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research pulse

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From the Executive Dean

Professor Roy Goldie

Colleagues,

Your feedback on the first edition of Research Pulse has been very encouraging. Research Pulse aims to be readable, informative and fresh in its approach and content. Keeping you up to date on major events and initiatives in the Faculty research domain is our priority.

The decision to recommend the disestablishment of the Flinders Institute for Health & Medical Research (FIHMR) was taken several weeks ago by the Faculty Research Committee (FRC) and this decision was ratified by the Faculty Board and now by Academic Senate and the Council. The Faculty Research Administration Unit is now headed by Ross Forbes, an important new face in the Faculty Office, as he replaces Perry Fiegert as the Deputy Registrar (Research). Ross has previously worked as Project Manager with Flinders Consulting and his experience with that organisation will prove invaluable across a

broad range of domains in his new role (see the article in this edition of Research Pulse). Ross will be making a particular effort to meet researchers in their work environments, as well as assisting them from his base in the Faculty Research Administration Unit.

The Faculty Research Office is always under heavy work pressure and this is particularly the case at the moment, since Glenda Neild and Ross Forbes are leading two major projects. The first is to develop a data base which is vital to the creation of the Faculty's Research Profile. The success of this project, which is scheduled to be complete by mid October this year, relies in large part on the co-operation of Faculty researchers in providing the required information. I am determined to ensure that researchers are not significantly inconvenienced by this process. To this end, we will only be requesting essential information that cannot readily be obtained from already established data bases.

However, I am also determined that the Faculty will have created an accurate Research Profile document from this exercise that will inform us and others interested in understanding our research capacity, including prospective students and research collaborators, before the end of 2005.

The second project is to complete a much needed update of the Faculty Research website. This process began some weeks ago and will be completed over the next few weeks. The first results of this work can now be seen in improved and updated information and links on the site (www.flinders.edu.au/healthsc/research/default.htm).

Professor Richard Reed will be joining our Faculty in October as the new Head of the Department of General Practice. Richard has a particular research interest in the modern day plague that is Type II diabetes and his expertise and outstanding track record will add considerable strength to our developing research capacity in this field. Professor Reed's profile can be found in this edition of Research Pulse.

Your continuing feedback on, and contributions to Research Pulse are encouraged and much appreciated.

All You Need to Know About ARC Funding Opportunities

The Executive Dean's Lecture Series informs all members of the Faculty of Health Sciences about policies and trends in the external research environment. The next lecture in the Series is on 'ARC Funding Opportunities' and will be held on 6th October at 1-2pm in Lecture Theatre 2, level 5, Flinders Medical Centre. The speaker is Professor Alan Johnson, ARC Executive Director, Biological Sciences and Biotechnology. Prior to his ARC appointment, Professor Johnson had several prestigious appointments including Chief Hospital Scientist at Flinders Medical Centre. In addition to a PhD in parasite immunology, he has Masters degrees in technology and social change, and leadership and management in educational institutions.

FACULTY OF HEALTH SCIENCES

From the Dean of the School of Medicine



Professor Lindon Wing

It has become a fact of life over many years that the national research funding climate has become more competitive and less likely to yield success. Here at Flinders University we have been continually exhorted to seek additional sources of funding, particularly those which would be unique for us and separate from those for which we have to compete with others. In older well-endowed universities there is usually an established internal source of such

funds which provides unique support to their enterprises. Being a relatively young university, Flinders has less access to such funds, although we are fortunate in having some in the medical and health domains which are unique to us. Those which come to mind are the Sir Mark Oliphant Research Fellowship and the Mary Overton Research Fellowships in Neuroscience managed through the Flinders Medical Centre Foundation, the Lions Postgraduate Medical Research Scholarship and the Waterman Honours Scholarships. But we need more.

In my position of Dean I have often been asked to provide advice about what we would do with any funds which were donated to us. Often the call for such

advice comes without warning and I have generally found myself to be less well prepared than I should be. With the University's announcement that it wishes to create a Foundation known as the Flinders Fund for the Future (FFF), it is important that we have thought about what would be the best use of any funds which we were fortunate to attract. In fact we need to be informing the staff who will be responsible for the FFF about the types of opportunities that we could provide for potential donors.

