***PRE-CLINICAL SCIENCES****Dr C Ockleford**
The Bassal Plate in Healthy and Pre-Eclamptic Gestations – Studentship
£8,500 *Pathological Society of Great Britain and Ireland***PSYCHIATRY****Dr J Milton**
Supplement - Rampton Referrals Cohort Follow-Up Project
£10,480 (supp) *Nottinghamshire Healthcare NHS Trust***PSYCHIATRY (GREENWOOD INSTITUTE)****Prof P Vostanis**
Primary Care Training Co-ordinator – Research Costs
Evaluation of Phase 1 Multi-Agency Training

Dorothy Sebuliba obtained research funding through a Health Action Zone Fellowship to evaluate Phase 1 of the training programme, by addressing the

following questions:

a. Does the training improve staff knowledge, skills and confidence in managing child and adolescent mental health problems?

b. What additional support would the staff require to sustain the benefits of the training?

c. Does the training improve communication/ networking between agencies? Qualitative measures will include specifically designed questionnaires, to be completed by staff at pre/post-training and six month follow-up; also staff focus groups six months after the delivery of training.
£22,000 *Leicestershire Health*

RESPIRATORY MEDICINE**Prof A J Wardlaw****Research Funding**
£4,066 *UHL Trust***SCARMAN CENTRE****Mr A S Willis**
Business Intelligence Crime System (BICS)
£186,000 *ESRC***SURGERY****Dr N P Brindle****Surgical Fellowship - Fellow Mr A J P Clover**
£34,468 *Royal College of Surgeons***Mr I Loftus, Mr R Naylor, Mr M M Thompson****The Relationship between COX-2 Metalloproteinases and Inflammatory Markers in Plaque Instability**

Acute disruption of narrowings in arteries, called atheroma or plaques, precedes a large proportion of strokes. This is related to intense inflammation within the plaque. Drug therapy to prevent this inflammation and disruption is a very attractive option but the target for treatment has been elusive. We have found that certain substances within the plaque, called MMP enzymes, may cause acute disruption and have performed a drug trial to prevent MMPs working. This did reduce the levels of MMPs, but it has become apparent that other factors may provide a more efficient target. We plan to study the relationship of MMPs with other factors involved in inflammation within the plaque in particular cyclo-oxygenases. These factors may well play a key role in the process of plaque disruption. A number of drugs have been produced which inhibit cyclo-oxygenase and we plan to study the effect of these agents upon the inflammatory pathway.
Value Reported in June/July Bulletin

ANAESTHESIA**Dr D Lambert, Prof D J Rowbotham**
Characterisation of Novel Ligands with Activity at the Nociceptin Receptor

£14,975 *British Journal of Anaesthesia Royal College of Anaesthetists*

Prof G Smith**Supplement – Resident Medical Officer**
£52,223 (supp) *BUFA***ARCHAEOLOGY****Prof G W Barker****The Niah Cave Project, Sarawak: 40,000 Years of Human-Rainforest History in Southeast Asia**

The Niah Cave Project is re-investigating the archaeological stratigraphy of the most famous archaeological site in southeast Asia, the remote Great Cave of Niah in the rainforest of coastal Sarawak. It is an enormous cavern inhabited by millions of bats and swifts - the local people collect the bat guano to sell as fertiliser and, at great profit but often lethal risk, the swifts' nests in the cave vault to sell to the Chinese for birds-nest soup. In the 1950s and 1960s Tom and Barbara Harrison conducted pioneering excavations in the West Mouth of the Great Cave, their discoveries including a human skull in deposits dated by radiocarbon to about 40,000 years ago, the earliest date for modern humans in Borneo, surmounted by what they believed to be a continuous sequence of occupation to the present day. However, their excavations were never published in a comprehensive form and there is considerable uncertainty regarding their results. The Niah Cave Project is therefore attempting to understand the human history of the cave in its landscape context, from the earliest occupation to the present day, through an integrated programme of archaeological excavation and environmental science by an inter-disciplinary team from universities in Britain, Australia, Sarawak and the United States. From the first two seasons of fieldwork (September 2000 and April 2001) it is already clear that the project will contribute new and important information on several major debates about the settlement history of southeast Asia, including: the date of the arrival of modern humans in Borneo en route to Australia, the kind of rainforest they encountered, and their strategies for living in it; the timing of, and reasons for, the eventual development of farming; and the respective impacts of foraging and farming on the long term sustainability of tropical rainforest.

