‘Don’t try too hard to find economic value’

Politicians should look beyond GDP, says George Osborne

In an interview with *Research Fortnight*, Osborne, who became the editor of the *Evening Standard* newspaper this month, said: “I think sometimes we try too hard to find the economic value of things and we forget that we are human beings beyond just an economy.” As chancellor, he said his decision to back spending on science was not just taken because he expected a clear or quick economic return.

“I always had an eye on the bottom line and I thought investment in science was good for the productivity of the economy and for the jobs it created,” Osborne said. “That for me was never really the fundamental reason why the country should invest in its scientists and revere its science.”

“You want to be promoting a culture of inquiry and a culture of research that doesn’t always have an obvious end product that can be commercialised or can add to GDP,” Osborne said. “That is a happy byproduct of a great scientific base.”

Osborne was being interviewed by Andre Geim, Regius professor at the University of Manchester, who is guest editing this 500th edition of *Research Fortnight*.

“I think your discovery of graphene is a classic example of that,” Osborne said, referring to the 2010 Nobel prize that Geim received with his Manchester colleague, Konstantin Novoselov. “You didn’t set out to develop things that were going to make car tyres more efficient,” Osborne said. “That is not what Andre Geim set out to do in his life. I suspect if you’d set out to make car tyres more efficient you would have been looking at rubber compounds and not got very far.”

Their discussion was wide-ranging (*see interview, page 6*), covering Brexit, the technical competence of political leaders in the UK and China, and whether economics can be called a “science”.

Geim said that he had recently returned from a visit to China where he met politicians representing different cities and provinces. “In my experience, China’s politics is dominated by technocrats, while we hardly have ministers with technical education,” Geim told Osborne. “China is one extreme, but I think Britain is another extreme, where the cabinet is dominated by history and politics,” he said.

In response, Osborne said that Margaret Thatcher trained as a chemist but he conceded that at the top of Britain’s political class, a degree in politics, philosophy and economics from the University of Oxford is certainly regarded as preparation for a life in politics. “Maybe this is why Thatcher remains one of the most remembered prime ministers,” Geim commented.

China is different, Osborne said: “I’m not sure it’s a model of how to pick your politicians.” Part of the difference between the educational backgrounds of UK and Chinese leaders can also be attributed to the differing political cultures. The PPE degree prepares graduates for “public arguments and winning debates”, which, Osborne said, “is of course not so much so in China”.

He also observed that an argumentative culture is somewhat lacking among UK scientists in public engagement. “I think sometimes scientists feel unnecessarily timid about getting involved in the public sphere and the public debate, saying: ‘That’s not for me, I’m a scientist and I’m going to stay in my lab.’”

Asked whether he favoured a hard or soft Brexit, Osborne said it was important that the UK’s researchers retained their links to Europe. But he recognised that a future relationship might not involve funding from the European Union’s Framework programme.

“Things like Horizon 2020 have been part of the EU, but we need to find a way to create that kind of network and that kind of support and funding outside the EU,” he said.

“One of the biggest things we could potentially lose would be that cross-European scientific community. While it was working perfectly well within the EU, we are now going to have to work hard to make sure it works outside the EU.”
Research, politics and the media face fractious times.

When the first issue of Research Fortnight was published on 19 October 1994, the UK had a Conservative government that had just installed John Cadogan, a former chief scientist at BP, as the first director-general of the research councils. Ministers wanted to have tighter control of both universities and funding. That expectation was perfectly captured in our news headline: “Research councils nudge up with DTI” (a forerunner to the Department for Business, Energy and Industrial Strategy).

Roll forward 23 years and you could plausibly argue that little has changed: a Conservative government wishes to bring coherence to the research budget and wants scientists to be less hostile to government and industry.

Yet the world is much changed. Research has boomed worldwide, as nations have been lifted out of poverty and states have invested in the business of knowledge creation. Political systems have collapsed. In 1994 Andre Geim—who has guest edited this 500th issue—gained tenure outside the former Soviet Union to undertake research on innovative materials that would later lead to his winning a Nobel prize. Few would have foreseen the 9/11 attacks on the United States, the subsequent invasions of Afghanistan and Iraq, the rise of Islamic State and a financial and economic crisis.

During the crisis years, politicians such as former chancellor George Osborne (see Interview, page 6) protected the research budget, but made public funding cuts that hit hard those low-income groups that subsequently voted for Brexit and are now targetted by far right propaganda.

Even the world of the media is transformed. Some 23 years ago the worldwide web was only just beginning to escape its origins as an application for researchers at the European particle physics lab Cern. Journalists had no inkling how it would upend publishing, and that newer generations of readers would simultaneously become their own writers, editors and publishers. We failed to anticipate that they would expect to obtain free news online and through social networks, effectively cutting out publishers.

Nor did we expect that our sources, especially those in the public sector, would take advantage of the communications revolution both to restrict media access to public officials and to use technology to hit back with their own, sometimes false, versions of events. That is a troubling development. When the US president can speak unfiltered to millions of Twitter followers, journalism simply becomes an inconvenience.

News journalists are notoriously bad at prediction. Our time horizon is far too short to be able to predict anything meaningful beyond a week, which, as Harold Wilson famously noted, “is a long time in politics”. But we can be confident that the next two decades will be tougher than the previous 20 years. At the same time it is a privilege to report on research policy. We are hugely grateful for the trust you, our readers, have placed in us as we have grown from a small start-up to a fully fledged news operation with about 30 journalists serving readers in Africa, Australasia, Europe, the Middle East and North America. And for as long as it takes, we shall continue to call the powerful to account.
Labour confirms zero tuition fees in leaked manifesto draft
A draft of the Labour Party’s general election manifesto was leaked last week, revealing plans to abolish tuition fees and to increase NHS funding by a further £6 billion a year. The party is promising to make higher education free and to reintroduce maintenance grants for university students if it forms the next government.

Amazon boosts UK research capacity
Global retailer Amazon is to open an R&D centre in Cambridge this year. The centre will employ more than 400 highly skilled employees including machine-learning scientists, data scientists, mathematical modellers, speech scientists and software engineers. Staff recruited for the site will work on Amazon’s tablet devices and its Echo voice services. The company has pledged to create 5,000 permanent jobs across the UK, to bring its full-time workforce to 24,000.

R&D spending is yielding fewer bangs per buck
More and more researchers are producing less and less, a leading innovation economist has warned. Giving the inaugural Christopher Freeman lecture at the University of Sussex, Luc Soete said that the link between a nation’s research investment and its productivity has become tenuous. As an example, Soete gave Moore’s Law, which states that the number of transistors packed on to a computer chip doubles approximately every two years. Today, he said, it takes 75 times more researchers to maintain this rate of doubling than in the early 1970s.

Publishers plan ‘fair sharing’ tool
Scientific publishers are considering creating a system that allows legal sharing of research papers, according to a report in Nature. A new online tool, dubbed Fair Sharing, is being discussed by members of the International Association of Scientific, Technical and Medical Publishers. It is in response to the increasing number of researchers who are uploading research papers to academic social networking sites, such as ResearchGate, without authorisation.

University vice-chancellors ‘not effective leaders’, survey finds
A survey by The Guardian has found that academic and administrative staff at universities feel that their vice-chancellors do not spend enough time learning how the institution works. Many of the survey’s 1,079 respondents felt that their vice-chancellors were too focused on lobbying and external relations. Other respondents referred to the high pay of vice-chancellors, with one saying the vice-chancellor was so highly paid “he could never be value for money”.

Wanted: early-career social scientists to host ESRC festival events
The Economic and Social Research Council has put out a call for social science researchers to run workshops at its upcoming Festival of Social Science. This is the fifteenth year of the festival, and events will take place across the UK from 4 to 11 November 2017. Sponsorship of up to £1,000 is available to researchers at partner universities to assist with the costs of running an event.

Government rejects call for ‘post-Brexit’ green law
The UK government has rejected a suggestion from MPs for an Environmental Protection Act to ensure that the UK has environment legislation equivalent to—or better than—that in the European Union. The decision was part of the government’s response to a House of Commons committee inquiry report Future of the Natural Environment after the EU Referendum. The government said that its great repeal bill would instead convert current EU law into domestic legislation.
Heavy-handed purdah criticised

Publicly funded researchers are being unnecessarily gagged by over-zealous implementation of purdah, the period between the dissolution of parliament and the formation of a new government, campaign groups have said.

According to the rules of purdah, which began at midnight on 21 April, civil servants cannot participate in activities that could influence the outcome of the election; nor activities that could compete with parliamentary candidates for the public’s attention. The rules apply equally to non-departmental public bodies, such as research and funding councils.

Following the commencement of purdah, publicly-funded researchers have declined to comment on reports or announcements unrelated to the election. Research Fortnight has been told this is an excessive interpretation.

Research Councils UK published a guidance document advising staff against issuing press releases about new research. Furthermore, researchers who did comment on papers or speak at events “must not attribute their research to the research councils”. Although the document added that if researchers are asked about links to the council, “you may still confirm this—it is not a secret”.

Stephen Curry, board member of the campaign group Science is Vital, said that research councils were being “excessively and unnecessarily cautious—in a way that conflicts with academic freedom”.

Tom Sheldon, senior press manager at the Science Media Centre (SMC), which often works closely with Whitehall departments to communicate research findings, said that he had been trying to put together a press briefing about the drought in the UK. However, the scientists with the most up-to-date information work at the Centre for Ecology and Hydrology (CEH)—which is funded by a research council—and the Met Office, all under severe restrictions about speaking to the media.

“Excessively and unnecessarily cautious—in a way that conflicts with academic freedom”

Julia Goodfellow, outgoing vice-chancellor of the University of Kent, will become the Royal Society of Biology’s third president in May 2018. She will succeed Jean Thomas who has been in post since 2014. Goodfellow, who is president of the vice-chancellors’ group Universities UK, is retiring from the University of Kent in August.

Scientists take brunt of Manchester job cuts

The University of Manchester is to cut 171 jobs, 140 of which will be academics in science, arts and business departments. The faculty of biology, medicine and health is set to lose 65 academic posts. A further 31 professional support roles will be lost at the faculty of engineering and physical sciences, the National Composites Certification and Evaluation Faculty, the Photon Science Institute and the directorate of finance.

The school of arts, languages and cultures will lose 35 academics and the Alliance Manchester Business School will lose 40 academic positions.

by Anna McKie

by Anna McKie amnews@ResearchResearch.com
SKA telescope faces redesign to absorb unexpected costs

The Square Kilometre Array telescope is faced with the prospect of significant changes to its design, following a major miscalculation of the project’s costs.

The SKA Organisation discovered in December 2016 that the total project was likely to cost €616 million (£778m) rather than the forecasted €674m, Research Fortnight has learned.

As a result, since the start of 2017, the project has been undergoing a cost-control exercise instigated by South Africa and Australia, two of the 10 countries that form the SKA Organisation.

The construction of what is expected to be the world’s largest radio telescope is due to begin in 2018.

Philip Diamond, director-general of the SKA Organisation, told Research Fortnight that, since December, the consortium had managed to reduce the shortfall by about €90m and total costs were estimated to reach €828m—a figure that he expects to be further reduced.

“It is not that the costs were underestimated,” Diamond said. “Nobody has done anything like the SKA before and so we had our initial cost estimates from a design consortia in 2013, and those were the best estimates that we had without the engineers having done any detailed design work. When you do that work, you discover the complexity of the problem.”

A SKA document seen by Research Fortnight lists 36 potential changes to the original design that would reduce costs. These options are ranked according to their impact on the science that the telescope is expected to deliver.

The list includes minor tweaks, such as: powering some of the project’s dishes from solar energy, which would remove the need for overhead power lines; simplifying the science data network connecting the antenna stations to the central signal processor, the telescope’s main processing brain; and reducing the amount of high-performance computing available to process raw data.

Another option with a bigger impact on the science would be to reduce the amount of process bandwidth, which would increase the time taken to make observations.

The most drastic options include: reducing the number of dishes from 70 to 59 in South Africa, which would reduce the telescope’s sensitivity by 20 per cent; removing 54 stations from the core area of the project in Australia; and reducing band time.

Cutting band time is one of the most controversial ideas, as it could mean that some of the projected science, such as the study of planetary disks or star formation, cannot be carried out until extra funds have been found.

