Press release: Artificial Intelligence to help save lives at five new technology centres

- Patients are set to benefit from radical advances in medical technology using artificial intelligence to diagnose diseases at an earlier stage
- The centres will use AI, an area the government is backing in its modern Industrial Strategy, to find new ways to speed up diagnosis of diseases to improve outcomes for patients
- Based in Leeds, Oxford, Coventry, Glasgow and London – but each with partners across many parts of the UK – the centres will develop more intelligent analysis of medical imaging, leading to better clinical decisions for patients, and freeing more staff time for direct patient care in the NHS

New centres announced today will bring together doctors, businesses and academics to develop products using these advances in digital technology to improve early diagnosis of disease, including cancer by detecting abnormalities.

The products developed at the new centres will offer more personalised treatment for patients while freeing up doctors to spend more time caring for patients. The investment in large-scale genomics and image analysis will drive new understanding of how complex diseases develop, in a proactive step to ensure people get the right treatment at the right time.

Business Secretary Greg Clark said:

> AI has the potential to revolutionise healthcare and improve lives for the better. That's why our modern Industrial Strategy puts pioneering technologies at the heart of our plans to build a Britain fit for the future.
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> The innovation at these new centres will help diagnose disease earlier to give people more options when it comes to their treatment, and make reporting more efficient, freeing up time for our much-admired NHS staff time to spend on direct patient care.

The centres will be funded through the Industrial Strategy Challenge Fund, the government's flagship investment programme that focusses on addressing the opportunities and challenges of the future, which is managed by UK Research and Innovation. The centres will be spearheaded by some of the UK's leading medical companies including GE Healthcare, Siemens, Philips, Leica, Canon and Roche Diagnostics. The investment marks a significant step in delivering on a major commitment in the Life Sciences Sector Deal (Dec 2017), which built on Sir John Bell's Life Sciences Industrial Strategy (Aug 2017).

UKRI Chief Executive Professor Sir Mark Walport said:

> Early diagnosis of illness can greatly increase the chances of successful treatment and save lives.
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> The centres announced today bring together the teams that will develop artificial intelligence tools that can analyse medical images varying from x-rays to microscopic sections from tissue biopsies. Artificial intelligence has the potential to revolutionise the speed and accuracy of medical diagnosis.

The centres are:

- London Medical Imaging and Artificial Intelligence Centre for Value-Based Healthcare will use artificial intelligence in medical imaging and related clinical data for faster and earlier diagnosis and automating expensive and time-consuming manual reporting
- Glasgow's I-CAIRD (Industrial Centre for AI Research in Digital Diagnostics) will bring together clinicians, health planners, and industry to work with innovative SMEs to answer clinical questions, and solve healthcare challenges more quickly and efficiently
- NCIMI (National Consortium of Intelligent Medical Imaging) in Oxford will consider the role clinical imaging plays in the delivery of more personalised care and earlier diagnosis to support disease prevention and treatment
- The Northern Pathology Imaging Collaborative (NPIC) located in Leeds will boost the city's reputation in digital pathology research further by creating a world-leading centre linking up 9 industry partners, 8 universities and 9 NHS trusts
- Based in Coventry, the Pathology image data Lake for Analytics, Knowledge and Education (PathLAKE) will use NHS pathology data to drive economic growth in health-related AI

Health Secretary Matt Hancock said:

> Artificial intelligence will play a crucial role in the future of the NHS – and we need to embrace it by introducing systems which can speed up diagnoses, improve patient outcomes, make every pound go further and give clinicians more time with their patients.
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> As part of our long-term plan, we will transform the NHS into an ecosystem of enterprise and innovation that allows technology to flourish and evolve.

The centres, which will be based at universities and NHS facilities, are expected to be up and running during 2019.

Notes to editors:

- The £50m funding for these centres are part of the Industrial Strategy Challenge Fund (ISCF) Wave 2 challenge, Data to Early Diagnosis and Precision Medicine.
- The Data to Early Diagnosis and Precision Medicine challenge places early diagnosis and best treatments for particular patients at the heart of a national approach to better health. This builds on many recent healthcare technological advances, including in digital health and genomics, and on broader developments in data science and artificial intelligence.
- Using data, artificial intelligence and innovation to transform the prevention, early diagnosis and treatment of chronic diseases is one of the government's Grand Challenge missions. Success in this mission is one of a number of steps towards saving lives and increasing NHS efficiency by enabling earlier diagnosis and reducing the need for costly late stage treatment. The opportunity – working with academia, the charitable sector, and industry and harnessing the power of AI and data technologies – is considerable. It should lead to a whole new industry of diagnostic and tech companies which would drive UK economic growth.
- The Industrial Strategy sets out a long term plan to boost the productivity and earning power of people throughout the UK. It sets out how we are building a Britain fit for the future – how we will help businesses create better, higher-paying jobs in every part of the UK with investment in skills, industries and infrastructure.