

Press release: £1.3 billion industry/government investment in UK economy and new partnership driving early disease detection

- life-saving early disease detection technology to be developed by new partnership between government and industry using artificial intelligence (AI) to develop the next generation of treatments, including a first-of-its-kind national health programme
- the second Life Sciences Sector Deal, with industry investment from 10 companies, will support healthcare innovation and back businesses to create high-paid, high-quality jobs as part of the government's modern Industrial Strategy
- the deal signals a vote of confidence in UK industry, with global biopharmaceutical company UCB investing around £1 billion in research and development, including in a new state-of-the-art facility

Tens of thousands of lives could be saved by pioneering research to detect deadly diseases before symptoms even appear, thanks to a new collaboration between the government and the Life Sciences Industry. The deal will also announce that global biopharmaceutical company UCB is investing £1 billion in research and development, including in a new state-of-the-art facility, continuing the UK's reputation as a world leading base for global life sciences research and industry.

The programme, backed by up to £79 million of government funding, will study 5 million healthy people to develop new diagnostic tests using AI and is part of the government's Life Science's Sector Deal 2, announced today by Business Secretary Greg Clark and Health Secretary Matt Hancock.

The deal, which brings together 10 companies and is backed by wide range of organisations from across the sector, includes more than £1.3 billion of investment between the public and private sectors. It ensures the UK remains in pole position in the treatments of today, while creating the industries and treatments of the future such as genomics and AI-powered diagnosis.

Business Secretary Greg Clark said:

From the first vaccine to the discovery of DNA, the UK has always been at the forefront of medical endeavour and healthcare innovations. That is why we are building on our unique strengths by placing life sciences at the centre of our modern Industrial Strategy, backed by the biggest increase in public research and development investment in UK history.

This is our modern Industrial Strategy in action as we work hand in

hand with industry to ensure the UK remains the go-to destination for launching new businesses, new discoveries and treatments to benefit health around the world.

The announcement of UCB's investment in new research and development is a clear vote of confidence in UK life sciences research base and business.

The programme – Accelerating Detection of Disease – will be led by Professor Sir John Bell and brings together the NHS, industry and leading charities including Cancer Research UK, the British Heart Foundation and Alzheimer's Research UK. It will be the largest ever study of its kind collecting such a range of data from healthy volunteers over years. This will help deliver the [Early Diagnosis Mission](#) – a key part of the Industrial Strategy's [AI and Data Grand Challenge](#). Businesses will be able to access this funding through UKRI managed competitions.

Researchers will study how the group's health changes, identifying common characteristics to understand how and why diseases develop. The ambition is to empower everyone to understand their risk of developing diseases and take steps to remain healthy for longer. The project will attract investment from global life science companies seeking to develop new diagnostic tools and treatments.

It is estimated that if late stage diagnosis were halved across bowel, ovary, prostate and lung cancer, over 55,500 more people would be diagnosed at an early stage, potentially resulting in 22,500 fewer deaths per year within 5 years of diagnosis.

In a meeting with industry leaders at No10, the Business Secretary announced that as part of the Sector Deal a new £150-200 million research and development facility of global biopharmaceutical company UCB will be built in the UK as part of a total investment of around £1 billion over the next 5 years. The transition to this state-of-the-art facility will support around 650 jobs and further boost the UK's reputation for developing world-leading medical treatments and technologies.

Health Secretary Matt Hancock said:

I want the UK to have the most advanced health and care system on the planet. Technology and artificial intelligence have the potential to revolutionise healthcare by unlocking the next generation of treatments, diagnosing diseases before symptoms appear and helping patients take greater control of their own health.

Our world-leading plans to map 100,000 genomes is just one example of how innovation can deliver life-changing results for patients and we want to build on its success to provide patients with truly personalised care.

Jean-Christophe Tellier, Chief Executive Officer at UCB, said:

At UCB, we are proud of our heritage in the UK and I am very pleased to announce our planned investment to support the construction of a major R&D hub in the UK, which will enable us to build upon our numerous active collaborations with UK universities, biotechs and medical research charities, and continue our successful track record of bringing innovative medicines discovered in the UK to patients globally

Access to world class talent remains vital to R&D and we therefore look forward to working closely with government to support the full implementation of Sir John Bell's Life Sciences Industrial Strategy, and importantly, to ensure that patients in the UK have quicker access to the innovative medicines researched and developed here.

Professor Sir John Bell said:

This Sector Deal is another major step forward for the Life Sciences Industrial Strategy in the UK. It has been hugely enabled by government and will initiate new projects that will be a magnet for further investment.

Together, industry, charities, government and the NHS can tackle some of the major challenges to healthcare systems, including ageing and early diagnostics and, in doing so, can grow the economy and demonstrate what a modern Industrial Strategy looks like in action.

Secretary of State for International Trade, Dr Liam Fox MP said:

The UK remains the leading destination for life sciences inward investment in Europe, second only to the US globally. Major global companies continue to commit to the UK as an investment and operating location.

At home we are also nurturing the next crop of global businesses and future exporters, such as the companies in our thriving cell and gene therapy industry. Last year the UK exported around £30 billion in life sciences products – there is worldwide demand for our innovative products and our excellent services.

