Press release: UK and Pacific Islands sign trade continuity agreement

An agreement has been signed between the UK and the Pacific Islands to maintain existing trade arrangements.

Press release: New investment in European Bioinformatics Institute to tackle life threatening diseases

- Life scientists around the world to access more genomics and molecular biology data that will improve diagnosis of disease and inform new lifesaving treatments
- new funding to EMBL's European Bioinformatics Institute in Cambridge will analyse large and complex data sets and turn into digestible knowledge for scientists
- investment illustrates the government's Industrial Strategy in action to ensure the UK remains globally competitive in the life sciences, with UK science and innovation supported by the largest increase in public research and development investment on record

Drug discovery, research into cancer genetics, regenerative medicine and crop disease prevention will be strengthened following £45 million government investment to extend the largest biological open data facility hosted in the UK.

Life scientists around the world use <u>EMBL European Bioinformatics Institute's</u> (<u>EMBL-EBI</u>) infrastructure in Cambridge to store, share, access and analyse data to drive cutting-edge research in genomics and molecular biology. This £45 million investment from government will increase the centre's computing, storage and building capacity as it works to improve the world's understanding of genetics and molecular biology.

Through collaborations, the Institute is integral to fighting human diseases, and has supported initiatives including:

- the Human Cell Atlas which is the world's first data platform that maps every single cell in the human body. By doing so, it allows scientists to identify which genes associated with disease are active in our bodies and where
- UK Biobank which is a collection of health data from over 500,000

volunteers in the country, set to offer new insights to disease prevention and treatment

Making the announcement, Science Minister Chris Skidmore said:

People around the world are affected by food security, diseases that could be prevented and access to effective medication. Through the vital datasets made available by EMBL-EBI many of these issues can — and are — being prevented.

That is why the government has invested £45 million to boost the work being undertaken at the Institute, and why boosting the UK's genomics sector is a key commitment in our Life Sciences Sector Deal, to avoid premature deaths and to ensure food security for years to come.

The new funding is delivered through UK Research and Innovation's (UKRI) Strategic Priorities Fund which supports high quality research and development priorities. UK science and innovation is supported by the largest increase in public research and development investment on record by committing to raising R&D funding to 2.4% of GDP by 2027.

UKRI Chief Executive, Professor Sir Mark Walport, said:

Our ability to process, access and interrogate large volumes of data is absolutely crucial to scientific discovery in the 21st Century, none more so than in health and life sciences where the fields of genomics and molecular biology are fuelling major advances.

This funding enables EMBL-EBI to continue to grow its global leadership in large biological datasets and bioinformatics, which are used by researchers all over the world, every day of the week.

This investment will expand EMBL-EBI's technical IT and building infrastructure which will support the growing demand for scientists to access biological data sets more quickly and simply than has previously been the case. It will also support the emerging use of machine learning across the life sciences, which requires quality-controlled datasets that EMBL-EBI.

Dr Ewan Birney, Director of EMBL-EBI, said:

EMBL-EBI websites receive over 38 million requests for data or analysis every day. The demand for our data resources has risen dramatically in the last decade and we expect this trend to continue, so we need to be ready for when it happens. Building a robust and accessible data infrastructure is crucial for the life science discoveries of the next decades.

Bioinformatics — the science of analysing, storing and sharing large biological datasets — is essential to discovering how genes affect the health of humans, plants and animals.

The UK is a founding member of EMBL, a not-for-profit intergovernmental organisation established in 1974 and now funded by 26 member states, including much of Europe and Israel, and two associate members, Argentina and Australia. EMBL-EBI is one of the 6 sites of EMBL.

EMBL-EBI, based on the Wellcome Genome Campus in Cambridgeshire, is a global leader in bioinformatics. Researchers today depend on access to large data sets of many different types, spanning genes, proteins and the behaviour of small molecules. Bioinformatics makes it possible to collect, store and add value to these data so that life science researchers can retrieve and analyse them efficiently. EMBL-EBI is one of very few places in the world that has the capacity and expertise to fulfil this important task. They develop databases, tools and software that make it possible to align, verify and visualise the diverse data produced in publicly funded research, and make that information freely available to all.

EMBL-EBI supports large-scale science programmes, for example:

- <u>UK Biobank's</u> genomic and health data collected from 500,000 volunteers
- the <u>Human Cell Atlas</u>, a global endeavour to map every single cell type in the human body
- the <u>Earth BioGenome</u>, which aims to characterise the genomes of all of Earth's eukaryotic biodiversity

In the last 5 years, approximately 20 petabytes of new biological data has been deposited to EMBL-EBI resources. This is equivalent to the capacity of 20,000 laptops with one terabyte of storage each. This data growth is likely to intensify due to the diverse use of genomic data in biotechnology, medicine and agriculture.

But the amount of data produced is doubling twice as quickly as computer storage and processing power, and this rate is increasing. This is partly due to the rise of new technologies, such as single-cell sequencing, and cryo-electron microscopy.