The present AHRB grant is a follow-up grant to the initial AHRB grant of £196,614 awarded in 2000 to initiate the fieldwork.

£124,956 *Arts & Humanities Research Board*

Dr N Christie**A Transformation of Italy: From Late Antiquity to the Middle Ages**



The period AD300-800 is a dramatic one across much of Europe: it marks the decline of Roman power, the emergence of Germanic states, and ends with the imposition of Carolingian rule in the west. Italy is an area of vital interest in charting these changes, as centre, firstly, of the Roman Empire, subsequently the seat of Christian power, and later a focal point of cultural dissemination. It is also a country which preserves a stunning array of late Roman and early medieval survivals, notably town defences, churches and mosaics. The AHRB Research Leave award will enable completion of research for and writing up of a monograph (publisher: Scholar/Ashgate) which will synthesise a mass of recent archaeological, art historical and historical research. This will be the first book in English to explore in depth the material evidence for this complex epoch in Italy, examining key themes such as urbanism, defence, culture and the Church.

£13,292 *Arts and Humanities Research Board*

Dr G C Morgan
Durrnberg-bei-Hallein: Technology and Social Archaeology of the Iron Age Salt Mine Complexes, Austria

Recent work both underground and above the salt mines complexes at Durrnberg - bei -Hallein, near Salzburg in Austria has yielded vast amounts of information and archaeological material relating to the iron age and later mining techniques. Work above ground is now concentrating on the social archaeology of the communities supporting the salt mining activities. Field work during the last four years has produced the earliest post Roman mine entrance and an iron age salt mine waste heap. This years work will be on the site of a possible wetland trackway, of the sort found in the Somerset levels in England. The wet nature of the alpine soil allows the exceptional preservation of organic material, in particular wood, allowing artefacts to be preserved and promising the possibility of dendrochronological dating of the trackway timbers.

£3,560 *British Academy*

Prof M Palmer
Annual Conference of the Society for Historical Archaeology (Travel Grant)

£249 *British Academy*

BIOCHEMISTRY
Prof D Critchley, Dr C A Pritchard
Analysis of the Function of the Cytoskeletal Proteins Talin and Talin-2 Using Gene Disruption

£190,388 *Wellcome Trust*

Dr D M Heery
Supplement - Structure/Function Analysis of the Nuclear Receptor Co-Activator Trap220

£3,266(supp) *Wellcome Trust*

BIOCHEMISTRY WITH STRATHCLYDE UNIVERSITY

Dr A Munro
Probing Stability of Structure and Intermediates in a Biotechnologically Important Mono-Oxygenase

Enzymes known as cytochromes P450 (P450s) are critical to human health. The liver P450s provide the front line in drug detoxification. P450s are oxygen-binding proteins and use electrons to cleave oxygen (O₂) into its constituent atoms, introducing one oxygen atom into the substrate. For the liver P450s, this usually results in increased product solubility, allowing its excretion in urine or bile. It is of great importance that we understand P450 mechanism. However, detailed studies on mammalian forms are difficult due to interaction with other enzymes and since they are bound to membranes. Instead we have characterised a bacterial P450 which is completely soluble and is a natural fusion of the P450 to its partner enzymes. This P450 can be isolated in high quantity and is amenable to a wide range of physical studies. Through these studies, we aim to understand better the mechanism by which P450s bind and cleave oxygen.

