Written evidence submitted by Dr Dominic Edward (RES0027)

- I am a former early career research scientist previously employed on projects funded by public funds.
- Through my experiences I developed concerns for research integrity.
- I submitted a Freedom of Information request to each of the 7 research councils asking how they monitor whether grant holders are achieving proposed research objectives.
- Some research councils explicitly stated that they did not monitor whether grant holders achieved their proposed objectives.
- Other research councils chose to explain the obligations of grant holders, but did not specify procedures used to monitor whether grant holders were meeting these obligations or achieving their proposed objectives.
- These responses are evidence for a lack of effective monitoring by the research councils that undermines research integrity.

1. I am a former early career research scientist in evolutionary biology. I was a NERC funded PhD student, University of Stirling (2004-08); NERC funded Research Technician, University of East Anglia (2008-09); Leverhulme Trust funded PostDoc, University of East Anglia (2010-2012); NERC funded PostDoc, University of Liverpool (2012-14). During my career I contributed to 19 articles published in peer reviewed journals and 2 book chapters.

2. During my scientific career I developed concerns for research integrity in the scientific community. A specific concern I had was the measures enacted by funders to monitor whether the proposed objectives of an application for research funding were being achieved. Compared to the substantial effort invested in the peer review of applications, there seemed to be few checks and measures performed by funders after a program of research had been funded. Grant holders are typically required to submit a report on what has been achieved, but in my experience those reports were not being audited to determine whether researchers were accurately reporting their research; that the research performed reflected the proposals; or whether all the proposed objectives had been achieved.

3. On Monday 31st July 2017 I submitted a request under the Freedom of Information Act to each of the seven research councils incorporated within RCUK – AHRC, BBSRC, EPSRC, ESRC, MRC, NERC and STFC. The full wording of the request is included below. The principal request was for “1. Documents detailing the measures enacted by [the research council] to monitor whether grant holders are achieving their original proposed research objectives.” All seven of the research councils responded. None of the responses has been published online (checked 27/11/17). The responses of each of the research councils to the principal element of my FOI request are included below.

4. NERC and MRC stated that they do not routinely monitor whether grant holders achieve the original proposed research objectives. BBSRC stated what is required of grant holders, but similarly did not provide any information about how they monitored whether those obligations were met or proposed research objectives achieved. ESRC, EPSRC & AHRC each provided a very similar response akin to that provided by BBSRC. Their responses referred to the standard RCUK terms and conditions that apply to grant holders and the requirement to submit reports via Researchfish. However, they too did not provide information about how they monitored whether those obligations were met or original proposed research objectives were achieved. The response of STFC differs somewhat as they support larger strategic investments. Nevertheless, their response also focuses on how grant holders must report on progress but not how the STFC audits these reports to determine whether the proposals of a funding application have been achieved.

5. In summary, the responses of the research councils explain how grant holders have, naturally, agreed to the terms and conditions pertaining to a funding scheme and that they are typically required to submit progress reports. Nevertheless, there is clearly a difference between having expectations of grant holders and having
measures in place to monitor whether those expectations are being met. The responses from the research councils confirmed that they do not, typically, monitor whether grant holders are achieving what has been proposed. In effect, the research councils are largely operating a system of ‘self certification’. Grant holders are expected to report what they have achieved, but there is barely any scrutiny of these reports.

6. I would suggest that this situation is quite extraordinary and untenable. In any other area of significant public expenditure it would be unacceptable that such large sums of money can be disbursed without having appropriate checks and measures to confirm that a recipient has used that money to achieve what was proposed.

7. This situation will have an important impact on research integrity. First, because instances of a lapse in research integrity are very likely to have gone unnoticed, hence the true scale of concerns will be greater than anticipated. Second, the combination of a lack of effective monitoring and intense competition for funding is fuelling a race to the bottom. At best, researchers are incentivised to exaggerate their research proposals and reported achievements in the knowledge that funders are unlikely to ever notice. In some instances, applicants might go so far as to deliberately manipulate an application from their actual research intentions to make application more appealing or perhaps to claim that a particular objective is achievable whilst privately knowing it would be highly unlikely.

8. I would suggest that the current system contributes to a culture in which the ability to write a good funding application is more important than the ability to perform high quality research. If the research councils could develop their procedures to more accurately monitor whether researchers are achieving their proposals this could have a significant impact on research integrity.

