

Government to invest over £130 million in new tech to tackle cancer and debilitating illnesses

- government investing £133 million in healthcare innovation including gene-based therapies and artificial intelligence
- funding will unlock new treatments that allow people to lead healthier and longer lives

People across the country could lead healthier and longer lives following significant government investment in new research to improve treatment, diagnosis and care options for devastating diseases including cancer.

The government has today (9 September) unveiled details of how it will help thousands of people across the country living with debilitating, painful and/or sometimes life-threatening diseases by investing £133 million in life-changing treatments for arthritis and cancer and for pioneering gene-based therapies for diseases including dementia and Parkinson's.

Faster, more accurate diagnosis, and earlier interventions will be boosted by £50 million to be pumped into NHS diagnostic services and support the work of existing Centres of Excellence in digital pathology and imaging with artificial intelligence. The centres – based in Leeds, Oxford, Coventry and London – will be able to partner with more NHS Trusts and further develop cutting edge products using digital systems and artificial intelligence that could ultimately save lives.

Adult social care will also receive a new cash injection of £7.5 million to use research to improve care delivery for some of the most vulnerable people in our society and £14 million for bioscience projects and technologies across the UK that could, for example, treat osteoarthritis and develop new vaccines.

Business Secretary Andrea Leadsom said:

Chronic and painful illnesses like arthritis and Parkinson's are dreadful and prevent people from living a full life.

Curing these kinds of debilitating illnesses is one of the great challenges we face globally, and today's commitment will play a vital role in ensuring that our scientists and thinkers have the tools they need to find new treatments that will support people to lead longer, healthier lives.

Health Secretary Matt Hancock said:

We've got to bring NHS technology into the 21st century. I've seen for myself how better technology and diagnosis can save clinicians' time so they can concentrate on care. The NHS is now spearheading world-leading technologies that can transform and save lives through new treatments, diagnosis techniques and care. I'm determined that the benefits of these advances will improve the lives of thousands of patients whose conditions have long been considered life-limiting.

Combined with this new funding, none of this would be possible without the long-term plan, backed by an extra £33.9 billion a year for the NHS.

Minister for Innovation Nicola Blackwood said:

The UK is a global powerhouse in health research and innovation. The investments announced today will cement this, and help to further deliver on the NHS's international leadership on applying artificial intelligence to complex health problems. Today's announcement is good for patients, good for staff and good for researchers.

UK Research and Innovation Chief Executive, Professor Sir Mark Walport, said:

Supporting people to live long, healthy and independent lives is a fundamental value of our society and, as our population ages, one of the biggest challenges we face.

This £133 million investment will tackle important chronic diseases and also create a national centre of evidence for implementing the best evidence to provide adult social care.

A further £69.5 million of the total investment through UK Research and Innovation (UKRI) will help fund 4 British projects:

- Nucleic Acid Therapy Accelerator: 'NATA' (£30 million) – brand new therapies and technologies directly targeting genetic mutations could be rolled out to treat diseases including cancer, Huntington's, Parkinson's and arthritis
- The Advanced Pain Discovery Platform (£12 million) – deepening our understanding of pain, this will reveal new treatment approaches and address a wide spectrum of chronic and debilitating conditions including arthritis. Versus Arthritis will contribute an additional £12 million over 3 years
- UK Centre of Evidence Implementation in Adult Social Care (£7.5 million) – using high quality research, this project will lead to improvements in the delivery of social care across the UK; implementing innovations with the potential to allow more people to receive care from the comfort of

their own home

- Tackling Multimorbidity at scale (£20 million, of which the National Institute of Health Research (NIHR) is contributing £10 million) – this research into multimorbidity – when someone is suffering 2 or more long-term health conditions – will propel forward drug development, allow for earlier diagnosis and reduce progression to more severe illness and disability

The Centres of Excellence funding

The Centres of Excellence in digital pathology and imaging with AI were originally established in 2018 by UKRI. They bring together the NHS, industry, and academia who work together to develop products using advances in digital technology to improve early diagnosis of disease, including cancer by detecting abnormalities. The programme, managed by UKRI, will allocate the £50 million via a competition run between the 4 centres. The bids must demonstrate how funding will be used by the centres to invest in digital infrastructure and equipment in partner NHS Trusts, and digitally link these trusts to the centres. This will expand the geographic coverage of the NHS trusts who are able to work with the centres.

Strategic Priorities Fund

The Strategic Priorities Fund (SPF) supports high quality research and development priorities. This is the second wave of funding. The SPF Wave 2 total programme funding allocation is £496.8 million.

More details about the funding projects

Nucleic Acid Therapy Accelerator: 'NATA' (MRC)

Hosted by the Rosalind Franklin Research Institute – supported by MRC with DHSC, BEIS, Harwell Research Campus and Oxford University.

Funding requested: £30 million over 4 years.

Location(s): The intention is to establish the NATA core infrastructure hub at Harwell Research Campus (Oxford). However, the challenges will be open to higher education institutions (HEIs), Institutes, public sector research establishments (PSREs) and/or businesses across the UK. Nucleic acid therapies are precision genomic medicines.

The Advanced Pain Discovery Platform: Mapping the complexity of chronic pain (MRC)

MRC and Versus Arthritis with BBSRC and Innovate UK.

Funding requested: £12 million over 3 years. Versus Arthritis will contribute an additional £12 million over 3 years.

Location(s): The intention is to build a national capability through calls which are open to HEIs, Institutes, PSREs and/or businesses across the UK.

UK Centre of Evidence Implementation in Adult Social Care (ESRC)

ESRC and The Health Foundation.

Funding requested: £7.5 million over 8 years.

This is co-funded by an additional £7.5 million by the Health Foundation, who are working in partnership with Economic and Social Research Council.

Location(s): This is an open competition to deliver a nationally distributed and locally embedded centre through a call which is open to HEIs, independent research organisations and PSREs.

Tackling Multimorbidity at scale: Unpicking disease clustering biological pathways and trajectories (MRC)

MRC with DHSC and NIHR.

Funding requested: £20 million over 4 years. This is co-funded by NIHR, who are providing half of the £20 million and are working in partnership with the Medical Research Council.

Location(s): The intention is to build a national capability through calls which are open to HEIs, independent research organisations and PSREs across the UK.

Background

The £14 million has been awarded to cutting-edge bioscience projects across the UK by the Biotechnology and Biological Science Research Council (BBSRC).

The government's [Ageing Society Grand Challenge](#) aims to ensure that people across the UK enjoy an extra 5 years of healthy and independent living by 2035, whilst narrowing the gap between the experience of the richest and the poorest.

With 1 in 7 of us expected to be over 75 by 2040, today's investment announcement will be an essential step in developing the products and services to support the UK's ageing society by keeping them healthy, active and independent for as long as possible. Investing in innovation to promote longer, healthier lives is the aim of the government's Ageing Society Grand Challenge.

This cash boost is the latest move by the government to address the needs of our elderly citizens and meet its goal of helping everyone to enjoy 5 extra healthy and independent years by 2035. Earlier this year, a £300 million competitive fund was announced to address innovations and new technologies to help people live in their homes longer, tackle loneliness and increase independence.