£65,201 *EPSRC*

BIOCHEMISTRY WITH UNIVERSITY COLLEGE LONDON

Dr M Pfuhl
Structural Characterisation of the Subunit Combining Centre of Class Ia PI 3-Kinase

£26,510 *MRC*

BIOLOGY
Dr R P Jarvis
Toc33 and Chloroplast Protein Import

£10,000 *Royal Society*

Prof G C Whitelam
Interactions and Co-Actions Among the Phytochromes

£168,784 *BBSRC*

CARDIOLOGY
Prof B Williams, Dr R Hastings
Cellular Mechanisms of Human Vascular Ageing

It is well accepted that the cardiovascular system deteriorates with age. Many factors accelerate the cardiovascular ageing process such as high blood pressure, diabetes, smoking and high cholesterol levels. However, very little is known about how these factors promote ageing in cardiovascular cells. We have shown that angiotensin II, an important hormone in the cardiovascular system can promote ageing of human vascular smooth muscle cells, derived from human blood vessels. These effects are mediated via damage to DNA within the cells. Importantly, we believe that the damage is focussed on a specific region of DNA known as the telomere. This DNA region is an important determinant of cell age.

With funding from the British Heart Foundation we are now attempting to identify the mechanism whereby angiotensin II damages human cardiovascular cells and promotes cell ageing. These studies have important implications for human cardiovascular disease because drugs that block the actions of angiotensin II are readily available and have the potential to arrest the human cardiovascular ageing process.

£140,144 *British Heart Foundation*

CARDIOLOGY, PATHOLOGY (CHEMICAL)

Dr A M Gershlick, Prof Samani, Dr Goodall

Supplement - Localising Thrombolytic Agents by Targeting Recently Formed Thrombus: In-Vitro Studies to Develop Effective Antigen Directed Conjugates

£12,220 (supp) *British Heart Foundation*

CELL PHYSIOLOGY & PHARMACOLOGY

Dr J Cavieres
Regulatory ATP Sites in Calcium Transport

£23,933 *Wellcome Trust*

Dr R A J Challiss, Prof S R Nahorski
Studentship - Ca²⁺ -Mobilizing G Protein-Coupled Receptors and Transcriptional Control - Student - Ms Helen K Warwick

One of the most fascinating aspects of Ca²⁺ signalling to emerge in the past decade is its capacity to encode information in the frequency, amplitude, duration and spatial distribution of changes in cytoplasmic [Ca²⁺], and it is likely that different Ca²⁺ signatures can be differentially decoded by downstream effectors. Evidence exists that this may be the case for the regulation of Ca²⁺-dependent transcription factors, as artificially generated Ca²⁺ oscillations have been demonstrated to be more efficient at activating nuclear factors (e.g. NF-AT) compared to equivalent steady-state increases in [Ca²⁺]. In this project the student will examine the downstream consequences of different Ca²⁺ signatures following activation of the Ca²⁺-mobilizing metabotropic glutamate and muscarinic acetylcholine receptors using specific eGFP-reporter gene constructs to allow changes in cellular localization (e.g. translocation to the nucleus) to be visualized and followed in real-time in neuronal cells.

This project provides a logical extension of the research ongoing under the Wellcome Programme grant awarded to the supervisors.

£83,109 *Wellcome Trust*

Dr J Mitcheson, Prof N Standen
Regulation of HERG and IKr Channels by Intracellular Second Messengers

HERG (human ether a-go-go related gene) encodes a potassium channel that helps regulate cardiac action potential duration. Dysfunction of HERG channels, due either to inherited mutations or drug-induced block, can result in dangerous arrhythmias and sudden cardiac death. Despite the important physiological role of HERG, little is known about how this channel is regulated by intracellular second messengers. Ca²⁺ and cyclic AMP modulate many ion channels by direct interaction or through activation of kinases and phosphatases. The aim of this study is to investigate how Ca²⁺ and cAMP dependent signalling pathways regulate HERG channel function. Information from this study may be useful for developing new strategies for treating cardiac arrhythmias.

