Editorial

***The EMBO Journal* 2009: new initiatives**

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The EMBO Journal is run by the European Molecular Biology Organization, EMBO: an organization run by scientists, for scientists. EMBO aims to promote excellence in science, transparency, efficiency and inclusiveness. These are also cornerstones of *The EMBO Journal*. In this light, and in response to discussions in the community, we are introducing three major changes in *The EMBO Journal* from 1 January 2009:

Transparent editorial process!

The editorial process often appears to be a black box, despite it being an integral part of science. When things work well, referee–author–editor interactions can be very constructive. But they can also be endlessly frustrating. These issues have been discussed in recent commentaries from the scientific community. One may ask: is the editorial process at a journal efficient and reasonable? Are referees rightfully critical or too picky and too demanding? Do editors make reasoned decisions and minimize unnecessary back-and-forth cycles?

We believe *The EMBO Journal* has an efficient and reasonable editorial process. Instead of just saying so, we will make it visible. A transparent editorial process will help demystify decisions. A separate, and equally important, aspect is that a transparent process should encourage constructive referee and author argumentation. This new initiative is described in detail below.

Cite the primary literature!

With ever increasing number of reviews and limits on article length, it is tempting to cite reviews even when the primary literature is still recent. This is unfair to authors of the original papers. To counteract this, we strongly encourage authors to cite primary literature whenever possible. At *The EMBO Journal*, we will actively back up this encouragement by completely excluding the references from the character limit and from any page charges. So authors can now freely cite all the papers they need to cite.

Although increasing the citation of the primary literature is our main objective here, we appreciate that mis-citing can be as problematic as not citing. We encourage authors to double check their choice of citation—and its accuracy. Finally, we are not alone in promoting these ideas: *Nature Cell Biology* will be announcing a similar initiative to improve citing patterns.

This is cool!

The EMBO Journal is selective but covers many different areas. This means we often publish interesting and insightful

papers that are quite far from any particular reader's field. To make these contributions more accessible and noticeable, we will, under the heading 'Have you seen...?', publish short, invited commentaries from scientists in the field on key articles appearing in *The EMBO Journal*.

As another way of highlighting and bridging our rather broad content, we will continue to assemble occasional Focus Issues: these are sets of reviews designed to bring together different fields around an idea, or illuminate them from a new angle. We will also continue our long-standing review series from newly elected EMBO members, and add occasional perspective reviews from established members.

Transparent editorial process

Publishing is essential for scientists. Well-functioning editorial and selection procedures are therefore critical. Although most of us probably agree on the principles of peer review, problems do arise and can become stifling for communication—see, for example, a recent letter from Raff *et al* (2008). Some general issues are: (i) how much referees can reasonably ask for, (ii) the feeling that—in particular—professional editors are reluctant to take a position and to make confident decisions, resulting in endless rounds of revisions to make all referees happy and (iii) generally not knowing what is going on in the 'black box' of the editorial process. One reaction to the difficulties of peer review is the suggestion that scientific publishing should occur by open web-based 'post-and-comment' procedures, thus removing the editorial/selection procedure altogether. Many of us wonder whether this solution would not be worse than the problem. There are clear benefits of anonymous reviewing by experts in traditional peer review. But it should work well and be rational. The transparent editorial process that we will implement for *The EMBO Journal* attempts to both make the process clear and transparent and help ensure its solidity.

The EMBO Journal is run by six full-time editors and myself as an academic Executive Editor. We solicit ample and essential scientific input from the Advisory Editorial Board, the senior advisors and referees. For details, please see our updated overview of editorial procedures and statistics (now available on our website: <http://www.nature.com/emboj/about/process.html>), as well as my earlier editorial on the topic (Rørth, 2005). As for most journals, refereeing is anonymous and decisions, referees' comments and responses are seen by authors and referees. The reader only sees the final accepted articles. The transparent editorial process will make the process that led to acceptance of a paper accessible

to all, as well as any discussion of merits and issues with the paper. This discussion is between selected, critical experts in the field (referees) and authors. With blog-type approaches, responses may just be from whoever has the time and the inclination to comment on posted work. Thus, we are retaining a process that we think works well at the journal. But we will now be making the inner workings of the process evident to our readers, both in individual cases (published papers) and in general (statistics), as described below.

How will it work and affect papers published in *The EMBO Journal*?

