Welcome to the first newsletter of the Research and Development Department. We aim to support, encourage and manage research, both commercial and non-commercial within the Health Service. Through this newsletter we hope to inform you about the SPPIRe, the primary care research framework covering Scotland and also a research profile on Dr Andrew Schofield and his successful funding from the British Cancer Campaign which grew out of a small local project funded by NHS Grampian Endowment Committee. Because of your efforts and those of the staff handling the commercial research, our income from that source is increasing and you can read more about this below in Research News.

We shall endeavour to tell you about specific events that you can attend, and this week on page 4, there is an article about a Scottish Health Innovations Ltd (SHIL) meeting where you can hear about the successful commercialisation of ideas formulated by staff within the Health Services.

At the end you will find a list of contact numbers and email addresses for our staff. Please get in touch if you think we help.

Professor Alison MacLeod, Director
Director, Research and Development

Research News

Research and Development Support Fund
Each year NHS Grampian is awarded resources from the Scottish Executive by the Chief Scientist Office (CSO) to pay for the Service Support Costs of Research & Development. The majority of this goes to pay for the time that staff spend doing research within the Health Service. There are other costs such as paying for laboratory, radiology and pharmacy costs of undertaking research. Each year the R&D Office sends out lists of ongoing projects to the CSO incorporating the number of staff who are principal applicants, applicants, and who are mentioned on the Ethics Submission. On the basis these last three, our allocation is calculated using a formula. This year our allocation has gone up by £0.5M compared with last year, to a total of £6,804,219. This is very good for NHS Grampian and I would like to thank all of you who undertake research and interact very successfully with our Office in giving us the necessary information to ensure the completeness of our return to the CSO.

The United Kingdom Clinical Research Collaboration (UKCRC) Initiative
The UKCRC was set up in 2004 as a partnership of organisations which aims to "establish the position of the UK as a world leader in clinical research, by harnessing the power of the NHS". The partnership organisations include the main funding bodies for clinical research in the UK, academic medicine, the NHS, regulatory bodies, representatives from industry and patients. The five main areas of activity are Alzheimers, Stroke, Diabetes, Mental Health, and Medicines for Children.

In the budget statement of 2004, the Chancellor of the Exchequer announced a commitment of £100M increase in the NHS R&D funding by 2008. This money was for England and Wales, but this month the Scottish Executive announced £12M over a similar timescale for linked work in Scotland. Scotland will act as one "centre" and link with others within the UK. The allocated money will be used for service support costs, principally for trials and epidemiological studies in the three areas of Diabetes, Stroke, and Medicines for Children. Within Scotland, Aberdeen is to be the lead centre for Medicines in Children, Professor Peter Helms chairing the Scottish group. The achievement of this funding is a truly marvellous boost for research, both within NHS Grampian and the UK and I hope to update you on progress of this initiative in future newsletters.
### Scottish Practices and Professionals Involved in Research (SPPIRe)

SPPIRe is the name for the primary care research framework covering mainland Scotland. The framework is co-ordinated by the Scottish School of Primary Care (SSPC) and is funded by the Chief Scientist Office of the Scottish Executive.

The aim of this multi-professional framework is to increase the amount of research relevant to patient care undertaken in a primary care setting. This is being achieved by creating a database of all interested professionals and practices willing to support, host or in other ways participate in research. Most of the work of SPPIRe is carried in four regional SPPIRe “nodes” covering the West, North, East and South East of Scotland, based in Glasgow, Aberdeen, Dundee and Edinburgh respectively. All nodes are staffed by a SPPIRe co-ordinator. This person is the first line of contact with research interested primary care professionals in facilitating high quality, funded primary care research. The co-ordinator recruits interested health care professionals who would like to be part of the database. When a new project wants to use the SPPIRe database, the co-ordinator liaises between the researcher and interested practices health care professionals to ensure that the relationship is smooth running.

At a national level, staff at the SSPC lead and co-ordinate SPPIRe. There is also an external reference group which has a senior and multi-professional membership, and exists to ensure that SPPIRe is promoting research which is of relevance to primary care, and to ensure that its multi-professional approach is upheld.

