

**The Impact and Value of Medical Research in Scotland:
During times of austerity how can Scotland maintain its global
reputation for scientific excellence and capitalise on the economic
advantage this provides?**

**A joint meeting of the Cross-Party Group on Science and Technology, the
Medical Research Council, and the Chief Scientist Office – 29 September 2015**

Elaine Murray MSP Chaired the meeting and invited presentations from each of the guest speakers.

Speakers (presentations available on request)

- Sharmila Nebhrajani OBE, Director of External Affairs, Medical Research Council
- Mike Stevens, Head, Chief Scientist Office
- Professor Wendy Bickmore, Director, Human Genetics Unit
- Eric Low, Chief Executive, Myeloma UK
- Dr Rebecca Lumsden, Head of Science Policy, Association of the British Pharmaceutical Industry

Open Discussion Summary (Chaired by Sharmila Nebhrajani)

Professor Massimo Palmarini, Director of the MRC-University of Glasgow Centre for Virus Research explained that the Centre for Virus Research was established in 2010 with long-term funding from the Medical Research Council (MRC) and the University of Glasgow. 48 per cent of funding comes from the MRC with 52 per cent of funding being leveraged from other sources.

Since the establishment of this partnership the centre has grown by 60 per cent in terms of the number of staff and students. Infrastructure has developed with the opening of a new building for the Centre (opened 28 September 2015) based on investment from the University of Glasgow, the Wellcome Trust and the MRC, and MRC has invested a further £3.5 million in state of the art equipment.

The Centre works with different models to make sure it links the academic base to the NHS to ensure discoveries are translated into health benefits. Many scientists are jointly funded by the NHS and the University of Glasgow.

The Centre works closely with industry in terms of drug delivery and Professor Palmarini highlighted the importance of successful collaborations and cross-working with the MRC, the local academic community, industry and the NHS.

Professor Charles Ffrench-Constant, Director of the MRC Centre for Regenerative Medicine suggested that in order to maintain the strategic success and nimbleness that had been mentioned in the earlier presentations, collaboration is vital and Scotland is particularly good at this. He said it is important to protect this moving forward.

Philanthropy is also key. It is important that people talk to the potential donors to make sure they feel fully involved in the process from the beginning. This can help develop highly successful strategic initiatives.

In terms of our global reputation for scientific excellence it is important that Scotland does not lose its ability to recruit talent across borders.

He also suggested that the reason the NHS is so poor on innovation is that clinicians no longer have the same research training that people used to get. Scotland could position itself really well if it took steps to massively increase the percentage of NHS consultants who undergo research training. This would quite rapidly impact on NHS practice by increasing people's willingness to pick up on innovation.

Dr. Rebecca Lumsden (ABPI) echoed this. In discussions about how to better engage clinicians in clinical research and drive innovation, the common response is that clinicians either have not had the training or they have not had the time. If Scotland was able to change this it would make a huge difference to ensuring patients were able to get the most innovative treatments.

Mike Stevens (CSO) agreed there is a problem. Over the last three years the CSO has been running an NHS Research Scotland fellowship to build the next generation of clinician researchers. They now have over 70 people taking up to five sessions a week to ensure that by the end of three years they will be research competent and this will help them to attract grants.

The CSO invests £12.8 million per year to fund research time but this has never been transparently allocated. The research is done but it is not recorded in terms of time. The new CSO Research Strategy (to be launched at the National NRS Conference on 28 October) sets down that from April next year, every pound of this will have to be transparently allocated to named researchers. This will be transformative, particularly for people returning from different types of career break who often struggle to get time for research.

Professor Wendy Bickmore (HGU) also echoed Professor French-Constant's point, and warned that one day a week is not enough for a trainee clinician to build a research career. Clinicians need to allocate 50 per cent of their time to research to build a research career.

Clare Adamson MSP said that clinicians at her local hospital have voiced their frustration that there is no local research culture at that hospital and Ms Adamson asked whether there was a sense that research opportunities were geographical?

