

## **WORKSHOP HIGHLIGHTS & ACTION POINTS**

### **Standardizing Bioresources Citation In Journal Articles: The Editors Point Of View**

BRIF Editorial Subgroup

Istituto Superiore di Sanità, Rome, June 21, 2013

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#### **Organisers**

Bravo Elena – BRIF and Journal Editors Subgroup, ISS, Rome  
Cambon-Thomsen Anne – Coordinator of the BRIF project, INSERM, Toulouse  
De Castro Paola- BRIF and Journal Editors Subgroup, ISS, Rome  
Mabile Laurence - BRIF and Journal Editors Subgroup, INSERM, Toulouse  
Napolitani Federica - BRIF and Journal Editors Subgroup, ISS, Rome  
Rossi Anna Maria - BRIF and Journal Editors Subgroup, ISS, Rome

#### **List of attendees**

Amantea Ada - Istituto Nazionale Tumori Regina Elena, Rome  
Bloom Theodora - Biology Editorial Director at PLOS, Cambridge  
Calzolari Alessia - EOMM, ISS, Rome  
Cognetti Gaetana - Istituto Nazionale Tumori Regina Elena, Rome  
Corsaro Paola - CRA, Rome  
Gargiulo Paola – CASPUR, Rome  
Guidoboni Massimo - IRCCS-Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori, Meldola  
Hewitt Robert- European Editor of Biopreservation and Biobanking  
Hole Brian - Ubiquity Press, London  
Laricchiuta Paola – CNMR, ISS, Rome  
Luzi Daniela – IRPPS, CNR, Rome  
Mancini Cristina – Biblioteca, ISS, Rome  
Marsh Joan- President of the European Association of Science Editors, London  
Poltronieri Elisabetta - Settore Attività Editoriale, ISS, Rome  
Steffens Ines – Editor at European Centre for Disease Prevention and Control, Stockholm  
Thomsen Mogens – INSERM, Toulouse  
Toni Franco - Biblioteca, ISS, Rome  
Visconti Ugo – EOMM, ISS, Rome

#### **Invited Speakers' Biographies (except members of the BRIF Journal editors subgroup)**

Theodora BLOOM - Biology Editorial Director at PLOS

Theodora Bloom left laboratory science after a PhD in developmental biology and a postdoctoral fellowship in cell and molecular biology, and has for the past 20 years worked as an editor and publisher at Nature, Current Biology and the commercial open access publisher BioMed Central. She now works for the non-profit open access publisher PLOS. As Biology Editorial Director at PLOS she has responsibility for the journals PLOS Biology (for which she is Chief Editor), PLOS Genetics and PLOS Computational Biology, and takes the lead for PLOS on issues around access and availability of data and materials.

Robert Hewitt - European Editor of Biopreservation and Biobanking,

Robert Hewitt studied medicine at St Bartholomew's Hospital Medical School, London and later obtained a PhD at the Medical Research Council Virology Unit, Univ. of Glasgow. He worked 5 years in pathology as Clinical lecturer in Pathology at the University of Nottingham, before moving to Bethesda, Maryland, USA, to take up an NIH research fellowship from 1994-98 at the Lab of Pathology of the US National Cancer Institute. Robert has been involved in biobanking for the past fourteen years, and has been involved in setting up biobanks at Hammersmith Hospital in London, UK; then King Faisal Specialist Hospital in Riyadh, Saudi Arabia; and then National University Hospital in Singapore (the NUH-NUS Tissue Repository) where he also established a hospital-based cancer registry. He was president of the International Society for Biological and Environmental Repositories (ISBER) from 2008-2009 and is currently executive officer of the Europe, Middle East and Africa Society for Biopreservation and Biobanking (ESBB). He is also European Editor of Biopreservation and Biobanking, the official journal of the International Society for Biological and Environmental Repositories (ISBER), a peer-reviewed journal publishing original research articles and exploring the ethical, legal, and societal considerations surrounding biobanking and biorepository operation.