The <u>Strategic Priorities Fund</u> is being delivered by UKRI to drive an increase in high quality multi- and interdisciplinary research and innovation; ensure that UKRI's investment links up effectively with government research priorities and opportunities; and ensure the system responds to strategic priorities and opportunities.

Press release: New investment in European Bioinformatics Institute to tackle life threatening diseases

European Bioinformatics Institute in Cambridge receives £45 million government investment to increase centre's computing, storage and building capacity.

<u>Press release: Universities asked to do more to support care leavers</u>

Universities across the country are being called on to do more for young people leaving care by giving them personal support, helping them pay for accommodation and providing money to buy books and join social clubs.

Currently just 6 per cent of care leavers aged 19-21 go into higher education, and those that do are nearly twice as likely to drop out than their peers. This is why Universities Minister Chris Skidmore and Children and Families Minister Nadhim Zahawi are calling for a shift in culture at universities to welcome care leavers and provide wraparound support to help them thrive.

The new Higher Education Principles published today (14 March) set out how universities — especially the most selective and best-resourced — should do more for young people leaving care by providing them with personal support through buddy systems as well as giving them money for course materials and to fully experience student life.

Children and Families Minister Nadhim Zahawi said:

Far too many young people leaving care are missing out on opportunities that their peers take for granted. Many universities are already improving their offers to care leavers, through our Care Leaver Covenant and beyond, but I want this to become the norm — not the exception.

These principles are important in creating a culture shift for all universities. They set out clearly what we expect from them in helping young people leaving care to start higher education, and call on them to extend the kinds of practical and personal support that will make a challenging transition less overwhelming.

Under the principles, the most selective universities are being asked to go further and set a high bar for the sector, providing free accommodation and bursaries to cover study and student experience costs, such as laptops and books as well as access to social groups.

Admissions teams should provide outreach to councils and schools to encourage looked after children to apply for higher education. Support could also include subsidised and year-round accommodation, as those leaving care to start university may not have the same family networks or a place to stay during the holidays. The new guidance sets an expectation on the level of support universities should offer to care leavers, putting them on track to succeed as soon as they arrive.

Universities Minister Chris Skidmore said:

Everyone, including young people leaving care, should have the opportunity and the support to thrive in university and go on to succeed. Care leavers taking up a place at university face different pressures to their peers, but we are determined to stop them from dropping out due to challenges beyond their control.

The access and participation work done by universities must ensure all parts of society have fair access, especially for care leavers. But a place at university is only the start and universities must also focus on supporting young people to make the most out of their course and ultimately secure employment in the future.

This builds on the launch of the Care Leaver Covenant, which sets out pledges made by the Government, businesses, charities, and voluntary sector groups to provide work and education-based opportunities to young people leaving the care system. So far 73 organisations have signed up to the Covenant, including 13 universities.

Poet and care leaver Lemn Sissay, who is also Chancellor of the University of Manchester and a champion of the Care Leaver Covenant, said:

Leaving care without qualifications or direction is seriously hard. I know. I was that person. It's critical that we come together to make sure that all young people, including those who have left the care system, have every opportunity, which is why these principles are so important, so vital.

It's truly great to see the Department for Education working so closely with universities in the interests of vulnerable young people leaving care. For me it is a historic moment. It's never happened before. One day I hope all universities will be able to say we are signed to The Care Leaver Covenant.

By encouraging universities to think more about the offer they make to care

leavers, the guidance aims to reduce the number who are deemed as 'not in education, employment or training' (NEET) — almost 40 per cent of care leavers aged 19 to 21, compared to 13 per cent for this age group overall.

The new guidance builds on wider government support available to care leavers. The Department for Education has already extended the offer of support from a Personal Adviser to all leavers to the age of 25, while all care leavers who go to university are entitled to a £2,000 bursary from their local council, £1,200 from the college if they go into further education and £1,000 for the first year of an apprenticeship.

The principles also come after the Office for Students (OfS) published new guidance, under which universities that charge higher fees must have access and participation plans for implementation in 2020/21. The OfS will scrutinise these plans and hold universities to account on how they are improving outcomes for underrepresented students, including care leavers.

Anne Longfield, Children's Commissioner for England, said:

I want to see more young people in care going to University and the Department for Education is right to promote ways that universities can support those in care to apply for degrees and to flourish while they are studying. I am calling for universities to compete to offer the best support to children in care as we should all have the highest aspirations for these young people.

I was pleased to provide our input into the development of the Department for Education Principles based on the issues about which care leavers are increasingly calling my office for advice.

Alistair Jarvis, Chief Executive of Universities UK, said:

Universities are committed to working closely with schools and local authorities to increase the number of care leavers attending university and provide them with appropriate support to thrive at university.

These principles will help universities to build on existing work to provide personal support for care leavers to realise their full potential.

Press release: Universities asked to

do more to support care leavers

Ministers set out the need for a 'culture change' at universities to encourage more care leavers to stay in higher education