

Complacent reviewing

SIR—In the course of preparing a review article I have been struck by the number of incorrect citations of the literature and of complacent reviewing in both review journals and regularly reviewed research articles.

First, in a recent review in *Bio Essays*¹, we can read that the human ferritin H gene has 4 exons and the human ferritin L gene has 3. The reference quoted is correct — but the article in question clearly states that there are 4 exons in the gene of human L ferritins, covering the same positions of the amino-acid sequence as they do in all mammalian ferritin genes so far sequenced. In a recent review in *Physiological Reviews*², the reference to a paper on intestinal ferritins (of which one of the authors of the review is the first author) lacks one of the co-authors. In *Annual Review of Biochemistry*³, we find a table which gives the same literature reference for the sequences of horse and human spleen apoferritins (they were published in two distinct articles) and the affirmation that pig liver apoferritins present three distinct sequences, when spleen was the organ of origin.

The same malaise can be found in original reviewed articles (I leave aside the innumerable errors in reference citations). It sometimes seems that the reviewer has accepted the article for publication without reading the text. This must be the explanation for the fact that in a recent *Journal of Biological Chemistry* article⁵ on plant ferritins, there is a figure which presents the determination of the molecular weight of the plant ferritin on the basis of one molecular weight marker, horse spleen apoferritin, and which arrives, without comment, at a molecular weight for the oligomer of 540,000, which corresponds to an oligomer composed of 19 subunits whereas all of the well characterized ferritin structures have a 24-subunit shell.

Both review journals and regularly reviewed scientific publications must ensure that both the references cited and the scientific content of their published manuscripts are coherent and respect the integrity of the scientific literature. It would perhaps be best that review journals use peer review to ensure that the author does not inadvertently perpetrate errors which will be autopropagated by the authors of original scientific texts who, in general, rely on reviews to furnish the literature citations that they employ. And reviewers of original articles should avoid recommending acceptance of an article they have not had time to read properly.

As responsible researchers, we should not allow complacent reviewing to take the place of the well-established methods which need both time and patience, both

to write good review articles and to review original articles. What we must do, as Sydney Brenner advised his student, is not to Xerox the literature, but to *neurox* it — “hold the page in front of your eyes and you let it go through there into the brain”⁶.

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1. Mattia, E. & van Renswoude, J. *Bio Essays* **8**, 107–111 (1988).
2. Huebers, H.A. & Finch, C.A. *Physiol. Rev.* **67**, 525–582 (1987).
3. Theil, E.C.A. *Rev. Biochem.* **56**, 289–315 (1987).
4. Leibold, E.A. & Munro, H.N. *Proc. natn. Acad. Sci., U.S.A.* **85**, 2171–2175 (1988).
5. Laulhere, J.-P., Lescure, A.-M. & Briat, J.-F. *J. biol. Chem.* **263**, 10289–10294 (1988).
6. Quoted by Stuart Sutherland in his review of *A Passion for Science* by Lewis Wolpert & Alison Richards, *Nature* **334**, 112–113 (1988).

Einstein in Zurich

SIR—The ‘Science in Switzerland’ supplement mentions that the first professors at the ETH were “refugees who fled prison sentences or political repression in Germany after the failed 1848 rebellion” (*Nature* **336**; 332, 1988). The writer failed to mention another young German refugee who applied for admission to the ETH, Zurich, in 1895, when two years below the required age. This refugee, Albert Einstein, failed the entrance examination then. But in the summer of 1896, he enrolled in the natural science degree programme of ETH, Zurich, and passed the final examination in August 1901. After that, he was passed over at the ETH for a university assistantship.

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Still active

SIR—Your statement that the Sacramento Peak Solar Tower has been closed (*Nature* **336**, 340; 1988) is unfortunate, and fortunately incorrect. In fact, in spite of a catastrophic decrease in the National Science Foundation’s support for solar physics, as well as other disciplines, the National Solar Observatory has successfully struggled to maintain a vigorous programme of research, as well as support of visiting astronomers, at the Sacramento Peak Tower.

The tower, constructed in 1968 by the United States Air Force, and its associated instrumentation continue to provide a productive facility for studying the small-scale, inhomogeneous structure of the Sun. Work at Sacramento Peak, and elsewhere, during those 20 years has shown

that this structure is responsible for the varying solar magnetic activity as well as the heating of the outer solar atmosphere to millions of degrees. This rich variety of challenging theoretical and observational questions continues to make solar physics an exciting field in its own right, in addition to its role as the source of important solar–terrestrial interactions and as the Rosetta Stone for stellar astronomy.

This is not to undercut your main point that, because of the low level of support, existing solar physics facilities are not used as effectively as they should be, and that major investments in productive scientific facilities are continuously being threatened with closure. Fortunately, particularly with an impressive maximum of solar activity approaching, pressures to close Sacramento Peak have not succeeded. If the international hue and cry that these attempts have prompted in the past is any measure of the demand for the facility, the Sacramento Peak Tower should be the focus for solar physics research for many years to come.

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SDI defended

SIR—I would like to correct some factual errors in the leading article on the Strategic Defense Initiative (*Nature* **335**, 575; 1988). First, the SDI director is Lieutenant General James Abrahamson; he is not a lieutenant-colonel. Second, President Reagan delivered his SDI speech on 23 March 1983, not 13 March 1983.

SDI is a long-term research and development programme attempting, at least in part, to separate fact from fable and fiction so that a future administration will be able to make an informed judgement whether to proceed with a Strategic Defense System (SDS). In order to accomplish this most important endeavour, we need the support of peace- and freedom-loving people everywhere. Indeed, our Western civilization, on both sides of the Atlantic, could be saved thanks to a concept orders of magnitude superior to the present one based on MAD (Mutually Assured Destruction). If SDI is destined to fail, then so be it. At present, though, we should give it our best shot before giving up even, possibly, our lives. I hope you concur with my rather meagre attempt at scientific objectivity.

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