Science Policy Newsletter – a weekly round-up of policy headlines and stories

28 August 2020

This newsletter provides links to published news articles from a range of sources. Views or opinions presented are those of the original author(s) and do not necessarily represent the views of the Royal Society of Biology.

News

Top stories

Legally binding targets to help “build back greener”
The Government sets out how it will underpin key environmental commitments with legally binding targets, including for air quality, water, waste and biodiversity.

Royal Society of Biology news

GCSE results awarded and revised A level results shared with schools after exam results U-turns
Students in England, Northern Ireland and Wales received their GCSE qualification results, after education ministers in England, Northern Ireland and Wales confirmed that students would be awarded whichever was the higher of their moderated grade or centre assessed grade (CAG). Roger Taylor, Chair of Ofqual, released a statement on 17th August 2020 confirming the changes to awarding plans.

Education during COVID-19
An RSB webpage listing advice, resources and announcements for schools, students and parents during the COVID-19 pandemic.

RSB Policy Lates looks at the positives and negatives for research in ‘the COVID era’
The second Policy Lates event to be hosted online saw a panel of experts discuss the strategies and policies driving research on COVID-19 and the lessons that can be taken from this period of intense scientific activity. The panel also spoke candidly of the impact COVID-19 has had and will have on funding, infrastructure, outcomes and careers in research more broadly.

COVID-19 Bulletin
For further detail on COVID-19 research, news and updates, RSB has developed a monthly bulletin collating some of the bioscience behind the outbreak and response. The latest edition, published on the 24th of August 2020 covers updates on: education; surveillance; vaccine trials; populations at risk and impacted; investment to research into links between COVID-19 and ethnicity; mental health; viral transmission routes; trust; COVID-19 'long haulers'; calls for innovation, volunteers, evidence; biodiversity loss and disease spillover; and international public health responses. See our webpages to read previous editions and subscribe to the next.

Main RSB webpage on COVID-19
The RSB is working to adapt and ensure our services are delivered to the greatest extent possible whilst also taking into account Public Health England and Government advice during the pandemic. We regularly update this webpage with relevant information about our activities, initiatives and community support.
Health and biomedicine

**What the immune response to the coronavirus says about the prospects for a vaccine**
A Nature news article collating the opinions of viral immunologists exploring long-lasting immunity to SARS-CoV-2.

**Largest ever study using wearable devices finds physical activity is beneficial for health, and more intense activity is better**
In the largest study to date of accelerometer-measured physical activity, a team led by researchers at the Medical Research Council (MRC) Epidemiology Unit at the University of Cambridge analysed data from more than 96,000 UK Biobank participants.

**Potential new asthma treatment: protein linked to omega-3 fatty acids shows promise**
Writing in the Conversation, University of Glasgow researchers explain how omega-3 fatty acids and more directly medicines that mimic some of the actions of omega-3 fatty acids, could potentially be used to help treat asthma.

Agriculture and fisheries

**EU subsidies benefit big farms while underfunding greener and poorer plots – new research**
An article for the Conversation describes the European Union’s Common Agricultural Policy (CAP) and the current impact of CAP subsidies on the farming community and the environment.

**Bee Neighbourly: Sharing Bees Helps More Farmers**
A new study featured in People and Nature shows how the benefits of cost-sharing the conservation of wild bee habitats on agricultural lands, especially in nearby farming communities, can help overcome the tragedy of the commons.

**Farmers to be paid for delivery of better animal welfare**
An article for Farmers Weekly describes the Animal Health and Welfare Pathway, which will seek to reward farmers for going above and beyond basic regulations in terms of the health and welfare of their livestock.

Forestry

**Scientists unlock Alpine trees’ molecular defence**
The BBC reports that researchers have found a way to tackle a disease that threatens thousands of hectares of Alpine forests each year.

**Ash dieback: NI’s native ash trees face fatal disease**
The BBC describes how cases of ash dieback have risen in Northern Ireland.

Environment and ecology

**Bid to boost numbers of one of UK’s rarest ants**
Conservationists are attempting to boost numbers of one of the UK’s rarest ants, reports the BBC.

**Bid to save Cairngorms plant life from extinction**
Conservationists are trying to save wildflower meadows, rare pinewood plants and arctic alpine flora from dying out in the Cairngorms, reports the BBC.

**Younger generation fail to notice environmental decline due to generational amnesia risking conservation longevity**
The British Ecological Society reports young people are not as aware of environmental changes compared to the older generation, according to a new report published in People and Nature, by Royal Holloway, University of London and the Zoological Society London.
Climate and energy

UK helps reduce more than 30 million tonnes of greenhouse gas emissions globally
A Government press release announced 31 million tonnes of greenhouse gas emissions were reduced globally in the last nine years as a result of UK intervention according to new climate finance data.

Waste

Plastic pollution in Atlantic at least 10 times worse than thought
The Guardian covers how more than 10 times as much plastic has been found in the Atlantic ocean than previously estimated to be there, showing the world’s plastic problem is likely to be much greater than realised.

