



House of Commons  
Science and Technology  
Committee

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**Research integrity:  
Government and  
UK Research and  
Innovation Responses  
to the Committee's  
Sixth Report**

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**Seventh Special Report of Session  
2017–19**

*Ordered by the House of Commons  
to be printed 11 September 2018*

## Science and Technology Committee

The Science and Technology Committee is appointed by the House of Commons to examine the expenditure, administration and policy of the Government Office for Science and associated public bodies.

### Current membership

[Norman Lamb MP](#) (*Liberal Democrat, North Norfolk*) (Chair)

[Vicky Ford MP](#) (*Conservative, Chelmsford*)

[Bill Grant MP](#) (*Conservative, Ayr, Carrick and Cumnock*)

[Darren Jones MP](#) (*Labour, Bristol North West*)

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### Powers

The Committee is one of the departmental select committees, the powers of which are set out in House of Commons Standing Orders, principally in SO No 152. These are available on the internet via [www.parliament.uk](http://www.parliament.uk).

### Publication

Committee reports are published on the Committee's website at [www.parliament.uk/science](http://www.parliament.uk/science) and in print by Order of the House.

Evidence relating to this report is published on the relevant [inquiry page](#) of the Committee's website.

### Committee staff

The current staff of the Committee are: Danielle Nash (Clerk), Zoë Grünwald (Second Clerk), Dr Harry Beeson (Committee Specialist), Dr Elizabeth Rough (Committee Specialist), Martin Smith (Committee Specialist), Sonia Draper (Senior Committee Assistant), Julie Storey (Committee Assistant), and Anne Peacock (Media Officer).

### Contacts

All correspondence should be addressed to the Clerk of the Science and Technology Committee, House of Commons, London SW1A 0AA. The telephone number for general inquiries is: 020 7219 2793; the Committee's e-mail address is: [scitechcom@parliament.uk](mailto:scitechcom@parliament.uk).

## Seventh Special Report

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On 11 July 2018 the Committee published its Sixth Report of Session 2017–19, [Research integrity](#) [HC 350]. The response from the Government, and an accompanying letter from Sam Gyimah MP, were received on 6 September 2018. The Committee also received a response from UK Research and Innovation on 6 September. The responses are appended below.

### Appendix 1: Letter from Sam Gyimah, MP, Minister of State for Universities, Science, Research and Innovation

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Thank you for your Committee’s comments and recommendations regarding research integrity. I am now enclosing a formal response to the Committee’s report. We have continued to work closely with UKRI on this issue. A number of recommendations in the report are directed to UKRI and they will be responding to the Committee separately.

I am glad that I was able to appear before the Committee on 8 May to reinforce my commitment, both to the Committee and the wider research community, to ensure we maintain the highest standards of propriety in research.

The Government fully recognises the importance of excellent research and we will continue to work closely with UKRI to ensure that researchers are able to work in a culture which is conducive to the highest standards, and that those who use research, and the public at large, can have absolute faith in the quality and reliability of the UK’s world-leading base, now and into the future.

I look forward to working with you and the other members of the Committee as we move forward.

6 September 2018

### Appendix 2: Government Response

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**The Government rightly invests considerable sums of public money in research, and investment in research and development as a proportion of GDP is set to grow further in the coming years. The Government needs to be confident that all possible steps are being taken to ensure that this money is not wasted through problems with research integrity, and that the research that it buys is as reliable as possible. While the Government should not seek to interfere directly in research matters or compromise the independence of universities, it should nevertheless maintain an active interest in supporting research integrity and ensuring that all elements of self-regulation are functioning well in order to get the best value possible from public investment.** (Paragraph 9)

1. A significant part of Government funding for research and innovation is through UK Research and Innovation (UKRI), with more than £6.5 billion flowing through it each

year. One of the benefits of UKRI is that it brings together the seven Research Councils, Innovate UK and Research England. UKRI is well placed to ensure that all elements of self-regulation are consistent and functioning well across the whole range of research funded by them, as well as providing best practice and leadership to other funders.