I am currently working with the Executive of the School of Medicine and other senior staff to assemble a portfolio of potential options which could be attractive to potential donors. Initial ideas are broadly in the areas of research personnel (postdoctoral research fellows, postgraduate research scholars), research equipment, enhancement of our infrastructure and specific targets which might be of interest to particular individuals or groups such as our Clinical Skills and Simulation Laboratory or the anatomy/histology facilities. I would be interested to receive ideas which would help to consolidate this list and assist me in my current discussions with the University's Development Office. We need to capitalise as much as possible on the opportunity which will present itself with the launch of the FFF to coincide with the University's 40th anniversary in 2006.

How Might Losing Your Job Affect Your Health?

A group of researchers from Flinders University is exploring the health implications of retrenchment from an automotive plant in a study of retrenched workers from Mitsubishi Motors (Australia) Limited.

The research team is following 400-500 Mitsubishi workers over two years in a series of three face-to-face survey interviews which include questions about the impact of job loss on health. Over 300 interviews of the first phase have already been completed. Survey interviews will be conducted with a comparison group of 250 workers not facing retrenchment from another organisation. A small number of the Mitsubishi workers will also participate in more in-depth qualitative interviews in each of the three stages. The team will also be looking at the impact of retrenchment on the health and well-being of families and will be following the children of some of the Mitsubishi workers over the same time period.

The research team also hopes to monitor the impact on the southern Adelaide community of a concentrated job loss and document the ways in which the whole community is affected, not just the workers. The study will look at the impact of retrenchment on health service utilization and a survey of health and community services in the region is underway to assess the impact on service organisations.

In addition to looking at the health-related impacts of retrenchment, the researchers will also look at the employment and housing outcomes for

workers, including the most effective strategies for finding new employment and levels of housing stress.

The research team involved in the study is multidisciplinary, involving staff from across the University. The public health team is headed by Professor Fran Baum from the Department of Public Health and involves Ms Gwyn Jolley, Dr Anna Ziersch and Dr Lisel O'Dwyer. The study also involves a team from the School of Geography, Population and Environmental Management headed by Professor Andrew Beer, a team from the National Institute for Labour Studies headed by Professor Sue Richardson, and Dr Fiona Verity from the School of Social Administration and Social Work. The research is being conducted with the co-operation of Mitsubishi Motors (Australia) Limited and is funded by the South Australian Department of Health and a recent ARC Linkage grant.

It is hoped that the study will assist organisations and governments to best support retrenched workers in the time after leaving their employment, and help service planning for regions facing job losses.



Working Together to Improve Aboriginal Health through Research

Flinders Aboriginal Health Research is one of eleven Areas of Strategic Research Investment (ASRI) selected by Flinders University. It brings together a large multidisciplinary network of Flinders University researchers and their colleagues with a strong track record and long term commitment to improving Aboriginal health and wellbeing through research. The Vision is for Flinders University to be the leading provider of quality research that improves Aboriginal health, builds capacity and meets the needs of Aboriginal people and other stakeholders.

In recent years Flinders University has steadily built a reputation in Aboriginal health research, developing respectful partnerships with Aboriginal communities and key organizations, gaining significant grant income, and achieving major roles in national research collaborations including the Cooperative Research Centre for Aboriginal Health (<http://www.crcah.org.au/>), and the Centre for Clinical Research Excellence in Aboriginal Health, in partnership with Aboriginal Health Council of SA (http://www.ahcsa.org.au/07/07_1.htm). This research spans the health and social sciences and the humanities, in keeping with holistic Aboriginal understandings of health as encompassing physical, social, emotional, spiritual, environmental, cultural and community wellbeing. Some of the focus areas include mental health, drugs and alcohol, social and emotional well-being, complex chronic conditions, health services and systems, workforce development, social determinants of health, safety and preventable injury, infectious disease and consequences, appropriate research methodologies and health indicators and trends.

The granting of ASRI status and funding, along with significant co-investment from the Faculty of Health Sciences, has enabled the establishment of the Flinders Aboriginal Health Research Unit (FAHRU) to develop the necessary leadership and supports to build on early successes and achieve the Vision. FAHRU is led by Dr Inge Kowanko, with Kim O'Donnell and Helen Liddle (research associates) and Anne Amos (admin assistant). Together they comprise a team with complementary skills and experiences. FAHRU is co-located with the Faculty of Health Sciences office in the Sturt Buildings at Bedford Park, except for Helen Liddle who is based at the Centre for Remote Health in Alice Springs.

