

News Release

8 March 2019

Report outlines ‘transformative’ power of Precision Medicine industry for Scotland’s people and economy

The UK Government’s Department for Business, Energy and Industrial Strategy (BEIS) has today, at 9am, released its Science and Innovation Audit report on Precision Medicine in Scotland.

The evidence-based report, which was led by the University of Glasgow and collated by independent consultants, maps Scotland’s Precision Medicine research, innovation and infrastructure strengths and opportunities, bringing Scotland one step closer to positioning itself as a global centre of excellence for developing and delivering Precision Medicine, with an aim to do so over the next ten years.

Precision Medicine – an approach which enables doctors and researchers to identify and develop treatments that are ‘precise’ and effective to the individual characteristics of each patient – is an area of significant strength for Scotland, and has been a priority for the Scottish Government for more than five years.

The Science and Innovation Audit involved a ‘Team Scotland’ approach from a pan-Scotland consortium (set up in 2017) of partners across the ‘triple helix’ of industry, academia and NHS, as well as government and health charities sector.

The significant findings from the report include evidence that further development and adoption of Precision Medicine will potentially be transformative for the Scottish and UK life science clusters, developing expertise and know-how that can be exported around the world through new technologies, products, services and behaviours.

The opportunities to grow the Precision Medicine cluster in Scotland will build on existing clinical, research and commercial expertise in the four major cities: Glasgow, Edinburgh, Dundee and Aberdeen; with the role of NHS Scotland essential.

The report also states that the implementation of Precision Medicine across Scotland and the UK will help our NHS to generate significant savings in the future; with robust

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analysis revealing Precision Medicine-generated innovations could help deliver billions of pounds of healthcare cost savings.

Furthermore, more effective targeted treatments and better prevention of disease will create a healthier and more productive UK workforce.

Nicola Sturgeon MSP, First Minister of Scotland, said in the report: “The adoption of Precision Medicine has the potential to be transformative for the people in Scotland, through improved diagnostics and patient treatment, and I am pleased that this audit recognises the many strengths and capabilities Scotland has in this field.

“Through the further development and adoption of Precision Medicine, Scotland is well placed to be an international leader in Precision Medicine technologies, products and services that can be exported around the world.

“This is supported by the world-class Imaging Centre of Excellence at the Queen Elizabeth University Hospital (QEUH) campus in Glasgow, which is pioneering the use of Precision Medicine to develop new treatments for patients facing serious conditions such as strokes, brain tumours, multiple sclerosis and dementia. The QEUH campus has the potential to become an important hub for an emerging Precision Medicine cluster for Scotland.

“Whilst the consortium has been led by the University of Glasgow, the process has very much been characterised by a genuine ‘Team Scotland’ approach, with support, commitment and real insight from industry, academia and the NHS across Scotland.”

Professor Dame Anna Dominiczak, Vice Principal & Head of the College of Medical, Veterinary and Life Sciences at the University of Glasgow, said: “On behalf of the entire consortium involved in this audit, we are pleased to see this report substantiate what we already knew, which is that Scotland is well positioned to unlock the global growth potential associated with Precision Medicine, something which has the power to transform healthcare as well as bring huge economic benefit.

“Scotland has the ability to translate research and clinical excellence into a world-renowned Precision Medicine business cluster. With many key elements already in place across the country, we look forward to helping create a healthier and wealthier Scotland.”

Scotland’s strengths include:

- Major investments at the new £1bn QEUH campus in Glasgow, including the Stratified Medicine Scotland Innovation Centre (SMS-IC)*, the Clinical Innovation Zone and the Imaging Centre of Excellence** – the first clinical-

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academic industry campus worldwide designed around the clinical implementation of Precision Medicine.

- A Scotland-wide Ecosystem for Precision Medicine, centred on the SMS-IC, which is funded by the Scottish Government and industry.
- Major investment into Health Data Research UK's Scottish hub based at the Farr Institute in Edinburgh*** with aims to improve the health of the Scottish population and make Scotland as a global leader in health informatics research.
- The Industrial Centre for Artificial Intelligence Research in Digital Diagnostics (iCAIRD), a £15.8m pan-Scotland collaboration of 15 partners from across academia, the NHS, and industry. The artificial intelligence health research centre opened in early 2019 and promises to enable better patient diagnosis, treatment and outcomes.
- World-class clinical research, high quality patient data and a single healthcare provider (NHS Scotland).
- Recognition as a key location for hosting clinical trials and strong relationships with the global pharmaceutical industry.
- Key figureheads driving Precision Medicine in Scotland such as Professor Dame Anna Dominiczak (quoted above) and Professor Andrew Morris of the University of Edinburgh and the Farr Institute.

Universities and Science Minister Chris Skidmore said: "We are world-leaders across a range of science and research disciplines, and the SIAs published today show the whole nation contributes to that reputation. We are committed to building on these strengths and others in our modern Industrial Strategy through the largest increase in science funding in a generation."

Peter Silvester, Senior Vice President and President, Life Sciences Solutions, Thermo Fisher Scientific: "Thermo Fisher Scientific has a long and proud history supporting the life sciences across Scotland and we're pleased to be part of the consortium that is leading the advancement of precision medicine throughout the country. As technology matures and research advances, we see an increasing opportunity to combine genetic information with an individual's medical history and lifestyle to transform healthcare.

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“Scotland has a unique opportunity to lead this transformation and deploy the latest advances in precision medicine on a national scale, providing insight to physicians, improving patient outcomes and reducing the cost of healthcare.”

The report is part of the 3rd wave of the Science and Innovation Audits, which are designed to emphasise the value of greater collaboration and further innovation.

The full report, ‘Precision Medicine Innovation in Scotland: Accelerating Productivity Growth for Scotland and the UK,’ can be found here: <http://ow.ly/Usms30nXuy8>.

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Notes to Editors

1. In autumn 2015, the UK Government announced regional Science and Innovation Audits (SIAs) to catalyse a new approach to regional economic development. SIAs enable local consortia to focus on analysing regional strengths and identify mechanisms to realise their potential.
2. Overall, it is estimated by Scottish Enterprise that there are currently around 230 companies undertaking PM related activity in Scotland.
3. Scotland is one of the largest life science clusters in Europe. It employs over 37,000 people across 700 organisations, and contributes around £2bn in annual GVA for the Scottish economy. There has been significant growth in the sector with GVA increasing 45% between 2010 and 2015, and employment growing by 16%.

* Stratified Medicine Scotland Innovation Centre (SMS-IC) – based within the Clinical Innovation Zone at QEUH – was set up in 2013 as a partnership between four Scottish NHS Health Boards, four Scottish Universities and industrial partners Aridhia Ltd and ThermoFisher Scientific Ltd.

** The Imaging Centre of Excellence, located in the QEUH campus, hosts an ultra-high-field 7T MRI scanner, a 3T MRI scanner and a 320 multi-slice CT scanner and houses clinical academic and industry personnel dedicated to the development and deployment of next generation imaging.

*** The UK’s new health and biomedical data science research institute, awarded £30 million of funding to six areas across the UK to address challenging healthcare issues through use of data science. The Scottish site will be run by a partnership of six Scottish Universities (Edinburgh, Glasgow, Dundee, Aberdeen, St Andrews and Strathclyde)

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