#### Joan Marsh

Joan is the current President of the European Association of Science Editors (EASE [www.ease.org.uk](http://www.ease.org.uk)) She has been a member since 1987, when she started work as an Editor at the Ciba Foundation, trained by Maeve O'Connor and Julie Whelan. After seven years editing Foundation symposia, Joan spent five years travelling and working in South-East Asia, including teaching science writing in several countries. Since 2000, Joan has worked for John Wiley & Sons as a commissioning editor, gradually moving from life science books to medical books, with some work on medical journals. Joan is now an Associate Publishing Director, with managerial responsibility, as well as covering books in psychiatry and emergency medicine. Joan joined the EASE Council at the Krakow meeting in 2006 and became President three years later, in Pisa. Joan was re-elected for a further term as President at the meeting in Tallinn in June 2012.

#### Brian HOLE – Ubiquity Press

Chief Executive Officer of Ubiquity Press, a researcher-led open access publisher based in London (<http://www.ubiquitypress.com/>). His main focus is on open access and open data publication, especially in areas such as public health.

Ubiquity Press is a small new London-based digital publisher of peer reviewed, open-access academic journals. It is an unconventional academic publisher, actively working within the research community to develop new models of publishing. Unlike many traditional publishers, Ubiquity only takes payment for the service of publication, rather than taking over the rights to research and then selling access to it. Brian previously worked with Elsevier and BiomedCentral. Ubiquity press is going to publish new Metajournal

### **1/ INTRODUCTORY PART: BRIF (Bioresource Research Impact Factor) initiative status.**

#### **The BRIF initiative by Anne Cambon-Thomsen**

Bioresources (BR) are collections of biological samples (biobanks) with associated data (medical/epidemiological, social) but also databases without samples, and other biomolecular and bioinformatic research tools. The objective of the BRIF project is to contribute to increase the sharing and the circulation of BR and their content through the development of specific

tools. There is a need to recognise the effort to make such resources shareable. The challenge is how to overcome not only the technical difficulties for sharing but also the feeling of loss that may prevail. The idea is to transform this loss into an advantage: “The more the bioresource is shared, the more it contributes to science, the more it is recognised”. Many different stakeholders (users, managers, hosting institutions, funding bodies, reviewers/editors ...) would have advantages in knowing more about how BR are used and in having them recognized. Therefore guidelines and tools are needed to maximize the access by researchers to bioresources and to recognise the efforts involved in maintaining such BR. At the publication level, it is first needed to standardize the way to cite and acknowledge the BR used. This is an old idea but without practical translation. We have been working collectively on that from the summer 2010, 2 years of planning, meetings, networking; 135 members of various competences have now registered to the BRIF group, mainly members from Europe due to EC funding.

The BRIF work has been divided in subgroups: ‘BRIF identifiers’; ‘BRIF parameters’; ‘BRIF in access and sharing policies’; ‘BRIF dissemination’ and ‘BRIF and journal editors’. The activity of this latter subgroup is presented by Elena Bravo.

### [The BRIF and journal editors subgroup by Elena Bravo](#)

The neglected role of research biobanks and more generally bioresources in scientific publications is often due to the fact that such resources are not cited at all or, if cited, this is done in a heterogeneous way without following any standard. As a result, bioresources citations or acknowledgements are difficult to retrieve in scientific literature or other (online) sources . The BRIF and journal editors subgroup planned the following actions as a starting point:

- sensitize journal editors to BRIF issues;
- standardise citations in journal articles;
- modify editorial guidelines to include a standardized reference to biobanks;
- inform the scientific community about the relevance of these issues.

During 2012 the BRIF and journal editors subgroup has studied the opportunity and agreed to submit proposals to international associations, editorial committees and other professional organizations. The aim of this action was to sensitize such groups on specific issues related to bioresources, create awareness on the BRIF project and, possibly, proceed to amend editorial guidelines by including reference to bioresources. So far, actions have been directed to: the International Committee of Medical Journal Editors (ICMJE, [www.icmje.org](http://www.icmje.org)), the Committee on Publication Ethics (COPE, <http://publicationethics.org>) and the European Association of Science Editors (EASE, [www.ease.org.uk](http://www.ease.org.uk)).

The ICMJE advised to contact also the EQUATOR network (a repository of reporting guidelines).