The role of FAHRU is to coordinate, conduct, support and grow Aboriginal health research across all Flinders University campuses (SA and NT), and to build relationships and enhance collaborations with Aboriginal communities and organisations, government agencies and other stakeholders. In this way the needs of research users (Aboriginal people and the organisations that serve



The FAHRU team, from left: Ms Anne Amos, Dr Inge Kowanko, Ms Kim O'Donnell; inset: Ms Helen Liddle

them) can be matched with the skills of research providers (research teams based at Flinders University and their colleagues).

FAHRU promotes, and tries to model, the principles of Indigenous research reform, which are espoused internationally and nationally e.g. through the CRCaH and NHMRC and Aboriginal research ethics committees. Key elements include meaningful partnership with Aboriginal participants in all stages of the research from planning through conduct to reporting, ensuring that research findings translate to better policies and practices that improve health outcomes, and providing opportunities for capacity development of Aboriginal people and others with an interest in Aboriginal health and research. It follows that a major role of FAHRU is to develop and maintain relationships with Aboriginal communities and groups. This reflects the reality of Indigenous research today, i.e. Aboriginal communities set the research agenda according to their needs and priorities. It means spending time, sitting down with Aboriginal people, listening, being flexible, responding to needs as they arise, thinking beyond the project, and demonstrating long term commitment. Aboriginal people are interested in practical research programs that address problems and lead to sustainable solutions, research that builds on previous studies, and takes into account prior knowledge of what works and what doesn't and in what context. Therefore networking, extensive consultation and making connections with related activities are key roles for FAHRU.

Further information may be obtained from Ms Anne Amos, phone 08 82015890, email: anne.amos@flinders.edu.au

Major Research Grants Awarded

Staff from the Faculty of Health Sciences continue to attract significant competitive research grant support. Each edition of Research Pulse will list major new grants (\$200,000 or more) as we hear about them, and highlight particular research activities in feature articles. Major new grants include:

- Alzheimer's Disease and Related Disorders Association of Australia: Allostatic load as a predictor of poor health for dementia

caregivers. (Michael Clark, Malcolm Bond)

- Premier's Science and Research Fund: The Australian Antibody Facility (Robert Rush, Hedy Zola)
- ARC - Linkage Project: The Health, Housing and Labour Market Impacts of an Automotive Plant (Andrew Phillip Beer, Fran Baum, Sue Richardson, Fiona Verity, Diannah Lowry, Colin MacDougall, Anna Ziersch, Lisel O'Dwyer)
- ARC - Discovery Project: Activation mechanisms of store-operated calcium channels in liver cells (G Rychkov, Greg Barritt)

New Report:

Annual Survey of Divisions of General Practice

The Primary Health Care Research and Information Service (PHC RIS) is celebrating its 10th birthday with the launch of its latest research report *Divisions: the Network Evolves — the Report of the 2003-2004 Annual Survey of Divisions* by Elizabeth Kalucy, Kirsti Hann and Sophia Guy. This is the tenth report in a valuable series that documents the development and maturation of Divisions of General Practice since 1993 and their activities in response to emerging national policies. Divisions of General Practice are local networks of GPs, operating in defined geographical areas, which make a substantial contribution to the delivery of primary health care and the implementation of a broad range of Government policy.

The report's findings are based on a comprehensive annual survey of one hundred and twenty Divisions. PHC RIS administers this survey as part of their contract with the Australian Government Department of Health and Ageing, providing information about Divisions' infrastructure, funding, workforce education, relationships with other Divisions and external organisations, and their involvement with the activities of health professionals. The report is of interest to anyone whose work relates to health care delivery in the community.