£106,492 *British Heart Foundation*

Dr A Tobin, Prof S Nahorski (Sponsor)
Supplement: Senior Research Fellowship in Basic Biomedical Science - Investigation of the Signalling and Physiological Role Played by Agonist-Mediated Phosphorylation of Gq/11-Coupled Receptors

Cells communicate with each other by releasing messenger molecules that are able to interact with specific "receptor" proteins on target cells. By binding messenger molecules the receptors are activated and initiate biochemical (signalling) pathways within the target cells resulting in diverse physiological responses. This Fellowship will investigate the regulation of the most abundant cell surface receptor family known as "serpentine receptors" based on their distinct membrane structure. Understanding how modifications to these receptors control their activity will be essential in revealing the mechanisms that result in physiological responses such as muscle contraction, hormone secretion and nerve cell firing.

£1,111,149 (supp) *Wellcome Trust*

CHEMISTRY
Dr A P Abbott
Transition Metal-Mediated Polymerisation in Supercritical Hydrofluorocarbon Fluids

£103,196 *EPSRC*

Dr E Hope
University Research Fellowship (Supplement) 2001

£52,915(supp) *Royal Society*

Dr J Woodward
Flash Photolysis EPR Spectrometer

Free radicals are reactive chemical intermediates formed when chemical bonds are broken symmetrically. As well as being utilised in many industrial processes (for example polymerisation), they are of great significance to the body's biochemistry, as they are known to be present as intermediates in many important biological



processes. They have also been implicated in some forms of cancer and in the ageing process.

This grant award is to be used in the construction of a flash photolysis Electron Paramagnetic Resonance (EPR) spectrometer. Such an apparatus allows free radicals to be generated in a pulse of laser light and subsequently monitored by a technique that measures their magnetic properties. It is a very powerful technique, giving information on precisely how the radicals are created and how they behave after creation. After construction, the apparatus will be used to study fundamental chemical processes and also systems of biological relevance.

£9,988 *Royal Society*

CHILD HEALTH, MICROBIOLOGY & IMMUNOLOGY

Dr C O'Callaghan, Prof P Andrew

Experimental Pneumococcal Meningitis: The Effect of Streptococcus Pneumoniae and its Virulence Factors on the Functioning and Integrity of the Ciliated Ependyma

A collaborative project between Professors Chris O'Callaghan (Child Health) and Peter Andrew (Microbiology) has received support from the Wellcome Trust. Pneumococcal meningitis is a particularly severe form of meningitis associated with a high mortality and morbidity. The research project was designed to study the role of the brain ependyma during pneumococcal meningitis. The cells of the ependyma are ciliated and act as a barrier between the CSF, that is infected in meningitis, and the underlying neuronal tissue. The cilia beat rapidly and may be used as a functional assay for ependymal integrity. Ciliary beat frequency (CBF) can be measured using high-speed video recording and an inhibition of the CBF is linked to a decline in ependymal function. Loss of ependymal cells may contribute to the post-infection symptoms of meningitis. The three-year project will employ a senior postdoctoral research assistant and a research technician.

£217,153 *Wellcome Trust*

ECONOMICS

Prof P Demetriades

Money, Macro and Finance Research Group (MMF)

The principal purpose of the MMF is to promote dialogue among academics, UK and international civil servants, Bank of England officials, private bankers, stock-brokers, business economists and others interested in the fields of money, banking, finance and macroeconomics including economic policy. The group aims to promote discussion of new ideas and to provide a forum by which researchers and the 'end users' of research, policy makers and practitioners, can meet and debate issues which are both current and of more enduring interest. The group is distinguished by the breadth of its interests and the wide

range of its membership.

The MMF is concerned with (i) money: in particular with the way in which money and monetary policy affect economic variables, both nominal and real, (ii) macroeconomics: both theory and policy such as the role of fiscal and monetary policy and the nature and causes of business cycles and the relationship between growth and finance; (iii) finance: the determination of asset prices and the workings of financial markets through money and derivatives markets to the foreign exchange market. These three strands interact and interrelate, and in each case the group's perspective is that of a globalised economy.

