

**DEPARTMENT FOR BUSINESS, INNOVATION & SKILLS
ENQUIRY INTO OPEN ACCESS PUBLISHING**

**SUBMISSION FROM THE PHYSIOLOGICAL SOCIETY
FEBRUARY 2013**

Summary

1. The Physiological Society fully supports the move towards open access and has provided a 'gold' OA option for our two journals since 2005. Often publishers have been viewed in the negative light in the UK, but our relationship with successive companies has been positive providing both a significant return for The Society as well as facilitating the development of our journals to enhance dissemination. The income we receive has helped The Society to directly support and sustain physiology and physiologists in the UK and overseas.
2. Open access is, we believe, an opportunity and the Finch Report provides a way forward and should be implemented in a sensitive and pragmatic way. We have a number of recommendations that we hope will be viewed constructively. These are as follows:
 - The UK Government should adopt either 12 or 24-month delayed 'green' OA models depending upon the discipline, the former for science and engineering and the latter for arts and humanities.
 - The Government should carefully consider the impact of any CC-BY requirements on IP: we believe that a flexible approach should be adopted with clear guidance for authors.
 - The Government should adopt an either/or approach to publication of publicly-funded research: namely either 'gold' access with provision of appropriate level of funding or the ability to opt for a 12 month-delayed 'green' OA.
 - Government, publishers and Learned Societies should ensure appropriate provisions are in place to avoid double payment during any transitional phase, or indeed beyond, and regularly monitor the situation.
 - Over the next 5 to 10 years continued dialogue should be sustained between stakeholders and an evolution of the Finch Group should be established to meet annually and review developments both within the UK and globally.

Introduction

The Physiological Society

3. The Physiological Society (The Society) brings together over 3,200 scientists from over 60 countries, the majority are based in the UK and Ireland, but 30% are located around the rest of the world. Since its foundation in 1876, its Members have made significant contributions to our knowledge of biological systems and the treatment of disease. We promote physiology and support those working in the field by organising world-class scientific meetings, offering grants for research, collaboration and international travel, and by publishing the latest developments in our two leading scientific journals, *The Journal of Physiology* (JP) and *Experimental Physiology* (EP). The Society also runs events for the general public on how physiology relates to everyday life, and for students who may be considering physiology as a career.
4. The Society is a registered charity and our activities are largely funded from subscription income to its two leading journals, *The Journal of Physiology* and *Experimental Physiology*, which

currently generates over 80% of the Society's funds. This income allows us to support a vibrant research community in all areas of their work and at all stages of their career.

5. It is difficult summarising all the activities of The Physiological Society that are enabled by our income from publishing, so we have appended our last Annual Report for 2011 – the 2012 report will be published at our AGM in July 2013. This can also be found at: <http://www.physoc.org/sites/default/files/page/Annual%20Review%202011.pdf>.
6. The Society's publications, the *Journal of Physiology* (JP) and *Experimental Physiology* (EP), were established in 1878 and 1908 respectively. They have a long history and strong scientific tradition with, for example, forty-two Nobel Prize winners having published in JP.
7. Both journals provide 12-month delayed 'green' open access (OA) and also have an option for 'gold' OA, an option for authors that has been in place since 2005. In addition The Society has announced and is launching *Physiological Reports*, a new 'gold' OA journal jointly with our colleagues in the American Physiological Society and in partnership with Wiley Blackwell. The first call for papers will be circulated in March 2013.
8. For many years The Society's journals were published with Cambridge University Press, but in 2004 this was switched to Blackwell, now Wiley Blackwell. These partnerships have proved very fruitful for The Society, with a significant proportion of the net income accruing with a smaller portion being retained by the publisher. In 2012 we extended our constructive partnership with Wiley Blackwell to the end of 2018 safeguarding our income over this period and putting in place plans to further develop the utility of our journals in disseminating science.
9. The partnership with Wiley Blackwell has been very positive having allowed us to develop the technology behind our journals as well as market them globally: scientific publishing is an international activity and the UK must be exceptionally careful of moving out of step that could either reduce the resources available to Societies or undermine the UK science base in the longer term.
10. In many ways though, this international dimension to scientific publishing has benefited UK societies and the UK science base as a whole. A number of indicators for JP concisely illustrates this:
 - Around 91% of our income originates from sales outside the United Kingdom
 - Up to July 2012, 86% authors were from outside the UK
 - The Editorial Board is fully globalised with: 29 from the UK; 33 from Canada/USA; 9 from the rest of Europe; 7 from Australia/New Zealand; and 3 from Asia.

