

# Lord Stern's review of the Research Excellence Framework - response form

The call for evidence is available at: [www.gov.uk/government/consultations/research-excellence-framework-review-call-for-evidence](http://www.gov.uk/government/consultations/research-excellence-framework-review-call-for-evidence)

The closing date for responses is **Thursday 24 March 2016**.

Please return completed forms to:

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Comments:

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## Questions

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Name of Organisation (if applicable): British Pharmacological Society

Please check the box that best describes you as a respondent to this consultation

	Respondent type
<input type="checkbox"/>	Alternative higher education provider (with designated courses)
<input type="checkbox"/>	Alternative higher education provider (no designated courses)
<input type="checkbox"/>	Awarding organisation
<input type="checkbox"/>	Business/Employer
<input type="checkbox"/>	Central government
<input type="checkbox"/>	Charity or social enterprise
<input type="checkbox"/>	Further Education College
<input type="checkbox"/>	Higher Education Institution
<input type="checkbox"/>	Individual (Please describe any particular relevant interest; teaching staff, student, etc.)
<input type="checkbox"/>	Legal representative
<input type="checkbox"/>	Local Government
<input checked="" type="checkbox"/>	Professional Body
<input type="checkbox"/>	Representative Body
<input type="checkbox"/>	Research Council
<input type="checkbox"/>	Trade union or staff association
<input type="checkbox"/>	Other (please describe)

## Overview

1. The British Pharmacological Society (BPS) is the primary UK learned society concerned with research into drugs and the way they work. Our nearly 4,000 members work in academia, industry, regulatory agencies and the health services, and many are medically qualified. The Society covers the whole spectrum of pharmacology, including laboratory, clinical, and toxicological aspects. Pharmacology is a key knowledge and skills base for developments in the pharmaceutical and biotech industries, and is therefore fundamental to UK industry and R&D. The Society publishes three scientific journals: the British Journal of Pharmacology, the British Journal of Clinical Pharmacology, and Pharmacology Research and Perspectives.
2. The Society has used diverse channels to seek the views of those of its members who are affected by REF assessment and funding allocations. The following response represents the views gathered from BPS members employed in academia and the pharmaceutical industry.
3. The Society supports the response from the Royal Society of Biology, and has used this individual response to highlight particular areas of concern for pharmacology. We have tried not to replicate points raised by the joint response. We would, however, like to underscore the points about the importance of clarity in defining the process and interpreting the results ahead of the next REF - and, as our collective understanding grows, the best way to communicate impact.

## Section 1

**The primary purpose of the REF is to inform the allocation of quality-related research funding (QR).**

1. **What changes to existing processes could more efficiently or more accurately assess the outputs, impacts and contexts of research in order to allocate QR? Should the definition of impact be broadened or refined? Is there scope for more or different use of metrics in any areas?**

**Please tell us your thoughts in no more than 500 words:**

4. There is a combination of implicit bias in favour of 'high impact journals', problems with use of citation data, and panels operating without sub-discipline specific knowledge, all of particular concern to pharmacology.
5. **Impact factors:** REF panels were instructed not to use impact factors as short-hand for research quality. However, impact factors are still a part of research culture. The Society has opposed them by signing the San Francisco Declaration on Research Assessment<sup>1</sup>.

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<sup>1</sup> <http://www.ascb.org/dora/>