Meanwhile, South Africa is understood to be pushing for scaling up the technology at the existing MeerKAT radio telescope and the Murchison Widefield Array (MWA) radio telescope in Western Australia, both of which are located in the same sites where the SKA will be built, eliminating the need for new designs.

Diamond added that he was optimistic about welcoming new countries into the SKA Organisation, and is holding conversations with the governments of Portugal, Spain, France, Germany, Switzerland, Japan and South Korea. The German government, which pulled out of SKA in 2014, is still considering a proposal to fund its participation in the SKA, which was put forward in January 2016 by a consortium of 35 research institutions led by the Max Planck Institute.

Some of these countries, Diamond said, would like to wait until the SKA Organisation becomes an intergovernmental body before joining. A convention paving the way for such a body is likely to be signed in July. However, such a deal must then be ratified by each of the current countries in a process that could take up to 12 months to be finished. The SKA Organisation is so far made up of Australia, Canada, China, India, Italy, New Zealand, South Africa, Sweden, the Netherlands and the UK.

Nichi D’Amico, president of the Italian National Institute for Astrophysics, said he did not consider the situation to be dramatic. “Our first goal is to establish the SKA intergovernmental organisation and ensuring that the minimal configuration of the project can produce good science, and is scientifically appealing and convincing in terms of costs,” he said. “The advantage of SKA is that it is easily scalable. As soon as the budget increases, the telescope can grow.”

Jonathan Pritchard, senior lecturer in astrostatistics at Imperial College London, who chairs the SKA Epoch of Reionization science working group, said that although considering reductions was painful, the exercise “feels like a healthy part of going from a design that is maybe still slightly speculative to something that is really concrete and affordable”.

“It is normal when you are designing a new telescope that there are uncertainties about how much new technology would cost,” he said.

The project’s science working groups will discuss these options at a town hall meeting on 18 and 19 May in Manchester. The board of the SKA Organisation will aim to make a decision at a meeting in July.
As chancellor of the exchequer, you regarded science as being important for the UK. Why?
Science is important as it speaks to the human spirit to discover more about our world. Sometimes we try too hard to find the economic value of things and we forget that we are human beings beyond just an economy. If you are a country that wants to be part of the future of the world, you want to be at the forefront of science. Countries that give up on science, countries that allow their universities to decline, are taking a back seat in the world and that’s not the country I want.

What can scientists do to explain this to politicians who may not hold the same views as you?
It’s a happy coincidence that countries spending a lot on fundamental research are also countries whose economies tend to be most productive. So you can certainly point that out to politicians, business leaders and people who pay their taxes. People know that when they go into an NHS hospital they want it to be well-funded; and they want to have great beds, great nurses and great doctors. But they also know that their treatment—the latest cancer drug, or even the latest thing to prevent a scratch becoming an infection that kills you—is a product of science.

As chancellor you were most closely involved with a particular branch of science, economics. Is it justifiably called the “dismal science”?
I’m not sure economics is a science, in the way that you would understand it. It has the appearance of science because at times it is quite mathematical. But my criticism of economics teaching in Britain is that it’s become a bit too science-like and theoretical. It’s been forgotten that economics deals with human beings and the interactions between them, and that it’s difficult sometimes to discern human motives. The most interesting field in economics in the last 20-30 years has been behavioural economics—the discovery that human beings aren’t always like economic models.

I’ve lived and worked in half a dozen countries, but what amuses me is the UK’s ‘special relationship’ with the United States. It seems the US bullies everyone equally but only the British feel the need to express “special thanks”. I noticed, as chancellor, you tried to find a balance with Asia, particularly China.

You’re posing a bit of a false dilemma. The US has been a defender of world order and democracy. And for all the mistakes it’s made, it has overwhelmingly been a force for good. Many of the ideas that shape the American identity were born out of an enlightenment in the UK. Having a strong relationship with the US does not mean you can’t work with other countries or treat them with respect.

China is an ancient civilisation, representing one sixth of the world’s population, and it has an absolutely legitimate right to have its voice heard in the world and be respected. Britain can help play a role in making sure that happens. Not only do I think that will be to our mutual benefit, but I think the alternative of trying to deny China its rightful seat at the world’s table would be very foolish and potentially dangerous.

As a pragmatic chancellor, but many scientists see a lot of dogmatism coming from this government. For example, leaving students out of the immigration statistics would be pragmatic.
I argued in government that we shouldn’t include students in the overall immigration number. That Britain welcomes lots of students to its universities is not just a good thing for university funding, which is the rather narrow way of looking at it, but it’s also great for British influence in the world. We have alumni all around the world who think with great affection about Britain. I think it makes the culture of inquiry in our universities stronger and more diverse.

You were a pragmatic chancellor, but many scientists see a lot of dogmatism coming from this government. For example, leaving students out of the immigration statistics would be pragmatic.

The government that you were a part of didn’t listen...
Even chancellors don’t always get their own way.

Journalists regularly mock your love for hi-vis gear and for opening buildings. How would you respond?
One thing that makes British politics very robust and enduring, and one reason why this country has been a very strong democracy, is because we poke fun at our politicians. You can go back to the 18th century when you had absolutist France, Tsarist Russia; America was a colony and China was under an imperial dynasty. And in Britain they were producing Gillray cartoons of the chancellors of the day being lampooned and defecated upon and all sorts of things. Thankfully, I think we get a better deal than our 18th century forebears.

More to say? Email comment@ResearchResearch.com
Research Fortnight’s 500th issue

funding opportunities
every new opportunity every discipline

focus points

Issue no. 500
DFID identity data
The Department for International Development, via UK Aid, invites tenders for its call on data requirements for service delivery within refugee camps, worth up to £138,000 over nine months [5].

MOD last mile resupply
The Ministry of Defence invites proposals for its autonomous last mile resupply competition. Up to £3 million is available [11].

MRC/DH global health
The Medical Research Council and the Department of Health invite applications for their partnership call on antimicrobial resistance in a global context, worth up to £2.4 million each for up to three years [12].

Innovate UK manufacturing
Innovate UK invites applications for its manufacturing and materials call – round 3. The total budget is worth up to £15 million [13].

Newton sustainable energy
The British Council, under the Newton Fund, invites applications for its travel grants for the emission control and sustainable energy in green port development workshop. [15]

deadlines
Opportunities from previous issues of Research Fortnight, listed by closing date. European Commission and associated funders marked EU.

May

DH health technology assessment programme – commissioned call: 17/13 1195050
Graduate Institute of International and Development Studies advancing development goals international contest for graduate students 1193986
Microbiology Society society conferences grants 1180635
British School at Athens Flitch bursary awards 1188432
British Society for Oral and Dental Research GSK-mineralised tissue group travel award 1172912
British Society for Oral and Dental Research senior Colgate prize 1172907
British Society for Oral and Dental Research Unilever poster prize 1172909
EU Directorate-General for Climate Action assessment of EU climate policies in an EU mid-century perspective 1195486
EU ERA-Net OCEANERA-NET joint call 1194908
Institute of Historical Research annual Pollard prize 260009
Society for Endocrinology early-career grant 1164990
Emerald case-writing competition 1194843
EU Horizon 2020; Societal Challenges H2020-PPPA-2017-GEN-SOL-AG: political participation and codetermination of the younger and older generations in Europe 1195588
Royal Society of Chemistry scientific meetings grant 1173164
Association for Perioperative Practice peripatetic team of the year award 174586
European Society for Clinical Virology Biomerieux award for leadership in syndromic infectious disease testing 1195034
European Society for Clinical Virology Heine-Medin award 1189780
European Society of Cataract and Refractive Surgeons clinical research awards 1184014
International Society of Biomechanics international travel grants 1161285
Medical Research Foundation Alexander Fleming dissemination scheme 1165099
EU Partnership for Advanced Computing in Europe project access (Hip-0) 1162792
Bayer Grants4Apps accelerator 1195630
British Pharmacological Society Vogt prize for postgraduate studies 1185530
Canada-UK Foundation UK doctoral studentships 201072
CRUK small molecule drug discovery project awards 1184483
Cultural Affairs Bureau of Macao academic research grants 1195497
Daphne Jackson Trust sponsored fellowship – University of Leicester Department of Cardiovascular Sciences 1195268
DFID women’s integrated sexual health 1193865
EU European Central Bank understanding inflation workshop grants 1172901
European Leukodystrophy Association research grants 1179259
European Oncology Nursing Society research travel grants 1172256
European Society for Paediatric Endocrinology clinical fellowship 183347
European Society for Radiotherapy and Oncology technology transfer and mobility grants 1176823
European Society of Biomechanics mobility award for young researchers 1178897
European Society of Cardiology best cases of 2017 prizes 1195444
EU European University Institute postgraduate research grants on Christian democracy and European integration 1190220
EU Executive Agency for Small and Medium-sized Enterprises study on engine power verification by member states 1195550
French Atomic Energy Commission CEA Eurolatons fellowships 1161672
Innovate UK clinical decision support in emergency care 1195228
Innovate UK/MRC/Scottish Enterprise biomedical catalyst 2017 round 2 late stage 1195041
Institut Pasteur postdoctoral grants in the Calmette and Versin programme 1173269
International Society of Universities Palgrave prize in higher education policy research 207798
International Astronomical Union Office of Astronomy for Development call for proposals 1174528
International Council for Science Scientific Committee on Antarctic Research visiting professor scheme 1185476
International Information Science Foundation visiting researcher support programme grants 210771
International Society of Chemotherapy John David Williams memorial award 1160980
International Society of Chemotherapy Masaaki Ohkishi award 1160982
International Society of Chemotherapy Tom Bergan memorial award 1160978
International Society of Orthopaedic Surgery and Traumatology Bezmialem Vakif University/SICOT fellowship 1189755
International Society of Orthopaedic Surgery and Traumatology Lagos National Orthopaedic Hospital/SICOT fellowship 1193101
International Society of Orthopaedic Surgery and Traumatology Marcela Urbe Zamudio awards 1161102
Italian Society for the Study of Headaches Enrico Gregalli award 201166
MRC new investigator research grant – neurosciences and mental health 257895
MRC partnership grant – neurosciences and mental health 259117
MRC programme grants – neurosciences and mental health 260370
MRC research grants – neurosciences and mental health 257892
Ornithological Society of the Middle East, the Caucasus and Central Asia conservation fund 1176106
Prince Mahidol Award Foundation Prince Mahidol awards 1173008
RCN Foundation Maír scholarship 1173089
RCN Foundation professional bursary scheme 1182888
Regional Studies Association early-career grant scheme 1165109
Resuscitation Council research and development grants 1795512
Royal College of Nursing Monica Baly bursary 1175107
Royal College of Obstetricians and Gynaecologists Bernhard Baron travel fellowship 208486
Royal College of Obstetricians and Gynaecologists Edinburgh travelling fellowship 208486
Royal College of Obstetricians and Gynaecologists Edgar Gentilli prize 1169672
Royal Society of Edinburgh DS MacLagan travel grants 1193228
Society for Endocrinology themed scientific meeting grant 1185622
Society for Renaissance Studies postdoctoral fellowships 211832

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New opportunities from UK-based funders.

