talked about her experiences from a career in technology at the executive level and her path to success.

Among the concurrent sessions, *The Researcher's New Big Picture* had authors themselves as speakers, which provided them with an opportunity to share the inherent challenges they face when they have to publish a paper in any journal. For example, authors mentioned issues such as difficulty in template usage and how it was frustrating to ensure adherence to formats while publishing. Many of the authors also highlighted the fact that they feel disengaged when communicating with editors, and thus, journals need to examine communication at the author–editor level to assure authors that their work is being examined in an effective and time-bound manner. The contributors for this session were from various institutions such as University of Maryland College Park, AAAS/ASM, and American University.

One of the most delightful sessions for me was Where Are All the Users Going? This session addressed the issue with the current business model of publishing, which is completely based on the accessibility and visibility of the research published in journals to the end users of any and every journal. To be aware of their current target audience, publishers have to keep evaluating how they are receiving traffic on their websites and what possible changes occur in user behaviour over a period of time. This helps them retain advertisers and prolong the use of the subscription-based model. The users also help assess and validate the efforts of any publisher and ensure that the products they have on the market are used over a period of time. Importantly, the session addressed the issue of steady fragmentation in the manner in which a journal gets user traffic. By evaluation of data, it has been observed that there is a steady increase in traffic through NIH, PubMed and Twitter. However, e-mails are still the most important generators of web traffic for publishers; thus, it is very important that e-mail etiquette and author communication keeps improving with time from the publisher end.

To conclude, this year's meeting truly highlighted the diversity of the scholarly publishing industry. The variety of companies, vendors, publishers, societies and authors that attended the meeting demonstrates how popular this meeting has become and how it encourages professionals to network and grow in the future. The keynotes and the concurrent meetings covered the challenges and opportunities we need to address in the coming years, from the number of new products to basic issues like author–editor communication.

I am definitely looking forward to next year's meeting and hope to see you all there too!

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## Editors as promoters of good practices in bioresource research

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Soon after the development and publication of the guideline to standardise the Citation of BioResources in journal Articles (CoBRA)<sup>1</sup>, a workshop took place in Toulouse on the 9th October 2015. Bioresources are collections of biological samples with associated medical, epidemiological, biological or social data (biobanks), as well as collections of data of biological origin (databases) or bioinformatics tools. Many important biomedical publications refer to data obtained from collections of biosamples, but the recognition of such resources is often neglected or highly heterogenous. The CoBRA guideline introduces a standardised citation of bioresources in scientific publications, and was developed within the BRIF (Bioresource Research Impact Factor) initiative, aiming to improve transparent reporting of bioresource-based research, proper sharing and optimal use of bioresources<sup>2</sup>. The guideline recommends the citation of each bioresource according to a specific reference structure, providing specific examples for its adoption. It aims to trace the use of bioresources, encourage their sharing and create tools to recognise the importance of their contribution to research. The CoBRA is included in the list of reporting guidelines of the EQUATOR Network (Enhancing the QUAlity and Transparency Of health Research, www.equator-network. org/), that supports editors in promoting and practising responsible research reporting in their journals.

The workshop was organised by the European Association of Science Editors (EASE), the Istituto Superiore di Sanità-Italian National Institute of Health (ISS), the Institut National de la Santé et de la Recherche Médicale (INSERM), the Université Toulouse III-Paul Sabatier, the Centre National de la Recherche Scientifique (CNRS) - Department of Scientific and Technological Information (DIST), and the Biobanking and BioMolecular resources Research Infrastructure-European Research Infrastructure Consortium (BBMRI-ERIC). It was also partially supported by the European Commission Seventh Framework Programme.

Based on a positive long-lasting collaboration between the BRIF initiative and EASE, the workshop gathered some of the main experts in the field, who discussed how journal editors, research institutions, researchers, and other stakeholders could promote the use of the CoBRA guideline and in general the best practices in scientific research.

The morning session was dedicated to presentations by researchers involved in the BRIF initiative, in the EASE, in the EQUATOR Network, and in the BBMRI-ERIC. They all remarked upon the importance of a strong collaboration between editors and scientists, that worked successfully and led to the development of the CoBRA guideline. The guideline was analysed from different points of view: that of the editors as gatekeepers of science and the power of a multidisciplinary approach (Paola De Castro, EASE and ISS); its role as a key element for the recognition and the assessment of the use and research impact of bioresources (Elena Bravo, ISS); how CoBRA is integrated in the vision of the BRIF initiative (Anne Cambon-Thomsen, INSERM-Université Toulouse III); the BBMRI-ERIC value as a new governance tool for biobanking in Europe (Jan-Eric Litton, BBMRI-ERIC); and the CoBRA in the context of other research guidance (Iveta Simera, EQUATOR Network).