We’re using microbes to clean up toxic electronic waste – here’s how
Writing in the Conversation, Sebastien Farnaud, Professor of Bio-innovation and Enterprise, Coventry University, explains a process called bioleaching, where metals from e-waste are extracted and recycled using non-toxic bacteria.

Animal Research

Cartilage Is Grown in the Arthritic Joints of Mice
Researchers discovered a way to awaken dormant stem cells and transform them into cartilage. If the technique works in humans, it may help ease debilitating joint pain, says the New York Times.

Championing non-aversive mouse handling
Rachel Blackburn-Stout, an animal technician, based at the MRC Laboratory of Molecular Biology (LMB) led culture change in the LMB animal facility by championing non-aversive handling methods and implementing changes to mouse handling habits.

Swans’ reputation for aggression examined
A study into the reputation for “aggressiveness” of swans has found they are more likely to be hostile to their own kind than to other birds, reports the BBC.

Research funding and higher education policy

UKRI opens postgraduate funding up to international students
The UK’s main research funding body will allow international students to apply for postgraduate funding from the 2021-22 academic year, says the Times Higher Education.

University access improving, but big challenges remain – OfS chair
Analysis by the Office for Students of this year’s UCAS figures shows that more young people from disadvantaged areas are going into higher education, however significant challenges still remain.

Lab teaching could be revolutionised by switch to online
An article for the Times Higher Education describes how the COVID-19 pandemic is accelerating a long-sought overhaul of the undergraduate lab experience, spurring the adoption of online simulators that may make science teaching more equitable, efficient and effective.

New survey reveals concerns from early career researchers
Earlier this year, the Biochemical Society launched a community survey amongst its members and other key stakeholders to assess the impact of the COVID-19 pandemic on researchers in the molecular biosciences. These results have revealed principle concerns around the future of early career researchers (ECRs) and the funding landscape.
Schools education policy

Study finds very low numbers of COVID-19 outbreaks in schools
A new study by Public Health England (PHE) shows Coronavirus (COVID-19) outbreaks and infections in schools are rare.

How schools can reopen safely during the pandemic
A Nature article examining multiple case studies from around the world identifying the measures taken to decrease the spread of COVID-19 when re-opening schools.

Children raised in greener areas have higher IQ, study finds
The Guardian covers how children growing up in greener urban areas have increased intelligence and lower levels of difficult behaviour.

Open access and publication policy

From ACTH to DNA: the rise of acronyms in research
More than one million abbreviations have been used in biomedical papers since 1950 — but just a fraction appear regularly, says Nature.

Business and industry

Going green dramatically benefits businesses – it should be central to their coronavirus recovery strategy
An article for the Conversation examines greening initiatives that have been proven to be beneficial for businesses.

Scientists create 3D-printed buildings from soil
The Guardian reports scientists have developed a method to 3D-print greener buildings using local soil that they say has the potential to revolutionise the construction industry.

Sustainable cement: the simple switch that could massively cut global carbon emissions
Writing in the Conversation, Brant Walkley, Lecturer, Department of Chemical and Biological Engineering, University of Sheffield, explains the potential impact of shifting completely to sustainable cement on carbon dioxide emissions within the construction industry.

Outreach and engagement

Aquariums report wave of webcam visits amid Covid shutdown
This article from the Guardian explores how facilities during the pandemic have experienced a jump in online traffic as people take to the internet to view marine life.

Digital technologies

Beetlebot carries heavy loads using alcohol-powered artificial muscles
One of the world’s smallest microrobots is able to carry 2.6 times its own body weight thanks to a muscular system powered by alcohol, observes NewScientist.

International news

Coronavirus disease (COVID-19) Situation Dashboard
The World Health Organisation summarises the reported number of confirmed COVID-19 cases and deaths.
China’s research-misconduct rules target ‘paper mills’ that churn out fake studies
Measures to crack down harder on falsified work look good on paper, but critics say that enforcement will continue to be a problem, according to Nature.

Amazon fires trap farmers into poverty – and into setting more fires
This article in the Conversation examines the use of fire for agricultural practices in the Amazon.

Australia’s biggest bats fly thousands of kilometers a year—farther than wildebeest and caribou journey
An article for AAAS Science explores a study involving the attachment of satellite transmitters to three bat species in eastern Australia to investigate annual distance covered.

Opinion

How we accelerated clinical trials in the age of coronavirus
A Nature World View article examining how the lessons from COVID-19 can be used to streamline clinical trials and deliver effective treatments of other diseases.

2020 made us too – the pandemic postgraduates
Writing for Wonkhe, Andrew McRae Dean of Postgraduate Research at the University of Exeter, considers the issues facing postgraduate research students in the year ahead.

Nature is telling us to rebuild our economy around inclusive wealth
Pushpam Kumar, Chief Environmental Economist, United Nations describes inclusive wealth which refers to the sum of social worth of manufactured capital (such as building and machines), human capital (such as health and skills) and natural capital (such as biodiversity and ecosystem services).

