

## HOUSE OF LORDS SCIENCE AND TECHNOLOGY COMMITTEE: INQUIRY INTO OPEN ACCESS

### Response by the Wellcome Trust

January 2013

#### KEY POINTS

- We believe that making research publications that arise from public and charitable funding available in open access form is vital to maximising the societal and economic benefit that flows from this investment.
- We strongly support the leadership role adopted by the UK Government and Research Councils UK in setting a clear policy direction in support of open access. We also fully support the strengthened RCUK open access policy published in July 2012 – including:
  - its support for gold (author-pays) open access as the preferred model – as this route ensures papers are available immediately on publication and that the costs in the system are transparent;
  - the maximum six-month embargo period where a green (self-archiving) approach is used;
  - the requirement for a Creative Commons Attribution (CC-BY) Licence to be used where Research Council funds are used to meet a gold open access fee.
- We believe strongly that the cost of publication should be viewed as an integral part of the cost of funding research, and hence also strongly support the provision by RCUK of funding to cover open access fees via institutional block grants.
- We acknowledge that the transition to open access raises some challenges and uncertainties, and are committed to working with other key stakeholders – including researchers, universities, funders, learned societies and publishers – to address these issues. We argue however that the benefits will more than justify any short term costs.

#### INTRODUCTION

1. The Wellcome Trust is pleased to respond to the House of Lords Science and Technology Committee inquiry into open access. As a global charitable foundation dedicated to achieving extraordinary improvements in human and animal health, we are committed to ensuring that the outputs of the research we fund – including both research publications and data – can be widely accessed and used in a manner that maximises the resulting benefits to society.
2. In support of this objective, the Wellcome Trust has had an open access policy since 2005 which requires all research papers that have been accepted for publication in a peer-reviewed journal, and are supported in whole or in part by Wellcome Trust funding, to be made freely available through the PubMed Central (PMC) and Europe PubMed Central (Europe PMC) repositories as soon as possible and in any event within six months of the journal publisher's official date of final publication.
3. The Trust also provides grant-holders with additional funding, through their institutions, to cover open access publication charges. In such cases, the publisher is required to deposit the published version of the articles directly into PMC, where it must be made

available at the time of publication. In June 2012, we strengthened our open access policy and introduced specific sanctions for Trust-funded researchers who fail to comply. We also announced that from April 2013, we will require that, where our funds are used to meet open access costs, the article must be licenced using the Creative Commons, Attribution licence (CC-BY), to allow full re-use (subject only to proper attribution). The Research Councils included an identical requirement for CC-BY in their revised open access policy, and we have been working in partnership with them on implementation as is discussed further below.

4. The Trust also manages the Europe PubMed Central open access repository (<http://europepmc.org>), working with 18 other partner funders – including the Medical Research Council (MRC), the Biotechnology and Biological Sciences Research Council (BBSRC), the National Institute of Health Research (NIHR) and the European Research Council (ERC). Europe PubMed Central provides free access to over 2.5 million full-text peer-reviewed research papers and around 25 million abstracts.
5. More recently, the Trust has worked in partnership with the Howard Hughes Medical Institute (HHMI) and the Max Planck Society (MPS) to establish the new open access journal, eLife (<http://elife.elifesciences.org>). The eLife journal is a platform for extending the reach and influence of new discoveries and to showcase new approaches to the presentation, use, and assessment of research.

### **Support for open access publishing**

6. We strongly support the commitment by the Government and the Research Councils to ensure open access to the published outputs of publicly-funded research. We were delighted that the Government accepted the key recommendations of the Finch review in setting a clear policy direction toward supporting open access via the gold (author-pays) mechanism, which we believe provides the only sustainable model in the long-term. A clear policy consensus is building both in Europe and around the world, that research publications that have been supported by the taxpayer should be openly and freely accessible at the point of use. The UK has adopted a strong leadership position in supporting this fundamental principle.
7. The Wellcome Trust has always recognised that the services provided by publishers (in terms of – for example – managing peer review, and ensuring the validity and editorial quality of published manuscripts) are critical to the research enterprise. Publication has a cost, and this cost needs to be met. The Trust considers that the cost of publication should be viewed as an integral part of the cost of funding research. From our perspective it makes no sense to fund research if the dissemination of that research remains unfunded.
8. Supporting open access article processing charges (APCs) obviously incurs additional costs for the funder. The analysis we have done estimates that if *all* research funded by the Trust was routed through an author-pays model and we picked up 100% of these costs (even though in reality most of the research we fund is part funded by another research funder), the annual cost to the Trust would be somewhere between 1% and

1.5% of our total research spend. Recent data on gold open access costs from the University of Edinburgh supports this analysis<sup>1</sup>.