The role of Learned Societies and this review

11. Learned Societies play a crucial, but hidden, role on the UK scientific landscape. They provide mechanisms by which scientists within their particular discipline can meet, interact and disseminate their research. In addition they provide important mechanisms to support career development and progression in young scientists.
12. Learned Societies have been providing this support and networking opportunities for many years, without which the Government would have to significantly increase the amount of resources allocated to such activities. In many ways the sustenance of the leading role of UK science would have been much more difficult without the presence of such Societies.
13. The Physiological Society welcomes this opportunity to submit evidence to the Department for Business, Innovation & Skills Enquiry. Our remit is to support and develop the discipline of physiology, by: facilitating the dissemination of science (publications); providing opportunities for the interaction of scientists (scientific meetings and conferences and the provision of travel grants); supporting career development (through a young scientist network and targeted vacation workshops, bursaries and other development opportunities); and education and outreach activities (to the public and schools).

14. As a learned society, we have participated constructively in the discussions of the Finch working group by contributing our comments via a number of stakeholders, such as the Association of Learned and Professional Society Publishers, the Society of Biology and our publisher, Wiley Blackwell.
15. Overall we have welcomed the recommendations in the working group report and the endorsement setting out Government Policy in the letter from David Willetts MP, Minister of State for Science and Innovation to Dame Janet Finch of 16 July 2012.
16. Although our existing journals, JP and EP, already had a 'gold' OA option we adapted this further to ensure compliance with the recommendations, by offering authors a choice between the CC-BY licence (mandated by RCUK) and other Creative Commons licences. We are also ensuring our new 'gold' OA journal, *Physiological Reports*, is in compliance.
17. We understand that this Enquiry is to focus on the feasibility of implementing the Government Policy and summarise below our responses to the issues raised in the Chairman's letter. However we urge BIS to consider the wider complexities and that Government policy is not overly swayed by one single organisation, such as the Wellcome Trust. Government should fully support UK Learned Societies, who have long been a hidden jewel in our scientific landscape.

THE GOVERNMENT'S ACCEPTANCE OF THE FINCH GROUP REPORT

18. Overall The Society supports and backs the key objectives of the Finch Report, to enhance OA and support accessibility to scientific research although there are a number of elements that must be considered during its implementation. These cover:
 - **'Green' OA embargo period:** The Government must ensure that the embargo period of 12-24 months is reflected by the Research Councils and that one-size will not fit all: while sciences may require 12 months embargo, humanities and other subjects may require 24 month delayed.
 - **Funding:** Appropriate funding for gold options must be put in place to facilitate any transitional arrangement and also the Government should monitor the hidden cost of administering OA.
 - **Creative Commons:** The Government should review the impact of the CC-BY licence they are mandating and its impact on IP arising in the UK and how this could impact on collaborative research with the private sector.
 - **Societies and publishing partners:** Societies should work with their publishing partners to work constructively with funders; this should include providing mechanisms to monitor and avoid "double dipping".

The 'green' OA embargo period

19. The embargo period of 12-24 months for 'green' open access proposed by the Finch group also matches with our experience and expectations. The key statistics of our pre-eminent journal, the *Journal of Physiology* are as follows:

INDICATOR	JP	EP
Two-year Impact Factor	4.881	3.180
Five-year Impact Factor	4.988	0.885
Cited half-life	>10.0	5.8
Eigenfactor Article Influence score	1.888	1.045

20. JP, while having an Impact Factor that has been around 5 for the last few years, has sustained a long citation half-life and consequently is the highest rated physiology journal based on the Eigenfactor. This indicator uses a number of indicators beyond simply the one dimensional Impact Factor. Even our second journal, EP, sustains a citation half-life of 5.8 years.
21. It is also clear that there are differences between disciplines and any policies adopted by Government and the Research Councils should adopt a flexible approach on a discipline basis.

Nevertheless these figures indicate that a 12 month delayed 'green' OA option is appropriate and sustainable for the life sciences, providing free access during periods of continuing citation.

