

## **IARC POLICY ON OPEN ACCESS PUBLISHING IN SCIENTIFIC JOURNALS**

1. Communication and dissemination of research is a key objective of the International Agency for Research for Cancer (IARC). One of the pillars of IARC's mission is to be an authoritative and unbiased "global reference for cancer information." Beyond ensuring quality and integrity of its publications, however, IARC as a publicly-funded international agency recognizes its obligation to share knowledge broadly and openly, in ways that are free of cost barriers and use restrictions.
2. Traditionally, access to scientific research has meant being able to afford expensive subscription journals. With the ease and widespread acceptance of electronic scholarly communications and the precipitously rising costs of periodicals, open access (OA) emerged as an alternative publishing model. "Open access literature is digital, online, free of charge, and free of most copyright and licensing restrictions."<sup>1</sup> Granting bodies such as the US National Institutes of Health and the Wellcome Trust and universities have led the way in mandating open access and advocating for the right of public access to publicly-funded research.
3. For the purposes of this document and unless otherwise stated, the terms "publications," "articles," or "output" refer to journal articles in external publications that are authored by IARC staff members.
4. Current discourse on open access makes the following distinctions in terms of types of open access:
  - *Gold OA*: publishing in an open access journal. Such publication usually involves an article processing charge (APC) to make the article immediately available, free of cost and of most use restrictions to the reader.
  - *Hybrid OA*: publishing in a subscription journal whereby authors are provided the option of APCs to make their articles immediately available, free of cost and of most use restrictions to the reader.
  - *Green OA*: self-archiving or deposit of manuscripts in institutional or discipline-based repositories.

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<sup>1</sup> Suber P: open access overview [Internet]; 2004 Jun 21 [modified 2013 Dec 16; cited 2014 Nov 19]; [about 5 screens]. Available from: <http://legacy.earlham.edu/~peters/fos/overview.htm>

5. IARC, in keeping with current trends in scientific and scholarly communications and in supporting the principles of open access, established its OA Policy (Annex 1) in December 2014. Publication in journals (Gold OA and Hybrid OA) and deposit or self-archiving (Green OA) are all acceptable routes to OA, though each poses its own set of issues, and IARC's policy supports a multi-pronged and flexible approach to achieving open access. The combined application of these approaches will preserve for IARC authors the choice to publish in the most appropriate journals and options on how best to disseminate their work, encouraging wider adherence to the policy.

6. According to the policy IARC authors are strongly encouraged to choose Gold or Hybrid OA and to deposit manuscripts to institutional or discipline-based repositories. Further, they are expected to plan ahead by including estimates of article process charges in their initial applications to funders, to retain significant author rights relating to published research, to inform collaborators of IARC's OA policy and to advocate for OA dissemination of co-authored publications. Also important to note are the following delineations of the policy's scope: 1) The policy applies when an IARC author is a lead or corresponding author or when IARC takes a lead role in a project (e.g. funds the research), and 2) The policy applies to journal articles published outside the Agency and excludes IARC-produced books, book series, reports and other such publications.

7. Though not covered in the scope of IARC's OA policy, broad and open dissemination of IARC-produced publications is also essential. IARC recognizes the importance of taking a principled and balanced approach regarding all of the products of its knowledge generation and research. To this end, the following have been accomplished in 2014:

- Participation as a publisher in HINARI, a WHO partnership with commercial publishers to provide "free or very low cost online access to the major journals in biomedical and related social sciences to local, not-for-profit institutions in developing countries".<sup>2</sup> IARC has made available *World Cancer Report 2014* and all of the *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans* through HINARI.
- Signing of an agreement with the US National Library of Medicine (NLM) for the deposition of *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans* in NLM's PubMed Bookshelf, a repository of free electronic books and documents in life science and healthcare.

8. When it comes to OA vis-à-vis mainstream journal articles, it is not surprising that much of the current debate focuses on the cost and affordability of Gold and Hybrid OA. While free to readers, "OA literature is not free to produce or publish"<sup>3</sup>. For IARC, the most notable constraint is the article processing charge (APC) required to make full text immediately available. For instance, an analysis of IARC's 2013 article output reveals that had IARC authors chosen Gold or Hybrid OA for all 132 articles in the top 10 most frequently published-in journals, the hypothetical cost of APCs would have amounted to approximately €284 000. APCs for these top

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<sup>2</sup> HINARI: about HINARI [Internet]; c2014; [cited 2014 Nov 19]; [about 2 screens]. Available from: <http://www.who.int/hinari/about/en/>

<sup>3</sup> Suber P: open access overview [Internet]; 2004 Jun 21 [modified 2013 Dec 16; cited 2014 Nov 19]; [about 5 screens]. Available from: <http://legacy.earlham.edu/~peters/fos/overview.htm>

10 journals range from US\$ 1350 (€1081) for *PLoS* to US\$ 5000 (€4005) for *Lancet Oncology*. Despite mitigating factors such as fee waivers or the fact that some journals do not charge APCs, the overall cost of Gold or Hybrid OA is a significant hurdle. A hypothetical projection of what it would have cost in APCs to ensure that all 341 IARC authored or co-authored articles were published OA in 2013 results in a total of approximately €788 000.