In the second part of the workshop, space was given to all participants, who were asked to give their contribution to the discussion and were then split into three working groups. They focused and discussed the following three issues:

- 1. How can editors enhance the implementation of the CoBRA guideline?
- 2. How can researchers enhance the implementation of the CoBRA guideline?
- 3. How can universities, research institutes or research infrastructures incentivise researchers to use CoBRA?

Referring to point 1, the working groups suggested that the guideline could be added in the instructions to authors and to reviewers, and/or in the reviewers' checklists so that the editors can make sure authors properly cite the use of samples in their submitted manuscripts. The CoBRA guideline could be added in the list of reporting guidelines, such as the one in the EMBO journal. Furthermore, in the submission process a compulsory section could be added on the 'use and description of biological samples'. The idea of a 'CoBRA compliant publication' stamp or logo was also suggested. The BRIF community, and more specifically the people present, should also disseminate the existence of the guideline as much as possible using their networks and personal contacts to reach journal editors, suggesting they write editorials about CoBRA. Some participants also pointed out that authors would be more likely to notice, and adhere to, CoBRA (or any reporting guideline) if it were mentioned in the Methods sections of papers.

In the next discussion about point 2, participants suggested that a new 'document type' could be added to reference managers such as Mendeley, Zotero or Endnote. This would enable researchers to cite the bioresource in an automatic manner when they write their manuscript directly on the text editor. This point was also analysed under a different perspective, that is how researchers can be encouraged to use CoBRA guideline, and the important role of professional associations of writers and editors was then strongly remarked upon. It was suggested that associations and scientific and relevant professional societies present CoBRA at their national/international meetings, in their newsletters and websites, all considered useful means for spreading news about CoBRA. In addition, video presentation or webinars about CoBRA could be produced, which these associations could link to or include as part of their educational material.

Finally, some interesting suggestions came from discussing point 3. Research institutions could require researchers to include a description of their use of CoBRA directly in the projects data management plan. This would incentivise them to plan for a correct citation of a bioresource in the early stages of the design of their research project. Furthermore, institutions could be motivated to use CoBRA if it is envisaged as an element to ensure research integrity, also considering that in some countries there are university officials responsible for research integrity (for example, the network of French universities contacts for scientific integrity, and the US National Organization of Research Development Professionals). The groups also recognised the important role that funders could have in promoting CoBRA. They suggested that grant agencies should include CoBRA reporting as part of the grant application and yearly research reporting. Finally, it was considered part of the CoBRA dissemination strategy that other reporting guidelines mention and refer to CoBRA. For this reason, the developers of other guidelines - through the EQUATOR Network - should be notified of the CoBRA guideline, and include it in the next revision of their own.

The working groups explored other main issues related to the CoBRA promotion strategies. One of them referred to the role of biobank and bioresource managers, who have a strong interest in implementing CoBRA. They could for instance include the guideline in MTAs, and also reprimand researchers who do not cite them according to the guideline. In addition, referencing software and citation platforms should be updated to allow the citation of bioresources, and CoBRA should then be promoted at companies and websites such as Reference Manager, Mendely, Zotero, ReadCube, ResearchGate, CrossRef, and Orcid. Finally, the fundamental role played by the patients' associations that are often involved in the creation of biobanks was recognised. These associations should be informed about the CoBRA initiative, so that they can follow, through the citations, the research based on the biobanks they participate in.

The workshop was full of ideas. The audience became deeply involved in discussions and many proposals and suggestions came from it. So, with a wide consensus and a great help from everyone, the roots were put down for further action to promote and disseminate the CoBRA guidelines in the most effective ways.

## References

- 1 Bravo E, Calzolari A, De Castro P, Mabile L, Napolitani F, Rossi AM, Cambon-Thomsen A. Developing a guideline to standardize the citation of bioresources in journal articles (CoBRA). BMC Medicine 2015;13:33
- 2 Mabile L, Dalgleish R, Thorisson GA, Deschênes M, Hewitt R, Carpenter J, Bravo E, Filocamo M, Gourraud PA, Harris JR, Hofman P, Kauffmann F, Muñoz-Fernàndez MA, Pasterk M, Cambon-Thomsen A; BRIF working group: Quantifying the use of bioresources for promoting their sharing in scientific research. Gigascience 2013, 2(1):7

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