

nature cell biology

Using the Web wisely

“If a picture is worth a thousand words, a movie is worth a million”

Recent improvements in imaging, ultrastructural and molecular biological techniques are changing the way in which cell biological research is conducted and the type of data that are generated. Data sets are increasing in size and complexity, but at the same time busy scientists value accessibility and clarity as well as rapid publication. *Nature Cell Biology*, like other journals, is taking advantage of the power of the Internet to meet these challenges.

Video images

The ability to study dynamic molecular events in living cells by using improved imaging techniques has been one of the most noticeable advances in cell biology in the past five years. The number of manuscripts in which the main conclusions are based on video data is increasing. Many of these studies make use of the versatile properties of green fluorescent protein (and other fluorescent probes) to study a variety of processes, such as endocytosis^{1,2} and cytoskeletal dynamics during cell movement^{3,4}. Documentation of these data in print form (as a series of time-interval snapshots) has obvious limitations, so an increasing number of journals, including *Nature Cell Biology*, publish video data on their websites. Because these data are an integral part of such papers, the importance of providing the videos to peer-reviewers should not be overlooked. As one reviewer recently put it, “If a picture is worth a thousand words, a movie is worth a million”.

Continuous publication

Because many areas of cell biology are moving rapidly and are highly competitive, scientists want both speedy publication of their own results and immediate access to important studies in their field. *Nature Cell Biology* therefore operates a continuous publishing system whereby Articles and Brief Communications are published on the ‘Future Issues’ page of our website before they appear in print. The electronic and printed versions of each paper are identical and papers can be cited from the time of electronic publication in the normal way, because final page and volume numbers are already assigned. This system allows readers to have access to papers just a few days after they are accepted and up to five weeks before they appear in print. But is five weeks really a significant amount of time? Judging from the positive responses we have received so far from both readers and authors, we conclude that the answer is ‘yes’.

One could argue that by publishing papers rapidly, *Nature Cell Biology* is contributing to the increasing competitiveness gripping the scientific community. But we disagree, because we do not compromise the quality and rigour of the peer-review process for the sake of speed. So although we are committed to facilitating a rapid review, we ensure that it is never rushed. In fact, most manuscripts pass through at least two rounds of review and revision before they are formally accepted for publication. Peer-review is an intellectual process; in contrast, publishing papers immediately after they are accepted is a mechanical process, and we take advantage of the latest technology to do this as efficiently as possible.

Of course, providing video links and publishing papers continuously are just two examples of how Internet technology has had a positive effect on scientific research. As this technology continues to evolve, its impact on the way in which research is presented will only grow. We are actively looking for ways to improve the value of our website to readers and authors, and we look forward to hearing your views on how this might be achieved.

1. Gaidarov, I., Santini, F., Warren, R. A. & Keen, J. H. *Nature Cell Biol.* 1, 1–7 (1999).
2. Merrifield, C. J. *et al.* *Nature Cell Biol.* 1, 72–74 (1999).
3. Weiner, O. D. *et al.* *Nature Cell Biol.* 1, 75–81 (1999).
4. Rottner, K., Behrendt, B., Small, J. V. & Wehland, J. *Nature Cell Biol.* 1, 321–322 (1999).