6. **Citation data:** Panels were given citation data, together with contextual data to enable them to relate these to the relevant field and year. It is important to use citation data correctly, because different research fields have different 'citation volumes'. For example, articles published in multi-disciplinary journals would probably have a higher citation count than journals that publish discipline-specific research, e.g. Nature compared with the British Journal of Pharmacology. The Society has heard concerns that there was a lack of consistency in the use of the metrics provided. The appropriate use of metrics is discussed by Professor James Wilsdon in "The Metric Tide: Report of the Independent Review of the Role of Metrics in Research Assessment and Management"<sup>2</sup>. The Society supports the responsible use of metrics, when quantitative data are used to guide quality peer review.
  7. **Lack of expertise:** Quality peer review is critical to the success of the REF. A number of our members reported that pharmacology outputs risked inappropriate assessment in the last exercise, because of the small number of discipline-specific experts on many of the panels. Pharmacology is a broad discipline that could feasibly be returned against nearly all of Main Panel A and several sub-panels in B and C. The merging of disciplines into 'Life Sciences' or 'Biomedical Sciences' may leave REF panels without sufficient discipline-specific expertise, and reliant on the use of impact factors and citation numbers as proxy measures of quality.
  8. It is essential that Units of Assessment (UoA) panels have the specific expertise for proper assessment of outputs for scientific reasons. There are further implications for careers in Higher Education. Those left out of their institution's return may be subject to internal performance review. The Society is worried about the vulnerability of these researchers and disciplines that are not being properly assessed by the REF in its current form.
  9. We support measures that remove implicit reliance on impact factors in the next REF. Scoring templates are not used systematically, but some REF panels use a 12-point scale to guide score outputs. This may be valuable if used more widely. In addition, a clearer and more transparent assessment process may also eventually help drive changes in research culture.
  10. The Society would discourage over-reliance on metrics. However, a more robust directive on the use of citations metrics would ensure greater consistency in panel assessments.
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2. **If REF is mainly a tool to allocate QR at institutional level, what is the benefit of organising an exercise over as many Units of Assessment as in REF 2014, or in having returns linking outputs to particular investigators? Would there be advantages in reporting on some dimensions of the REF (e.g. impact and/or environment) at a more aggregate or institutional level?**

**Please tell us your thoughts in no more than 500 words:**

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<sup>2</sup> <http://www.hefce.ac.uk/pubs/rereports/Year/2015/metrictide/Title,104463,en.html>

11. The Society believes that the REF and allocation of QR should be linked to areas of strength within the Institution. Outputs from a particular area of strength, but not necessarily linked to particular investigators, would be more sensible. The output of institutions could be re-grouped by institution-identified groupings, and the numbers of outputs required worked out on this basis. The institution could then be free to select any research that fits a given grouping. Furthermore, assessment of author contribution in multi-author papers has been deemed unworkable for panels, and removing it would probably bring welcome administrative relief, as well as encouraging collaborative returns. Allowing collaborative research to be properly represented and assessed, without concern for which collaborator was returning the publication, and the extent to which their contribution could be readily ascertained in a particular panel, would be welcomed by the Society. This is also emphasised in the recent 'Team Science' report<sup>3</sup> from the Academy of Medical Sciences.
12. The approach outlined in paragraph 11 would be particularly helpful in mixed economy groupings (unlike research-only institutes), where individuals and research groupings have responsibility to deliver both research and teaching within their discipline. In such a system, researchers who have other responsibilities (e.g. teaching) would not be disadvantaged. It would also support co-authors at the same institution who are currently not able to return to the same panel. In practice, we have heard that co-authors who would like to submit their collaborative work to the same panel work around this rule by planning submissions to different panels. Even though this tactic means that collaboration may not be stifled in practice, allowing work to be returned by research area would explicitly free up collaboration and mean that researchers' judgements about their work would be better reflected by the REF process.
13. Feedback at a more granular level would be more useful than reporting by institutional level in terms of assessing the value and propagation of knowledge. When considering the level at which assessment occurs, the Society feels that 'School level' (e.g. Faculty of Medicine) may be appropriate.

## Section 2

**While the primary purpose of REF is QR resource allocation, data collected through the REF and results of REF assessments can also inform disciplinary, institutional and UK-wide decision making.**

- 3. What use is made of the information gathered through REF in decision making and strategic planning in your organisation? What information could be more useful? Does REF information duplicate or take priority over other management information?**

**Please tell us your thoughts in no more than 500 words:**

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<sup>3</sup> <http://www.acmedsci.ac.uk/policy/policy-projects/team-science/>

14. Within institutions, REF results are primary drivers for reviewing subject disciplines, and they drive strategic planning at Executive level. REF was one of several factors that precipitated the disbanding of many cognate subject disciplines across the UK. In the context of drug discovery and development, pharmacology and medicinal chemistry as disciplines are now under serious threat. It is crucial that the strengths of such disciplines are preserved, and that they are not diluted by being subsumed into larger biomedical science disciplines. For example, there are now very few identifiable departments of pharmacology in the UK (many have been merged into very large schools, e.g. Life Sciences). This is a problem, since training in pharmacology and pharmacological research and skills underpins the pharmaceutical and biotech industries. The Society is also concerned that this may lead to a reduction in staff qualified to teach the discipline.
15. Furthermore, REF information currently drives management decisions at the expense of high quality undergraduate and postgraduate training. It also takes priority over rolling internal assessments and supplements them.
16. It would be more useful to have feedback that is more transparent on the areas of excellence in a submission, on the basis of both output quality and impact case studies, and a proper evaluation of the research strengths of individual disciplines in the UK.