In the North, (Grampian and Highland) we currently have 229 members from many of the primary care professions (e.g. General Practitioners, Pharmacists, Physiotherapists and Clinical Psychologists). We have ensured that the northern node, which is based in the Department of General Practice and Primary Care within the University of Aberdeen, has the support of a local steering group comprising of members of all relevant research organisations in Highland and Grampian.

If you would like to know more about SPPIRe contact:
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### NHS Programmes of Research

As explained in “Research News”, the R&D Department annually reports to the Chief Scientist Office (CSO) on the non-commercial research within NHS Grampian, dependent on this data, the CSO awards NHS Service Support costs.

Following a review in 2000 this support is now divided into two budgets:

- **Support for Science (SFS) budget** that supports projects funded by eligible funders as defined by the CSO
- **NHS Priorities and Needs (PNF) budget** for research that falls outwith the area of eligible funding including own account work and local endowment funds

The CSO with the aim that a more coherent and strategic approach to research will develop has directed the structuring of research that falls under the Priorities and Needs budget into programmes. Ten programmes have been identified within NHSG and leaders appointed for each. Although the CSO only required us to do this for “non-eligible” research NHSG organised all research into programmes to give an overall view of research activity.

The role of the Programme Leaders includes ensuring the content of individual projects are of a high standard and fit with the strategic direction of the programme. Therefore, if you wish to carry out a new research project, please contact the appropriate Programme Leader for discussion before proceeding (contact details will soon be available on the R&D website).

If unclear which Programme Leader, please contact Joanne Rodger ([Joanne.Rodger@nhs.net](mailto:Joanne.Rodger@nhs.net), or on extension 55847).

Further information regarding each Research Programme and some of the research being carried out within these will appear in subsequent newsletters. This issue we feature the success of **Dr Andrew Schofield**, whose research falls under the “Molecular Basis of Oncogenesis/Molecular Epidemiology” Programme which is headed by Professor Steve Heys.
**Research profile: Dr Andrew Schofield**

**Biography**
I graduated from the University of Aberdeen in 1993 with a BSc (Honours) in Genetics. I remained in Aberdeen to conduct post-graduate research on the molecular genetics of inherited breast cancer under the supervision of Professor Neva Haites. After gaining my PhD in 1998, I continued my post-doctoral research in the Department of Medical Genetics with Professor Haites and appointed lecturer in Surgery and Molecular and Cell Biology in 2001. I teach on BSc, MSc and MB ChB courses and I am one of the coordinators for Honours courses within the disciplines of Biochemistry, Genetics, Immunology and Microbiology. I am joint co-ordinator for the MSc programme in Medical Molecular Genetics. I am also a member of the Grampian Research Ethics Committee.

**Why do I do research?**
I like solving problems and taking part in innovative research that potentially no one else is doing. I consider myself fortunate, and privileged, to work in an environment where I can potentially see research in the laboratory making its way into the clinical environment – moving from bench to bedside. Research into cancer is like doing a jigsaw puzzle. We look at each individual piece to see how it fits with the bigger picture. With hard work and patience the puzzle can be completed.

**Research summary**
Current areas of research include: mechanisms of chemotherapy drug resistance in breast cancer; nutrient-gene interactions in cancer; genetics of urological cancers; genetic factors involved in breast cancer; and application of tissue microarray technology. Extensive research collaborations are in place with numerous clinical colleagues from NHS Grampian, the Rowett Research Institute and Robert Gordon University. In addition, future collaborative ventures include research groups from Australia and Japan.

One particular research question, which aims to understand why some breast cancer patients are resistant to the chemotherapy drug docetaxel, has attracted substantial media coverage. In the treatment of breast cancer one of the most effective chemotherapy drugs is docetaxel. However, this drug does not work for all breast cancer patients, and in order to understand why we have grown breast cancer cells in the laboratory and made them resistant to the drug. By studying the genetic material in these cells we have found significant changes to numerous chromosomes. We are now looking more closely at the chromosomes to find the precise genes involved in resistance to docetaxel. The effect of gene changes, suspected to be involved in drug resistance, can then be investigated using our drug resistance model. Identifying the specific genes involved may be important in allowing clinicians to ascertain which patients are most likely to respond to treatment and also an insight into whether therapies can be developed to overcome resistance.

