Comments

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Ethics in Science: What Has Happened to It?

To the Editor:

There has been a recent rash of reports about falsifying data in scientific articles that were published in good journals (e.g., *Science*), however, there is a more subtle and important danger to science, i.e., warping the discussion in a paper to prove a false theory by ignoring all of the data in the literature that are contrary to the false theory, and by misinterpreting (deliberately?) one's own experimental data, and by incorrectly re-interpreting the data of others, and by incorrectly reporting the results of others.

Then there is the wonderment of why the reviewers of well-known journals (e.g., *BioEssays, Proc Natl Acad Sci, J Bacteriol, Annu Rev Genet, J Biol Chem*) did not catch these falsehoods and bad science, and/or why the editors did not choose appropriate reviewers.

All of these improper actions came recently from several papers published in "good journals" by one laboratory. This laboratory, and its graduates, are determined to prove that excision repair is the only repair function that exists in cells after exposure to ultraviolet (UV) radiation, even though there exists 30 years of work showing the importance of recombinational DNA repair. Recombinational DNA repair accounts for 50% of survival after UV irradiation, and excision repair accounts for 50%, i.e., not the 100% that some authors would have you believe (for a review on recombinational DNA repair, and the citation of some of these bad papers.

An author from another laboratory states that "It has recently become clear that the recombinational repair of stalled replication forks is the primary function of homologous recombination systems in bacteria." This statement totally ignores the problems that a cell faces when its DNA, which was replicated prior to UV irradiation, is damaged, and where two DNA duplexes exist, and where replication restart has no relevance, but recombinational DNA repair is very important. To be generous, these authors seem to be totally unaware of the literature.

What can be done to make authors read the literature, and make editors send papers to reviewers who are knowledgeable of the literature, and for editors to make sure that the reviewers do their jobs properly?

It is really stupid to falsify data, because the basis of science it to repeat published data, and then to take research on that subject to the next level. Therefore, false data will soon be found out, but at great expense to science.

However, the more subtle form of falsification, about which I speak, is usually believed (it came from a "good" laboratory, and was published in "good" journals), and it will remain in the scientific literature forever as "fact", and it will waste the time and money of unsuspecting students and scientists who will design experiments based upon these bad papers.

In religion one can often be forgiven for one's sins, **but no one should be forgiven for sins against science.**

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ASBMB Today
is a monthly publication
of The American Society for
Biochemistry and Molecular Biology

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Exploring the Biochemical Basis of Evolution?

To the Editor:

In his last book, America's leading evolutionist, the recently deceased Stephen Jay Gould, lamented his "relative ignorance" of "the nature of genomes" and the "realm of the smallest."[1] Indeed, it is possible that few evolutionists are fully aware of recent biochemical advances that are of great relevance to evolutionary theory.[2] Thus, at face value, we should have welcomed Professor Michael Behe's book, "Darwin's Black Box: The Biochemical Challenge to Evolution" as one of the few written on this subject by a professional biochemist.[3] Unfortunately, as Professor Sjoerd Bonting points out in the April issue of ASBMB Today, Behe's arguments are severely flawed. However, Bonting does not point out that Behe also ignores many of the issues that evolutionists have long considered fundamental—issues to which biochemistry and molecular biology have made major contributions. These include the questions: what are species, how do they usually originate, and does this origination occur genetically or non-genetically? Indeed, had Behe fully considered these issues his title might more appropriately have been "Darwin's Black Box: The Biochemical Basis of Evolution."

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(1) Gould, S. J. (2002) The Structure of Evolutionary Theory. Harvard University Press.
(2) Forsdyke, D. R. (2006) Evolutionary Bioinformatics. Springer, New York.
(3) Behe, M. J. (1996) Darwin's Black Box: The Biochemical Challenge to Evolution. The Free Press, New York.

Tell Us What You Think

We appreciate receiving letters that are suitable for publication regarding issues of importance or commenting on articles appearing in *ASBMB Today*. Letters should be sent to the editor, John Thompson, at the address found at left. Letters must be signed and must contain the writer's address and telephone number. The editor reserves the right to edit all letters.

Reference Omitted

A reference was omitted from a paragraph in Professor Kendric C. Smith's letter, "Ethics in Science: what has happened to it?" in the May issue of ASBMB Today. The paragraph and the reference in question follow:

"Recombinational DNA repair accounts for 50% of survival after UV irradiation, and excision repair accounts for 50%, i.e., not the 100% that some authors would have you believe (for a review on recombinational DNA repair, and the citation of some of these bad papers, see reference).

"Smith, K.C., Recombinational DNA Repair: the ignored repair systems. BioEssays 26:1322-1326 (2004)."