See: <http://www.york.ac.uk/res/mmf> for further details

Value Reported in August/September Bulletin

Dr S Wheatley Price, Dr M Shields

Labour Market Effects of Migration

£15,300 *Home Office*

ECONOMIC & SOCIAL HISTORY

Dr S Horrocks

Engineering Postwar Industry Conference

This conference brings together scholars from several countries to examine the trajectories of development in postwar engineering across national and sectoral boundaries, extending the detailed analysis which exists for the period before 1940. It will attempt to set a new research agenda in field of considerable importance to historians of business and technology, in particular by extending the analysis beyond the US and by examining the impact of the Cold War context for innovation. These are all issues of significance in my own research on R&D in postwar British manufacturing industry. My own contribution will assess the extent and consequences of state support for defence R&D carried out by private firms between 1945 and 1970.

£450 *British Academy*

EDUCATION

Dr C Comber, Dr S Cavendish, Mr A Lawson, Dr R Watling

The Impact of Information and Communications Technology (ICT) on Educational Attainment

While research has shown that the use of computers in the classroom motivates both teacher and pupil, quite how this enthusiasm can be best harnessed to raise academic standards is not yet fully understood. In order to explore this further, the Department of Education and Skills (DfES) have commissioned a national study involving 60 schools with a particular focus on the "communications" aspect of ICT such as email, the internet and video conferencing. The project is managed by the British Educational Communications Technology Agency (BECTA). 15 of the 60 schools will

be working closely with a research team based at the School of Education, University of Leicester. The schools will be reporting to the team using novel approaches including "e-journals" as well as "Big Brother" type video diaries. The work, which will complement that already being carried out by teams at Manchester Metropolitan, Nottingham and Open Universities, will add significantly to our understanding of how computers can help children learn more effectively.

£31,918 *British Educational Communications and Technology Agency*

Prof A Osler, Dr R Watling

Global Dimension Database (Phase 2)

£64,638 *Department for International Development*

Dr R Watling

Global Dimension to Citizenship

Education Website: Pilot and Evaluation

This project will involve staff at the Centre for Citizenship studies in the construction, evaluation and maintenance of the pilot Global Citizenship Education Website. This is a new portal for teachers and educators keen to promote the global dimension of citizenship.

£5,000 *Development Education Association*

ENGINEERING

Prof A Cocks

DIENET – Network to Improve Powder Die Compacting Using Computer Simulation and Other Advanced Techniques

£28,159 *CEC via EPMA*

EPIDEMIOLOGY & PUBLIC HEALTH

Dr S Ablett, Prof Pearson, Dr Howatson

Supplement – UKCCSG Tumour Bank (Year 2)

£110,408 (supp) *Cancer Research Campaign*

Prof M Clarke

Supplement: Senior Research Fellow, Economics of Welfare

£62,785 (supp) *NHS Executive Trent*

Supplement Year 2 – Trent Institute for Health Services Research – Leicester Unit

£278,424 (supp) *NHS Executive Trent*

Dr C McGrother

Supplement – Learning Disabilities Re-Development Plan

£15,000 (supp) *Leicestershire Health*

Prof G Parker

Directorship of NHS SDO R&D Programme

£232,635 *Department of Health*

Prof G Parker, Dr S Katbamna

Best Place of Care for Elderly People After Acute and During Sub-Acute

Illness – Phase 2

Acute hospitals are not necessarily the best place for older people who are acutely ill but do not need the full range of acute services. This issue is currently high on the policy agenda for the NHS. This pilot study will explore three main questions:

- can care for older patients be delivered as safely and cost-effectively in 'admission avoidance' services as in acute care hospital wards?

- do admission avoidance services allow older people to spend longer in their own homes, after admission, than does usual acute care, with what quality of life and at what cost to them and their families?

- do different types of admission avoidance services (community hospitals and home-based services) deliver different outcomes? Methods include routine data collection and interviews with patients and their family carers. If the pilot study is successful the research team will develop a proposal for a major national evaluation.