**We endorse the Government Chief Scientific Adviser’s call for Government departments to sign up to the Concordat on Research Integrity to ensure consistency of approaches to research governance. If the Concordat is suitably strengthened, as we recommend above, this will be a useful step forward. We look forward to receiving further details of actions taken by the departments in response to his initiative in the Government’s response to this report.** (Paragraph 46)

2. The Government notes this recommendation and recognises the importance of the issues raised by the Concordat for the work conducted by government. The Government Chief Scientific Adviser has written to departments asking that they sign up to the Concordat. The Government Office for Science is now working with them and with colleagues in the government analytical professions to explore how this might be implemented.

**It is surprising that most UK universities are not subscribers to the UK Research Integrity Office. The result is that the profile and impact of UKRIO might be highest with the institutions which already choose to participate, rather than the ones that might need the most help. The default assumption for all universities should be that they are subscribers to UKRIO, unless they can explain why they do not need to use UKRIO’s advisory services. We recommend that the Government and Universities UK write jointly to all universities to encourage them to engage with UKRIO and consider subscribing to its services.** (Paragraph 50)

3. The Government recognises the important role that UKRIO play in promoting engagement and making clear that public funds should be used with integrity wherever possible to ensure that research is reproducible and reliable. Not all Higher Education Institutions are in receipt of public funding for research but where universities do receive public funding, we will explore with Universities UK (UUK) and UKRIO how we can promote the work of UKRIO as an organisation that furthers good practice in academic, scientific and medical research.

**We are encouraged to see moves towards open publishing of datasets, and steps being taken to improve reporting of research methods through reporting checklists. However, we also recognise the need for protocols for accessing research data to ensure that secondary analysis is conducted appropriately. The Centre for Data Ethics and Innovation should consider further how best to balance the need for data to be openly shared with the need to ensure that data is used responsibly in secondary analysis.** (Paragraph 75)

4. The Centre for Data Ethics and Innovation will seek to maximise the opportunities for data innovation while ensuring that data is used responsibly and ethically. The Government is currently consulting on the issues which the Centre for Data Ethics and Innovation should consider as part of its initial work programme. These details will be agreed once the consultation has closed.

## Strengthening the Concordat

Most universities take their research integrity responsibilities seriously, but progress in implementing the Concordat to Support Research Integrity across the whole sector is disappointing. Six years on from the signing of the Concordat, the sector as a whole still falls some way short of full compliance in terms of publishing an annual statement, which risks giving the impression of pockets of complacency. We were surprised by the reasons that some universities gave for not publishing an annual statement on research integrity as recommended by the Concordat. The majority of universities have successfully balanced transparency against confidentiality in producing an annual statement, but a few are lagging behind and see transparency as a threat to their public image. Publishing an annual statement is a positive opportunity for an institution to set out the steps that it is taking to safeguard research standards, as well as to report on the number of investigations. We were encouraged that our letter to all Universities UK members prompted some of them to take steps to improve their compliance with the Concordat. More leadership is required to drive the implementation of the Concordat across the whole of the research sector, and we return to this issue in Chapter 6. We welcome Universities UK's plans to convene a Research Integrity Forum meeting to consider our recommendations relating to the Concordat and look forward to seeing the results of their work. (Paragraph 39)

Compliance with the Concordat has technically been a condition of receiving funding from research councils and higher education funding councils since 2013, but meaningful sanctions have never been deployed. The Concordat contains mainly high-level statements rather than explicit measurable requirements, and comprehensive information on 'compliance' is not collected by the funders. *We recommend that the signatories update and strengthen the Concordat by making the requirements and expectations clearer, and produce a route map and timetable for reaching 100% compliance with the strengthened version within the next year. UKRIO should collect and publish details of universities that are not compliant. In particular, the Concordat should be strengthened in relation to training on research integrity (discussed in Chapter 4), processes for responding to allegations of misconduct (see Chapter 5), commitments to clinical trials transparency (which we will return to in a dedicated report) and publication of 'negative' research results.* (Paragraph 43)