Last year we were recognised as the Team of the Year by Breast Cancer Campaign. This was a fantastic achievement, which recognises all the hard work and dedication from everyone involved in the research group. We are part of a multidisciplinary research team, working in close collaboration with the clinicians and patients in the breast unit at Aberdeen Royal Infirmary and with the support of NHS Grampian. Key individuals within the research group include Dr Iain Brown, Sarah McDonald and Professor Steven Heys, whose hard work and commitment ensures that research progresses in the laboratory. In addition, we are very grateful for the support and encouragement from our colleagues including Dr Andrew Hutcheon, Dr Tarun Sarkar and David Stevenson.

**How useful is Endowment funding?**
Whilst it is fantastic to receive grant funding from the larger cancer research charities, it is funding from bodies such as Endowments funding that ensure my research work continues and progresses. It is vital that Endowment funding promotes and encourages the development of good quality research, which is at the beginning stage. This type of funding has provided me the opportunity to develop ideas and build a substantial body of evidence, which has allowed me to apply and, more importantly, secure external grant funding. Initial support from Endowment funding has led to the successful award of grants totalling £170,125 from the Breast Cancer Campaign, £69,231 from the Chief Scientist Office and £69,183 from the Scottish Hospitals Endowments Research Trust.

**Dissemination of results**
Five papers, two review articles, one book chapter and 13 abstracts have been published in the past year. In addition to gaining recognition in peer-reviewed medical and scientific journals, attending and presenting at national and international meetings is an important aspect of our group’s activities. During the last year, a total of 22 conference papers have been presented as spoken presentations and a total of 24 papers have been delivered as poster presentations.

Further information on all the work carried out can be found at: [http://www.abdn.ac.uk/cancer-biology/](http://www.abdn.ac.uk/cancer-biology/). Dr Schofield can be contacted on a.schofield@abdn.ac.uk, or 01224 553006.
TAKING IDEAS FROM CONCEPT TO REALITY

Scottish Health Innovations Ltd (SHIL) was set up over two years ago to provide high quality advice, support, management, and funding to all NHSScotland employees to help them “bring their ideas to life”. Dr Nigel McLean and Nicola Jolly, of SHIL, are based at Foresterhill working alongside Professor Alison Macleod’s team in the R&D Department.

SHIL is holding a Showcase Event in the Medical Lecture Theatre, Central Corridor, Aberdeen Royal Infirmary at 1pm on Thursday 19 May 2005.

Often the most apparently simple and fundamental idea can, with the right team and management, develop into products or methods that change or improve existing practice for the benefit of staff and patients, on a local and international scale. At this event SHIL will outline the resources and assistance available to help assess the idea and possible market, how best to protect the idea safeguarding the intellectual property rights to the inventors and NHS, possible funding including that from SHIL, and how best to take the idea to market and to the clinic. The benefits and incentives of progressing your idea and the prestige and satisfaction of seeing it hopefully becoming a product will also be discussed.

Please come along and hear how SHIL are already helping various NHS staff throughout Scotland develop their ideas in to a clinically marketable product, including those from nursing, physiotherapy, ENT, Occupational Therapy and Orthopaedics.

There will be an opportunity to talk with SHIL staff following the presentations. A light lunch will be provided on the 19th and everyone will be entered into a prize draw to win some Marks and Spencers vouchers. There will also be an information desk in the canteen between 16 and 19 May. We hope you can make the 20-30 min presentation at 1pm on 19 May or visit the ‘information desk / poster presentation’. Nigel and Nicola can also be contacted at Foresterhill House Annex on 5(59452) or nigel.mclean@shil.co.uk, nicola.jolly@shil.co.uk

The R&D Team

Each issue we will be focussing on particular members of the Team, explaining their role and how they can help. Below are a list of contact details which may help you identify the relevant person to contact with any queries.

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As this is our first newsletter, we would be grateful for any comments on the articles and suggestions for any future information you may like to see. The next issue will be available July 2005.