

Coordinates and peer review

Every once in a while, we receive a request from one of our referees for access to the coordinates of a structure under review. On the surface, one could argue that, because coordinates can be considered 'primary data', they should be submitted for formal peer review. With such detailed information in hand, a referee would have the opportunity to interpret the atomic model fully and independently, without relying solely on the authors' description of it. This argument is in line with a larger trend to empower referees by giving them primary datasets for analysis—for example, it is already the case for papers reporting results based on microarray experiments (see an opinion piece in *Nature* (*Nature* 419, 323; 2002) for a discussion on the policy adopted by all *Nature* journals in this regard).

At the present time it is rare for atomic coordinates to be submitted together with a manuscript for peer review, however, and, as far as we are aware, this is not currently required by any journal. Nonetheless, as editors of a structural biology journal facing such requests from referees, we wouldn't be doing our job if we weren't at least giving this issue some thought. So what *are* the issues that concern structural biologists about submitting their coordinates during the review process?

From the authors' point of view, one possible concern is that such microscopic and intense scrutiny of their data could prolong the review process. As editors, we are acutely aware that prompt publication is a primary concern for our authors, and rightly so. In this age of rapid online publication, a delay of only a few days might mean that priority is lost to a competing paper. However, a second and perhaps more serious concern is that, unlike most other forms of primary data, coordinates can be used to solve crystal structures anew relatively quickly, using the molecular replacement method. Thus, for a highly competitive project, authors may be nervous about submitting their valuable coordinates for anonymous peer review.

The authors' concerns would be lessened once their paper is recommended for publication. However, if a journal were to decline to publish the paper after the initial review, the result could be many sleepless nights spent thinking about what might become of those coordinates. Although preserving the

confidentiality of materials provided for peer review is a strict policy of our journal, and we emphasize that all such material should be returned or destroyed after review, it is virtually impossible to police such a policy effectively. Therefore, the reluctance of authors to release coordinates during the review process is, to a certain extent, understandable.

On the other side of the debate is the fact that granting referees access to atomic coordinates could be beneficial. For one thing, coordinates can provide much more than the simple snapshots of a few regions selected by the authors, and having a complete picture should allow a referee to evaluate the authors' conclusions much more accurately and thoroughly. The resulting comments would no doubt be more helpful both to journal editors, in reaching a decision about publication, and to the authors, when preparing their revisions.

Given that a referee's simple request for coordinates can create such a dilemma, you are probably curious to know how we handle such requests. Presently, our approach is a cautious one. We would forward the request to the authors of the paper (but maintain the referee's anonymity, of course), while at the same time asking the referee if alternative information (such as additional figures) could address the specific questions that she or he has in mind. In doing so, we hope to establish a compromise by providing as much information as possible for a referee, while considering that the authors are sensitive about releasing their coordinates. So far, this approach seems to have worked reasonably well.

Although our approach addresses the issue temporarily, it does not answer the question of whether structural coordinates should be submitted for review in the future. To explore this issue, we have contacted a small number of researchers in the structural biology community for their opinions. The consensus seems to be a cautious 'yes', with the caveat that the community may not yet be ready for a formal policy on coordinate provision at this time. A broad discussion may be necessary to bring all the concerns into the open, allowing the pros and cons to be debated fully. We hope that this editorial will serve to initiate a dialog on this topic, and, as always, we welcome your comments (please send via e-mail to nsb@natureny.com). ■