Universities and other employers of researchers need to be able to demonstrate that they are following best practice in the way that investigations are conducted. The annual narrative report recommended by the Concordat (see Chapter 3) is one opportunity for institutions to review their processes and set out whether they reflect UKRIO's guidance. Any suggestion that best practices are not being followed is a concern, particularly given the reputational risk of, for example, not using external panel members in some stages of the process. UKRIO's guidance on misconduct processes was published in 2008; it is worrying that, ten years on, some institutions may not yet have acted on it. *We recommend that following best practice in use of external panel members form an explicit part of a strengthened Concordat.* (Paragraph 88)

5. The Government welcomes the Committee's recommendation of strengthening the Concordat. The Government believes that the Concordat is an appropriate and proportionate approach to supporting the highest levels of integrity and rigour in our research base. However, it is clear that there is still work to do, to ensure that researchers

are able to work in a culture which is conducive to the highest standards, and that those who use research, and the public at large, can have complete faith in the quality and reliability of the UK's world leading research base, now and in the future.

6. The Forum on Research Integrity is now continuing its work to strengthen the Concordat, including requiring external representation on investigatory panels considering significant cases of misconduct. The Forum was already considering an action plan and is considering the Committee's recommendations before proceeding. The Department for Business, Energy and Industrial Strategy is a member of the Forum and Sam Gyimah, Minister for Universities, Science, Research and Innovation re-affirmed the Department's support for the Concordat when he wrote to the Committee in March.

**Cases of researchers committing misconduct at a string of institutions suggest that either some universities are using non-disclosure agreements to keep misconduct quiet, or are not being sufficiently diligent in checking references when hiring researchers. Hiding misconduct through non-disclosure agreements is not acceptable, not least as it effectively makes the institution complicit in future misconduct by that individual. The Government should ask UKRI to consider how this practice can be effectively banned by institutions receiving public funds, and statements to this effect should be included in a strengthened Concordat (see Chapter 3). Meanwhile, there is a need for greater diligence in employers checking for past misconduct, and for previous employers fully disclosing such information.** (Paragraph 101)

7. The Cabinet Office has issued guidance regarding the use of settlement agreements, special severance payments and confidentiality clauses on termination of employment. As that guidance states, the Government does not support the use of terms in settlement agreements that, for example, avoid the taking of appropriate disciplinary action. Similarly, such terms should not be used to mask malpractice.

8. As such, the Government agrees that deliberate research misconduct should be taken extremely seriously. As a first step, we will ask UKRI to explore the scale of the problem and to provide advice on what specific action or actions may be needed, in addition to a strengthening of the Concordat.

9. In considering this, UKRI will need to take account of relevant legal implications, including those regarding employment protection legislation, and the wider impact of any proposed approach, including seeking the views of the Office for Students as the regulators of the higher education sector in England, as well as Devolved counterparts responsible for HE in Scotland, Wales and Northern Ireland.

10. With regard to research integrity, UKRI sets standards for institutions in receipt of UKRI funding, but any proposed approach would need to be coherent across a range of other funders of research, and would need to be agreed with them.

**Researcher mobility means that research misconduct investigations may require coordination between current and former employers, and between journals and funders. We are encouraged to see the Russell Group developing protocols for communicating with related parties when dealing with allegations that cross institutional boundaries. There is a need for all parts of the system to work together—including employers, funders and publishers of research outputs—but there appear to be problems with the required sharing of confidential information. We recommend**

*that employers, funders and publishers of research work together to agree a protocol for information-sharing on researchers involved in research integrity problems in a way that meets employment protection legislation. Commitments in this vein could form part of a tightened Concordat (see Chapter 3). (Paragraph 106)*

11. The Government agrees that as part of a strengthening of the Concordat, the Forum should consider possible options for increased transparency, having due regard for all relevant legislation.