As an international economic department, our role is to promote the UK abroad, capitalising on the demand for our goods and services and drive investment into our industries. Our team of HM Trade Commissioners and overseas network are based in 108 markets, providing a vital link for businesses as we seek to make the most

of opportunities presented by leaving the European Union.

Other new announcements as part of the Life Sciences Sector Deal include:

- A further £30 million investment in the UK by healthcare company Roche, including a £20 million investment over 3 years in a precision cancer research partnership with the Christie NHS Foundation Trust in Manchester. This will use cutting-edge genomic technology and big data to accelerate the next generation of digital clinical trials for rare cancers, making the UK a leading global hub for rare cancer trials, potentially benefiting nearly 5,000 patients annually
- Measures to further strengthen the UK environment for clinical research, including through IQVIA investing £24 million facilitated by the National Institute for Health Research in a Prime Site for clinical trials across the North of England, and IQVIA and Genomics England announcing a new £20 million partnership to enable more efficient drug research and support accelerated discovery of personalised medicines for NHS patients
- Over £80 million of investment in the UK from 5 rapidly growing cell and gene therapy companies. The majority of this investment will be in cutting-edge manufacturing facilities, building on the government investment in advanced therapies manufacturing made in last years' Sector Deal. Autolus have planned to invest a further £50 million to expand its UK presence, including a new global headquarters with laboratories in White City. Oxford BioMedica, Cobra Biologics, and Roslin CT are planning investments of £19 million, £8 million, and £4 million respectively to scale up their UK cell and gene therapy manufacturing facilities. Bellicum, an inward investor, has committed to its first European investment in the UK with £2 million and 20 jobs initially.

Today's announcement builds on the first [Life Sciences Sector Deal](#), published in December 2017. The deal committed nearly £500 million of government investment into UK life sciences, backed by more than £1 billion of private sector investment, to build on the sector's strengths, help to secure thousands of jobs and ensure that new medicines and technologies are created in the UK.

In the last year its achievements have included:

- kick-starting the largest whole genome sequencing project ever undertaken, helping to develop new tests and treatments for cancer and rare diseases
- establishing a network of 5 centres of excellence in digital pathology and radiology to supercharge new diagnostic industries
- Implementing the [Accelerated Access Review](#) with government, industry, the NHS and its partners working together to put NHS patients at the forefront of the latest advances in healthcare

It has also been announced today, through the Strategic Priorities Fund, that research programmes will be awarded over £35 million to boost medical

science. The first programme will seek to better understand tissue development through the Human Cell Atlas initiative, whilst the second will bring together the physics and biology communities to address key questions in biological and biomedical sciences.

The new Life Sciences Sector Deal further strengthens the UK's world-leading capabilities in the likes of genomic science, Big Data assets and gene and cell therapies, ensuring we are at the forefront of new industries in areas such as genomics and AI-driven diagnostics.

The UK remains the number 1 destination for life sciences inward investment in Europe, ranks number 2 globally behind the US, and has also grown a thriving domestic industry with more than 5,600 companies supporting 240,000 jobs and generating a turnover of around £70 billion per year. All of the top 25 global pharmaceutical companies, and the top 30 global medical technology companies, operate in the UK. The UK also accounts for 12% of total life sciences academic citations and 18% of the most-cited publications – the second highest share above China, Germany and Canada.

The up to £79 million Accelerating Detection of Disease programme will be delivered by UK Research and Innovation through the [Industrial Strategy Challenge Fund](#), subject to business case approval and match funding from industry.

UCB is a global biopharmaceutical company focused on the discovery and development of innovative medicines and solutions to transform the lives of people living with severe diseases in immunology or neurology. The investment around £1 billion over the next 5 years will include £150-200 million to build a new, purpose-built state-of-the-art facility enabling cutting-edge R&D, early manufacturing and commercial operations. The transition to this new facility will support around 650 high-skilled jobs, mainly in scientific research and early manufacturing. The investment will allow UCB to continue their innovative research in areas of unmet patient need, deepen their collaborations with UK organisations, and solidify their position as a leader in UK life sciences. UCB's new facilities will be based in or close to the wider Slough area and will be announced subject to UCB finalising their search for a suitable location and agreed contractual negotiations.

The [Ageing Society mission](#) with the modern Industrial Strategy is to ensure that people can enjoy at least 5 extra healthy, independent years of life by 2035, while narrowing the gap between the experience of the richest and poorest.

It is estimated that by 2033 if late stage diagnosis were reduced by 50% across bowel, ovary, prostate and lung cancer, over 55,500 more people would be diagnosed at an early stage, which could result in over 22,500 fewer deaths per year within 5 years of diagnosis. This is calculated by Cancer Research UK based on current distribution of stage at diagnosis for cancers with a recorded stage of disease in England (obtained from Public Health England), cancer incidence projections for 2033 and estimates for 5-year cancer survival by stage.

Using data, artificial intelligence and innovation to transform the prevention, early diagnosis and treatment of chronic diseases is the first mission of the [AI and Data Grand Challenge](#). 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 Accelerating Detection of Disease project also supports the [Ageing Society Grand Challenge mission](#), which is to ensure that people can enjoy at least 5 extra healthy, independent years of life by 2035, while narrowing the gap between the experience of the richest and poorest.