Newton science workshops
The British Council invites applications for the following opportunities, via the Newton fund:
- researcher links workshop on building energy and technology perspective in China and the UK. Web id: 1195927
- researcher links workshop on detection and prevention of biological invasions, together with the National Natural Sciences Foundation of China. Web id: 1195848

Cornish culture
Cornwall Council invites tenders for the Cornish Culture Fund – tackling educational barriers. The tenderer will identify barriers of Cornish culture that exist within the educational curriculum in Cornwall. The contract is worth £20,000 over two years.
Web id: 1195779
Contact: Janet Bowen
Email: jbowen@cornwall.gov.uk
Deadline: 31 May 2017 [3]

Drug discovery
The University of Sheffield invites tenders for laboratory services for the Department of Oncology and Metabolism. The tenderer will deliver small-molecule antagonists or contribute to compound design in addition to synthesising compounds for testing. The contract is worth £500,000 over 18 months.
Web id: 1195846
Email: d.middle@sheffield.ac.uk
Deadline: 1 June 2017 [4]

DFID identity data
The Department for International Development, via UK Aid, invites tenders for its call on data requirements for service delivery within refugee camps. The tenderer will investigate questions related to data standards and functional digital identity systems for forcibly displaced people and make recommendations for improvement. The contract is worth up to £100,000 over nine months.
Web id: 1195772
Email: s-oraw@dfid.gov.uk
Deadline: 2 June 2017 [5]

GPR68 antagonist research
InnoCentive, on behalf of Boehringer Ingelheim, invites preliminary proposals for its challenge on novel disease or indication for a potent and selective GPR68 antagonist. This supports research into molecular interplays between GPR68 signalling and disease driving pathways.
Web id: 1195972
Deadline: 12 June 2017 [6]

Innovate UK design
Innovate UK invites applications for its design foundation 2017 – round 2 call. This aims to stimulate high-quality, human-centred design activities at the earliest stages of the innovation journey. Projects are worth up to £60,000 over six months.
Web id: 1195891
Email: support@innovateuk.gov.uk
Deadline: 14 June 2017 [7]

EPSRC manufacturing hub
The Engineering and Physical Sciences Research Council, under its Future Composites Manufacturing Hub, invites applications for its call for feasibility studies. This supports research at technology readiness levels 1 to 3, to aid a fundamental step-change in composites manufacturing technology within the UK. Up to eight awards are available, worth up to £50,000 each over six months.
Web id: 1195958
Email: lee.harper@nottingham.ac.uk
Deadline: 16 June 2017 [8]

Newton development prize
The British Council invites applications for the Newton prize. This recognises research and innovation in support of economic development and social welfare in Newton Fund partner countries. A minimum of five prizes worth up to £200,000 each are available.
Web id: 1195821
Email: administrator@unesco.org
Deadline: 19 June 2017 [9]

MRC/NIHR health modelling
The Medical Research Council and the National Institute for Health Research invite applications for their highlight notice on reporting guidelines for non-communicable disease public health modelling studies, under their methodology research programme.
Web id: 1196027
Email: samuel.rowley@headoffice.mrc.ac.uk
Deadline: 21 June 2017 [10]

MOD last mile supply
The Ministry of Defence invites proposals for its autonomous last mile supply competition. Funding supports novel proposals that use autonomous systems to deliver mission critical supplies to users in the military front-line, particularly on the ‘last mile’ of supply. Up to £3 million is available.
Web id: 1195255

MRC/DH global health
The Medical Research Council and the Department of Health invite applications for their partnership call on antimicrobial resistance in a global context. This supports interdisciplinary research consortia taking a whole-systems approach to identify the burden and primary drivers of antimicrobial resistance and specifically antibacterial resistance in low- and middle-income countries. Development grants are worth up to £64,000 each for up to eight months, and research awards are worth up to £2.4 million each for up to three years.
Web id: 1195906
Email: sarah.headoffice.mrc.ac.uk
Deadline: 11 July 2017 [12]

Innovate UK manufacturing
Innovate UK invites applications for its manufacturing and materials call – round 3. This aims to stimulate and broaden innovation in manufacturing and materials. The total budget is worth up to £15 million.
Web id: 1195851
Email: support@innovateuk.gov.uk
Deadline: 12 July 2017 [13]

Radiology pump-priming
The Royal College of Radiologists invites applications for its pump priming grants. These support research in clinical radiology. Grants are worth up to £10,000 each.
Web id: 1195762
Email: info@rcr.ac.uk
Deadline: 14 July 2017 [14]

Newton sustainable energy
The British Council, under the Newton Fund, invites applications for its travel grants for the emission control and sustainable energy in green port development workshop. This enables early-career researchers from the UK to external workshop on emission control and sustainable energy in green port development in Dalian, China in October 2017. Grants cover travel, meals, visa and accommodation.
Web id: 1195826
Email: dongqing.song@liverpool.ac.uk

Translational paediatrics
Sparks and the Great Ormond Street Hospital invite applications for their child health research project grants. These support paediatric health research, focusing on complex childhood diseases. Up to £2 million is available for projects lasting up to three years.
Web id: 1195768
Email: grants@gosh.org
Deadline: 26 July 2017 [16]

Historical research
The Institute of Historical Research invites applications for the Veale-Straschow doctoral award for mature students. This supports mature students embarking on a doctorate at the Institute of Historical Research in the School of Advanced Study in the University of London. Awards are worth up to £5,720.
Web id: 1195900
Email: ihr.fellowships@sas.ac.uk
Deadline: 31 July 2017 [17]

Women in engineering
The Women’s Engineering Society of the Institution of Civil Engineers invites nominations for the Karen Burt award. This recognises a recently chartered female engineer or a physicist. The prize is worth £1,000.
Web id: 1195157
Email: info@wes.org.uk
Deadline: 31 July 2017 [18]

NIHR Crohn’s disease care
The National Institute for Health Research, under its health technology assessment programme, invites applications for its commissioned call on optimal treatment strategies for fistulising perianal Crohn’s disease. This supports research on the optimal treatment strategy for perianal Crohn’s disease and its individual determinants.
Web id: 1195989
Email: btacmsn@soton.ac.uk
Deadline: 3 August 2017 [19]

Innovate UK urban innovation
Innovate UK, in collaboration with PlaTo, conventions, invites applications for its urban innovation challenge. This funds collaborative technological solutions that boost economic development and have a positive social or environmental effect on Malaysian society. Grants are worth up to £400,000 each over two years.
Web id: 1195850
Email: competitions@tsb.gov.uk
Deadline: 30 August 2017 [20]

Other
Renewed opportunities from funders based in the UK.

Law library conferences
The British and Irish Association of Law Librarians invites applications for its overseas conference bursaries. These enable members to attend overseas law library conferences. Bursaries are worth up to £1,000 each. Applicants must contribute additional funds.
Web id: 209091
Email: joy.tilley@lewissilkin.com
No deadline [21]

Engineering and agriculture
The Douglas Bomford Trust invites applications for project grants worth less than £1,500. These support the application of engineering and physical science to agriculture and related fields, and allied land-based and biological activities for the benefit of the environment. Grants are worth up to £1,500 each.
Web id: 1187908
Email: enquiries@dlb.org.uk
No deadline [22]

ESRC data analysis
The Economic and Social Research Council invites proposals for its secondary data analysis initiative. This supports high-impact research through the deeper exploitation of major data resources created by the ESRC and other agencies. Grants are worth up to £200,000 each over up to 18 months.
Web id: 1186074
Email: sdata@esrc.ac.uk
No deadline [24]

Hearing health PhD
The Manchester Biomedical Research Centre invites applications for its standard PhD projects. These support PhD students in carrying out translational research to improve health. Funding covers fees and an annual stipend for three years.
Web id: 1194619
Email: jessica.m@manchester.ac.uk
No deadline [25]

STFC nuclear conference
The Science and Technology Facilities Council invites applications for grants for conferences and short courses in nuclear physics.

Imaging travel bursaries

The British Society of Head & Neck Imaging invites applications for its imaging travel bursaries. These enable members to attend national or international meetings and conferences that focus on imaging. The bursary fund can be used to cover accommodation, registration and travel costs, subject to availability.

Web id: 1173928
Email: richard.traini@sft.ac.uk
No deadline [26]

Gaming harm PhD research

The Responsible Gambling Trust invites proposals for its PhD funding. This supports PhD research that offers practical solutions to minimise gambling harm, and that enhances treatment and education or prevention services. Funding includes a student stipend, grants for conference travel, research expenses and overseas fieldwork for a period of three years.

Web id: 1188064
Email: commissioning@rg.org
Deadline: 31 May 2017 [28]

Resuscitation grants

The Resuscitation Council UK invites applications for its research and development grants. These encourage the generation of new knowledge in resuscitation science and education, and support high quality medical education research and research involving patients, staff and relatives. Grants are usually worth at least £20,000 over one year.

Web id: 179551
Email: research@rcresus.org.uk
Deadline: 31 May 2017 [29]

Aeronautical scholarships

The Royal Aeronautical Society invites applications for its centennial scholarship. These support academic projects that will benefit and encourage careers or research, including historical research, in the field of aeronautics, astronautics, aerospace and aviation management. Scholarships will normally be worth between £500 and £5,000 each.

Web id: 260071
Email: scott.phillips@aerosociety.com

Animal feed research

The Society of Feed Technologists invites applications for its project support scheme. This provides additional grants under the existing scheme, and covers research relating to the commercialisation of ideas from the Society’s annual conference, and research relating to the commercialisation of ideas from the Society’s annual conference.

Web id: 110472
Email: secretary@sft.uk.com
Deadline: 31 May 2017 [31]

Studies in Japan

The Embassy of Japan in the UK invites applications for its postgraduate scholarship programme. This enables UK graduates to continue their studies at Japanese universities. Scholarships consist of a stipend of JPY 143,000 (€970) per month, return airfare, tuition fees and a six-month Japanese language course.

Web id: 201089
Email: scholarship@ld.mofa.go.jp
Deadline: 1 June 2017 [32]

Sciences fellowship in Japan

The Japan Society for the Promotion of Science invites applications for its short-term pre- and postdoctoral fellowships for foreign researchers. These provide the opportunity for short-term visits for pre- and postdoctoral researchers to conduct cooperative research with research groups at Japanese universities and institutions. Fellowships include a monthly allowance, a settling-in allowance, insurance and travel.

Web id: 250719
Email: short-termaward@jsps.or.jp
Deadline: 1 June 2017 [33]

Australian theatre research

The Society for Theatre Research invites outline proposals for the Paul Iles bequest. This supports research in the broad area of Australian theatre.

Web id: 1190628
Email: awards@str.org.uk
Deadline: 1 June 2017 [34]

Archaeology project grants

The British Association for Biological Anthropology and Osteoarchaeology invites applications for its research project grants. These support research in biological anthropology and osteoarchaeology. Contract-sector grants are worth up to £2,500 each and cover research costs and time out from the employer. Academic-sector grants are worth up to £1,000 each for research costs only.

Web id: 252605
Email: info@babao.org
Deadline: 5 June 2017 [35]

German history prize

The German History Society, in association with the Royal Historical Society, invites submissions for its German history essay prize. This recognises the best essay on any aspect of German history. The prize is worth £500.

Web id: 1170667
Contact: Melanie Ransom
Email: royalhistsoc@uel.ac.uk
Deadline: 5 June 2017 [36]

Youth health prospects

The Health Foundation invites tenders for research to support an inquiry into young people’s future health prospects. The tenderer will build a body of work that furthers the foundation’s understanding of young people’s trajectories and the determinants of their future wellbeing and health. The contract is worth up to £180,000 over 18 months.

Web id: 1194717
Contact: Liz Cairncross
Deadline: 5 June 2017 [37]

Pathology activities grant

The Royal College of Pathologists invites applications for its public engagement innovation grant scheme. This enables individuals or organisations to deliver pathology-related public engagement activities or events. Grants are worth up to £1,000 each.

Web id: 1185175
Email: peg@rcpath.org
Deadline: 5 June 2017 [38]

Architecture research

The Royal Institute of British Architects invites applications for its research trust awards. These support research related to the advancement of architecture and connected arts and sciences. Awards are worth up to £10,000 each.

Web id: 1178962
Email: education.temp@riba.org
Deadline: 5 June 2017 [39]

NIHR medical technology

The National Institute for Health Research invites applications for its Innovation product development awards. These support translational research and development of medical devices, active implantable devices and in vitro diagnostic devices in any area of existing or emerging clinical need, in order to increase patient benefit and develop products or services which can be used within the NHS. Funding is provided over three years.

Web id: 1161176
Email: info@nihr.ac.uk
Deadline: 7 June 2017 [40]

Education disadvantages

The Education Endowment Foundation invites applications for its general project funding. This supports projects that improve the educational attainment of children and young people from economically disadvantaged backgrounds in schools in England. Grants are worth up to £1.5 million each.

Web id: 1171336
Email: info@eefoundation.org.uk
Deadline: 9 June 2017 [41]

Exchanges with Hong Kong

The Royal Society invites applications for the Kan Tong Po visiting fellowships. These provide additional grants under the international exchanges scheme for UK or US-based scientists to collaborate with Hong Kong-based academics, or for Hong Kong-based scientists to collaborate with academics in the UK or US. Fellowships provide up to £3,000 for visits of up to three months.

Web id: 1180162
Email: international.exchanges@rosl society.org
Deadline: 13 June 2017 [42]

Addiction project grants

The Society for the Study of Addiction invites applications for its project support programme. This funds work that increases scientific understanding of addiction and its treatment among clinicians and policy makers. The budget is £90,000.