## **Establishment of a new committee**

The available data on misconduct investigations suggest that serious research misconduct is rare, but it is impossible to be certain without better data. There is a mismatch between the number of investigations and the scale of reported temptations to compromise on research standards, the ‘reproducibility crisis’ in some disciplines, the growth in journal article retraction rates, and trends in image manipulation. We hope that most researchers will never succumb to the temptations to compromise on research standards, and some of these trends may be the product of increased detection and correction of honest errors. Nevertheless, it is worrying that there seem to be so few formal research misconduct investigations conducted by universities. Increases in the number of investigations should be seen as a healthy sign of more active self-regulation. Further work is needed to determine the scale of the problem. (Paragraph 28)

We see a gap in the UK system for a body that can provide a means of independently verifying whether a research institution has followed appropriate processes to investigate misconduct, as in Australia and Canada. *We recommend that the Government ask UKRI to establish a new national committee which could undertake this role. Employers should still have the first responsibility for investigating and taking action in response to allegations of research misconduct, but there should be a means of checking that processes have been followed appropriately. The new committee should be able to recommend to UKRI that funding be restricted or reclaimed if an employer has not followed appropriate processes in responding to research misconduct. While established under the auspices of UKRI, the new committee should have its own secretariat and sufficient independence from it so that it can act in cases where the research is not funded by UKRI. Without a body along the lines we suggest there is a risk that demands for statutory regulation will grow in the future. We recognise that there is a strong consensus within the community about the disadvantages that overbearing regulation could bring. We argue, however, that the onus is now on the community to support steps to avoid this.* (Paragraph 122)

*We recommend that the national committee should also have formal responsibility for promoting research integrity, as the equivalent body does in Canada. Working with Universities UK, the new committee should take responsibility for driving the implementation of an updated and strengthened Concordat, and following up on other recommendations to the sector in this report. Meanwhile, UKRIO should continue its work in providing advice on research integrity and sharing best practice. It should now advise UKRI on the creation of the new body, including its work methods, drawing on the best international examples.* (Paragraph 123)

**Transparency is a key feature of a healthy research integrity system. *The new national research integrity committee we recommend should publish an annual report on the state of research integrity in the UK, looking across the whole of research, and collecting information on: retractions; misconduct investigations and their outcomes; Concordat compliance; and training undertaken. The data for this will come from university narrative statements and the aggregated data on screening-phase investigations that UKRI is now being provided with. The proposed national committee should also consider how best to engage industry with the issue of research integrity, and should incorporate meaningful information on this aspect in its annual report.*** (Paragraph 128)

12. The Committee has highlighted a number of important issues in making these recommendations. In considering the establishment of a new independent committee and its role in this area, the Government must be assured that such a committee would be appropriate in the overall UK context, proportionate and represent value for money, and it is important that we fully explore this option over a longer timescale.

13. The impact of these recommendations needs to be evaluated and considered alongside the existing frameworks and bodies in place, the impact of a new strengthened Concordat and a more detailed understanding of the scale of the issues to ensure any action is proportionate. We also need to be clear about the costs and potential benefits, and ensure that such an approach would not lead to a duplication of existing measures and arrangements or risk inconsistent messaging in this area.

14. We will therefore task UKRI to undertake this consideration and evaluation so that the option can be fully explored in a longer timescale. We will write to the Committee when this work has been concluded

## Appendix 3: UK Research and Innovation Response

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1. UK Research and Innovation (UKRI) welcomes the Science and Technology Committee's report. Creating a strong and responsible culture is crucial to enable the best research and innovation and to gain and maintain public trust. We are committed to using our position as the largest public-sector funder of research and innovation in the UK to lead positive behavioural change both nationally and internationally.

2. Between the Committee's last formal evidence session and the publication of the its report, we launched our Strategic Prospectus. In this document we committed to working with stakeholders in the UK and internationally to review the operating environment for research in the UK and around the world. We will act on the results to ensure that our funding and operations encourage the best practices and behaviours.

3. In formulating our response, we have been working closely with the Department for Business, Energy and Industrial Strategy (BEIS), Universities UK (UUK), UK Research Integrity Office (UKRIO) and the signatories to the Concordat to Support Research Integrity ("the concordat").