COPE - an important forum for editors and publishers of peer-reviewed journals, that advises editors on how to handle cases of research and publication misconduct - agreed to consider linking a document on BRIF on its website. It also agreed to discuss a declaration of openness for promoting specific guidelines on the issue in June 2014, following a proposal discussed in COPE last annual meeting (Spring 2013)

EASE (an internationally-oriented community of individuals from diverse backgrounds, linguistic traditions and professional experience who share an interest in science communication and editing) publishes the “EASE Guidelines for Authors and Translators of Scientific Articles”, which are largely disseminated and well known at international level and up to now translated in 19 languages. EASE Council members agreed on including the subgroup proposed sentence in the updated version of the Guidelines, available at [www.ease.org.uk/publications/author-guidelines](http://www.ease.org.uk/publications/author-guidelines), to encourage citation of the bioresources

with their name or identifier. The subgroup was also invited to organise a session on bioresources issues in the annual meeting in June 2014.

**Objective of the workshop:**

To elaborate practical and realistic proposals for harmonising bioresources citation in journal articles with the help of journal editors.

## 2/ POINTS OF VIEW FROM JOURNAL EDITORS

**Theodora Bloom:**

As the chief editor of *PLOS Biology* taking the lead on issues related to access and availability of data and materials, TB shared her point of view about integrating new editorial elements regarding bioresources, stressing how difficult it is to satisfy each stakeholder in journal articles, i.e. authors, readers, resource providers and editors. At the end, journals will do what the funders and the community will want...

Her presentation is attached to the report.

**Robert Hewitt:**

RH gave a brief description of the journal he works in as a European editor: *Biopreservation and Biobanking*. This is the official journal of the International Society for Biological and Environmental Repositories (ISBER), a peer-reviewed journal publishing original research articles and exploring the ethical, legal, and societal considerations surrounding biobanking and biorepository operation. He insisted on the need to better recognize and cite bioresources and explained how they have tried to encourage this in their journal: a section of it is dedicated to the publication of the description of bioresources.

At the biospecimen level, he highlighted the interest of the BRISQ recommendations by Moore and coll, *Nature*, 2011.

His presentation is attached to the report.

**Joan Marsh:**

She reported the role of EASE in supporting editors and authors and her experience at Wiley. Concerning the topic of bioresources citation in scientific literature, she recalled the commitment of EASE in encouraging the appropriate citation of bioresources, by including the sentence proposed by the subgroup in the updated version of the “EASE Guidelines for Authors and Translators of Scientific Articles”.

She announced that a Session on Bioresources citation will be hosted at the EASE Conference to be held in Split in June 2014.

**Brian Hole:**

As a researcher-led open access publisher, BH’s main focus is on open access and open data publication, in particular in areas such as public health. He is actively working within the research community to develop new models of publishing such as metajournals: a metajournal is a journal that contains short metadata papers, describing research outputs that are stored in siloed locations and not normally discoverable or citable. Typical examples are research data and software. A paper in a metajournal describes the object and its potential reuse, pointing at it via a persistent identifier easily accessible. The metadata paper has also a DOI, so it can be

cited (e.g. in research papers that have used the resource). Because of the DOI, these citations can be counted, and broader impact metrics such as tweets, Facebook likes and Wikipedia mentions can also be reported. The metajournal is fully peer reviewed, and essentially ensures that best practice is followed in the open archiving of the research object, making it more discoverable and citable in return. This is particularly important for researchers who may not otherwise receive full credit for their work - e.g. a research data scientist might be the 4th or 5th author on a research paper, but he would be first author on the related metadata paper. Ubiquity Press is now running three metajournals for research data in archaeology, psychology and public health, and one for research software.

For more information, please see <http://www.metajnl.com>

A bioresources metajournal had been proposed to the BRIF group and a pilot study is about to start. This would provide reliable, comprehensive citation metrics, as well as other metrics, to demonstrate the impact of a bioresource. A metajournal has a very low barrier to adoption: researchers are already familiar with citing articles, and understand the benefits and rewards of citations. This would also in turn incentivise the open archiving/deposit of bioresources according to best practices. In the BRIF newsletter there is a call open to collaborate to the new metajournal advertised.

### **3/ DISCUSSION PART:**

Two working groups were created on the basis of balanced competences and were asked to discuss the following issues as possible recommendations in journal authors' guidelines:

- the concept of a unique ID for each bioresource – or part of a bioresource - that could be used as one of the ways to cite them in articles;
- the possibility of a “bioresource field” analogue to the existing “author field” that would include specific metadata characterising the bioresource and would allow an easy tracing of bioresource citation;
- the use of specific sentences for acknowledging the bioresource(s) used in the publication of people involved in it (them);
- other proposals.