9. We believe strongly that the benefits flowing from open access more than justify this level of additional cost. Moreover, as a greater volume of research is published under the author-pays model, we would expect subscription costs to fall. Indeed, all the major publishers have an explicit policy making it clear that subscription customers are not charged for open access articles (i.e. there is no so-called 'double dipping'<sup>2</sup>).
10. We therefore support fully the new Research Councils UK (RCUK) open access policy – in particular, the commitment to provide funding to universities via institutional block grants to meet the costs of gold open access APCs. The Wellcome Trust has provided open access funds to institutions using a similar model since our policy was introduced. We believe it provides the most effective and flexible mechanism to ensure that researchers and institutions can access the funds required for publication – particularly given that many of the published outputs may not emerge until after the funding period for a particular grant has come to an end.
11. In addition to the funding made available by the Department for Business, Innovation & Skills (BIS) and RCUK to cover APCs, the Trust also welcomes the statement from the Higher Education Funding Council for England (HEFCE) which makes it clear that institutions can use the funds provided through HEFCE to contribute towards the costs of more accessible forms of publication, alongside funding from other sources.<sup>3</sup>

#### **Embargo periods for articles published under the green model**

12. For research outputs that have arisen through Trust funding, our preference is that these research papers should be made freely available at the time of publication via the gold route. However, the Trust accepts that some publishers are not ready to introduce an author-pays option<sup>4</sup> at this stage, and thus our open access policy allows articles published under the “green” model to be embargoed for a maximum of six months. The Research Councils have adopted an identical policy (though with a permissible embargo of 12 months for research funded by AHRC and ESRC for a “transitional” period).
13. Many publishers and societies argue that embargo periods of this length run the risk of damaging subscriptions and thus their viability. However, the results of the European Commission’s PEER project (<http://www.peerproject.eu/>) which set out to measure whether “green” self-archiving is harmful to subscriptions, did not support these fears. Indeed, this large-scale project – which involved publishers, repositories and researchers and the deposition of over 53,000 manuscripts – concluded that “there is no evidence

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<sup>1</sup> See Andrew, T. Gold open access: counting the costs (*Ariadne* 2012; [www.ariadne.ac.uk/issue70/andrew](http://www.ariadne.ac.uk/issue70/andrew)). This shows that the average APC levied for Trust-funded research at the University of Edinburgh is £1741. As the Trust is associated with around 5000 research articles a year, this means that if every article was published under the author-pays model, the total cost to the Trust would be £8.7m. As the Trust annual research spend is around £746m, the cost of meeting all APC fees would equate to a spend of 1.17% of our research budget.

<sup>2</sup> See, for example, [http://cdn.elsevier.com/assets/pdf\\_file/0005/105179/Sponsored\\_Articles\\_2011.pdf](http://cdn.elsevier.com/assets/pdf_file/0005/105179/Sponsored_Articles_2011.pdf)

<sup>3</sup> See: <http://www.hefce.ac.uk/news/newsarchive/2012/statementonimplementingopenaccess/>

<sup>4</sup> When an APC is paid, articles must be made freely available at the time of publication. No embargo is

that self-archiving has harmful effects on journal viability”<sup>5</sup>.

14. As a major funder of research in the medical humanities, we are aware that concerns over limiting embargo periods to a year or less are particularly acute in the humanities and social sciences. However, in the context of our own funding, six months is the absolute maximum we are prepared to permit research findings to be locked behind subscription paywalls. Given that the Research Councils have set a clear preference<sup>6</sup> for their research to be published under a gold author-pays model, (and are providing funding to meet these charges), the maximum permissible embargo period for RCUK-funded papers that go via the “green” model, seems to us to be fair and reasonable.