Web id: 203246
Deadline: 13 June 2017 [43]

BBSRC young entrepreneurs

The Biotchnology and Biological Sciences Research Council, under its Innovation and skills group, and the University of Nottingham, under the Haydn Green Institute, invite registrations for their biotechnology young entrepreneurs scheme. This aims to raise awareness of the commercialisation of ideas from the PhD sector, among postgraduate students and postdoctoral scientists. The prize fund is worth £5,000.

Web id: 1162612
Email: lynne.guppy@bbsrc.ac.uk
Deadline: 18 June 2017 [44]
Paediatric cancer fellowships
Children with Cancer UK, in collaboration with the Royal College of Paediatrics and Child Health, invites proposals for its clinical PhD and training studentships. These enable clinicians to study towards a PhD or MRes, research foundation qualification in the field of childhood cancers, as well as taking their first steps on the path to becoming leaders in clinical research and education. Grants are worth up to £75,000 over one year.

Deadline: 28 June 2017
Web id: 1185159
Contact: Neil Meemaduma
Email: research@childrenswcancer.org.uk
Deadline: 20 June 2017

MRC/NIHR methodology
The Medical Research Council and the National Institute for Health Research invite applications for the following opportunities under the methodology research programme:
• highlight notice on methodological research to improve the quality of national clinical audits. Web id: 118934
• standard grants, lasting up to five years. Web id: 212394

Wellcome biomedical awards
The Wellcome Trust and the Academy of Medical Sciences, supported by the British Heart Foundation, invite applications for their springboard awards. These enable UK biomedical scientists to develop their independent research careers. Awards are worth up to £100,000 each over two years.

Deadline: 26 June 2017
Web id: 1186953
Email: springboard@acmedsci.ac.uk
Deadline: 26 June 2017

Medical laboratory travel
The Harold Hyam Wingate Foundation invites applications for its medical research travel grant. These enable candidates to visit laboratories to gain new clinical and laboratory skills, and to set up inter-institutional collaborative research. Grants are worth up to £1,050 per grant.

Deadline: 213946
Deadline: 26 June 2017

RAEng innovation prize
The Royal Academy of Engineering invites applications for its launchpad competition. This encourages young entrepreneurs to start a new business based on their innovation in engineering. The prize is worth £15,000.

Deadline: 26 June 2017
Web id: 1183587
Email: catherine.lawrence@raeng.org.uk
Deadline: 26 June 2017

Laboratory refurbishment
The Royal Society, supported by the Wolfson Foundation, invites applications for the Wolfson laboratory refurbishment grants. These enable scientists in the UK to refurbish or renovate their research laboratories. Grants are worth up to £250,000 each for up to two years.

Web id: 201637
Email: labrefurbishment@royalsociety.org.uk
Deadline: 28 June 2017

Clinical pathalogy awards
The Association of Clinical Pathologists invites submissions for its career development award. This is for consultants and specialist trainees to undertake further professional development either in the form of training courses or overseas. Three awards of up to £10,000 each are available.

Web id: 203891
Email: rachel@pathologists.org.uk
Deadline: 30 June 2017

Law library studies
The British and Irish Association of Law Librarians invites applications for its professional studies bursary. This supports a member undertaking postgraduate information or library studies in the UK or Republic of Ireland. The bursary is worth up to £10,000.

Web id: 1184645
Email: sandra.wolstenholme@bedelcristin.com
Deadline: 30 June 2017

Endodontic research prize
The British Endodontic Society invites submissions for its general dental practitioner prize. This recognises the best project on an endodontic case or endodontic-related problem that was successfully overcome, or on the development of an original technique, item or equipment suitable for use in endodontic treatments. The prize is worth £1,000.

Web id: 1187974
Contact: Al-an Morgan
Email: asst.honsecretary@britishendodonticsoctociety.org.uk
Deadline: 30 June 2017

Psychology awards
The British Psychological Society invites applications for the following awards:
• postgraduate study visits, worth up to £1,200 each. Web id: 1188972
• research seminar grants, worth up to £3,000 each. Web id: 208935
• visiting felowships, worth up to £6000 each. Web id: 1158502

Web id: 1158502
Email: grants@bps.org.uk
Deadline: 30 June 2017

Haematology research
The British Society for Haematology invites applications for the following awards:
• early-stage research start-up grants, worth up to £1,500 each.
• visiting fellowships, worth up to £3000 each.

Web id: 202436
Email: isabel.brinsden@rbs.org.uk
Deadline: 30 June 2017

Applied microbiology
The Society for Applied Microbiology invites applications for its funding scheme. This supports research projects addressing Froebelian priority themes, such as disadvantage and vulnerability, childhood under stress, and adult engagement with young children. The total budget is £150,000.

Web id: 1166394
Deadline: 1 July 2017

Healthcare meta-analysis
Cochrane invites nominations for the Bill Silverman prize. This recognises a paper evaluating any aspect of the conduct, maintenance or dissemination of Cochrane reviews or the work of Cochrane more generally. The prize is worth USD 1,000 (£770).

Web id: 1165183
Email: admin@cochrane.org
Deadline: 30 June 2017

Gastroenterology trainees
Core and the British Society of Gastroenterology invite applications for their trainee research awards. These support trainees conducting research on clinical or basic research. Awards are worth up to £250,000 each.

Web id: 1188799
Deadline: 30 June 2017

Mechanical engineering
The Institution of Mechanical Engineers invites applications for the Whitworth senior scholarship awards. These support engineers undertaking postgraduate degree studies for a PhD or Eng. Scholarships are worth up to £8,250 per year.

Web id: 203005
Email: awards@imeche.org
Deadline: 30 June 2017

Language conferences
The Modern Humanities Research Association invites applications under its conference grants funding scheme. This supports conferences or colloquia in the fields of medieval and modern European languages and literature, held in the UK or Republic of Ireland. Up to five grants, worth up to £1,500 each, are available.

Web id: 208935
Email: t.danish@bham.ac.uk
Deadline: 30 June 2017

Photography bursary
The Royal Photographic Society invites applications for its postgraduate bursary. This supports students studying photography. The bursary is worth £3,500.

Web id: 1174139
Contact: Liz Williams
Email: liz@rps.org
Deadline: 30 June 2017

Biosciences communication
The Royal Society of Biology invites nominations for its science communication awards. These recognise outreach work carried out by young scientists and established researchers to inform, enthuse and engage the public. Awards are worth up to £4,000 each.

Web id: 204236
Email: isabel.brinsden@rbs.org.uk
Deadline: 30 June 2017

Renaissance conferences
The Society for Renaissance Studies invites applications for its major conference grants. These support conferences of colloquia within the field of Renaissance studies held in the UK or Republic of Ireland. Grants are worth up to £1,500.

Web id: 1166022
Email: kevin.killeen@york.ac.uk
Deadline: 30 June 2017

Underwater technology
The Society for Underwater Technology invites applications for its educational support fund. This supports postgraduate students studying marine science, underwater technology or offshore engineering. Awards are worth up to £4,000.

Web id: 1179742
Email: cheryl.ince@sut.org
Deadline: 30 June 2017

Neurosurgery prize
The Society of British Neurological Surgeons invites submissions for the Sir Hugh Cairns essay prize. This recognises an essay based on original unpublished work written on a subject relating to neurosurgery, excluding trauma. The prize is worth £1,000.

Web id: 1176260
Contact: Dr Gill Turner
Email: ctz29@medschl.cam.ac.uk
Deadline: 30 June 2017

Cambridge language testing
The University of Cambridge, under the auspices of the Cambridge English Language Assessment and in collaboration with IELTS Australia and the British Council, invites submissions for the Cambridge IELTS master’s dissertation award. This recognises a master’s-level dissertation or thesis in English contributing to the field of language testing. The award is worth £1,000.

Web id: 1172050
Contact: Gilm Lim
Email: lim.g@cambridgeenglish.org
Deadline: 30 June 2017

Neurology travel bursaries
The Association of British Neurologists invites applications for its travel bursaries. These support educational and research visits to developing countries. Grants are worth up to £1,000 each.

Web id: 1189656
Email: dawn.moore@theabn.org.uk
Deadline: 1 July 2017

Economic and social history
The Economic History Society invites applications for its bursaries for PhD students. These assist students in UK colleges and universities who are researching economic or social history. Bursaries are worth up to £5,000 over one year.

Web id: 1166394
Deadline: 1 July 2017

Early childhood research
The Froebel Trust invites applications for its research grants. These support research projects addressing Froebelian priority themes, such as disadvantage and vulnerability, childhood under stress, and adult engagement with young children. The total budget is £150,000.

Web id: 1188956
Email: office@froebeltrust.org.uk
Deadline: 1 July 2017

Physiotherapy bursary
Pelvic, Obstetric and Gynaecological Physiotherapy invites applications for the Margie Polden memorial bursary. This enables a physiotherapy student with an interest in the field of women’s health, obstetrics and gynaecology to attend the Association’s annual conference. The bursary covers conference fees and accommodation.
The Medical Research Council invites applications for its child development grants. These enable individual researchers to visit another centre to learn new clinical or research techniques relevant to rheumatology. Two bursaries, worth up to £2,000 each for one month, are available.

Web id: 1184449
Deadline: 3 July 2017 [76]

MRC science writing award
The Medical Research Council invites entries for the Max Perutz science writing award. This recognises written communication among MRC PhD students. The award is worth £1,500.

Web id: 1166816
Deadline: 4 July 2017 [77]

RAEng leaders programme
The Royal Academy of Engineering, sponsored through the Enterprise Hub, invites applications for its small- and medium-sized enterprises leaders programme. This supports promising leaders of high growth engineering SMEs. Up to 20 grants, worth up to £15,000 each, are available.

Web id: 1192576
Contact: Catherine Lawrence
Email: enterprise@raeng.org.uk
Deadline: 4 July 2017 [78]

AHRC research in film awards
The Arts and Humanities Research Council invites applications for its public engagement grants. These promote the discussion of physiology with public audiences, and are worth up to £5,000 each over one year.

Web id: 1171613
Deadline: 14 July 2017 [83]

Radiology research
The Royal College of Radiologists invites applications for the following awards:

- the Constance Thornton fellowship, worth up to £3,000.
- the Kodak radiology fund research bursary, worth up to £5,000 for at least three months.
- the Kodak radiology fund scholarship, worth up to £20,000.

Web id: 1184449
Email: communications@ahrc.ac.uk
Deadline: 6 July 2017 [79]

MRC knockout mice awards
The Medical Research Council invites applications for its pump-priming awards for preliminary research using international ‘Mouse Phenotyping Consortium knockout mice’. These enable researchers to receive knockout mice and undertake early biological investigations that build on existing research expertise and support long-term research goals. Awards are worth up to £40,000 each for up to two years.

Web id: 1189989
Email: lindsay.wilson@headoffice.mrc.ac.uk
Deadline: 6 July 2017 [80]

Otology fellowship
The TWJ Foundation invites applications for its fellowships. These enable candidates to undertake training at the Auckland City Hospital & Starship Children’s Hospital, New Zealand. The fellowship is worth £25,000 over one year.

Web id: 1175957
Contact: Lidija Jivk
Email: secretary@twjfoundation.org
Deadline: 10 July 2017 [81]

Wellcome India fellowships
Wellcome Trust and the Indian Department of Biotechnology invite applications for their early-career fellowships. These enable new-qualified postdoctoral researchers to carry out biomedical research relevant to human and animal welfare in laboratories in India. Fellowships last five years and include personal support and research expenses.

Email: info@wellcomeddbt.org
Deadline: 13 July 2017 [82]

EU innovation awards
The Department of Health, under Health Enterprise East, invites applications for its innovation awards. These recognise ideas products and services which benefit patients and healthcare delivery. The fund is worth £18,000, shared between the winners of each category. Winners may also apply for the Medtech Accelerator awards, worth up to £125,000 each.

Web id: 1169351
Deadline: 14 July 2017 [83]

Physiology engagement
The Physiological Society invites applications for its public engagement grants. These promote the discussion of physiology with public audiences, and are worth up to £5,000 each over one year.

Web id: 1171613
Deadline: 14 July 2017 [84]

Antibody fellowships
The Kay Kendall Leukaemia Fund invites applications for its research support awards. These support research laboratories, clinical facilities, research equipment and clinical care related to leukaemia.