The main points of discussion were then reported to the attendees by JM and RH. In summary, there was a general agreement on the following points:

Generally speaking, it is essential that bioresources are cited and in a standardised / harmonised way. The simplest this will be implemented, the best: this means familiar processes (to the community) / already existing solutions should be chosen in priority.

On a practical point of view:

- identifying bioresources using a persistent code (ID) rather than the name is better in order to avoid confusions;
- the DOI (Digital Object Identifier) system seems to be the more appropriate so that bioresources could be tracked through CrossRef;
- it is necessary for bioresources to be referenced;
- the ideal place in the article to cite bioresources would be in the Method section where a reference can stand and where relevant details can be added (as the usual description of a method);

- if no DOI is available yet, the format of the reference should include the following elements:  
*Name of biobank / bioresource / Institution / Organisation or Network / City / Country / Date accessed*

- referring to the bioresources in an Acknowledgement sentence is neither necessary nor useful (except in order to acknowledge specific persons or services that are not clearly implicitly included in the identification of the bioresource; this in any case would be “in addition” to the citation);
- the “Bioresource field” is not an appropriate solution at present, in fact it seems to be too complicated to set up for editors and not useful enough (the argument that the bioresource ID had to be in a field traceable in the reference/abstract and should not require to mine the full text or references did not stand as it was said that access to references for the purpose of BRIF would be allowed even in non open access journals and through cross ref);
- the metajournal proposition by BH (with Ubiquity Press) sounds promising, but it needs to be further explored and tested as the suggested pilot.

Other proposals to be implemented shortly

- Address the National Library of Medicine to create a new MESH (MEDical Subject Heading) term for bioresources to allow search in their databases and to define them thus providing full recognition of their value in research activities. The ISS can apply for this.
- Address the NLM Citing Medicine to include a standard citation for bioresources in their website that is linked to the “Vancouver style” by the ICMJE.

## DISCUSSION FOR THE EC PUBLIC CONSULTATION ABOUT OPEN RESEARCH DATA:

PDC suggested the opportunity to present some considerations about the BRIF and Journal editors subgroup activity at the “European Commission Public Consultation on Open Research Data” that she will attend in Brussels on July 2, 2013.

The lead questions proposed by the EC for the public consultation were discussed among the participants in the workshop:

- How can we define research data and what types of research data should be open?
- When and how does openness need to be limited?
- How should the issue of data re-use be addressed?
- Where should research data be stored and made accessible?
- How can we enhance data awareness and a culture of sharing?

There was general agreement that it is important that the EC considers the issue of bioresources/biobanks as relevant sources of aggregated open research data that have an impact on both science and society. It is important that such data are shared for the progress of global research, to avoid duplication and to benefit from large investments in terms of both financial and personnel efforts, including donors.

In consideration of the ethics issues associated to bioresources, only aggregated results can be shared openly.

As regards where research data should be stored, there was discussion about infrastructures and clouding and about maintenance and preservation issues during and after a research project involving collection and use of bioresources.

It is important to create awareness and trust on the use of open bioresources. The EC should create mechanisms and incentives that facilitate the culture of sharing through ad hoc recommendations and the inclusion of specific clauses on open research data in their funding schemes. Technical issues about quality, maintenance and long-term preservation of open data should take into consideration the requirements of the different stakeholders. The EC should consider funding measures to create and test tools for implementing such mechanisms.



The above proposal to present this issue to the EC public consultation was then submitted and accepted by the EC.

#### **4/ ACTION POINTS:**

- to circulate the workshop minutes, get feedback and presentations slides (EB, ACT, PDC, FN, AMR, LM, AC)
- to create a list of additional editors potentially interested in the workshop results (AC) and provide them with the minutes (all)
- to address the NLM Citing Medicine with the format proposition (ISS)
- to define keywords related to bioresources and address the National Library of Medicine for MESH terms suggestions (ISS)
- Bioresource metajournal pilot with Ubiquity Press:
  - + to set up the advisory editorial board by calling for volunteers within whole BRIF group (LM);
  - + to test the bioresource reference format described above
- to organise a session in the next EASE annual meeting in Split, June 2014 (ISS)
- to approach EQUATOR (ISS)
- to provide COPE with a link to include in their website
- to follow up on the EC public consultation on Open Research Data (PDC)

Annexes :

The agenda of the meeting

The presentations as pdf (or a link to them)