**We recommend that the signatories update and strengthen the Concordat by making the requirements and expectations clearer, and produce a route map and timetable for reaching 100% compliance with the strengthened version within the next year.** (Paragraph 43)

4. The concordat signatories agree with the recommendation to update and strengthen the concordat. As a signatory, we will work to make the concordat's requirements and expectations clearer. Over the next twelve months, the signatories will agree the revised version of the concordat and provide the committee with a route map and timetable for reaching 100% compliance.

**We see a gap in the UK system for a body that can provide a means of independently verifying whether a research institution has followed appropriate processes to investigate misconduct, as in Australia and Canada. We recommend that the government ask UKRI to establish a new national committee which could undertake this role.** (Paragraph 122)

5. As the government stated in its response to the committee today, it has asked us to consider the establishment of a new independent research integrity committee, and we are pleased to do so.

6. We agree that employers should still have the first responsibility for investigating and taking action in response to allegations. Recognising the committee's findings, as part of our advice to government, we will consider the potential role that an independent committee could play in examining whether the research institutions that have accepted compliance with the concordat as a condition of funding have followed appropriate processes in investigating misconduct.

7. We will look carefully at how a national committee as proposed could best be implemented, and we will engage closely with stakeholders on this. In particular, we will draw on the advice of UKRIO, notably around training and the new body's membership, as well as engaging with the wider sector and with the devolved administrations. We will report our findings to the Science and Technology Committee (via our sponsor department) in early 2019.

**UKRI should collect and publish details of universities that are not [yet] compliant [with the concordat].** (Paragraph 43)

8. The research councils and the Higher Education Funding Council for England (HEFCE) have historically collected information on compliance separately. For 2018–19 the Office for Students (OfS) will continue to collect the compliance information previously collected under HEFCE and will notify us of any breaches or failures to meet compliance.

9. As the concordat is strengthened this will make the expectations for compliance clearer and will provide a better benchmark against which compliance can be accurately assessed. We are considering the potential impact of publishing data on non-compliance to ensure that universities and other research organisations are not discouraged from reporting fully. The strengthened concordat will make research organisations aware that publication is a consequence of non-compliance, or failure to report compliance status.

10. While the committee's recommendation is that we collect and publish information on compliance with the concordat, and whilst we agree that transparency is a key feature of a healthy research integrity system, UKRI can only require information from the organisations that we fund. We note the Committee's recommendation that this might be a role for a new national research integrity body.

***The Government should ask UKRI to consider how [hiding misconduct though non-disclosure agreements] can be effectively banned by institutions receiving public funds, and statements to this effect should be included in a strengthened concordat.*** (Paragraph 101)

11. On the basis of legal advice we do not believe we could impose a ban on non-disclosure agreements (NDAs) allegedly hiding research misconduct. We agree in principle that NDAs should not be used to hide misconduct, but we recognise there are many circumstances in which a NDA has a legitimate use, for instance in protecting intellectual property. With fellow signatories to the concordat we will explore a statement that would strongly discourage the inappropriate use of NDAs within the sector.

***We recommend that employers, funders and publishers of research work together to agree a protocol for information sharing on researchers involved in research integrity problems in a way that meets employment protection legislation. Commitments in this vein could form part of a tightened Concordat.*** (Paragraph 106)

12. We appreciate that this is a legally complex area. On the basis of legal advice, we would highlight that the creation, use and supply of similar standing lists which include personal data for the purpose of vetting individuals according to past actual or alleged behaviours could amount to unlawful 'blacklisting' under current legislation. These sorts of lists are also very likely to breach data protection legislation unless the processing of the relevant personal data is clearly lawful, fair and transparent within the meaning of the General Data Protection Regulation and the Data Protection Act 2018. In principle, compiling and sharing a list of researchers implicated in misconduct cases where the clear purpose is to use the personal data to vet individuals and potentially exclude them from future employment or funding opportunities would appear unlikely to be lawful. However, we believe all employers should be rigorous in taking up references as part of the recruitment process and that current employers should disclose such information in a way that complies with privacy and data protection regulations.