### **Engagement with publishers, universities, learned societies and other stakeholders**

15. The Trust has worked closely with RCUK to engage key stakeholders on our updated open access policies, and in particular the shared requirement for a CC-BY licence where our funds are used to meet gold open access charges, which will come into force in April 2013.
16. Specifically, the Trust and RCUK wrote jointly to 53 publishers, who are responsible for publishing around 80% of our funded research, and have held follow-up meetings with several to discuss implementation of the new policy. These discussions are progressing well and we are pleased that several publishers have already responded positively – for example, see recent press releases from Nature Publishing Group<sup>7</sup> and Wiley<sup>8</sup>.
17. In terms of maintaining an ongoing engagement with publishers, the Trust, with support from RCUK, has established a “Publishers Forum”, which includes representatives from the four major publisher trade associations – namely, the Publishers Association, Association of Learned and Professional Society Publishers (ALPSP), International Association of Scientific, Technical & Medical Publishers (STM) and the Open Access Scholarly Publishers Association (OASPA).
18. The Trust and RCUK also contribute actively to ongoing policy forums. For example, both are represented on the UK Open Access Implementation Group (OAIG), which is run by JISC and brings together representatives from the funder, library, university and open access publishing communities. Both organisations have also spoken at and contributed to a large number of meetings and events over the last year, at which all key major stakeholders – including learned societies, researchers and university administrators – have been represented.

### **Challenges and concerns raised by the scientific and publishing communities and how these have been addressed**

19. Following the publication of the Finch Report and the subsequent RCUK policy, key concerns raised by the research and publishing communities are that:

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<sup>5</sup> See [http://www.peerproject.eu/fileadmin/media/presentations/PEER-Executive\\_Partners\\_Statements\\_29\\_May\\_2012.pdf](http://www.peerproject.eu/fileadmin/media/presentations/PEER-Executive_Partners_Statements_29_May_2012.pdf) Slide 11

<sup>6</sup> See: <http://blogs.rcuk.ac.uk/2012/10/24/rcuk-open-access-policy-our-preference-for-gold/>

<sup>7</sup> See [http://www.nature.com/press\\_releases/cc-licenses.html](http://www.nature.com/press_releases/cc-licenses.html)

<sup>8</sup> See <http://eu.wiley.com/WileyCDA/PressRelease/pressReleaseld-104537.html>

- UK universities will face significant additional costs over the transition period
- RCUK has not allocated sufficient funding to cover APCs
- the CC-BY requirement will impede scholarly communication
- learned societies will be damaged through the loss of publishing income

20. We briefly discuss each of these issues in turn below.

**Issue 1: Concerns that UK universities will face significant additional costs**

21. The Finch Report estimated that the transition to open access may require additional funding of between £50 million and £60 million per year from the higher education sector. However, while it is important to acknowledge that there are likely to be additional costs, whether the costs will be this high in practice is far from certain. In order to minimise them as far as possible, it will be essential for institutions and funders to combine their negotiating power to ensure that as a greater volume of articles are published via the author-pays route, the amount paid in subscription fees by UK institutions is reduced. Given their combined purchasing power, UK institutions should be in a strong position to work with publishers to secure differential pricing models that achieve this objective.
22. There have been associated concerns that APCs charged by journals will rise in an unchecked manner. Evidence<sup>9</sup> to-date however, shows that the average APC charged to Trust funded researchers has remained steady over the past three years. Moreover, we believe that the continued emergence of innovative new players –such as eLife and PeerJ (who have set an APC of \$99), coupled with the rise of the PLOS ONE-type journals (e.g. *BMJ Open*, *mBio*, *Cell Reports*, *Scientific Reports*, *Open Biology* and so forth) – will put real downward pressure on APCs.
23. It is also worth stressing that the move to gold open access should ensure a greater overall transparency on costs, which is lacking in the current subscription model. Indeed, in the case of eLife, this commitment to transparency is one of its core underpinning principles, as is the principle of keeping any author charges as low as possible based on the true cost of publication in an on-line only form.
24. The UK policy to support open access has also created concerns that universities, and indeed some publishers, are not adequately equipped to manage the administrative burden associated with increased volumes of gold open access payments. JISC and the Wellcome Trust commissioned research last year on behalf of the Open Access Implementation Group (OAIG) to examine these issues and the possible role of intermediary organisations in helping to address them.
25. The report<sup>10</sup> identified the key elements needed to create an efficient and sustainable market and the possible value-added services that intermediaries could provide. It also highlighted a clear view among stakeholders that work is required to develop and implement standards to facilitate more effective flows between authors, publishers, universities and funders of information relating to APCs. The OAIG will progress discussions with these key stakeholders as a key priority for 2013.