Mike Stevens (CSO) responded to say that a number of years ago places like Lanarkshire were not getting much research funding at all. The CSO introduced a system whereby effectively if a hospital does research it can get the same amount of money as the bigger research sites. Lanarkshire has gone from research funding of approximately £70,000 to over £400,000 per year from the CSO. This is to incentivise research. Fife and Highlands have also seen the benefit of this investment in research.

Mike Stevens also pointed out that the outcomes for patients are better if they participate in research, even if they are in a placebo group because they benefit from the best standards of care.

He also noted that if someone is trained in research, and is research-active, they are more likely to adopt the findings of research. This is something that nobody has yet addressed effectively in the UK.

Professor French-Constant (CRM) reiterated that this is not a Scottish problem; this is a UK-wide problem, but it could be a huge opportunity for Scotland.

Professor Laurence Moore, Director of the MRC/CSO Social and Public Health Sciences Unit explained that the SPHSU focuses on population-level interventions such as education, welfare reform or housing reform. He suggested that we need to be

clearer about the benefits of investment in science for the public. These are not always tangible.

He also advocated greater focus on clinical or health research which can reduce health inequalities. He noted that Mike Stevens had mentioned the benefits of NIHR investment in Scotland – by engaging with these studies, and through proximity with these studies, we see improvements both in patient care and in driving up the quality of a whole range of services that can reduce health inequalities.

Reducing health inequalities is very much a policy priority in Scotland and we need to take a scientific approach in how we seek to identify the most appropriate policies to address these, be they national or local. This can really bring about major health improvements.

Professor Moore also pointed out that there is a common belief that investment in research into new technologies will drive up NHS costs, whereas prevention research to reduce health inequalities can make health and other services more efficient. It provides evidence to show what works best and what is most cost-effective.

When we look at science strategies and the reasons for investment in science, the focus is often on the external investment it leverages. It is easy to under-emphasise the impact of improvement in the efficiency of public services that can derive from research.

Sharmila Nebhrajani (MRC) asked Professor Moore whether there was something particularly about Scotland that makes it a good test bed for preventative research?

Professor Moore (SPHSU) replied that the size of Scotland, together with the health challenges it faces, the emphasis of prevention strategies in Scotland's policy agenda, and the history of intelligent use of evidence in the Scottish Government, all make Scotland an attractive place to conduct prevention research.

He hopes that the SPHSU can contribute to these efforts to ensure that we maximise improvements in health services as well as health benefits that may be gained through other areas of activity such as housing policy and education. It is important to make sure that when new policies are introduced they are effectively evaluated from an early stage.

A report from the UK Health Select Committee looked at policy and health inequalities and found that, although reducing health inequalities had been a policy priority for quite some time, very few policies had been evaluated properly. The science behind policy-making had not really been invested in. There is really a very strong platform for this in Scotland because it is a policy priority here and there is a lot of interest in this area. It is important to make sure that when policies are introduced they are properly evaluated in good time and this is something that the SPHSU could provide a lot of help with. Ensuring science influences public policy can pay huge dividends in the near and long term.

Peter Clark (SPHSU) noted that one way the Unit is trying to do this is to conduct evaluation assessments on behalf of the Scottish Government. Ensuring that there is structured engagement between policy-makers and researchers at an early stage ensures that the Unit can design a good evaluation of that policy and influence the implementation of the policy in such a way that a good test of its effectiveness can be built in.

In collaboration with Health Scotland and the Scottish Collaboration for Public Health Research and Policy, SPHSU has completed two of these assessments on behalf of the Scottish Government – one on the free school meals policy for all children in the first

three years of primary school and the second on the family nurse partnership intervention to improve health outcomes for teenage mothers. They are starting a third on young people, pregnancy and parenting strategy.

They are also trying to encourage community planning partnerships to adopt this method, again encouraging a more research-focused approach to implementing novel policies where there are genuine uncertainties about their effectiveness but where there are potential large population benefits down the line.

Elaine Murray MSP noted that politicians have a lot to think about in terms of making the best of the advantages Scotland has in medical research.

Attendance: 4 MSPs and twelve external members of the scientific community attended the meeting.

Meeting closed.