The report includes the number of programs being run by Divisions to address particular conditions (eg cardiovascular disease, asthma, and mental health) as well as the involvement of health professionals (e.g. GPs, nurses, psychologists) and consumers in the execution of these programs. The report offers easy to understand interpretations of the results of the 2003-2004 annual survey of



The authors of the report: Libby Kalucy, Sophia Guy and Kirsti Hann

Divisions. It highlights the major findings according to the Government's new national priority areas for strengthening primary health care: organisational capacity, quality and evidence based care, supporting general practice in a changing environment, supporting recruitment and retention of an appropriate primary care workforce, improving access, health programs, supporting integration and multidisciplinary care, and consumer focus.

PHC RIS has been a part of the Faculty of Health Sciences at Flinders University, in the Department of General Practice, since 1995. The mission of PHC RIS in its four year funding contract is to generate, manage and share information and knowledge that will inform, influence and enhance Australian primary health care practice, policy and research.

Copies of the report are available online at www.phcris.org.au or by contacting PHC RIS by Phone: (08) 8204 5399 or 1800 025 882 or Email: survey.phcris@flinders.edu.au.

Richard Reed: *New Professor and Head of the Department of General Practice*



Professor Richard Reed

Richard Reed will be the new Head of the Department of General Practice at Flinders University beginning in October 2005. A native of New York State in the USA, he graduated with the BA degree (Magna Cum Laude with Highest Honors in Biology) from Williams College in Massachusetts; he also was a member of Phi Beta Kappa. He received his graduate entry medical degree from the University of Rochester School of Medicine in Rochester New York. While in medical school he did an additional year as a student research fellow in General Practice at the University of Manchester in the UK. After completing medical school he completed post-graduate medical training in General Practice, Gerontology and Geriatrics and Public Health at the University of Washington and currently holds US fellowship status in these disciplines. In addition to the Medical Doctor degree he also holds a Master of Public Health degree.

Professor Reed was most recently Professor and Chairman of the Department of General Practice (Family Medicine) at the United Arab Emirates University, a position he occupied since 1998. He was also Acting Dean during the later half of 2000. He was previously an Associate Professor in the Department of Family Medicine, and Director of Geriatric Medicine for the University of Minnesota School of Medicine, USA after beginning his career as an Assistant Professor at the University of Arizona, in Tucson, USA.

Professor Reed's research interests centre on chronic care and ageing with a special interest in diabetes mellitus. "Diabetes and its associated health problems of obesity, hypertension and abnormal blood lipids represent one of the most pressing international health issues. It is essential that we undertake research to better understand this condition which causes so many health problems. Research based in General Practice to find new ways of preventing the development of this problem as well as to provide better ways to lessen the impact of this disease is essential to promote a healthier world". Professor Reed plans to work closely with other researchers at Flinders on this important area of research.

Trial of Point-of-Care Testing in General Practice

Point-of-care pathology testing (POCT) is an exciting and emerging field of community medicine. POCT is conducted on small portable medical devices that perform the same pathology tests as hospital laboratories. Tests can be conducted in the community health care setting on a capillary blood sample or drop of urine by a trained health professional with the result available for the doctor and the patient in less than 10 minutes.

In 2002, the Australian Government commissioned a report on the 'Role and Value of Point-of-Care Testing (POCT) in General Practice in Australia'. This report highlighted the potential benefits of POCT, particularly in rural and remote settings, and recommended a formal trial of this technology in General Practice. The trial objectives would be to investigate the clinical effectiveness, cost effectiveness and safety of POCT in General Practice, to investigate the benefits to the patient and the GP, and to determine whether POCT leads to improved health outcomes – all within a quality assured framework.

The randomised controlled trial is being conducted in urban, rural and remote areas, with 20 General Practices recruited from each of the Adelaide, Bendigo and Dubbo regions respectively (60 practices overall, with approximately 6000 patients recruited). Patients must have a pre-existing diagnosis of either diabetes, hyperlipidaemia or be on anticoagulation therapy. Tests include HbA1c and urine ACR (for diabetes), lipids (for monitoring hyperlipidemia) and INR, which measures clotting time for patients on warfarin therapy. The POCT devices to be used in the trial are the Bayer DCA



Members of the Community Point-of-Care Services Unit (Director Mark Shephard [right] and Project Officer Les Watkinson [centre]) training practice nurses at the Adelaide Device Training Workshop.

2000 for HbA1c and ACR; the Cholestech LDX for lipids and the Roche CoaguChek S for INR.

