

# nature medicine

## Why review?

**Good reviewers underpin the quality of a journal. At *Nature Medicine*, what do we seek in our reviewers? And how do we retain the best in the face of the plethora of requests from an increasing number of journals?**

Last month, ISI's *Journal Citation Reports* released the journal impact factors for 2006. Whether those few digits reflect the true worth of any journal is debatable, but, like it or not, scientists seldom submit manuscripts to a journal without first checking its impact factor. A journal's reputation, however, is built not on impact factors but on the quality, importance and strength of the papers it publishes. Trendy topics-of-the-moment may garner a rash of citations, but at *Nature Medicine* we strive to publish papers that will stand the test of time.

Whether we succeed in publishing papers that truly advance biomedical research depends heavily upon our reviewers. The number of new journals is ever-increasing, and so, presumably, are requests to review manuscripts, adding to the myriad of other demands on scientists' time—grant applications and renewals, meetings and conferences—that encumber the actual business of doing science.

As the universe has not yet obliged by providing more hours in the day, reviewers must increasingly pick and choose which manuscripts they critique and for which journals. It's in our interests as editors to ensure that we retain the excellent reviewers who currently advise us at *Nature Medicine*, but also to broaden our pool of trusted experts so that in times of reviewer drought (during August, for example), we can maintain the quality of the review process.

What makes a good *Nature Medicine* reviewer? First, our reviewers know the journal. They know which ingredients make for a good *Nature Medicine* paper: conceptual novelty, strong insight into molecular and cellular mechanism in basic papers on disease pathogenesis, demonstrated *in vivo* relevance (where possible), and strong relevance to human disease.

Good reviewers have the breadth of knowledge and objectivity to be able to determine whether a new finding will be of interest to a broad scientific readership or just to those in the field. And good reviewers are fair and thorough and provide detailed and constructive criticism, allowing authors to improve their papers—even though we may ultimately decide they are not appropriate for *Nature Medicine*.

Reviewing manuscripts is a fundamental part of the scientific world. Unlike in other professions, however, scientists give their advice for free. If we were to equate reviewers' advice with that of lawyers, journals could never afford the cost. So what motivates reviewers to spend large portions of their precious time analyzing the merits of other people's work?

At the heart of the process, reviewers must have a passion for their area of research and the desire to help advance their field. Propagating

a wrong idea by publishing a half-baked paper in a high-profile journal can set a field back and waste both time and resources.

Another motivation might be that by reviewing papers for high-profile journals, reviewers feel they are keeping abreast of new developments. They may also feel that by receiving reviewer feedback (the other reviewers' reports plus information about our decision), they can gauge what their community expects of a paper in a high-profile journal, which might help them to publish there. (Yet another motivation, perhaps, is the desire to impede the ideas of a competitor. But this editorial is about good reviewers, so we won't dwell on that dark side for now.)

For our part, as editors of *Nature Medicine*, we have a responsibility to make sure that we continue to help advance science by publishing only those papers that make it through rigorous and fair peer review.

On your side, if you're swamped or traveling and need to decline a request to review, please do recommend your trusted colleagues—experts you feel have breadth of vision and objectivity, as well as the necessary expertise to evaluate the technical details of a paper. The most established scientists receive the most requests and have the least time to review. But they are well placed to identify other, sometimes more junior, researchers with relevant expertise.

Providing opportunities for new principal investigators to join the reviewing process shares the burden and keeps the journal abreast of the diversity of ideas in a particular field. Of course, a good scientist isn't always a good reviewer, which is why we introduce new referees with caution. But participating in the reviewing process at high-profile journals can be a good learning experience for newer investigators.

How can we ensure that the best reviewers continue to review for us? Perhaps there's a feedback loop: maintaining the quality of the review process and keeping the bar high for publication could ensure that experts continue to feel that reviewing for *Nature Medicine* is a priority.

We'd like to understand more about what motivates you to review for particular journals and how we can make sure that experts continue to review for us. Are there incentives that journals could use to encourage experts to review? How can journals contribute to training younger investigators to become excellent reviewers? Please visit our blog at <http://blogs.nature.com/nm/spoonful/> and tell us your thoughts.