9. Finally, it could be argued by some that the research councils do not need to scrutinise grant holder reports in detail as any publications will already have been subject to peer review. However, this would miss a fundamental aspect of the peer review process. The peer review of scientific publications only considers the quality of science contained therein, and not whether or how that piece of work sits within the original funding proposal. The funder would still need to consider whether the achievements contained within a reported list of publications reflect the proposed program of research and whether all the objectives set out in a proposal have been met.

December 2017
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Freedom of Information request submitted to the research councils on 31/7/17:

Dear Sir/Madam,

I am writing to obtain information from [name of research council] under the Freedom of Information Act.

The information that I would like is regarding the outcomes of grant funding in relation to original grant proposals. To be clear, I am not interested in the quality or impact of funded research per se, but whether grant holders are achieving the aims and objectives put forward in their original proposals and how [name of research council] monitors this.

The information I would like is:

1. Documents detailing the measures enacted by [name of research council] to monitor whether grant holders are achieving their original proposed research objectives.

2. The broad scale outcomes of this formal monitoring process, i.e. not individual grant specific outcomes of monitoring but overall ‘success rates’. For example, what proportion of research programs funded by [name of research council] achieved proposed objectives.

3. The frequency that grant holders have contacted [name of research council] to inform you of major changes to the proposed programme of research. Where this has occurred, the frequency that [name of research council] has approved the changes.

4. The frequency that major changes to a proposed programme of research has occurred without [name of research council] being informed by the grant holder.

5. The frequency that sanctions have been imposed on grant holders/research organisations for failing to achieve proposed research objectives.

6. The frequency that grant holders have failed to submit annual reports and final reports.

I thank you for your time and look forward to your reply.

Yours sincerely,

Dominic Edward
**Responses received to the Freedom of Information request:**

Below are the responses of each of the seven research councils to the principal component of the FOI - “1. Documents detailing the measures enacted by [the funder] to monitor whether grant holders are achieving their original proposed research objectives.” Responses are restated verbatim. Also provided is the date a response was received and the research council reference. None of the responses have been published online (checked 27/11/17).

**NERC – responded 30/8/2017 – Ref: NERC FOI 2017/34**

“NERC does not monitor progress towards the achievement of original research objectives. Therefore, there is no internal documentation outlining a process on how to undertake this activity.”

**MRC – responded 29/8/2017 – Ref: FOIA 2017-040**

“The MRC does not routinely monitor the outcomes and proposed objectives of MRC funded grants, where monitoring is a requirement of a specific scheme the requirements will be outlined in the published Guidance for Applicants and any scheme specific Terms and Conditions, for example information on the MRC’s DPFS award which has milestone monitoring is available on our website: [https://www.mrc.ac.uk/funding/browse/biomedical-catalyst-dpfs/biomedical-catalyst-developmental-pathway-funding-scheme-dpfs-mar-2017/](https://www.mrc.ac.uk/funding/browse/biomedical-catalyst-dpfs/biomedical-catalyst-developmental-pathway-funding-scheme-dpfs-mar-2017/)”

**ESRC – responded 25/8/2017 – Ref: PSU-365**

“Our grants cover a wide range of activities and scales and so there is no single approach to monitoring. For the great majority of grants, the standard grant Terms and Conditions see [http://www.rcuk.ac.uk/documents/documents/TermsandConditionsofResearchCouncilsECGrants-pdf/](http://www.rcuk.ac.uk/documents/documents/TermsandConditionsofResearchCouncilsECGrants-pdf/) apply. To get a complete picture of our expectations in relation to delivery of research objectives these should be read in conjunction with our funding guide: [http://www.esrc.ac.uk/funding/guidance-for-grant-holders/](http://www.esrc.ac.uk/funding/guidance-for-grant-holders/). Larger and/or more complex grants may have additional or amended Terms and Conditions, and these will vary according to circumstances. Larger grants will tend to have a nominated contact in ESRC who will be responsible for liaising with and monitoring the project, again often in bespoke ways. Their bespoke nature means that there is no single guide or approach which can describe the full range of processes. We now use Researchfish for annual and final reporting of progress and outcomes for grants (see [http://www.esrc.ac.uk/funding/guidance-for-grant-holders/reporting/](http://www.esrc.ac.uk/funding/guidance-for-grant-holders/reporting/)). All grant holders are required to update the Researchfish outcomes collection system as soon as an outcome is generated and to confirm, once a year, that the outcome information on Researchfish is accurate and up-to-date.”