The Community Point-of-Care Services (CPS) Unit within the Flinders University Rural Clinical School (FURCS), which formed a consortium with industry partners Bayer Australia, Point-of-Care Diagnostics, and Roche Diagnostics, was successful in winning the Government's POCT Device contract for the trial. The CPS Unit, directed by Senior Research Fellow Mark Shephard, has gained a burgeoning national and international reputation for being at the leading edge of providing innovative and practical point-of-care testing services for rural and remote communities. Flinders Consulting Pty Ltd administers the contract on behalf of the consortium.

The CPS Unit is responsible for education and

training for General Practices in using POCT devices, managing an internal quality control program, and providing a range of support services to participating practices. The CPS Unit is also a partner in the Trial Management arm (with the University of Adelaide's Department of General Practice) and the External Quality Assurance arm (with the RCPA Quality Assurance Programs Pty Ltd).

Training Workshops for General Practices from Adelaide, Bendigo and Dubbo were held in August, and the live phase of the Trial started on 1 September 2005.

The Director of the CPS Unit, Mark Shephard, says: "The next two years will be exciting and challenging, with the future of POCT in General Practice in Australia linked to the success or otherwise of this trial."

Speech Pathologists Honoured



Two members of the Speech Pathology and Audiology department were honoured by their professional association, Speech Pathology Australia, recently. Dr Alison Russell was awarded life membership for her outstanding, long term contribution across diverse fields of the profession. Dr Ingrid Scholten received the Elinor Wray award in recognition of her innovation and achievement in the field of clinical practice, student education and professional development.

Dr Alison Russell, Sue Horton (SA Councillor for Speech Pathology Australia), and Dr Ingrid Scholten

Flinders Medical Centre Foundation:

Supporting Research at Flinders University

The Flinders Medical Centre Foundation is the official fund raising body for the Flinders Medical Centre. Whilst the Foundation operates under its own Constitution and Board, and is independent of the Flinders Medical Centre, Flinders University, and Southern Adelaide Health Service, it nonetheless consults with these bodies about fund raising initiatives and allocation of funds for development and research within the hospital and Flinders University.

The Flinders Medical Centre Foundation arose because Flinders Medical Centre required additional support for development projects and equipment purchases and had no means of raising funds. In the early 1990s the Flinders Medical Centre Research Foundation extended its brief to incorporate the wider needs of the hospital and community.

The Flinders Medical Centre Foundation now raises funds for medical research, hospital development and equipment, and special initiatives like the current building and fit-out of the Flinders Centre for Innovation in Cancer (FCIC). The latter project has a fund raising target of \$15 million of which approximately \$4 million has already been secured. The FMC Foundation Board is actively engaged with state and federal governments and corporations, individual benefactors and donors to reach the target and begin construction in 2006. It is important to note the FMC Foundation and the FMC Volunteer Services Inc have each committed \$500,000 of their funds to the FCIC.

In 2004/05 the Foundation set aside funds for grants totalling \$529,527 for research and \$376,138 for development. Allocation of grants by the FMC Foundation for research is overseen by the Foundation's Research Committee who makes recommendations and submits a yearly budget to the Board for approval. In 2004/05, approximately \$187,000 was allocated for small project



Artist's impression of the Flinders Centre for Innovation in Cancer

and equipment grants, \$140,000 for maintenance of the Research Foundation Building, the remaining \$202,527 was allocated to named medical and biomedical postgraduate scholarships, awards and fellowships.

The FMC Foundation is particularly fortunate in receiving strong support for these scholarships and awards from the FMC Clinicians Trust Fund and the FMC Volunteers Services Inc.

In 2005/06 the Foundation Board has committed a similar amount in support of medical research on the Flinders campus. In addition to this support, the Foundation has now established two Mary Overton senior postdoctoral fellowships in neurosciences and the Sir Mark Oliphant fellowship in biomedical research, adding another \$370,000 in its allocation to research.

The FMC Foundation continues to work hard to support and maintain the high profile of medical research being undertaken at Flinders with the hope of doing more in the future.