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<sup>9</sup> See: <http://www.ariadne.ac.uk/issue70/andrew>

<sup>10</sup> [http://repository.jisc.ac.uk/4949/1/Gold\\_OA\\_intermediary\\_final\\_report\\_\(2\).pdf](http://repository.jisc.ac.uk/4949/1/Gold_OA_intermediary_final_report_(2).pdf)



**Issue 2: Concerns that RCUK has not allocated sufficient funding to cover APCs:**

26. Although at this stage it is not possible to determine with certainty whether RCUK have allocated sufficient funding, the level of funding being made available (£17m in year one) would seem to us to be of the right order based on the underlying assumptions:
- RCUK is assuming an average APC of £1,727, which is very close to the actual average APC charged to Trust-funded authors at the University of Edinburgh (see paragraph 8 above).
  - RCUK is assuming that 45% of the research they publish will, in Year 1, be published via the gold model. The experience of the Trust shows that it does take time to achieve compliance with a funder's open access policy.
  - It must be remembered that other funders (e.g. Wellcome Trust, European Research Council, British Heart Foundation, Telethon, etc.) also provide funding to cover APC costs. As such it is highly unlikely that RCUK will be required to meet 100% of APC's for research they are associated with.
27. We recognise that the question of how universities meet these costs should the fund not prove sufficient and be depleted, is an important one. The Trust provides institutions that exceed their allocated block grant (to support the APCs for Trust-funded research) with additional funds, as required, and it will be important for the Research Councils to maintain similar flexibility. Universities are also required to return an annual report to the Trust on how they have used their block grant, which enables us to track levels of APCs and adjust the level of block grants appropriately.
28. In terms of encouraging compliance with the RCUK open access policy, we would urge RCUK to spell out the consequences to its funded researchers and institutions for non-compliance. As noted above, the Wellcome Trust strengthened its sanctions last year – making it clear that funding would be withheld if research was not made available through Europe PMC in line with the policy. Although it is too soon to determine the impact that this policy change has had, the indications are that we are beginning to see an increase in compliance.

**Issue 3: Concerns that the CC-BY requirement will impede scholarly communication**

29. The Creative Commons Attribution Licence (CC-BY) allows re-use for both non-commercial and commercial purposes, subject only to proper attribution. Concern has been expressed that the CC-BY licence will impede scholarly communication in two ways. First, that authors will lose control over how their articles are re-used; and, second, that it will be more difficult to secure permission from third parties. We would reject both these assertions, and argue instead that the CC-BY licence facilitates scholarly communication.
30. Under the CC-BY licence it is true that research outputs can be re-used (e.g. to create a translation, be included in a new anthology etc.) without seeking the authors permission. However, at all times the new work must attribute the original article which the derivative is based on. Moreover, the CC-BY licence *does* protect authors against having, for example, poor translations done or against having their articles reprinted in anthologies where the context might be offensive, through the author's moral rights, which give authors the right to be correctly attributed and to object to derogatory treatment of the work.

31. With regard to the perceived difficulties of securing permission from third parties to include their material in a CC-BY article, we believe this is simply a red herring. Open access publishers – like PLOS, Hindawi and BioMed Central have published over 200,000 CC-BY licensed articles, many of which contain third-party content. The issue can be readily managed by applying a different licence to third-party content.<sup>11</sup>
32. We believe that the full research and economic benefit of published content will only be realised when there are no restrictions on access to, and reuse of, this information. For example, it enables such content to be used in the context of innovative value-added applications such as text mining – which can uncover new associations and discoveries from across the body of published literature. From a funder perspective, CC-BY achieves this key aim, and has now emerged as the standard licence for open access publishing.

**Issue 4: Concerns that learned societies will be damaged through the loss of publishing income**

33. Learned societies play an important role within the scientific community, and we acknowledge concerns that this could be threatened through the loss of current revenue streams from their publishing activities. As we have argued, our strong belief is that open access to research publications is critical to maximising the impact of research and its impact for society, and hence a change that learned societies as champions of science should embrace – adapting their business models as required.
34. Existing open access publishers, such as PLOS, have demonstrated that it is possible to generate income from author-pays open access. And we believe strongly that open access will create other exciting opportunities for innovation. Rather than seek to hold back the rising tide, we hope that learned societies strive to act as champions and pioneers in harnessing innovative new approaches – following the lead of the Royal Society which has launched a fully OA journal (Open Biology), and implemented the CC-BY licence for gold articles published in their hybrid titles.

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<sup>11</sup> So, by way of example, the article available at <http://www.ijbnpa.org/content/9/1/37> is licenced under the CC-BY licence, whereas Figure 1 (<http://www.ijbnpa.org/content/9/1/37/figure/F1>) is Crown Copyright.