Web id: 1188385
Email: info@kklf.org.uk
Deadline: 15 July 2017 [88]

Rheumatic diseases
The Royal College of Surgeons of Edinburgh invites applications for the Lorna Smith Charitable Trust research fellowship. This supports research on arthritis, vasculitis or other related inflammatory disorders. Fellowships are worth up to £50,000.

Web id: 2003394
Deadline: 19 July 2017 [89]

Design engineering award
The James Dyson Foundation invites applications for its James Dyson award. This recognises young designers and engineers for creating products with a practical benefit to end user, that are technically and commercially viable and designed with sustainability in mind. National winners will receive £2,500 each. The international winner will receive £40,000 plus £6,000 for their university department.

Web id: 1181048
Deadline: 20 July 2017 [90]

Patient care travel
The RCN Foundation and the Florence Nightingale Foundation invite applications for their travel scholarships. These enable candidates to study nursing practice to enhance patient care in the UK. Scholarships are worth up to £5,000 each.

Web id: 1182889
Email: admin@florence-nightingalefoundation.org.uk
Deadline: 21 July 2017 [91]

Non-animal testing methods
Lush invites nominations for the following opportunities:

- science prize, worth up to £50,000.
- young researcher prize, worth up to £50,000.

Web id: 1193951
Deadline: 24 July 2017 [94]

EU raw materials
The European Institute of Innovation and Technology, under EIT Raw Materials, invites applications for its business idea competition. This supports business ideas with the potential to impact the raw material value chain. Grants are worth up to €12,000 (€10,000).

Web id: 1195803
Email: giorgio.reccine@eitrawmaterials.eu
Deadline: 31 May 2017 [95]

Photography award
The Hasselblad Foundation, in collaboration with Valand Academy and the University of Gothenburg, invites applications for its research and development award. This enables an artistic proposal to be considered for an exhibition at the Hasselblad Center in Gothenburg, concerning drone technologies in response to the geographic context of Sweden. The award is worth up to SEK 11,300 (€980) over three months.

Web id: 1195969
Email: sarah.tuck@akademivaland.gu.se
Deadline: 1 June 2017 [96]

EU internet study
The Directorate-General for Communications Networks, Content and Technology invites tenders for a study on the implementation of the i5Q programme action. The tenderer will assist the European Commission to establish an addressing plan, procure an IPv6 address space, implement the concept and add service, build and deploy Internet protocol version six across the public administration and in support of public services. The contract is worth €500,000 (€420,000) over 17 months.

Web id: 1196018
Contact: liorbenk@cnet-2-eoi@ec.europa.eu
Deadline: 7 June 2017 [97]

EU defence technology
The European Defence Agency invites tenders for its study on disruptive technologies: from civil to defence, how nano-electronics and microelectrochemical systems can bring new capabilities. The tenderer will analyse potential disruptive technologies for the development of a new generation of defence equipment. The contract is worth £150,000 over 12 months.

Web id: 1195848
Email: procurement@eda.europa.eu
Deadline: 12 June 2017 [98]

Antibody fellowships
The University of Lund invites applications for the following opportunities:

- postdoctoral fellowship in biokinetics and host-bacteria immunology, lasting up to two years.
- postdoctoral fellowship in immunology and super-resolution microscopy, lasting up to two years.

Web id: 1194467
Deadline: 15 June 2017 [101]

EU support tool for fisheries
The Executive Agency for Small and Medium-sized Fisheries invites tenders for a spatially structured decision support tool for mixed fisheries. The tenderer will develop a scientific model that will integrate data from mixed fisheries with economic dimensions of fisheries in the Irish Sea and west of Scotland. The contract is worth £300,000 over 24 months.

Web id: 1195949
Email: easme-procurement@ec.europa.eu
Deadline: 19 June 2017 [102]

EU peace-building in Kenya
The Directorate-General for International Cooperation and Development (Europe-Aid) invites proposals for its support to in-country civil society actors in conflict prevention, peace-building and conflict transformations. The contact is worth £2 Million each.

Web id: 1196018
Email: delegation.kenya@eeas.europa.eu
Deadline: 23 June 2017 [103]

ESRC social sciences research
The German Research Foundation (DFG), the Economic and Social Research Council, the French National Research Agency and the Netherlands Organisation for Scientific Research (NWO) invite applications for their social sciences research fellowships. The contract is worth £50,000 (€420,000) over 17 months.

Web id: 1196018
Email: loose@lfk.unibe.ch, Marijke.Mueller@ksw.uni-bremen.de, olivier.bernauer@ipk-gatersleben.de
Deadline: 23 June 2017 [103]
Speaking the lingo

When a £20m fund opened in her field, Catherine Boyle moved from small pockets of funding to a big bid, as Anna McKie found out.

For 30 years Catherine Boyle, professor of Latin-American cultural studies at King’s College London, has worked at the crossroads between cultural studies and modern languages. She was the first head of King’s Spanish, Portuguese and Latin American studies department.

Your work mixes cultural studies with language research. How did that come about?

It started with my interest in Latin American cultural studies as an undergraduate [Boyle read modern foreign languages], and also theatre and performance and gender studies. I also looked at social science, economics, geography, history and politics, alongside language, during my MA.

So you were interdisciplinary early on?

Yes. During the 1970s, the dictatorship in Argentina made me think about what it was like to create culture under oppressive regimes. It opened my eyes to the way culture, languages and creativity work in the world and in difficult circumstances. That’s what I did my PhD on and that’s what has informed my thinking for my research.

What has your funding strategy been?

Success rates in humanities funding are quite low, partly because there are not many major funders around, and this makes things difficult. I’ve always tried to create spaces, even if they are very small, to be able to do my work, and have also joined up with different teams. I’ve concentrated on winning smaller pockets of funding for conferences or seminars. I’ve had just two really major grants, which involved a lot of hard work.

What were they?

The first, Out of the Wings, around £800,000 from the Arts and Humanities Research Council. It’s about translating Spanish language theatre into English to bring the research out of the academy and into the area of practitioners and the theatre industry. Strands of that work are still ongoing. [Work started in 2008.] The second, Language Acts and Worldmaking, again came from the AHRC. It was for around £3.5 million.

Speaking the lingo

What scheme was that for?

The AHRC’s Open World Research Initiative, which opened in 2014. It was quite brave of the council to come out and say that there was a crisis in modern languages and to provide a £20m pot for modern languages research. Fewer young people are doing language GCSEs and A-levels and university departments are finding it increasingly difficult to get students into the research pipeline.

What was the thinking behind your proposal?

The simple premise that humans create the world through the languages we speak. We are taking language as a historical and material force in the world, people create their different selves through it, on national, local, and spiritual levels.

Why do you think your bid won?

The reasons for success or failure are often quite opaque, but I think that circle of research feeding into teaching back into research was really important. It showed that this was a project with real integrity. I think the complementary strengths of the university partners also helped the bid. Those different disciplinary approaches are crucial.

Who are your partners?

Queen Mary University of London, the Open University and the University of Westminster. All together the partnership contains expertise across linguistics, social linguistics, migration studies, identity studies, and digital humanities. They also bring different student demographics to the project.

How do you go about building a team like this?

We started by thinking about different people whose work could connect with our idea, across the disciplines. It was about trying to find people to challenge the ideas that we already had and bring focus to different aspects of the research.

What was the AHRC application process like?

We first met the AHRC for discussion in June 2014. By the end of October we had put in our first expression of interest and made it onto the shortlist of eight. Until June 2015 we were building the project for the full submission. Each bid has six peer reviews and you have a week to respond to their comments. Then there is the interview.

How did you find the interview?

It was a tough interview but I had expected it to be a lot worse. I’d worked on the bid for a year and a half and was really excited and passionate about it, and I knew all the flaws and gaps.

Do you have any concerns for the next generation?

Yes, increasingly in the humanities, institutions rate success through funding and there is a real pressure to be seen to be going for the grants, often before people are ready. I think that is counterproductive and counterintuitive; you should go for the grant when the research is ready.

This article first appeared in Research Professional’s Funding Insight service.


**HIGHLIGHTS**

**Associate Director of Programmes – Skills and Research**  
£57,632  
Arts and Humanities Research Council (AHRC)  
Closing date: 11/06/2017  
Summary: Developing plans and initiatives to enhance research.  
Contact: If you are unable to apply online please contact us on 01793 867000 quoting reference IRC241128.

**Associate Director of Programmes – Impact, Knowledge Exchange and Research**  
£57,632  
Arts and Humanities Research Council (AHRC)  
Closing date: 11/06/2017  
Summary: Supporting world class research in the arts and humanities.  
Contact: If you are unable to apply online please contact us on 01793 867000 quoting reference IRC241085.

**Strategic Lead for Planning, Evidence and Impact**  
£47,725  
Arts and Humanities Research Council (AHRC)  
Closing date: 11/06/2017 23:59  
Summary: Developing plans and initiatives to enhance research.  
Contact: If you are unable to apply online please contact us on 01793 867000 quoting reference IRC241083.

**Strategic Lead for Creative Arts and Digital Humanities**  
£47,725  
Arts and Humanities Research Council (AHRC)  
Closing date: 11/06/2017  
Summary: Developing relationships with arts and humanities research and user communities.  
Contact: If you are unable to apply online please contact us on 01793 867000 quoting reference IRC241126.

**Strategic Lead for Global**  
£47,725  
Arts and Humanities Research Council (AHRC)  
Closing date: 11/06/2017  
Summary: Developing relationships with arts and humanities research and user communities.  
Contact: If you are unable to apply online please contact us on 01793 867000 quoting reference IRC241128.

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**Manchester Statistical Society**  
"For all who think about social and economic affairs"

**North West Political Economy Grants**

The Manchester Statistical Society offers small research grants of up to £10,000, thanks to a bequest from Sir Harry Campion.

Applications are particularly welcome on contemporary issues that relate to economy, society and government in the North West region of England. Of particular interest are projects relating to the devolution of budgetary control of health to the combined Greater Manchester Authority and to the “Northern Powerhouse” concept.

Further details and a link to the application procedure can be found on the website:  
http://www.manstatsoc.org/grants  
The deadline for applications is the final day of each quarter (i.e. 31st March, 30th June, 30th September and 31st December).

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**Research Professional Election Question Time**

Monday 5th June 2017 18.00 - 22.00  
Venue: ACC Liverpool

Ehsan Masood, editor, Research Fortnight, will chair a panel including representatives from each of the main parties and Professor Pillay, VC, Liverpool Hope University.

- **Gerald Pillay** vice-chancellor and rector of Liverpool Hope University
- **Chi Onwurah** shadow minister for industrial strategy, science and innovation
- **Peter Cranie** former national elections coordinator for the Green Party
- **Richard Kemp** Liberal Democrats parliamentary candidate for Liverpool Wavertree.

**Topics discussed will include Brexit, prospects for higher education reform, and the industrial strategy green paper.**

- 18.00 Networking drinks
- 18.45 - 19.45 Panel discussion
- 20.00 Fish and chips supper, drinks.

Register to attend: rsrch.co/RPQT050617
For more information: sales@researchresearch.com

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**PAIN IN EUROPE X**

**BRINGING PAIN RELIEF TO ALL PATIENTS**  
10th Congress of the European Pain Federation EFIC®

**ERIC-GRÜNENTHAL GRANT**

Copenhagen, Denmark  
7th September 2017  
16:30 - 18:00 h, Hall C

**NEW FINDINGS IN CLINICAL PAIN RESEARCH:**

Results of the EFIC-Grünenthal Grants

**CO-CHAIRS:**
- Dr Luis Villanueva, DDS, PhD (Paris, France)
- Prof Katharina Zimmermann, MD (Erlangen, Germany)

**SPEAKERS:**
- Dr Jamila Andoh, PhD (Mannheim, Germany)  
  Disruption of emotional modulation in chronic pain patients.
- Dr Christopher Brown, PhD (Cambridge, United Kingdom)  
  ERP biomarkers of cortical reorganisation in Complex Regional Pain Syndrome (CRPS).
- Prof Andrea Truini, MD, PhD (Rome, Italy)  
  A neurophysiological and psychophysical study showing that Aβ-fibres mediate paroxysmal pain in healthy humans.
- Prof Katharina Zimmermann, MD (Erlangen, Germany)  
  Brain mechanisms of abnormal temperature perception in cold allodynia.