£107,229 *NHS Executive (HTA)*

EPIDEMIOLOGY & PUBLIC HEALTH, CHILD HEALTH

Prof M Clarke, Mrs E Draper, Prof D Field

Supplement – Trent Neonatal Survey (Year 2001/02)

£2,170 (supp) *Leicestershire Health*

EPIDEMIOLOGY & PUBLIC HEALTH (NCCSU)

Ms R M Hancock

Inequalities in the Health of Older

People: Health Status and its

Relationship to Past and Present

Material and Social Well Being

£183,387 *Department of Health*

EPIDEMIOLOGY & PUBLIC HEALTH (UKCCSG)

Dr S Ablett

A UKCCSG Monitor for the Phase I Trial of BU12 Saporin in Paediatric Cancer

Patients (NAC)

£15,387 (Yr 1) *Cancer Research Campaign*

Cancer Research Campaign

Funding for Clinical Trials Monitor

(BU12-Saporin)

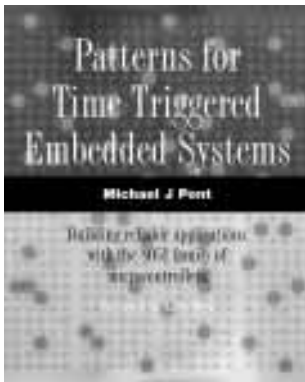
Value Reported in August/September Bulletin

Bulletin

The description below is for the above

two grants:

The UKCCSG has recently been awarded two grants, one from the Cancer Research Campaign and the other from a charity called Leukaemia Busters, in support of a new clinical trial of an antibody called BU12 Saporin. BU12 Saporin is a promising new drug which will be used in clinical trials of children with relapsed and currently incurable leukaemia. BU12 Saporin has already been tested for safety in adult patients with B-cell lymphoma. The grant covers the appointment of a clinical trial monitor to co-ordinate this study. ☺



PATTERNS FOR TIME-TRIGGERED EMBEDDED SYSTEMS

Dr Michael J Pont (Department of Engineering)
ACM Press, July 2001, £33.00
ISBN 0201331381
Available from the Bookshop

► **Embedded software is ubiquitous. It forms a core component of an enormous range of systems, from aircraft, passenger cars and medical equipment, to mobile phones, childrens' toys, video recorders and microwave ovens. This book describes techniques for the development of such systems, using 'design patterns'.**

Current work on design patterns was inspired by the work of Christopher Alexander and his colleagues. Alexander is an architect

who first described what he called 'a pattern language' relating various architectural problems (in buildings) to good design solutions. He defines patterns as 'a three-part rule, which expresses a relation between a certain context, a problem, and a solution' [The Timeless Way of Building, OUP, 1979, p.247].

Patterns for Time-Triggered Embedded Systems applies similar ideas to the field of software engineering. Specifically, the book

describes the first comprehensive set of 'design patterns' to support the development of embedded systems based on the 8051 family of microcontrollers. In total, details of more than seventy patterns are provided, complete with guidelines to help readers apply these techniques in their own projects.

All of the patterns are designed for applications with a 'time-triggered' architecture. Time-triggered architectures are in widespread use in safety-related applications, such as drive-by-wire passenger cars, aerospace systems or monitoring systems for industrial robots. For the first time, the techniques presented in this book allow time-triggered architectures to be simply and cost-effectively applied in virtually any embedded project.

• **Michael Pont is a Senior Lecturer in the Department of Engineering.** ☺

'These patterns stand as an example of how much more can be done with patterns than is commonly attempted. Patterns at their best bridge the gap between problem and solution. They connect human needs and emotions with technology. And they open up new possibilities for people who just have a problem to solve.'

KENT BECK, WRITING IN THE FOREWORD



ALBAN AND ST ALBANS: Roman and Medieval Architecture, Art and Archaeology

Edited by Martin Henig and Dr Phillip Lindley (Department of History of Art)
The British Archaeological Association Conference Transactions XXIV, July 2001
ISBN 1 902653 40 8 (hardback) £48.00
ISBN 1 902653 39 4 (paperback) £36.00
Available from the Bookshop

► **This lavishly illustrated volume reviews religious activity at St Albans from the Iron Age until the end of the Middle Ages. For most of the Roman period Verulamium was a major pagan sanctuary, but in Christian times the focus of cult shifted to the site of the later church where it was associated with a Romano-British martyr. New evidence considered here ranges from the Biddles' epoch-making excavation of the Roman cemetery on the abbey site to a sensational new reconstruction of the early 5th century Passion of Alban by Richard Sharpe.**