People

'I’m up for the fight': Chris Jackson to be first black scientist to give Christmas lecture
The Guardian covers how this year Professor Chris Jackson, will be the first black academic to present the Royal Institution Christmas lectures.

Horace Barlow obituary
The Guardian explores the life of British neuroscientist Professor Horace Barlow who explored the principles of how the brain enables us to see.

Opportunities

RSB Policy Internships
The RSB has one internship position available for current PhD students who are funded by AHRC, BBSRC, EPSRC, ESRC, MRC, and NERC. The successful applicant will spend three months working at the RSB in 2021. Start and end dates can be negotiated as appropriate.

Closes: 10 September 2020

RSB outreach activities at online science festivals
Families will now be able to take part in some RSB simple hands-on science activities after watching short films of our activities as part of the GSF 2020: Science on the Sofa, online from 9th September - 9th November 2020. The online science festival has a digital programme of hands-on activities, talks, shows and more, to entertain and inspire.
Our hands-on science videos will also be available at Swansea Science Festival online over the weekend of 24th - 25th October 2020. The online science festival has a digital programme of presentations, talks, interactive workshops and demonstrations, there will be something for everybody to enjoy.
Consultations

New in-depth inquiry: the future of ageing
Nuffield Council on Bioethics has announced that a new in-depth inquiry on the future of ageing will soon begin. The inquiry will explore the ethical implications of the emerging role of science and technology in helping people live well in old age. Currently, there is an invitation for expressions of interest for this project.
Closes: 1 September 2020

The role of technology, research and innovation in the COVID-19 recovery
The House of Commons Science and Technology Committee will inquire formally into the role of technology, research and innovation in the UK’s economic recovery from COVID-19, as well as the support that the sector itself requires to recover from the pandemic.
Closes: 11 September 2020

England Tree Strategy
This consultation will inform a new England Tree Strategy. It will focus on expanding, protecting and improving our woodlands, and how trees and woodlands can connect people to nature, support the economy, combat climate change and recover biodiversity.
Closes: 11 September 2020

Comprehensive Spending Review 2020
The UK has a well-established budgeting framework, through which a spending review is carried out approximately every 3 years to allocate funding to departments. The Comprehensive Spending Review 2020 will allow the government to consider its priorities across all spending over multiple years. HM Treasury welcomes representations as part of the policy-making process. A Comprehensive Spending Review representation is a written representation that comments on government policy or suggests new policy ideas for the Comprehensive Spending Review. It can be submitted by an interest group, individual or representative body to HM Treasury.
Closes: 24 September 2020

River basin planning: Challenges and Choices
The Environment Agency is holding a consultation to gather views on the challenges our waters face and the choices we all need to make to help tackle those challenges.
Closes: 24 September 2020

RSB Policy Resource Library now online
The RSB has created a searchable, digital library of more than 800 statements, responses, briefings and other policy resources produced by the RSB and our Member Organisations across the biosciences. This collection is freely and openly accessible to everyone, including members and non-members, through the mySociety portal (no registration necessary).

Events

The Foundation for Science and Technology: The R&D Roadmap - Levelling Up Across the UK
7 October 2020
18:00 – 19:00 BST via Zoom
In July, the Government published the R&D Roadmap, setting out ambitious plans for investing in research and securing the benefits for the economy. A key element of this is the promise of an R&D Place Strategy, designed to unlock local growth and societal benefit across the UK. This webinar will discuss the role that R&D can contribute to the "levelling up" agenda, the inequalities in R&D funding across the different nations and regions of the UK, and how the focus on place fits within the overall R&D Roadmap.

Sanger Seminar Series
The Wellcome Sanger Institute is pleased to launch a series of virtual seminars, showcasing the diversity of genomic research at the Institute aimed at tackling some of the biggest challenges in human health and disease. The virtual seminar series will take place monthly and is freely available and open to all who wish to attend.
Due to the COVID-19 pandemic, all in person RSB events due to take place in 2020 have been cancelled, postponed or moved to an online format. Updated information will be made available on the RSB events pages. Postponed events will hopefully run in 2021.

We are aware that a number of events previously advertised in the Science Policy Newsletter have been cancelled owing to the novel coronavirus Covid-19. We recommend also checking other external event webpages for updates and continuing to monitor and follow official advice.

And finally...

**Tiny elephant shrew species, missing for 50 years, rediscovered**

A mouse-sized elephant shrew that had been lost to science for 50 years has been discovered alive and well in the Horn of Africa, says the Guardian.

**The Biologist**

In the latest from The Biologist’s ‘COVID Q&A series’, Dr Andrew Singer explains how a national system to monitor COVID-19 levels in sewage could identify local outbreaks more quickly and cheaply than mass testing, and Professor Sarah Gilbert, lead vaccinologist on the Oxford COVID-19 vaccine trials, explains how her team developed and started testing a vaccine before anyone else.

---

© Royal Society of Biology 2020. Registered Charity Number: 277981
1 Naoroji Street, London, WC1X 0GB