**GUEST-SPEAKER:** Prof Katharina Zimmermann, MD (Erlangen, Germany)

**REFRESHMENTS WILL BE SERVED AFTER THE SESSION.**

Contact: Mrs Gaby Erkens | e-mail: admin@e-g-g.info  
www.e-g-g.info | www.europeanpainfederation.eu

The scientific framework of the E-G-G is under the responsibility of the European Pain Federation EFIC®. The pharmaceutical company Grünenthal GmbH is responsible for funding and non-financial support (e.g., logistical support).
Our Fellowships enable talented individuals to return to scientific research work after a career break of two or more years taken for family, caring or health reasons. We offer flexible, part-time and funded Fellowships in universities and research institutes across the UK.

We are currently looking for applicants for the following opportunities:

- University of Leicester (within the Department of Cardiovascular Sciences) – closing date 31st May 2017
- Queen Mary University of London (within the Faculty of Science and Engineering) – closing date 12th June 2017

We also accept speculative applications. If you have a potential host institution and/or research area in mind, you can apply at any time.

See www.daphnejackson.org or call 01483 689 166 for full details including our eligibility criteria and how to apply.

The Daphne Jackson Trust is the UK’s leading organisation dedicated to realising the potential of scientists and engineers returning to research following a career break.
Don’t miss the next International Network of Research Management Societies Congress, taking place from 4-7 June 2018 at Edinburgh International Conference Centre.

To find out more contact events@arma.ac.uk or keep an eye on our website www.inorms2018.org.

Join us for our flagship event at the ACC Liverpool.

To find out more visit www armaconference.co.uk.
EU Christian democracy
The European University Institute, in collaboration with the European People’s Party in the European Parliament, invites applications for its postgraduate research grants on Christian democracy and European integration. These support research into the impact of Christian democracy on the process of European integration at the Historical Archives of the EU in Florence. The European People’s Party group’s archives in Brussels or the Konrad Adenauer Stiftung in Bonn. Grants are worth €5,000 each.
Web id: 1190220
Email: laura.burgassi@euei.eu
Deadline: 31 May 2017 [111]

Rare disease research
The Foundation for the Development of Internal Medicine in Europe invites applications for its rare disease research grants. These support internists developing research in the field of rare diseases. Grants are worth up to €20,000 (€17,000) each over one year.
Web id: 1172152
Email: contact@fdme.org
Deadline: 3 June 2017 [112]

Norway foreign aid
The Norwegian Agency for Development Cooperation invites tenders for an evaluation of organisational aspects of Norwegian aid administration. The tenderer will evaluate organisational aspects of Norwegian aid administration in order to assess the roles, responsibilities and the division of labour between home organisations. The contract is worth NOK 1.5 million (£135,000).
Web id: 1195869
Email: jeanna.gluszek@norad.no
Deadline: 6 June 2017 [164]

Biotech SME award
The European Association for Bioindustries invites applications for its EuroBio SME awards. These recognise European biotech SMEs that have developed novel ways of meeting societal, technical, and environmental problems through the application of biotechnology. The overall prize is worth €10,000 (£8,400).
Web id: 1162702
Contact: Cosmin Popa
Email: c.popa@europabio.org
Deadline: 26 June 2017 [113]

Cancer research prize
The ARC Foundation for Cancer Research invites nominations for the Léopold Griffeaux award. These recognise researchers whose work has led to a major breakthrough in fundamental or applied research in oncology. Prizes are worth a total of €50,000 (£42,000).
Web id: 254982
Email: prikdicloepolgridf@esaprocurement@efsa.europa.eu
Deadline: 30 June 2017 [114]

Oncology observship
The European Society of Surgical Oncology invites applications for its Brazilian Observship programme. This offers society members the opportunity to visit a Brazilian oncology institution and undertake an observship. Stipends are worth USD 2,000 (£1,550) for two weeks.
Web id: 1190189
Email: ana.galan@essobew.org
Deadline: 30 June 2017 [115]

Environment research
The Environmental Protection Agency Ireland invites applications for the following themed calls:
• climate theme 1 – carbon stocks, greenhouse gas emissions, sinks and management options, worth up to €220,000 (£125,000).
Web id: 1180514
• climate theme 2 – Ireland’s future climate, its impacts and adaptation options, worth up to €350,000. Email: 1180515
• climate theme 3 – climate solutions, transition management and opportunities, worth up to €200,000.
Web id: 1180516
• climate theme 4 – air science, worth up to €350,000. Web id: 1180517
• sustainability theme 1 – resource efficiency call, worth up to €150,000 each.
Web id: 1180533
• sustainability theme 2 – health and wellbeing, worth up to €650,000 each.
Web id: 1180534
• sustainability theme 3 – natural capital and ecosystem services including soils and biodiversity, worth up to €150,000 each.
Web id: 1180536
• sustainability theme 4 – socio-economic aspects of a sustainable environment, worth up to €150,000 each.
Web id: 1180537
• water theme 1 – safe water, worth up to €350,000 for up to three years.
Web id: 1180522
• water theme 2 – ecosystem services and sustainability, worth up to €500,000 each.
Web id: 1180523
• water theme 3 – innovative water technologies, worth up to €500,000 each.
Web id: 1180524
• water theme 4 – understanding, managing and conserving water resources, worth up to €500,000. Web id: 1180525
• water theme 5 – emerging and cross-cutting issues, worth up to €500,000 each.
Web id: 1190125
Email: research@epa.ie
Deadline: 3 July 2017 [128]

Vulnerability and life course
The Swiss National Science Foundation, through the Swiss National Centre of Competence in Research LIVES, invites applications for its best paper award for early scholars. This recognises the best paper in the areas of vulnerability and life course studies written by scholars at the beginning of their career. The award is worth £2,000 (£1,700) plus expenses.
Web id: 1190133
Email: contact@lives-nccr.ch
Deadline: 10 July 2017 [129]

Electrochemistry research
Volkswagen and BASF invite applications for their science award in electrochemistry. This supports research in electrochemistry. The budget is worth €100,000 (£84,000), of which €40,000 is allocated to the winner.
Web id: 1179776
Email: vw@volkswagen.de
Deadline: 18 August 2017 [130]

Strategic mobility grants
The Swedish Foundation for Strategic Research invites proposals for its strategic mobility grants. These aim to increase personal mobility and cross-fertilisation between academia and industry. Grants are worth up to SEK 1.5 million (£131,000) each over up to 12 months.
Web id: 251733
Email: joakim.anorin@stratresearch.se
Deadline: 5 September 2017 [131]

EU environment grants
The Directorate-General for the Environment and Climate Action invites applications for the following calls:
• technical assistance projects, worth up to €100,000 (£84,000) each.
Web id: 1185443
• traditional projects on climate change adaptation, worth £25.28 million.
Web id: 1185440
• traditional projects on climate change mitigation, worth £25.28 million for up to five years.
Web id: 252916
• traditional projects on climate governance and information, worth £5 million for up to five years. Web id: 1185441
Deadline: 7 September 2017

Environment grants
The European Space Agency invites proposals to participate in its Fly Your Thesis call. This enables teams of students to design and perform scientific experiments in microgravity as part of their master’s or PhD theses. Scientists will be offered mentoring and financial support.
Web id: 252208
Email: flyyourthesis@esa.int
Deadline: 10 September 2017 [136]

Postdoctoral training grants
The European Molecular Biology Laboratory and Marie Sklodowska-Curie actions invite applications under the EMBL interdisciplinary initiative, for the E13POD postdoctoral fellowship programme. This enables researchers to take part in international and interdisciplinary training experiences, and to build a sectoral experience, whilst carrying out interdisciplinary research. Approximately 20 three-year fellowships are available.
Web id: 1186243
Contact: maria.straide@embl.org
Email: mipod@embl.org
Deadline: 14 September 2017 [140]

Austrian studies fellowships
The Austrian Exchange Service (ÖAD) invites applications for the Franz Werfel fellowship. This enables young university teachers of German language and Austrian literature to visit university departments and carry out specialist studies in libraries, archives or at research
EU anti-counterfeiting
The European Anti-Fraud Office invites proposals for the Pericles 2020 programme. This aims to prevent and combat counterfeiting and related fraud, and to protect Euro banknotes and coins. The budget is worth €350,000 (£290,000).
Web id: 1163180
Deadline: 15 September 2017

Hepatology fellowships
The European Association for the Study of the Liver invites applications for the Andrew K Burroughs short-term training fellowships. These support the mobility of investigators between European institutions to promote scientific exchange among hepatology researchers. Fellowships are worth €2,000 (£1,700) per month for up to three months.
Web id: 254571
Deadline: 15 September 2017

Cardiovascular imaging
The European Society of Cardiology’s Cardiovascular Imaging Association invites applications for its research awards. This supports specialised research in the field of non-invasive imaging modalities in order to help young candidates obtain research experience in a high standard academic centre in an ESC member country other than their own. Grants are worth €25,000 (£21,000) for one year.
Web id: 255349
Deadline: 30 September 2017

Public procurement studies
Forum Vergae invites applications for its international public procurement award. This recognises academic thesis with relevance to national, European or international public procurement law. The prize is worth £5,000 (£4,200).
Web id: 1163747
Deadline: 30 September 2017

Amyotrophic lateral sclerosis
The Frick Foundation for ALS Research invites applications for its research grants. These support basic biomedical research on the cause of amyotrophic lateral sclerosis. Grants are worth CHF 100,000 (£76,800) each over two years.
Web id: 1160237
Deadline: 30 September 2017

Surgery fellowship
The International Society of Orthopaedic Surgery invites applications for its Alexander von Humboldt Fellowship. This enables surgeons to receive training in different specialist departments at the Hadra Orthopaedic and Traumatology University Hospital in Alexandria, Egypt. Two fellowships are available, covering travel up to £1,000 (£840) and accommodation for six months.
Web id: 1188282
Deadline: 30 September 2017

EU electricity and gas
The Innovation and Networks Executive Agency invites proposals for its call on Connecting Europe Facility energy. This supports projects of common interest within the framework of the trans-European research policy in the energy sector, namely in electricity and gas. The budget is worth €800 million (£673m).
Web id: 1194410
Deadline: 6 October 2017

Africa food prize
The Alliance for a Green Revolution in Africa invites nominations for the Africa food prize. This recognises contributions to Africa’s agriculture, forging a new era of sustainable food security and economic opportunity. The prize is worth US$100,000 (£77,400).
Web id: 1189941
Deadline: 30 May 2017
US funding opportunities available to UK researchers.

Heliconia Society International research grants
Web id: 1195787
No deadline [191]
Muscular Dystrophy Association investigator-initiated research grants
Web id: 21078
No deadline [192]
National Geographic global exploration fund for northern Europe research grants
Web id: 1165737
No deadline [193]
Biomedical Engineering Society Rita Schaffer young investigator award
Web id: 198235
Deadline: 31 May 2017 [194]
Fundamental Physics Prize Foundation breakthrough prizes in fundamental physics, life sciences and mathematics
Web id: 1169151
Deadline: 31 May 2017 [195]
Fundamental Physics Prize Foundation new horizons prizes
Web id: 1169152
Deadline: 31 May 2017 [196]
International Association for Mathematical Geosciences computers and geosciences research scholarships
Web id: 1175115
Deadline: 31 May 2017 [197]
International Association for Mathematical Geosciences mathematical geosciences student awards
Web id: 1175113
Deadline: 31 May 2017 [198]
International Association for Mathematical Geosciences natural resources research student awards
Web id: 1175116
Deadline: 31 May 2017 [199]
Michael J Fox Foundation for Parkinson’s Research computational tools for Parkinson’s disease therapeutic development
Web id: 1194857
Deadline: 31 May 2017 [200]
Michael J Fox Foundation for Parkinson’s Research inflammation biomarkers for Parkinson’s disease
Web id: 1194856
Deadline: 31 May 2017 [201]
Rotary Foundation peace fellowships
Web id: 201110
Deadline: 31 May 2017 [202]
American Association for Hand Surgery Vargas international hand therapy award
Web id: 191834
Deadline: 1 June 2017 [203]
Emil Capita Foundation auditory research grant
Web id: 210072
Deadline: 1 June 2017 [204]
International Mechaniclassical Diagnosis and Therapy Research Foundation program grants
Web id: 201510
Deadline: 1 June 2017 [205]
International Society for Heart and Lung Transplantation international travelling scholarship
Web id: 210534
Deadline: 1 June 2017 [206]

Crick spinout earns $100m funding deal

GammaDelta Therapeutics, a company built on the research from scientists at the Francis Crick Institute and King’s College London, has secured a $100-million (£77m) collaboration with pharmaceutical giant Takeda to form a new company. The company was formed in August 2016 to translate work carried out by Adrian Hayday and Oliver Nussbaum on human gamma delta T-cells into clinical products. The collaboration between the two companies will develop a platform for novel immunotherapies aimed at treating a range of cancers, including solid tumours, and autoimmune diseases.