Many contributions review the fabric and fittings of the medieval abbey. Studies of the

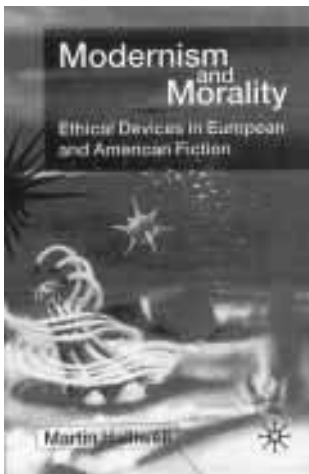
former include papers on the reuse of Roman building materials in the Middle Ages, the Romanesque sculpture of St Albans and its environs, the lost 13th century west front, the Gothic reconstruction of the nave and presbytery, and the 14th century timber roof of the central tower. Essays on the fittings of the church include a detailed investigation of a Coptic cross depicted by Matthew Paris and papers on the 12th century Purbeck-marble shrine table, the 15th century chantry of Duke Humphrey, and the magnificent great screen of the abbey (the last is studied by Dr Lindley).

The historical aspects of the research into St Albans also

receive attention and there are papers on subjects as diverse as the late Saxon belief that King Offa refounded the abbey and the attempts of the monks to promote the cult of St Alban in the Late Middle Ages, attempts whose tangible results at a popular level are reflected by pilgrim badges of St Alban found at London and elsewhere.

Future research into the protomartyr of Britain as well as many other aspects of St Albans' history, archaeology and art will have to start with this volume.

• **Dr Phillip Lindley is a Reader in the Department of History of Art.**
• **The illustration on the book's cover is the Martyrdom of Alban, from La Vie de Seint Auban.** ☺



MODERNISM AND MORALITY: Ethical Devices in European and American Fiction

Dr Martin Halliwell (Department of English)
Palgrave, August 2001, £40, ISBN 0333918843

Available from the Bookshop and from Palgrave (+£2.50 for postage and packing at Macmillan Direct Customer Services, Brunel Road, Houndmills, Basingstoke, RG21 6XS)

► **In this fresh reading of literary modernism, Dr Halliwell discusses the relationship between artistic and moral ideas in European and American fiction.**

Rather than agreeing with the critical view that modernists completely rejected social morality, this perceptive study shows how early twentieth-century writers, including Joseph Conrad, William Faulkner, André Gide, Franz Kafka, Thomas Mann and Gertrude Stein, actually devised new aesthetic techniques in order to address ethical problems. By focusing on a range of decadent,

naturalist, avant-garde and expatriate writers between 1890 and the late 1930s, Modernism and Morality provides a fresh assessment of the ethical implications of transatlantic fiction.

Responding to the recent resurgence of interest in moral theory in a wide range of Humanities subjects, Dr Halliwell argues: 'if the most convincing critiques of 'universal morality' now come from outside the West in the guise of post-colonial theory, it is productive to examine early twentieth-century writers in Europe and America as offering an internal critique of social and cultural value.' Moreover, while 'the primary responsibility of modernists may have been to art itself ... this belies a continued and, in many ways, a more intense interest in moral value than their seemingly more earnest literary predecessors.

It is precisely in the realm of experiential morality, rather than the abstract sphere of ethics, that modernists attempted to discover a passage between personal value and social action.'

The range of authors and texts considered is extensive, running from Oscar Wilde to Paul Auster, and from A Rebours to Their Eyes Were Watching God. Modernism in Halliwell's view is a genuinely international and multifarious occasion; an intricate reaction to a long crisis in morality. Old ethical systems collapse, as we have often been told, at the end of the nineteenth century and the beginning of the twentieth. What Halliwell shows us in subtle detail is that certain crucial ethical issues, old and new, 'just will not go away'. This is a study of what remains of ethics in modern literature, and how it remains.' 🗨

'This lucid and always intelligent book offers what scarcely seems possible at this date – a fresh look at modernism.'

