EDITORIAL

The pros and cons of publishing genetic toxicology studies in which the identities of the compounds are withheld

In this issue of Mutagenesis Hartmann et al. (2004) report on the use of the Comet assay to investigate the genotoxicity in vivo of 17 compounds whose identities are not fully revealed. Because of commercial considerations only the chemical class of each is given, but not the name or formula. One of the tenets of scientific publishing is that sufficient information be provided for the experiments to be repeated independently and for the validity of the results to be verified. Clearly, if the compound being investigated is not identified this criterion cannot be met. However, even where a chemical is identified it may be extremely difficult (although not impossible) to repeat the experiments independently if the original authors do not make their novel compound available to other investigators, unlikely if the compound has commercial potential and sometimes even if it does not (see below). Nevertheless, stringent application of this tenet would inevitably result in much potentially useful information generated in commercial companies remaining undisclosed when it might be of use and interest to the wider scientific community.

In the case of the Comet assay (the subject of the present paper), there is currently widespread interest in assessing its potential to measure genotoxicity and predict mutagenic and carcinogenic activity. Its possible development as a new regulatory test is clearly a process in which commercial companies have a vested interest and a wish to contribute. The authors themselves maintain that their study has significant value to the scientific community because it demonstrates that the Comet assay is a useful tool for investigating target organs or cells at the first site of contact and to obtain insight into the possible mechanisms of genotoxicity involved.

One can readily sympathise with the desire not to identify compounds with commercial potential. However, not to reveal the identities of compounds whose commercial development has ‘failed’, because of the possible value of this ‘negative’ information to commercial competitors, is more difficult to justify.

On the other hand, it can be argued that withholding the identity of any compound is depriving the research community of potentially useful information. Therefore, Mutagenesis does not encourage or endorse the practice of publishing studies on unidentified compounds, but may consider publishing such studies provided a strong case can be made that the results make a significant contribution to the understanding of a biological process or to judging the performance of a test procedure. Such a judgement was made in the present case.

Readers of Mutagenesis may have differing opinions on the usefulness of studies in which the compounds are not fully identified. A search through back issues of Mutagenesis and other journals that cover the same scientific disciplines has revealed numerous precedents, so the practice is not new. The Editors would be interested to hear views from all sectors of the scientific community on the perceived usefulness of such publications.

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Reference

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