9. Further data needs to be gathered in order to run an analysis on IARC's 2014 journal output and determine a baseline of pre-OA policy implementation practices. However, what is certain is that the demand for funding to pay for APCs exceeds IARC's current capacity. IARC's OA Policy requires authors to include estimates of article process charges in their applications to funders, and while this change in protocol will undoubtedly ease the financial burden of OA publishing on IARC, this measure alone will be insufficient to support gold and hybrid access.

10. It is not imperative, of course, that every article written by an IARC author or funded by IARC be made open access. However, the IARC Senior Leadership Team identified certain factors that merit the payment of APCs: scope of topic; potential impact of topic; policy application; target audience; relevance to low- and middle-income countries (LMICs).

11. Core funding to support a certain number of APC payments per year on a priority basis is viewed as the necessary first step in advancing OA at IARC.

12. Though much of the OA debate has focused on the APCs associated with Gold and Hybrid OA, Green OA (repositories) also costs significantly in technical infrastructure and staffing. At present IARC has chosen to focus on achieving more immediate impact through Gold and Hybrid OA, as it investigates options for establishing an institutional repository (IR). The retention of significant author rights as articulated in the OA policy will ensure that IARC authors are able to deposit pre- and post-prints to an institutional or discipline-based repository. In terms of provisioning an IR, the two main options are 1) WHO's Institutional Repository for Information Sharing (IRIS) and 2) outsourcing of the technical component to a commercial vendor.

13. The technology needed to organize and house the manuscripts and their accompanying metadata is but one consideration in the creation of an IR. What is more challenging and staff time-intensive is the content and rights management needed to initiate and maintain a repository. IARC produces approximately 350 articles annually. Each publisher and sometimes each journal has its own procedures for handling copyright agreements with authors. The verification of each author agreement to determine the conditions whereby the article's manuscript can be deposited (i.e. pre-print, post-print or published version allowed? embargo period?), retrieval of the necessary files from the IARC author, preparation of metadata and files in the formats required for upload into the IR, periodic retrieval of analytics reports, and training of staff members and end users are labour-intensive activities. Failing to take the necessary care in maintaining the IR may result in breaches of author-publisher agreements and reputational damage. The full resource implications of an IR for the Agency require further evaluation and this is ongoing.

14. In 2015 IARC's OA goals are as follows:

- To train staff authors in the consistent application of the new OA policy.
- To determine 2014 baseline data for pre-policy implementation.
- To increase the numbers of articles published as Gold or Hybrid OA.
- To decide on the feasibility of creating an IR and if the decision is positive, to implement the processes needed to launch an IR.

## **Conclusion**

15. IARC has established an Open Access Policy that describes the principles it will adhere to in ensuring maximum access to its scientific journal articles, while minimizing cost and use restrictions. The Scientific Council is asked for advice on the policy and further steps which the Agency might take in meeting the objectives described in the policy.

16. IARC would like to approach the Governing Council for permission to use up to a maximum of €50 000 per annum for three years from the Governing Council Special Fund to permit it to select around 20 high priority scientific articles for Gold or Hybrid OA publishing where other financing options are unavailable. The Scientific Council is requested to advise the Governing Council on this request.

## Annex 1 – IARC Open Access Publishing Policy

### *Definition of Open Access*

The International Agency for Research on Cancer supports and encourages the principles of open access—scholarly and scientific literature which is accessible online, free of price and subscription barriers and free of most copyright and licensing barriers.<sup>4</sup>

### *Rationale for Open Access*

The Agency, as described in its Statute and as a publicly-funded instrument of the United Nations, is committed to the dissemination of its research. In keeping with this commitment, the Open Access Policy demonstrates the value the Agency places on its research and the unrestricted dissemination of its research outputs through publication.

Open Access to IARC research findings will ensure that key stakeholders or any other interested constituencies are able to access, use and benefit from its work. Open Access will also benefit the Agency and its scientists by the greater visibility and impact of the research produced by IARC scientists and their collaborators.