**4. What data should REF collect to be of greater support to Government and research funders in driving research excellence and productivity?**

**Please tell us your thoughts in no more than 500 words:**

17. It was felt that by evaluating specific research areas that are important to the UK, and essential for the health and wealth of the country, REF could deliver useful information to research funders in supporting and driving research excellence or productivity.
18. Impact case studies are necessarily retrospective. However, for an applied subject such as pharmacology, there is a need to capture an independent judgement from UK pharmaceutical and biotech industry regarding the potential impact of current research or research published in the review period. It should be noted that the timeline from basic research to drug registration is a long one: it may take many years for the impact to become apparent. It will be important to capture the 'timeline to impact' more clearly so that different UoAs can be assessed using a suitable retrospective time lag.

## **Section 3**

**The incentive effects of the REF shape academic behaviour, such as through the introduction of the impact criteria.**

- 5. How might the REF be further refined or used by Government to incentivise constructive and creative behaviours such as promoting interdisciplinary research, collaboration between universities, and/or collaboration between universities and other public or private sector bodies?**

**Please tell us your thoughts in no more than 500 words:**

19. At present the REF does not explicitly incentivise interdisciplinary research and collaboration within and between universities. A specific output or metric aimed at capturing the extent of collaborative research at the national and global levels (e.g. co-authorships of outputs and collaborative income) would be useful in promoting greater collaboration between universities and the private sector, as would capturing the extent of collaboration with industry and other multinational and international institutions. This could be a metric added to the environment (contexts of research) assessment.
20. REF impact case studies are a potentially valuable source of this information, but are difficult to analyse. Working with institutions to help define and capture impact ahead of the next exercise will be important. The Society also feels that a better-constructed, user-friendly database would encourage academic interrogation of 'impact' and be valuable in defining what is valuable information to collect, how to collect it – and how to assess it.

## Section 4

**Previous studies have focused on the costs of REF with respect to the time and resources needed for the submission and assessment processes. The Review is also interested in views and any associated evidence that the REF influences, positively or negatively, the research and career choices of individuals, or the development of academic disciplines. It is also interested in views on how it might encourage institutions to 'game-play' and thereby limit the aggregate value of the exercise.**

- 6. In your view how does the REF process influence, positively or negatively, the choices of individual researchers and / or higher education institutions? What are the reasons for this and what are the effects? How do such effects of the REF compare with effects of other drivers in the system (e.g. success for individuals in international career markets, or for universities in global rankings)? What suggestions would you have to restrict gaming the system?**

**Please tell us your thoughts in no more than 500 words:**

21. REF has had a mixed reception in higher education institutions (HEI). It is, however, fundamental in many HEIs in driving behaviour change in designing research studies and in concomitant publication behaviour, e.g. merging research into larger publications. The Society welcomes attempts to demonstrate the broader impact of research. However, assessment through the REF may lead to less tolerance of risk and less innovative research.
22. With respect to early career researchers, the timing of the REF cycles is not conducive to ensuring full establishment of strong research teams delivering 3\* and 4\* research. It may also drive recruitment towards favouring young scientists who have trained in

settings (e.g. large US laboratories) that increase the chances of authorship in 'high impact factor' journals. Keeping the pressure on publication in this way ignores other measures of potential.

23. Behavioural change has been driven by rolling assessments of research outputs in some HEIs, by obsession with journal standing, and in part by larger research grant funding. REF has led to the concentration of research funding into fewer institutions with no appreciation of discipline specific strength.
24. The outcome of REF has driven the separation of research and teaching within many HEIs. The focus on an individual's outputs (rather than the outputs from a discipline or research grouping) leads to decision-making on career progression that is more appropriate for a research-only institute. This damages teaching provision within a discipline, such as pharmacology, where a mixed economy of teaching and research is more appropriate. Pharmacologists teach on professional courses (e.g. medicine, dentistry, veterinary medicine, pharmacy), so any effects of this kind would be widely felt.
25. REF has driven individual researchers and institutions into specific areas of science. Within internal medicine high-calibre young researchers are more likely to look for a career in cardiology or oncology than in nephrology or gerontology in a way that ignores the enormous societal impact of the latter. Nephrology (e.g. end-stage renal failure requiring dialysis) and gerontology (e.g. nursing home admissions) are major cost drivers in the health-care system but are not seen as cutting-edge research areas. Shunting talent away from these areas may have long-term adverse effects on health care.
26. Although some regard REF as a positive driver for the overall standing of universities in research, it does not adequately capture the strength of particular disciplines within that university. Subject rankings, such as QS World rankings, which independently assess research citations on a discipline-specific level and provide an overall ranking on the basis of teaching, research and reputation, would be desirable.
27. The number of case studies required/FTE's submitted should be reviewed. Small submissions are penalised and game playing occurs in larger submissions. The Society would also like to see a minimum of 0.5 FTE appointments to restrict strategic hiring practices.