UKERC seeks team to deliver £1.5m energy fund

The UK Energy Research Centre has advertised for engagement and communications staff to lead on the delivery of a £1.5-million networking fund set up to encourage collaboration between energy researchers. The research centre is looking for an engagement officer, communications officer and office administrator. The deadlines for applications are 12, 30 and 31 May respectively. UKERC was chosen to deliver the £1.5m of programme funding by the Engineering and Physical Sciences Research Council in April.

Historical archive of medical images goes online

The higher education ICT organisation Jisc and the Wellcome Library have set up a £1-million project that will give researchers access to a free online archive of 19th-century medical texts. The UK Medical Heritage Library has digitised more than 15 million pages of text and images encompassing consumer health, sport and fitness, diet and nutrition, as well as historic medical practices such as phrenology and hydrotherapy. Wellcome has contributed its entire 19th-century collection to the resource.

China tops international research scholar awards

China is the country with the most winners in the first cohort of International Research Scholars chosen by a group of global philanthropic funders, including the Wellcome Trust. Seven researchers in China are among 41 recipients of awards from a $26-million (£20m) fund set up by the Wellcome Trust, the US-based Howard Hughes Medical Institute, the Bill and Melinda Gates Foundation and the social-science funder the Calouste Gulbenkian Foundation.

AMRC makes case for mental health research

Funding of mental health research by charities has stimulated £17 million of further investment from the other sources, according to the Association of Medical Research Charities. On 7 May, the AMRC published its Spotlight on Mental Health Research report, which outlines the research its member organisations are carrying out on mental health. It says that many medical research charities identify mental health research as a priority, even those whose main focus is not in this area. Of the AMRC’s members, 38 medical research charities fund some related research, despite only four of them having mental health as their primary activity.
Brexit ‘will weaken European research’

European research and innovation will suffer when the UK leaves the European Union, representatives of research organisations have warned.

The UK “has been a force for good” for European research, and “there is no question that the loss of a UK voice in Europe will weaken like-minded countries such as Denmark, Ireland and Holland” in shaping future research and innovation, Mark Ferguson, director-general of Ireland’s national research funder Science Foundation Ireland, said on 8 May.

Speaking at an event in London on the impact of Brexit for research, organised by the researcher association EuroScience, Ferguson said that the UK has “fought strongly” for the principle that EU funding for basic research, for example through the European Research Council, should be allocated on the basis of scientific excellence. Other countries that support this principle “are going to have to step up” because of Brexit, he said.

Once the UK leaves the EU, it will no longer have a direct influence on the design of the EU research and innovation Framework programmes, agreed Dan Andrée, an adviser on research and innovation to the Swedish government. This could have “severe consequences” for the next Framework programme, which might make it less attractive to researchers in Sweden and the UK, he said. “We [Sweden and the UK] both promote excellence and openness, and it’s not that we disagree with the French or Germans, it’s just that our research programmes are similar,” Andrée said.

The UK government has said that it wants to continue collaborating with the rest of Europe on research, but has not clarified whether it will seek full participation in the Framework programmes through an association agreement.

Rolf Tarrach, president of the European University Association, said that he thinks the budget for the next Framework programme could be reduced if the nature of the UK’s participation is not settled soon. “It will be very hard for politicians in Brussels to set up Framework 9 without a clear picture of whether the UK will reach an agreement [on its participation],” he said.

The amount of Framework programme funding won by researchers based in other European countries might increase if UK participation drops, even if the budget is cut, Tarrach said. But there would be an overall drop in the quality of the research funded, he added.

ICT skills gap not as wide as expected, report finds

A prediction of the future ICT skills gap in Europe, which has fed into European Union policies, has overstated the extent of the problem. A report by Empirica, a German consultancy, slashed its estimate of the shortage of ICT specialists in the bloc by 2020 to 500,000. This is about a 40 per cent reduction compared with the company’s 2011 estimate, which said that 825,000 additional specialists would be needed.

Quantum flagship opens for proposals

The European Union’s FET Flagship on Quantum Technologies, a high-budget project aiming to put Europe at the forefront of the field, has issued its first call. The flagship will begin in 2019 and will be partly funded by the Horizon 2020 Future and Emerging Technologies programme, with a total budget of about €1 billion (£850 million) over 10 years. The European Commission issued its first call, a €500,000 Coordination and Support Action, to involve participants from quantum research and industry in communication events.

Belgian university tops innovation ranking

The University of Leuven has been named the most innovative university in Europe for the second year running in a ranking compiled by Reuters. KU Leuven, which was established in 1425 in the Dutch-speaking region of Flanders, won the top spot by producing a high number of inventions, with its researchers submitting more patents than any other university in Europe. Moreover, researchers elsewhere frequently cite KU Leuven inventions in their patent applications, Reuters said.

Commission: ‘digitisation push needs work’

The European Union must do more to develop Europe’s data economy, regulate online platforms and tackle cybersecurity challenges, the European Commission has said. Andrus Ansip, Commission vice-president for the Digital Single Market, identified four areas where the EU must take further steps: updating the rules for non-personal data protection, building cybersecurity infrastructure, developing high-performance computers and training a digitally skilled workforce.

Cybersecurity measures ‘too fragmented’

The organisations and processes in place to protect Europe from cyberattacks must be coordinated and strengthened, the European Political Strategy Centre, a European Commission think tank, has said. Four different kinds of organisations have roles in Europe’s cybersecurity, but various institutional, technical and legal obstacles prevent them from interacting effectively. This has resulted in a need to improve cooperation between member states, the think tank said.
Twittering times

How should researchers respond to Brexit and Trump? And what might the future look like? Guest editor Andre Geim asked for views from both sides of the Atlantic.

‘Temper your pessimism’

“Ignorance,” wrote Charles Darwin, “more frequently begets confidence than does knowledge.”

Darwin’s claim might well apply today. Researchers feel pessimistic about the rise of populism and an associated devaluing of experts and evidence.

Added to some recent political changes—and the relentless and frequently ill-informed commentary on social media—and many would conclude that this is a bad time to embark on a career in fundamental research.

Advances in the communication of knowledge and discovery have had huge benefits. We have rapid access to vast amounts of information, continuous connectivity and the global exchange of ideas and people.

But such advances also highlight the need to adapt and reconsider how we communicate research and discovery, and how to strengthen public trust in research and experts. This is a challenge, given the complexity of many discoveries, the long-term nature of much research and the media’s tendency to hype findings. It can be hard to convey your messages in 140 characters on Twitter.

What hasn’t changed is that discovery still depends on the weight of evidence, which is continually tested and re-tested. Good science is based on trying to prove an idea wrong. This runs counter to much of what we do in everyday life. In politics, U-turns are considered an embarrassment. In research, they ought to be a virtue: our position changes as the evidence shifts and grows.

Researchers need to consider how to communicate such complexities without hype or false promises. If we do not, we shouldn’t be surprised if the public gets annoyed when, for example, a healthy food is deemed unhealthy, or when diesel vehicles that were once encouraged for their efficiency are taxed for their pollutants.

Another problem is that evidence is open to interpretation and misinterpretation. Research thrives on differences of opinion. But it also recognises when a question is effectively settled. The media does not always do the same. We are still living with the consequences of the reporting on the purported link between the MMR vaccine and autism.

Denial of the existence of climate change, let alone its causes, is another case in point. The views of a small minority can be used to warp opinion or, worse, policy. Researchers can’t be expected to police social media. There’s little accountability or opportunity to rebut bogus claims, and nothing like the scrutiny that bears down on research findings.

Researchers should, however, take responsibility for communicating their findings and their implications to the wider public, including, of course, politicians and policymakers. They should admit it when they get things wrong or where there are legitimate differences of opinion.

We’re increasingly encouraged to listen as well as talk; to engage rather than just tell. In some fields, notably medicine, patients now have an important voice in the direction of research funding. However, it’s still hard to imagine how non-experts could meaningfully influence fields such as particle physics, genome splicing or the history of the Napoleonic wars.

Any pessimism should be tempered by polls that consistently show high public trust in science, and by society’s clear appetite for knowledge and understanding. I’m also reassured to see the thoughtful public responses to findings in my own field of stroke research.

More remarkably, it was gratifying to see that at a recent fundraising event attended largely by people from businesses, the highest bid was for a Nobel laureate, topping the bids for football-related prizes—and this in Manchester, a city famed for its sporting as much as its scientific endeavours.

Ridicule and disbelief are nothing new. Darwin experienced them. The big difference today is the speed and spread of such challenges. Researchers have a duty to create and to share knowledge. Increasingly, we have a duty to defend it too.

Nancy Rothwell is professor of physiology and president and vice-chancellor of the University of Manchester. She writes in a personal capacity.

‘I see enormous anxiety’

The lifeblood of science is the free flow of ideas. Any barrier to the collaboration of scientists across countries is therefore a negative.

One of the great achievements of the European Union has been to bring down these barriers and create the largest international research programme in the world. This has brought enormous benefits to science right across Europe, not least in the UK.

Right now, I see enormous anxiety among scientists in the UK, and indeed right across Europe, that Brexit will harm this progress. The UK referendum has created
enormous uncertainties that need to be lifted.

My heart goes out to the thousands of researchers from across Europe who have pursued their scientific dreams and built their lives in the UK, and who now find themselves facing uncertain futures.

This is why the negotiating guidelines agreed by the heads of state of the 27 EU countries make a clear distinction, and sequencing, between the withdrawal agreement and the future partnership. The first task of the negotiators has to be to manage the UK withdrawal from the EU in a way that minimises legal uncertainty.

The EU will put citizens first in these negotiations. EU citizens, including researchers and their families, who have built their lives on the guarantees derived from EU law to reside, study and work on both sides of the channel must be able to continue their lives as before.

The second big-ticket item for the first phase of the negotiations, the financial settlement, is also particularly important for research. Without such an agreement, we will not have legal clarity about ongoing collaborations funded by Horizon 2020.

Looking to the future, I see the core values of the next EU research and innovation programme to be excellence, openness and impact. Throughout the 30-year history of the Framework programme, the UK has passionately supported these values, and it is my fervent hope that it will continue to do so. Science, by its nature, creates a strong international community.

Now is the time for this community to come together, to be the voice of reason for more openness, to encourage more collaboration, and to protect the future of science in Europe.

Carlos Moedas is the European commissioner for research, science and innovation.

‘I don’t envy young academics’

Using the Daily Mail’s vocabulary, I’m an unrepentant remoaner and saboteur. We’re on a trajectory that irrevocably weakens Europe, and may break up the UK. Even if a Brexit deal is negotiated, it’s likely to leave many Brexiteers dissatisfied, and consequently be perceived by a UK majority as worse than the status quo.

For me, the science-linked arguments against Brexit are trumped by the broader concerns that it will jeopardise Europe’s ability to act as a counterweight to balance the United States, Russia and China. But scientists, of course, have special professional concerns about Brexit. They are highly mobile. Many have chosen to make their lives here, in the expectation that their family and contacts will enjoy the benefits of free movement. Chancellor Philip Hammond has assured bankers of post-Brexit concessions, but no comfort has been offered to other industries.

Under the coalition government, there were clear tensions between Vince Cable and David Willetts in the business department, who were mindful of the need for an international flow of talent, and the Home Office, where the priority was to cut net immigration. This ambiguity generated the perception that the UK was no longer welcoming. Since moving from the Home Office to 10 Downing Street, Theresa May’s hewing to a hard line on immigration has done nothing to change this.

My Cambridge college has a strong cohort of EU students, many from Hungary, Poland and other nations with a strong academic tradition. They see themselves as Europeans with a shared culture. They hope our continent can be a progressive force in a turbulent and multipolar world, where we face challenges that can’t be tackled on a national level. We’re surely right to welcome these people, in their own interests and those of Europe.

