Government backed projects to speed up life-saving cancer diagnoses

- Patients could receive earlier and more precise diagnoses for potentially life-threatening diseases such as cancer thanks to £16 million funding from government and charity
- funding will benefit six innovative health projects across the UK using disruptive technologies such as AI, to detect chronic or terminal diseases earlier, helping to save lives
- the projects will bring together the UK's world leading academia, research institutions, NHS, charities and industry

Patients could receive earlier and more accurate diagnoses for potentially life-threatening diseases such as cancer and Crohn's disease, thanks to £16 million of new funding announced by Science Minister Amanda Solloway today (3 July 2020).

The government backed funding, delivered to 6 of the UK's most innovative specialist health projects, from Glasgow to Cambridge, will harness the most disruptive technologies, including artificial intelligence, to develop more precise medical solutions, which could enable earlier detection and diagnosis of some of the most serious and potentially fatal diseases.

One project led by the University of Oxford is working to improve survival rates in people with lung cancer, the deadliest form of cancer in the UK. It will bring together existing work being led by the NHS, universities, cancer charities and digital health companies to integrate the best of digital imaging and diagnostic science to help identify cancerous tumours in the lung earlier.

Another project, led by technology start up Motilent, is working on healthcare solutions to more effectively treat Crohn's disease, a painful, lifelong inflammatory condition affecting 180,000 people in the UK. Through the use of artificial intelligence, it will seek to accurately predict when to start and stop drug use to control the disease, which currently has a 60% failure rate, and which can lead to further, irreversible damage to a patient's bowel.

Science Minister Amanda Solloway said:

> Our brilliant scientists and researchers are harnessing world-leading technologies, like AI, to tackle some of the most complex and chronic diseases that we face."
>
> Tragically, we know that one in two people in the UK will be diagnosed with some form of cancer during their lifetime, while Crohn's disease affects up to 180,000 people across the country.

> These six cutting-edge projects will improve early diagnosis, create more precise treatments, and crucially, save lives.

Other projects receiving funding include:

- Actioned, led by Queens University Belfast which is using artificial intelligence to achieve more accurate and earlier diagnosis of early relapse in cancer, improving the outcomes for patients;
- A University of Cambridge project which will help to diagnosis oesophageal cancer earlier. This type of cancer has increased six-fold since the 1990s and just 15% of people will survive for 5 years or more – often because it is diagnosed too late. Barrett's oesophagus, a condition that can turn into cancer of the oesophagus is more common in patients who suffer from heartburn. The project aims to diagnose up to 50% of cases of oesophageal cancer earlier, leading to improvements in survival, quality of life and economic benefits for the NHS
- A University of Glasgow-led project working to identify growths that are most likely to develop into bowel cancer, which is the second biggest killer among cancer related deaths in the UK.
- University of Manchester led-research into when liver problems, which affects up to 4 in10 people, can lead to liver scarring and sometimes complete liver failure. Current tests pick up advanced scarring but do not pinpoint early disease or those patients who are destined for much worse. The project will use new software to identify liver damage earlier and more accurately.

Of the £16 million awarded today, over £13 million will be delivered by the government, while up to £3 million will be made available from Cancer Research UK, to specifically support the oncology focused projects.

The funding, delivered through the Industrial Strategy Challenge Fund, is part of a government programme in data to early diagnosis and precision medicine. The competition is run by Innovate UK on behalf of UK Research and Innovation (UKRI) and forms part of the government's commitment to increase research and development investment to 2.4% of GDP by 2027.

Notes to editors:

- UKRI's competition for the best integrated diagnostics innovations was originally announced in July 2019.
- UKRI works in partnership with universities, research organisations, businesses, charities, and government to create the best possible environment for research and innovation to flourish. Operating across the whole of the UK with a combined budget of more than £7 billion, UKRI brings together the seven Research Councils, Innovate UK and Research England.