PROFESSOR MICHAEL WOOD OF PRINCETON UNIVERSITY



LIFT UP YOUR HEARTS: A Collection of 30 Khutbah for Friday Prayer

Abdur Rashid Siddiqui (Adviser to Muslim students at the University of Leicester)

The Islamic Foundation, 2001, £5.95, ISBN 0 86037 356 8

Available from the Bookshop

► **Lift up your Hearts is a collection of 30 Khutbah (discourses) given by the author at Friday Prayer organised by the University of Leicester Islamic Society during Mr Siddiqui's years as Adviser to Muslim students.**

The purpose of Friday Khutbah is to teach and educate people in the meaning and message of Islam, to awaken their moral consciousness, increase their understanding of the religion, reflect upon the situation in

which Muslims find themselves and share among themselves their concerns, aspirations and obligations towards each other and to humanity at large.

The discourses cover a wide range of subjects and discuss many Islamic concepts and fundamental values with precision and depth in a systematic order. Amongst the themes covered are Knowledge, Faith, Islam, the Hereafter, Sacrifice, Morality, Brotherhood, Remembrance of God,

Self-purification, Repentance and the Muslim Community. The book's aim is to provide the motivation to learn more and to strive to fulfil one's responsibility as a Muslim. The book will also provide a useful introduction to Islamic beliefs and practices.

• **Mr Siddiqui retired from the post of Information Librarian at the University of Leicester in 1997. He has been deeply involved in Islamic activities for many years, and is author of a number of books.** 🗨



THE GEOLOGY OF THE ISLE OF MAN

Dr Trevor D Ford
Doppler Press, ISBN 0 900717 79 3

► **Dr Trevor D Ford, a retired member of staff of the Department of Geology, is a co-author of a new book, The Geology of the Isle of Man.**

The aim of the guide is to help

both the professional geologist and the interested amateur to investigate the rocks themselves, whilst providing a modern scientific context. The first part of the guide is an overview of the

island's geology, and the second part describes specific localities through a series of excursion itineraries. The authors' experience of the geology of the Isle of Man spans some 30 years. 🗨



CINEMA OF FLAMES: Balkan Film, Culture and the Media

Dr Dina Iordanova (Centre for Mass Communication Research)
British Film Institute, June 2001, £16.99 (paperback), £45.00 (hardback)
ISBN 0 85170 847 1 (paperback), 0 85170 848 X (hardback)
Available from the Bookshop

► The break-up of Yugoslavia triggered a truly international film-making project. *Underground*, *Ulysses' Gaze*, *Before the Rain*, *Welcome to Sarajevo* and *Pretty Village*, *Pretty Flame* were amongst a host of films created as the peace unravelled.

Civil war returned the Balkans to the centre of Western consciousness – and the Western media, especially

cinema, assumed a leading but ambiguous role in defining the region and its conflicts for global consumption. In contrast, much of the high-quality, home-grown cinematic and television work that emerged over the same period remains relatively unknown in the West.

Cinema of Flames seeks to move beneath the surface imagery, and addresses such issues as cross-cultural

representation as opposed to Balkan self-representation; Balkan exclusion from the European cultural sphere and its effect on narrative strategies; the cosmopolitan image of Sarajevo; diaspora; and the representations of villains, victims, women and ethnic minorities – all considered against the historical backdrop of Balkan cinema.

• *Dr Iordanova is a Lecturer at the Centre for Mass Communication Research. She is the editor of The BFI Companion to Eastern European and Russian Cinema (bfi, 2000). In April she spoke on representations of genocide at a major conference in London entitled The Holocaust, Genocide and the Moving Image: Film and Television Representations since 1933.*

'Encyclopaedic in scope and brilliance ... making excellent use of the scholarly literature whilst interweaving analysis of films and other mass media. The book will be a superb addition to the literatures on Bosnia and Yugoslavia. It will also serve as a standard reference on Balkan film.'

ROBERT HAYDEN, UNIVERSITY OF PITTSBURGH

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ACCOMMODATION REQUIRED FROM JANUARY 2002

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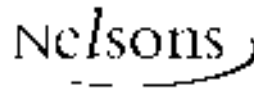
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