Some Brexiteers argue that we should be focusing our efforts on the world beyond Europe. But EU membership has strengthened our global links. An ambitious young person from Asia will be less attracted to the UK if we are no longer part of an integrated European community.

There is, at least, a consensus on one thing: the imperative to sustain and strengthen UK science and technology. “If we don’t get smarter we’ll get poorer” is a mantra to which all factions would subscribe.

And yet even without Brexit, we would have reason to be anxious about UK research. Traditionally, universities have enabled staff to pursue research topics of their own choosing in return for teaching. This compact has manifestly paid off in the leading US and UK universities. But it’s at risk.

I don’t envy the lives and prospects of young academics. There’s reason to worry not only about attracting foreign expertise, but about whether research offers an attractive career to the next generation of UK talent.

Academia must attract not just nerds like myself, but a proportion of ambitious young people with versatile talent—those who aspire to achieve individual success in their early 30s. The demography of academia is unfavourable to the rapid promotion of young talent, but it’s the ever more pervasive audit culture that’s the real disincentive. The best value for money is achieved by enabling committed and talented individuals to back their own judgement.

That’s why the UK is scoring a further own goal by enacting a higher education and research bill that aggravates the audit culture and demands a needlessly drastic reorganisation of research. These changes are a distraction at a time when the civil service is overstretched by Brexit, and when higher education is beginning a transformation in which the importance of mature students, part-time courses and distance learning will surely grow.

Martin Rees is the astronomer royal and a former president of the Royal Society.

‘The EU will put citizens first in the negotiations for UK withdrawal from the EU.’
‘I hope Trump is an aberration’

The results of the 2016 presidential election in the United States came as a shock for many Americans. Donald Trump lost the popular vote, and the electoral process was contaminated by Russian meddling and by questionable actions from the FBI. Nevertheless, the importance of stable institutions is widely recognised, and according to the rules of the electoral college, Trump won. So, he is now our president.

According to polls, scientists overwhelmingly opposed Trump. His approach to problems and his rhetoric seem quite alien to most scientists. They are rooted in gut feelings, theatrics and bluster, not rational assessment of facts. A revealing example that fuelled his rise to political prominence was his aggressive promotion over several years of the discredited birther conspiracy theory that former president Barack Obama was not born in the US.

That example was an ugly farce, but it will leave little residue. Unfortunately, we can recognise the same approach in more substantial issues, where the consequences could be tragic.

Trump wrote on Twitter, “The concept of global warming was created by and for the Chinese in order to make US manufacturing non-competitive.” He has proposed slashing funding for climate science, and given key government positions to men who pooh-pooh that science.

Hostility to immigrants, and foreigners in general, was perhaps the most consistent theme of Trump’s campaign. Among his first acts as president was a travel ban on seven Muslim nations and all refugees. That order was met by widespread protests, and was struck down by several courts. Nevertheless, it has had a chilling effect on science, an international community that thrives on the free exchange of ideas and personnel.

The ability to attract gifted foreigners has greatly strengthened US science. Now, international students and postdocs understandably feel threatened, and international recruitment at many universities has soured.

Motivated by the desire to shrink government and make room for tax cuts, the Trump administration has proposed drastic cuts to the National Institutes of Health, among others. Congress has, so far at least, been unwilling to enact such cuts. At best, however, uncertainty makes planning difficult, especially for prospective young scientists.

American science assumed global leadership in the 1930s, in no small part because the country welcomed refugee scientists from a troubled Europe, and from India and China. Ironically, we might soon see that leadership pass elsewhere, as the flow, now leaving troubled America, reverses. Unfortunately, the potential successor nations have their own troubles.

If government support of science erodes, businesses and individuals could take up some of the slack. At best, however, this will mean different priorities, less driven by scientists and by peer review, and with greater emphasis on short-term, “useful” goals.

I hope and believe that the election of Trump was an aberration. In the long run, as the physicist Richard Feynman said, “Reality must take precedence over public relations, for nature cannot be fooled.”

In the meantime, it is more important than ever that scientists stay true to honesty, transparency, and empirical truth. “Post-empirical science” in the age of Trump is not a good look. The world is depending on us.

Frank Wilczek is professor of physics at the Massachusetts Institute of Technology, and winner of the 2004 Nobel prize for physics.

‘EU regulation is burdensome’

Britain’s vote to leave the European Union was unpopular with most scientists. They worried that the UK would lose access to funding programmes and collaborations, and that European talent might stop coming to Britain.

But now that Brexit is happening, more scientists are starting to consider the potential opportunities. Writing in the Financial Times last year, John Bell, Regius professor of medicine at the University of Oxford, contrasted Britain’s relatively liberal regulatory environment with the EU’s “record of deep regulatory conservatism”.

Michael Rawlins, head of the Medicines and Healthcare Products Regulatory Agency, told the House of Lords Science and Technology Committee that we might do some things better outside the EU: “For example, clinical trials in some respects are still overregulated.”

Speaking at an event in November 2016 organised by the Foundation for Science and Technology, Louise Richardson, vice-chancellor of the University of Oxford, said: “If the UK could adopt a lighter-touch, risk-based and speedy regulatory environment—as distinct from the heavy hand of Brussels—it could find a real competitive advantage.” Royal Society president Venki Ramakrishnan told the same meeting, “The UK potentially has great advantages in being able to develop its own regulatory position in new areas where ethics, liability and technology intersect.”

It is in the application and commercialisation of breakthroughs that the UK stands to benefit most from Brexit. European regulation of research and innovation is cautious and burdensome.

On reproductive technologies, for example, Britain has generally taken a more libertarian approach than its continental neighbours. The first test-tube baby Louise Brown, Dolly the sheep and mitochondrial replacement therapy were all born in Britain.

‘Scientists are starting to consider the potential opportunities of Brexit.’

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Research Fortnight’s 500th issue
That said, Brussels has never held back such technologies in the UK. Genetically modified organisms are a different matter. GM mosquitoes developed in the UK are being released in Brazil to combat dengue and zika. Oxitec, the company that developed them, said that it had not sought permission to release GM diamond-back moths in the UK because of what *Nature* has called Europe’s regulatory paralysis.

The newer technique of gene editing shows huge promise for medicine and conservation. The United States has ruled that it does not need to be treated as genetic modification because it involves the introduction of no new DNA. The EU has, incredibly, asked member states to avoid making a decision for two years.

Unlike the US, the EU has a hazard-based approach to regulation: it measures toxicity without considering exposure and ignores the risks of not innovating. This is why it is in Europe that environmental activists are trying to get glyphosate herbicide banned, even though dose for dose it is no more carcinogenic than coffee.

Britain has more top universities than any other European country and more Nobel prizes per head than any country except Sweden. It is connected to the world by culture, history and the English language.

In the coming decades it will be collaborations and exchanges of talent with Asia, the Americas and Africa as much as Europe that determine Britain’s opportunities in science. If we get this right, nowhere has such a good chance of leading in science as the UK.

Matt Ridley is a newspaper columnist, science writer and member of the House of Lords.

**Research Fortnight 600**

This week’s Research Fortnight [24/11/2021] reports on two curiously parallel demonstrations in London and Cambridge. In the capital, a crowd of left-wing activists celebrated the closure of UBS’s London operation, as the bank moved 90 per cent of its London staff to its new EU headquarters in Frankfurt.

Of the chants, “We’ll be better off without you” ranks among the more printable. A photo of a home-made placard reading “Don’t forget to flush your cocaine down the toilet before going through airport security” was retweeted more than 1,000 times.

At the same time in Cambridge, the campaign group Had Enough of Experts held a public meeting and rally. The message to the academics that have left the university and the companies that have left the region was the same as that directed at bankers: if you don’t want to stay, we didn’t want you anyway. Speakers attacked academics as a rootless elite, loyal only to whoever pays their grants. “Citizens of nowhere go home,” read one sign.

Whatever else you might say about the past five years, it has been a golden age for the home-made placard.

Ministers are reportedly surprised that many of the researchers leaving are from outside the EU. In response, you could point to the hostility towards immigrants visible in the media and historic levels of hate crime. Quasi-terrorist initiatives such as the Facebook group formed to encourage violence against the 20 academics named as enemies of the people by Breitbart UK have not led to any actual attacks. Even so, foreign-born experts find themselves at the intersection of public antipathies.

You could also, of course, point to the UK’s April 2019 ejection from European research funding and networks, and the government’s failure to keep its pledge to match EU research funding post-Brexit.

Had Enough of Expert’s position, though, is not so much an accusation as a self-fulfilling prophecy.

Those UK universities with the reputation and resources to do so have responded to Brexit by adopting the banks’ playbook, off-shoring their activities and chasing the most favourable regulatory regimes.

Malía Obama turning down, reputedly on parental advice, a Rhodes scholarship to Oxford in favour of a year in Berlin exemplifies universities’ problems in recruiting international students. It’s no use having a cash cow if it thinks your milking parlour is uncool. And a Teaching Excellence Framework-enabled fees hike and the sale of the student loan book to Wonga have chilled domestic enrolment.

Universities, therefore, have decided that if the talent won’t come to them, they must go to the talent. Many of the academics leaving Cambridge the city will remain with Cambridge the university at its new Helsinki site. Seven others have already announced EU campuses. Edinburgh is taking no chances: by setting up shop in Graz, it will maintain a European beachhead even in the unlikely event of Scotland remaining part of the UK.

The government can congratulate itself that the combination of Brexit and the 2017 higher education bill has prompted our universities to become truly globalised. Those that can are moving to more hospitable climes, those that can’t are going out of business. Either way, we’re all left behind now—not, perhaps the vision of national unity that Theresa May had in mind.

Still, one must look for good news, and opening up the market to private providers has attracted one high-profile new entrant. After buying up the premises of two defunct institutions in a “fantastic, really very good” deal, the UK branches of the reborn Trump University have recently welcomed their first students. Perhaps, to quote the president’s tweet, “Trump U can make Britain great again”.

John Whitfield is Research Fortnight’s comment and analysis editor.

Something to add? Email comment@ResearchResearch.com

‘Universities have decided that if talent won’t come to them, they must go to the talent.’
Expensive bill George Osborne and Andre Geim first met in 2011 after the former chancellor received a phone call from Manchester City Council’s chief executive. Howard Bernstein informed Osborne that the Nobellists were being offered large sums to relocate to Asia. That, so the story goes, resulted in Osborne agreeing £50 million for the National Graphene Institute in Manchester. Our guest editor’s recollection, however, is different. “Utter nonsense,” he says. “At that time I did not consider moving anywhere, nor did Kostya Novoselov. It is illuminating to learn about this negotiation a few years later.”

Curtice, the all knowing The omnipresence of polling guru John Curtice on the BBC has not gone unnoticed. A Twitter account @JohnCurticeOnTV has been set up with the single purpose of reporting every time Curtice, a political scientist at the University of Strathclyde, appears on the news. The account has attracted 3,200 followers since Theresa May’s snap election call. Ten appearances, duly accompanied by a screenshot of Curtice, “the legendary professor”, have been reported so far. Research managers will no doubt be delighted: one fewer impact story to worry about.

Brexit wake Hundreds of thousands of words have been committed to describing the emotions, often contradictory, that Brexit has generated in the UK and the rest of the European Union. And, yet here we are, almost a year after the 23 June 2016 referendum result, and there is no let up. Speaking at a London event, Aidan Gillian, chief executive of the science diplomacy agency SciCom, said Brexit felt “like a distant family member has died and you don’t know if you’re going to go to the funeral”.

EURO VISIONS Sighs of relief greeted the UK’s respectable 15th position in last week’s Eurovision finals, with media reports gushing at ‘No Brexit backlash’. But a closer examination of voting patterns does indicate a possible Brexit effect. For the first time in many years, Ireland awarded the UK the grand total of “nil points”; whereas Australia gave the maximum of 12. Goodbye Europe, hello Commonwealth?

Royal duty The mathematician Michael Atiyah is well used to royal duties having been Royal Society president from 1990 to 1995. But last week he inadvertently found himself at the centre of the Duke of Edinburgh’s retirement splash. Shortly after Prince Philip announced he would be stepping back from public duties, he was spotted chatting to Atiyah at a public event. “I’m sorry to hear that you’re standing down,” Atiyah told the duke. “Well, I can’t stand up for much longer,” Philip shot back.

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