**EPSRC – responded 25/8/17 – Ref: PSU-364**

“Our grants cover a wide range of activities and scales and so there is no single approach to monitoring. For the great majority of grants, the standard grant Terms and Conditions see [http://www.rcuk.ac.uk/documents/documents/TermsandConditionsofResearchCouncilsECGrants-pdf/](http://www.rcuk.ac.uk/documents/documents/TermsandConditionsofResearchCouncilsECGrants-pdf/) apply. Larger and/or more complex grants may have additional or amended Terms and Conditions, and these will vary according to circumstances. Larger grants will tend to have a nominated contact in EPSRC who will be responsible for liaising with and monitoring the project, again often in bespoke ways. Their bespoke nature means that there is no single guide or approach which can describe the full range of processes. We now use Researchfish for annual and final reporting of progress and outcomes for grants. All grant holders are required to update the Researchfish outcomes collection system as soon as an outcome is generated and to confirm, once a year, that the outcome information on Researchfish is accurate and up-to-date.”

**AHRC – responded 25/8/17 – Ref: PSU-363**
“Our grants cover a wide range of activities and scales and so there is no single approach to monitoring. For the great majority of grants, the standard grant Terms and Conditions see http://www.rcuk.ac.uk/documents/documents/TermsandConditionsofResearchCouncilfECGrants-pdf/ apply which includes reporting on outputs and outcomes of research through a harmonised research outcomes system, Researchfish.

To get a complete picture of our expectations in relation to delivery of research objectives these should be read in conjunction with our funding guide: http://www.ahrc.ac.uk/funding/research/researchfundingguide/. Larger and/or more complex grants may have additional or amended Terms and Conditions, and these will vary according to circumstances. Larger grants will tend to have a nominated contact in AHRC who will be responsible for liaising with and monitoring the project, again often in bespoke ways. Their bespoke nature means that there is no single guide or approach which can describe the full range of processes.

Our rules and processes regarding the reporting of outcomes from AHRC funded research is published on the RCUK website here http://www.rcuk.ac.uk/research/researchoutcomes/”

STFC – responded 17/8/2017 – Ref: FoI20170731

“The STFC Project Management Framework is published into the public domain at: http://www.stfc.ac.uk/files/project-management-framework/ Monitoring also forms part of the Project Peer Review Process, (PPRP)

I attach document: Grants mentor Update.pdf relating to STFC Public Engagement (PE) fellowships and Large Awards

Most STFC grant funding supports large strategic investments and STFC monitors objectives against outcomes at a less specific level than grant. Long term strategic projects have oversight committees in place with critical ongoing review by the large collaborations both during construction and exploitation. Our other main areas of funding are large departmental consolidated grants awarded on a three year cycle for which the applicant must provide a progress report of the work being carried out on their current grant when applying for the renewal. For our Ernest Rutherford Fellowships we also require progress reports during the lifetime of the award. A subset of Innovation grants are tracked and some PIs invite STFC staff to project management meetings and notify STFC of significant project management changes or outputs.”

BBSRC – responded 15/8/17 – Ref: FoI 352

“As stated in the RCUK Grant Terms and Conditions:

The Research Organisation must ensure that funds are spent in a way that is consistent with the purpose and conditions of the award.

The Research Councils use an online system to collect information during the lifetime of the grant and for some years afterwards on the outputs and outcomes of research, and provide guidance on the timing and scope of reporting that is required. The Research Organisation must ensure that the system is used in accordance with the guidance provided.

The Research Council must be consulted in the event of any major change in the proposed research, including failure to gain access to research facilities and services, or to gain ethical committee approval for the research, particularly those which make it unlikely that the objectives of the research can be achieved.

Additional conditions about reporting progress and outputs may be added by exception to awards.”
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Abbreviations used:

RCUK – Research Councils UK
AHRC - Arts & Humanities Research Council
BBSRC - Biotechnology & Biological Sciences Research Council
EPSRC - Engineering & Physical Sciences Research Council
ESRC - Economic & Social Research Council
MRC - Medical Research Council
NERC - Natural Environment Research Council
STFC - Science and Technology Facilities Council