### *Scope and Constraints*

This policy establishes the Agency's expectations relating to Open Access of research findings published in peer-reviewed journals. The policy applies when the lead or corresponding author is an Agency author or when the Agency takes a lead role in the project (e.g. funds the research).

The policy recognizes that a move to Open Access for the Agency is a process and will be balanced against other priorities such as publishing in journals where the work will have most impact.

Open Access to other types of IARC publications, including works published by IARC itself, is equally important but is not covered within the scope of this policy.

### *Statement of Policy*

The goals of this policy are to ensure the broadest possible barrier-free access to the Agency's research, to facilitate reuse of IARC authored publications and to make provision for long-term preservation and free access to IARC research findings. Open Access to IARC research can be achieved through complementary approaches whereby:

The Agency **strongly encourages** its authors to:

- A. Publish in open access journals.
- B. Publish in subscription-based journals under the Open Access article option.
- C. Deposit an electronic version of the final accepted manuscript (postprint) in PubMed Central or an appropriate institutional repository immediately upon acceptance. Metadata must be exposed from time of deposit and full-text no later than 12 months.
- D. Publish under a license (such as the Creative Commons IGO license) that accords with the principle of Open Access being free of most copyright barriers.

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<sup>4</sup> Definition of Open Access. Berlin Declaration. Max Planck Society. <http://oa.mpg.de/lang/en-uk/mpg-open-access-policy/> Accessed 30 May 2012

Additionally, the Agency **expects** authors to:

- E. Retain significant author rights relating to published research.
- F. Inform collaborators of this policy and advocate to ensure co-authored outputs are Open Access publications.
- G. Include the costs of open-access charges, as an estimate, in its application to funders for project support.

It is the responsibility of IARC authors to comply with this policy as well as the policies of funders and other grant awarding bodies linked to specific IARC co-authored publications.

## Appendix – Glossary of Terms<sup>5,6,7</sup>

**Article Processing Charge (APC)** – a fee paid to the publisher to make the article openly and immediately accessible upon publication.

**Author Manuscript** – accepted, author-created version following peer review (postprint).

**CC BY** ([Creative Commons Attribution License](#)) – a standard license whereby author retains copyright and work is licensed to permit unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited. Variations of Creative Commons licenses are possible. CC BY is the least restrictive of the variants.

**Creative Commons** – a non-profit organization that enables the sharing and use of creativity and knowledge through free legal tools.

**Final peer-reviewed manuscript (NIH)** – the investigator's final manuscript of a peer-reviewed paper accepted for journal publication, including all modifications from the peer review process.

**Gold OA** – open access delivered by OA journals and paid for by Article Processing Charges.

**Gratis OA** – open access which is free of charge but not free of permissions barriers.

**Green OA** – open access delivered by self-archiving in institutional or subject repositories.

**Hybrid OA** – open access articles within a subscription based journal because authors have selected to pay an Article Processing Charge (APC).

**Libre OA** – open access, free of charge and free of barriers to re-use.

**Metadata** – bibliographic data about an article, such as article title, name of journal, authors, institutional affiliations.

**Open Access (OA)** – scientific or scholarly content available on the Internet, free from barriers to access as well as free from restrictions on distribution and re-use.

**Postprint** – version of the paper after peer-review, with revisions.

**Preprint** – version of the paper before peer review/refereeing.

**Publisher's version (NIH)** – the journal's authoritative copy of the paper, including all modifications from the publishing peer review process, copyediting and stylistic edits, and formatting changes.

**PubMed Central (PMC)** – a free full-text archive of biomedical and life sciences journal literature at the NIH/National Library of Medicine. PMC is the designated repository for all NIH funded articles. [Europe PMC](#) is recommended repository for European Research Council (ERC) funded outputs.

**Self-archiving** – process by which authors deposit a version of their works in an institutional or subject-based OA repository. Self-archiving usually does not permit the posting of the publisher's version (i.e. the version of record), only the pre or post peer-review author's manuscript.

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<sup>5</sup> Sherpa. <http://www.sherpa.ac.uk/> University of Nottingham. Accessed 29 May 2012

<sup>6</sup> FAQ about the NIH Public Access Policy. US DHHS. <http://publicaccess.nih.gov/FAQ.htm> Last update 28 December 2009. Accessed 29 May 2012.

<sup>7</sup> Sparc Open Access Newsletter. Suber, P. <http://www.earlham.edu/~peters/fos/newsletter/archive.htm>. Accessed 29 May 2012.