

# Cross-Party Group on Life Sciences

Tuesday 3rd October 2023 17:45 – 19:15

## Present

### **MSPs**

Kenneth Gibson MSP

Michael Marra MSP

Ivan McKee MSP

## MSP Apologies

Graeme Simpson MSP

Brian Whittle MSP

Fulton MacGregor MSP

## Invited guests

Dr Sandy Weir, Senior Technical Manager, Canon Medical Research Europe, iCAIRD programme manager;

[JD Blackwood](#), Strategy and Portfolio Lead NHS Greater Glasgow and Clyde, iCAIRD CTO & NHS Programme Manager

Professor Dr Dennis A. Ostwald, Founder and CEO of WifOR Institute, Darmstadt

## Non-MSP Group Members

Alex Dalrymple, Scottish Enterprise

Alison Culpan, ABPI

Andrew Howie, Scottish Enterprise

Prof Andrew Tobin, Glasgow University

Brenda Dooley, AXIS

Brian Forbes, AstraZeneca

Bushra Riaz, Kidney Research Scotland

Claire Headspeath, ABPI  
Denise Calder, Cancer Research UK Scotland Centre  
Denise Pryde, Burness Paull LLP  
Dr Barbara Blaney, Edinburgh University  
Dr Catherine Adamson, St Andrews University  
Eleanor Bradley, Department for Business and Trade  
Esme Pringle, Ettrickburn  
Fiona Nicolson, Burness Paull LLP  
Frank Gunn-Moore, SULSA  
George Davidson, GSK  
Greg Stevenson, Greg Stevenson Consulting  
Heather Rankine, Exact Sciences  
Holly Ennis, Scottish Government  
John Macgill, Ettrickburn  
Layla Robinson, RDS  
Leigh Mair, InnoScot Health  
Nicolas Peyret, Scottish Enterprise  
Sarah Hunt, SDS  
Steve Brown, Roche  
Neil McDonald, MSD  
Dr Poonam Malik  
Richard Lockhart, Burness Paull LLP

## Agenda item 1

### Opening, Welcome and Introductions

Kenneth Gibson MSP welcomed everyone to the meeting and gave apologies.

## Agenda item 2

### Minutes from previous meeting (30<sup>th</sup> May 2023)

The minutes of the previous meeting were accepted by the Group, proposed by Michael Marra MSP, and seconded by Professor Sir Mike Ferguson.

Kenneth Gibson MSP said actions from the last meeting had been completed. In response to a letter sent by him and the deputy convener to Scottish ministers with responsibility for life sciences, Mr Gibson said members of the Scottish Government Technology, Innovation and Entrepreneurship team now plan to travel to Dundee to meet Sir Mike and discuss in more detail his proposal for a new innovation fund to support life science investment.

## Agenda item 3

### i-CAIRD – Focus on the Industrial Centre for AI Research in Digital Diagnostics and the wider role of AI/machine learning in Healthcare

*Dr Sandy Weir, Senior Technical Manager, Canon Medical Research Europe*

*JD Blackwood, Strategy and Portfolio Lead NHS Greater Glasgow and Clyde*

#### Brief introduction to Canon Medical Research Europe

Dr Weir gave a brief introduction to work going on at the Canon Medical AI Centre of Excellence, and how the 140-strong team of engineers and scientists are working across imaging and natural language processing and bioinformatics to develop cutting-edge medical equipment.

With support from Canon's global network of research centres situated across North America and Europe, and manufacturing based in Japan, the Edinburgh Centre's key focus is to develop and deploy next-generation healthcare technologies and augmented systems, servicing full clinical pathways to improve patients' lives and promote early diagnostics.

He said that the Edinburgh Centre has a very strong collaboration with the University of Edinburgh, where they sponsor its AI Medical Chair Professor Sotirios Tsaftaris. The research team also has very strong links with the NHS in Scotland and across the university network in Scotland and the UK, where they are collaborating to develop and implement advanced visualisation methods.

#### iCAIRD – core achievements and reflections

JD Blackwood said iCAIRD was set up as a four-year programme, financed by industrial partners and Innovate UK as part of their data-to-early-diagnosis portfolio.

It built the technical platforms, the partnerships, and capabilities to deliver world-class research using the triple-helix delivery model, run by a central multidisciplinary team from the NHS, academia and private industrial partners.

The Centre began with 10 partners, 10 projects and £10m, but grew to be the largest AI research programme in the UK, conducting 50 projects with 40 international partners, and more than 400 staff, with £25m of combined public and private funding.

Mr Blackwood highlighted key successes of iCAIRD:

- Delivered an unprecedented 75 million medical images;
- Helped create three market-ready AI products;
- Supported four SME scale-ups;
- Received four national awards;

- Built two technology platforms.

Mr Blackwood said the programme shows that it is possible to democratise access to Scotland's healthcare data and to use the Innovation Hub model to work in close partnership with industry to build solutions with AI for real world, high-priority healthcare issues.

Mr Blackwood gave an overview of the creation of the third largest digital pathology site in the world, which he said made NHS GG&C one of the world's 'go-to' locations for digital pathology research and the ideal place to gather real world evidence of pathology AI. He also gave an overview of work within radiology research and validation.

He highlighted that AI is not a tool of the future, and that it is already being used across the NHS in Scotland to measure paediatric bone growth and in imaging scanners. He also highlighted a national procurement exercise currently underway for an AI solution for stroke patients and clinical studies within lung cancer screening and breast imaging which are feeding into the Accelerated National Innovation Adoption (ANIA) pathway.

He said he sees the next two-to-three years as being a 'tipping point' for AI where Scotland moves from research to wide-scale adoption in healthcare.