**7. In your view how does the REF process influence the development of academic disciplines or impact upon other areas of scholarly activity relative to other factors? What changes would create or sustain positive influences in the future?**

**Please tell us your thoughts in no more than 500 words:**

28. Generally, the Society has heard that the REF has led to under-representation of pharmacology, which is therefore potentially undermined. Institutions have returned



elements of pharmacology in different UoA (see paragraph 7). This has meant that the real impact of pharmacology in an individual discipline is not properly defined, and this has been compounded by a lack of significant pharmacological expertise on several of the relevant UoA panels. The Society is keen that the REF should elicit and understand the true impact of pharmacology.

29. By emphasising research over other academic activities, the REF has had a major negative impact, for example in stifling scholarly work for Societies and professional bodies (e.g. Editorships; Chairmanships, Panel memberships), as the assessment of esteem has been buried and partially lost in the environment assessment. Providing a clear component of environment that assesses esteem indicators would create positive influences in the future. These could be collected as pro-forma metrics.

## Section 5

**Much of REF focuses on the retrospective analysis of success achieved by institutions either through output or impact. Yet the resources provided anticipate continued success based on that track record. Are there means of better addressing forward-looking institutional plans and priorities, and how these might feed in to national policy?**

- 8. How can the REF better address the future plans of institutions and how they will utilise QR funding obtained through the exercise?**

**Please tell us your thoughts in no more than 500 words:**

30. Individual track records are currently assessed to inform future QR funding. However, more often than not, this is compromised by movement of assessed staff between institutions. A return based on the cumulative outputs of a perceived area of strength, or preferably a specific discipline, such as pharmacology, would make forward planning in that area of research strength more accountable. This would ensure that investment is made in the areas of strength that secured that QR income.
31. It would be better for institutions, and disciplines within those institutions, to describe their detailed plans and priorities for the future based on the QR resource anticipated as a consequence of the track record of that UoA.
32. Fundamentally, it is impossible for sub-panels to look back at plans and assess success against these plans. There is a need to encourage HEI's not only to use QR funding wisely to deliver growth of quality research, but also to support other academic activities.

## Final thoughts

**The Review is keen to hear of creative ideas and insights and to be open in its approach.**

**9. Are there additional issues you would like to bring to the attention of the Review?**

**Please tell us your thoughts in no more than 500 words:**

33. The rigour of the assessment process depends on the calibration of panel members in making their decisions. In REF 2014 there was evidence that output and impact assessors were not as consistent in their assessments as sub-panel members. Consistent calibration of all assessors is important to future exercises and this could be achieved by having only a single level of panel membership.
34. While increased use of appropriate metrics is to be welcomed, peer review still remains central to ensuring rigour in this exercise.
35. Criteria for staff inclusion in the REF exercise are outdated. These need updating and modifying in line with staffing changes and role shifts in research teams.
36. A more structured assessment process may help to drive research culture away from an over-reliance on impact factors. Several Society members report that researchers use impact factors to inform decisions about where to send their papers, choosing “high impact” journals for what they see as their most substantial research. However, many discipline-specific journals fill a high quality research niche for a specific community. In addition, publications in pharmacology underpin applied pharmacology research in the pharmaceutical and biotech industries, where publication (and therefore citations) will almost certainly be delayed for commercial reasons beyond the normal two-year accounting period for a journal impact factor. It would be helpful if researchers felt that they could send their work to the most appropriate journal based on the reputation of the journal for quality and the community it reaches; currently, career progression dependencies and REF are unhelpful drivers of these decisions.

Thank you for taking the time to let us have your views. We do not intend to acknowledge receipt of individual responses unless you tick the box below.

Please acknowledge this reply ☒

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