***UKRI [should] commission research to understand the effects of incentives in the research system on researcher behaviour and assess where adjustments or counterbalances may be needed to support research integrity.*** (Paragraph 58)

13. We agree with this recommendation and will commission research to evaluate the effects of incentives in the research system on researcher behaviour and to identify options and approaches for adjustments or counterbalances needed to support research integrity. The outcomes of this work will inform our policies and approaches to research integrity.

***We recommend that UKRI assess whether suitable training is being provided in line with current requirements and report back to us on its findings. UKRI should also consider further the case for centralised provision of training on research integrity, or standards that could be set.*** (Paragraph 67)

14. We are strongly committed to ensuring that the postgraduate investments we fund include high quality training in research integrity. Therefore, we will undertake a further assessment of the training provided through our doctoral training investments, and consider the case for further training or standards as part of our work on a UKRI Research and Innovation Talent Strategy.

15. As indicated in the committee's report the current Research Councils UK Statement of Expectations for Postgraduate Training includes the following:

- Students should receive training in the principles of good research conduct in their discipline, and understand how to comply with relevant ethical, legal and professional frameworks.
- Students should be provided with training to identify and challenge unintentional bias as appropriate to their studies.
- Students should receive training in experimental design and statistics appropriate to their disciplines and in the importance of ensuring research results are robust and reproducible.

16. Working with UKRIO, UUK and other key organisations we will assess how we can ensure that training in research integrity is world leading by exploring the development and provision of best practice training programmes in research integrity for researchers at every stage of their career, as appropriate for different disciplines. However, given the breadth of our investments in doctoral training (including disciplinary breadth), we believe that greater impact can be achieved by promoting the use of high quality training within each of our current investments rather than by centralising or standardising the provision of this training itself.

***We recommend that UKRI consider how best to encourage research teams to engage with statisticians as part of their research, and how best to improve the statistical competencies of researchers in general.*** (Paragraph 68)

17. We recognise that statistical expertise is vital to research and that there is an ongoing need to develop the statistical competencies of researchers. Our peer review system is central to ensuring that the teams that are the recipients of funding have the right skills, including statistical skills. The creation of UKRI provides key opportunities to share best practice and to build upon existing provision by working with our partners, including the Royal Statistical Society.

18. We support a wide range of statistical and related training through our doctoral programmes and through the continuous professional development of researchers. At doctoral level we expect a suitable level of statistical and related training relevant to the discipline and project. Statistical and quantitative skills are a priority area, with additional training investment at doctoral level and at other career stages as relevant. Some examples are below:

- **Centres for Doctoral Training (CDTs).** UKRI's councils<sup>1</sup> currently support over 150 CDTs, many of which are highly multidisciplinary and provide training in quantitative skills. These include:

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<sup>1</sup> A full list of UKRI's councils is available at: [www.ukri.org/about-us/our-councils](http://www.ukri.org/about-us/our-councils)

- Novel statistics research training e.g. the EPSRC CDT in statistics and operational research in partnership with industry (STOR-I) at Lancaster University.
  - Modelling and other mathematical approaches e.g. the NERC CDT in risk and mitigation using big data at Cranfield University, the EPSRC and MRC CDT in Mathematics for Real-World Systems at the University of Warwick, the NERC CDT in modelling and quantitative skills in ecology and evolution at Imperial College London, and the EPSRC and ESRC CDT in Quantification and Management of Risk & Uncertainty in Complex Systems & Environments at the University of Liverpool.
  - Analytics and data science e.g. the ESRC New Forms of Data CDT at the University of Leeds, the EPSRC CDT in Cloud Computing for Big Data at Newcastle University, and the BBSRC and ESRC Biosocial CDT at UCL.
- **Doctoral Training Partnerships (DTPs).** Quantitative and data skills are priority skills areas for both the ESRC and MRC DTPs. For MRC 50–60% of DTP students and MRC Skills Development Fellowships are aligned to this priority.
  - **External training collaboration.** ESRC are co-funding the £19.5m Q-Step Programme with the Nuffield Foundation and HEFCE which is designed to promote a step-change in quantitative social science training in the UK.