22. In addition many other countries have adopted the 12-month delayed 'green' access model as the timelines of choice. Consequently a 6 month embargo could seriously affect UK academics, should funding be insufficient to provide APCs and would, in any case, be out of step with the global consensus.

RECOMMENDATION: The UK Government should adopt either 12 or 24-month delayed 'green' OA models depending upon the discipline, the former for science and engineering and the latter for arts and humanities.

Rights of use and re-use in relation to open access research publications, including the implications of Creative Commons 'CC-BY' licences;

23. The objective of making publicly funded research openly available is one that must be supported. However the implementation of this and the use of CC-BY variants must be considered carefully.

24. First whatever stance is adopted should take a pragmatic approach taking into account the following points:

- The arrangements should safeguard the ability of academic researchers, and commercial collaborative partners where appropriate, to protect any intellectual property.
- Any licensing should exclude open commercial use via reach through rights or open licenses – in the past the UK has lamented the ability to protect IP arising from publicly-funded research and such rights could worsen the situation.
- Options should be provided in relation to CC-BY variant licences to authors so as not to compromise submissions to UK journals from overseas nor existing collaborative partnerships with commercial partners – however this also requires that there are clear explanations on the variant options of CC-BY licence and their implications.

25. Over the years the CC-BY-NC licence has served the academic community well and facilitated the open publication without compromising arising IP. The changes recently proposed by the Research Councils should have a more flexible approach providing options other than mandating CC-BY, which could lead to a loss of IP protection for the UK.

RECOMMENDATION: The Government should carefully consider the impact of any CC-BY requirements on IP: we believe that a flexible approach should be adopted with clear guidance for authors.

The costs of article processing charges (APCs) and the implications for research funding and for the taxpayer;

26. There are three elements that need to be considered in relation to APCs: first, the provision of sufficient funding, especially during any transitional phase; second, the processing of such claims; and third, the avoidance of double dipping during any transition in business models.

27. If UK research funders continue to promote 6 month-delayed 'green' or immediate 'gold' APC models as the only options, it is essential that appropriate funding is provided: the recent allocation of £10 million to a restricted number of universities is unlikely to be sufficient and will not support research groups outside those who have been given the funding. This will inevitably lead to top-slicing of research grants and a hidden reduction in front-line research funding.

28. Our members' main concerns revolve around the low level of funding for APCs that will be available, how these funds will be administered, how much the administration will cost (possibly removing more money from already tight funds) as well as in which way fair access to these funds can be guaranteed in the highly competitive and often bureaucratic environment of universities.

29. Under the existing arrangement subscriptions to many journals, often bundled together in so-called "big deals" provide a simplified system of accessing journal content as well as providing a simplified system for the flow of money that sustains the cost of running, editing, printing and/or

publishing journals online. Moving to an APC model creates a hidden cost: namely the significant additional in-house administration required within universities' administration departments and their constituent units.

30. Finally, mechanisms are required to ensure that APC 'gold' access payments are taken into account at institutional level during any transitional phase. Many publishers are already working with universities on this and have made appropriate arrangements. However this must be monitored going forwards to ensure an appropriate balance for both publishers and institutions alike.

RECOMMENDATION: The Government should adopt an either/or approach to publication of publicly-funded research: namely either 'gold' access with provision of appropriate level of funding or the ability to opt for a 12 month-delayed 'green' OA.

RECOMMENDATION: Government, publishers and Learned Societies should ensure appropriate provisions are in place to avoid double payment during any transitional phase, or indeed beyond, and regularly monitor the situation.

FINAL COMMENTS

31. Over many years the UK science base has been well served by the publishing framework both directly by supporting the dissemination of UK science and indirectly through the ability of Learned Societies to re-invest much of the net income back into the science base.
32. During the transition phase, flexibility should be facilitated within certain boundaries: this will help UK academics, institutions and Learned Societies. Most importantly, a pragmatic approach should be taken towards embargos reflecting both the international landscape and differences between disciplines.
33. Finally, Government should welcome the role of diverse Learned Societies who provide essential support to the science base and are an excellent conduit for dialogue. The Physiological Society is run by leading physiologists to ensure that the discipline is sustained and developed and to enhance dialogue through journals, meetings and education and outreach activities.

RECOMMENDATION: Over the next 5 to 10 years continued dialogue should be sustained between stakeholders and an evolution of the Finch Group should be established to meet annually and review developments both within the UK and globally.