Editorial

"Scientific integrity: editors on the front line"

The 2016 EASE conference "Scientific integrity: editors on the front line" will discuss editors' roles in maintaining the integrity of the scientific record. The Council chose this theme because the reliability and reproducibility of published results have frequently been questioned in the last decade in various media, including the lay press. All disciplines are concerned, from biomedical to social sciences.

For biomedicine in the UK, The Academy of Medical Sciences, the Biotechnology and Biological Sciences Research Council, the Medical Research Council and the Wellcome Trust have been working to understand reliability better, and to consider ways to address it. In October 2015 they proposed seven strategies to overcome six issues (data dredging, omitting null results, underpowered studies, errors, underspecified methods, weak experimental design).[1] In psychology, the Open Science Collaboration published its first results in August 2015:

> "We conducted replications of 100 experimental and correlational studies published in three psychology journals using high-powered designs and original materials when available. Replication effects were half the magnitude of original effects, representing a substantial decline. Ninety-seven percent of original studies had statistically significant results. Thirty-six percent of replications had statistically significant results."[2]

Another concern is the increasing number of retractions, for two main reasons: honest error and fraud. We do not know if the incidence of misconduct is truly rising or if better methods for detecting misconduct have become available.

The scientific method has to deal with many uncertainties. Efforts to improve the reproducibility and reliability of research will require the cooperation of researchers, funding agencies, research institutions, professional bodies, publishers and, last but not least, editors. Journals, as well as editors have been accused of poor standards, and we must react as we stand on the front line in our role as 'gate-keepers'. All participants in science research and publication must work together to promote integrity and improve the public image of science.

EASE has always promoted integrity through its general goals of raising standards and sharing best practice. More specifically, the 2009 EASE conference in Pisa had the theme 'Integrity in science communication'. Similarly, it is a topic regularly covered in *European Science Editing*, most recently in the 2016 February issue, where Cagney *et al* described two cases of retraction and republication in *Lancet* journals as a new tool for correcting the scientific record.[3] EASE has also developed a retraction template to assist journal editors who have to retract a paper to include all the relevant information in a standard format.[4] This will facilitate research into the causes of retraction and hopefully help to reduce future occurrences. Regular workshops, jointly organised by EASE with other bodies, are proposed (such as, 'Good practices in biomedical resources').

The June 2016 EASE conference in Strasbourg will gather editors from many fields to discuss integrity. The programme has been prepared by a committee under the leadership of Liz Wager, former chairman of the Committee on Public Ethics (COPE), author of COPE guidelines and one of the newly appointed editors of *Research Integrity and Peer Review.* Delegates will have the opportunity to hear from some of the leading researchers in the field, to question how we can implement processes to prevent poor practice (deliberate or accidental) and to make their own suggestions as to how editors can contribute to maintaining the integrity of the scientific record.

We have plenty of good news: scientists are increasingly researching the problems of doing science and human behaviour to understand what motivates both good and bad practice. The results suggest that people are basically honest and are also constrained by societal conventions and institutions that control cheating.[5] Let's work together to create together an environment that will promote integrity.

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