However, he said adoption of AI technologies continues to 'move at a snail's pace' and there is a need to gather more real-world evidence to prove products are clinically effective and deliver value.

He said Scotland has strong foundations to build on, including:

- Some exceptional local research and innovation teams within health boards
- Support from regional innovation hubs, the Digital Health & Care Innovation Centre (DHI) and the Data Lab
- National scaling via the Innovation Design Authority (IDA) and the ANIA pathway.

However, access to data is still cumbersome, slow and capabilities vary by region. Mr Blackwood said Scotland was once ahead of the rest of the UK but has now fallen behind.

To meet the Scottish Government's goal to become a 'global AI powerhouse', Mr Blackwood explained that Scotland now needs:

- Commitment and leadership;
- A working group and/or project to help execute a plan;
- Policy, delivery and streamline governance frameworks for AI;
- A strategy and roadmap for AI in healthcare;
- Coordinated real world evidence of effectiveness and value in shared priority areas;
- Research, deployment, evaluation and monitoring platforms;
- Ubiquitous access to data (especially imaging and linked clinical data);

- Funding – or support to access funding.

### Beyond iCAIRD

Dr Weir highlighted the creation by iCAIRD and its collaborators of a secure analytical environment – now known as a trusted research environment – which allows researchers access to data within very stringent governance arrangements.

He said there is a trend towards these trusted research environments being integrated into national and international federated networks, which he says will be critical to ensure researchers can access data on a large enough scale to enable them to generate reliable systems for AI.

He gave an overview of continued challenges facing AI adoption:

- AI in healthcare needs to be robust, reliable, generalisable and should be developed using truly diverse data;
- Data gathering, data collection, data and information governance needs to be efficient and repeatable;
- Creating ground truth – labelling and annotation;
- Workflow and delivery – end-to-end embedding in clinical pathways;
- Validation of algorithms locally, nationally and globally;
- Post-market assurance;
- Research and development.

He concluded the presentation by saying that there is a need to build sustainability into the system and to find more opportunities for working in partnership across NHS, industry and academia to take this knowledge and innovation forward into new opportunities to benefit patients.

### Q&A

In answer to a question about sustainability, Dr Weir said this should have been a focus from day one. He also said that budget difficulties within the NHS had made sustainability challenging. JD Blackwood said that it is important models are self-sustaining, and that programmes need to follow a service-based model.

Mr Blackwood highlighted challenges with Information Governance and said there is a need in Scotland for a single national system. He said duplication and inconsistency across health boards must be streamlined, with a single point of entry for research teams into Information Governance.

Dr Weir said a ‘Once for Scotland’ Information Governance system could be implemented if there is the political will to do so, with the Safe Haven Network the vehicle through which these initiatives can be brought together.

The CPG convener agreed to raise parliamentary questions to the Scottish Government to ask about Information Governance issues.

Mr Blackwood said it will be critical for a key decision-maker to 'step-up' and take responsibility for AI in Scotland. He said many of the people with the right expertise are in Scotland, and there is a need to assemble them to drive forward implementation. He also said a focus on succession management and retention of engaged, driven team members was one of the most important focuses of the work of iCAIRD.

## Agenda item 4

### How and where to invest to make Scotland healthier?

*Professor Dr Dennis A. Ostwald, Founder and CEO of WifOR Institute, Darmstadt*

Professor Dr Ostwald explained that health is no longer on the top of global governments' agendas and there is a need to convince political stakeholders of the importance of health investment with understandable facts and figures.

He explained that, in the past, health expenditure has been discussed politically only as a cost and not as an investment in sustainable development and growth. WifOR is fostering a paradigm shift in health, to encourage policymakers to instead recognize it as a driver for growth, innovation wealth, and prosperity while bringing about better health in a positive feedback loop.

He said it is important to demonstrate the full return on investment from health spending, similar to how other sectors measure value. He said if we can't measure something, then we can't fix it. Therefore, it will be critical to establish health metrics that consider the entire value chain of healthcare, including the social burden of ill health and the social impact of medical interventions.

Evidence from countries across the world, he explained, shows that higher health expenditure creates more GDP than it costs, which goes on to have a positive impact on employment, price stability, and trade balance. He encouraged attendees to use these metrics as a way to start conversations about health spending with not just health ministers but those involved in labour and finance decisions.

He said the global Health Economy contributes \$6.3 trillion to GDP and supports 194 million jobs, while the Health Economy in the European Union outperforms the overall economy in terms of growth.

The benefits of measuring the Health Economy in the long term, he explained, are in providing:

- A starting point for a new, objective dialogue between politicians and companies;

- An evidence-based monitoring tool to support decision-making;
- Comparability with other important sectors of the economy;
- A macroeconomic impact assessment of future health policy decisions.

## Q&A

In response to concerns around framing health spending around economic benefits that could leave areas with the most social need under-served, Professor Dr Ostwald agreed that this is a risk but that there is a need for greater transparency on health spending impacts for decision-makers. He said integrating health metrics can spark a debate and get government thinking about where and how efficiently it is spending its budget.

Meeting attendees agreed on the need to do more as members of the health community in Scotland to discuss what is needed to allow policymakers to make joined-up decisions to bring about the greatest benefits for patients. Professor Dr Ostwald highlighted the need to 'speak the language' of policymakers and put a positive spin on health spending.

## Closing Remarks

Kenneth Gibson MSP concluded the meeting by saying he would submit questions to the Scottish Government on issues raised at the meeting around AI and Information Governance.

The next meeting of the CPG on Life Sciences will take place on Tuesday the 14<sup>th</sup> of November 2023.