Student Forum

Jenny Neilson (Honours Student with Prof Peter Mackenzie in Clinical Pharmacology) has been awarded a Waterman Honours Scholarship. The scholarship is awarded on the basis of grade point average in 3rd year topics to an Honours student in the School of Medicine. Jenny's Honours thesis is titled: Transcriptional Regulation of UDP-Glucuronosyltransferase 2B15 Gene. Her project has examined the roles of a number of transcription factors in regulating the activity of the UGT2B15 proximal promoter using human cell-based reporter assays.

Leanne Winner (Honours Student with A/Prof Kathie Knights & Prof John Miners in Clinical Pharmacology) won the prestigious Neil Della Scholarship offered by the FMC Foundation. This scholarship is available to students enrolled fulltime for a BSc Honours degree in any research laboratory in the

School of Medicine. It is awarded on the basis of excellence of the undergraduate record to the top student enrolled in the BSc Honours program. Leanne's Honours thesis is: Inhibition of aldosterone 18 β -glucuronidation by nonsteroidal anti-inflammatory drugs: A novel metabolic link with NSAID-induced sodium and water retention.



Leanne Winner



Jenny Neilson

News from the School of Nursing & Midwifery Health Research HUB

The School of Nursing and Midwifery will hold its Research Summit on the 29th of November 2005. The proposed theme for the Summit is 'Building capacity for nursing research'. Guest speakers will include Professor Jenny Carryer from the Massey University.

Ian Blackman and Julie Watkinson have both completed their PhDs recently.

During July the School of Nursing and Midwifery held its annual Research Week, hosting two visiting scholars. Dr Sean Clarke, Associate Director, Center for Health Outcomes and Policy Research, University of Pennsylvania, School of Nursing, spoke about researching nursing outcomes and the future shape of the nursing

profession. Professor Christine Norton, Burdett Professor of Gastrointestinal Nursing, Kings College, UK gave a presentation on building research capacity, and was also involved in other teaching and research events at the School and at the Repatriation General Hospital.

The category 1 publication rate from the School continues to improve, with 5 articles published and 8 submitted in the last 3 months. Dr Charmaine Power is one of the authors of a new book containing 'remarkable stories of twenty-four ordinary people and their extraordinarily long lives': Koch, T., Power, C. & Kralik, D. 2005, *100 Years Old: 24 Australian Centenarians Tell Their Stories*, Penguin.

Getting on With Business

In July 2004 Dr Mike Bettess was appointed Business Development Manager for Flinders Technologies Pty Ltd [FT], the private company wholly owned by Flinders University and entrusted with the commercialisation of University intellectual property assets. His role is to liaise with researchers, staff and students and to help identify, protect and develop commercial opportunities emanating from their research interests. Dr Bettess also aims to develop a more positive culture towards research commercialisation and its benefits to society. He is now based in the Medical School on Thursdays (room 6E:112 Dean's Office – School of Medicine).

Dr Bettess has a background in stem and cancer cell research. His doctoral work at Adelaide

University on signals directing mouse embryonic stem cell differentiation produced commercially successful intellectual property that part-funded his research. His postdoctoral work as Roche Research Foundation Fellow at the Swiss Experimental Cancer Research Institute in Lausanne, Switzerland concerned the *in vivo* role of an oncogene in the mammalian hematopoietic and gastrointestinal systems. Dr Bettess is augmenting his interest in commercialisation and biotechnology by ongoing studies for an MBA in Technology Management and his work at FT during the last 12 months.

Over the coming months Dr Bettess will be seeking to meet with researchers in the Faculty. Researchers are strongly encouraged to approach FT about any issue regarding



Dr Mike Bettess

commercialisation and/or their research. Further information is available from the FT website (www.flinderstech.com) or contact Dr Bettess directly on michael.bettess@flinderstech.com or 82017716.

A New Face in Research Administration

In late July 2005, the Faculty of Health Sciences welcomed Ross Forbes to the position of Deputy Faculty Registrar with responsibility for Research Administration. Ross brings a depth of experience to the management of research activities within Health Sciences, drawing from his extensive career in medical science, project management and high level administration spanning the health sector and higher education.

Most recently Ross has been Project Manager with Flinders Consulting, responsible for a portfolio of projects including the National Primary Care Collaboratives, and the Point of Care Testing trial in General Practice. Ross spent several years as Project

Administrator of the Science and Technology Enterprise Partnerships (STEP) Project within the Faculty of Science and Engineering, and previously provided managerial expertise to the Primary Health Care Research and Information Service (PHCRIS) in the Department of General Practice.

Prior to this work at Flinders University, Ross had established a successful career as a Medical Scientist within diagnostic pathology, as Supervisor / Chief Scientist of Histopathology at Clinpath Laboratories, and including 21 years service within Anatomical Pathology at Flinders Medical Centre.

To contact Ross Forbes, phone 82015894, email ross.forbes@flinders.edu.au



Ross Forbes

Primary Health Care Conference Exceeds Attendance Records

PHC RIS, based in the Department of General Practice at Flinders University, convened a very successful conference in Adelaide in July this year. More than 400 local, interstate and international delegates enjoyed the General Practice and Primary Health Care Research Conference. The exciting mix of researchers, practitioners and policy advisors who took advantage of the many opportunities to exchange ideas contributed greatly to the success of this conference. The outstanding key note speakers, the eminent evaluator Michael Quinn Patton from Minnesota, and the

energetic and charismatic Jonathon Lomas from the Canadian Health Services Research Foundation, stimulated great discussions and ideas among delegates. PHC RIS worked with the Australian Association of Academic General Practice and the Australian Primary Health Care Research Institute to organise this conference, on behalf of the Australian Government Department of Health and Ageing. Everyone involved applauded the excellent conference organisation led by Dr Ellen McIntyre and Sheri Millar of PHC RIS.



Dr Ellen McIntyre chairs the opening session.

Mutagenic Effects of Low Dose Radiation

The US Department of Energy has awarded US\$1,047,712 over the next three years to Associate Professor Pamela Sykes to study the mutagenic effects of low dose radiation. Her research team comprises Co-Principal Investigator, Dr Antony Hooker, two PhD students Tanya Day and Benjamin Blyth, and technical assistance from Ms Monica Dreimanis and Ms Guoxin Zeng. Very few grants from the US Department of Energy Low Dose Radiation Program were awarded outside of the US. The grant follows on from a previous 3 year grant from the same source awarded to this group.

Almost all the data on mutagenic damage from X-radiation comes from studies at high doses which are irrelevant to the general population. The team's results are ground-breaking in that they involve doses of radiation that are 1000X lower than anyone else has reported. Their results do not fit the conventional paradigm of a Linear No-threshold (LNT) model which is based on the premise that even the smallest amount of radiation will cause DNA damage. Their results suggest that the LNT model would underestimate DNA damage at some doses and overestimate DNA damage at other doses.

The experiments proposed in the new grant application will provide quantifiable data on DNA damage in response to lower X-radiation doses than previously described and at dose-rates relevant to the general public and OH&S situations. If the same results are observed at low dose-rate, then these results will impact on radiation standard setting for the general population. Such knowledge would lead to better protection of the public at doses which are dangerous, and alleviate fear at doses which only have a perceived danger. Presently billions of dollars are being spent to protect the public and occupational workers from radiation exposure based on theoretical calculations from the LNT model which may not be based on valid biological assumptions.

Another major focus of the research is aimed at understanding the mechanism of mutagenic responses to low dose-rate, low dose radiation. Such research will identify proteins that may be subsequently manipulated to modify radiation responses and perhaps even induce protection from radiation damage.

Update on Areas of Strategic Research Investment

Flinders University has selected 11 Areas of Strategic Research Investment (ASRI) so far, four of which are based in the Faculty of Health Sciences, and a further three with key involvement of researchers from the Faculty. Research Pulse is featuring a Faculty-led ASRI in each edition – the first included an article on the Eye and Vision Group, and an article on the Flinders Aboriginal Health Research Unit appears in this issue.

ASRI submissions are currently being prepared for Round 4, which closes on October 28, 2005, with the Selection Panel making its decision in November.

Most ASRI applicants who were not successful in Rounds 1-4 will have an opportunity to resubmit a revised application in a supplementary ASRI round, called Round 4+. Invitations to participate in ASRI Round 4+ will be made in the last week of November, 2005. Notifications of intent to apply will close in the second week of December, 2005 and the closing date for submissions will be at the end of March, 2006.

research pulse is an initiative of the Faculty of Health Sciences at Flinders University. Comments and suggestions for future articles are welcome.

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