The transparent editorial process will affect articles submitted from January 2009 onwards—not retroactively. On publication of a paper, there will be an additional supplementary editorial process file linked to it on the web. This file will contain all dates relevant to the processing of the article at the journal, showing the mechanics of the process. It will also contain all pertinent communication regarding the article between the corresponding author and the editorial office, including the referees' comments as part of the decision letter. All authors will be made aware of the initiative from the start and will have the option of not participating if they prefer. Potential referees will also be made aware of the process. If confidential comments from referees are provided to the editor, they will remain confidential as anonymity may otherwise be compromised. However, the decision, the rationale behind it and the revision requirements will be apparent from the editor's letter.

The process file will show why referees found the paper interesting and important. As this is for published articles, there will be clear support from at least some referees. The file may also show what the initial shortcomings were and to what extent this was resolved in revision. Sometimes there will be informative and interesting discussions between author and referees. Sometimes minor issues will be discussed that may be of little or no interest after the revision has been made, but rather than editing those out, we find it more straightforward to leave it as is. Finally, the file may show the required—but sometimes difficult—decisions made by the editor (often following internal discussions) when faced with conflicting referees' reports.

We will not disclose the identity of referees. Anonymous referees are important for a well-functioning review process. One concern is whether the increased access to the reports would compromise referees' willingness to be candid and tough. We hope not—and think not. Authors already see referees' comments and sometimes try to guess who they are. In our experience, they are nearly always wrong. Of course the editor is not blind to who the referees actually are: a usually very tough referee who is really positive may be more significant than a generally positive referee also being positive about a particular piece of work. Also the technical expertise of particular referees may be essential; other referees may be more general, for perspective. If necessary, differential emphasis on different parts of the input will be made clear from the editor's letter.

As part of this initiative, we will encourage referees to be even more clear about what revision will be necessary for a paper to become acceptable (subject of course to the results obtained). This will make it more apparent to the author and

the editor how to proceed, often without the need for further consultation. We think this is already working quite well at the journal, as we generally do not have protracted back-and-forth procedures. The process files will also let you see this.

The fact that communication may eventually be made public may cause some referees and authors to hesitate before writing something. This can be positive. We hope that ill-considered or dismissive comments will be omitted and that thoughtful, reasoned arguments will be enhanced. Referees may think twice about whether the requests they make are indeed important; authors may want to be sure their counterarguments are solid. The exchange should, however, retain its essential character of discussion and not require polished document of style and perfection.

Finally, access to these editorial process files is most likely to be very educational for younger scientists who are learning how to publish their findings and how to deal with critique. Hopefully, this aspect will serve as an additional incentive for more established authors (and referees) to agree to take part in this experiment.

What about all the other articles?

Publishing the specific commentary and processing information obviously only works for published papers—that is, accepted articles. But to have a full picture of the editorial process at *The EMBO Journal*, authors and readers may want to know what happens to all the other articles. We analyse this statistically and have regularly been presenting such data to our Advisory Editorial Board as well as to EMBO. We will now make it public, so everyone can see how things work overall.

The article processing statistics, including average time for each step, percentage of articles taking each route, who makes the decisions and so on, is now posted on the *EMBO Journal* website: (http://www.nature.com/emboj/about/emboj_numbers_2007.html) with some explanatory text. The present document reports on all papers submitted to *The EMBO Journal* in 2007 and will be updated as we have information for subsequent years. These numbers confirm that *The EMBO Journal* is efficient: an average of 4 days for initial editorial decision and 1 month for decision after full review. Rejection after revision is rare, because we take the hard decisions early to avoid wasting the authors' time if we think the paper is unlikely to be successful. Overall, this means that even for those articles not accepted, the journal has usually not introduced significant delays.

The EMBO Journal is very selective: we look for studies that are significant and insightful. We have a relatively high rejection rate, in part because many contributors are not fully aware of the quality and insight that we expect for the journal. Scientists who know the journal, for example referees, have statistically a significantly higher success rate. We are just as tough on them, but they tend to understand our expectations and generally send us very good work.

What is the final fate of rejected articles? To learn about our decision-making process, we have asked what happened to articles rejected by *The EMBO Journal*. We looked at all articles submitted in 2004 and 2006, and used PubMed and ISI to see where and when they were published and how well they are cited. The numbers from our most recent analysis

(2006) are now posted on the *EMBO Journal* website: (http://www.nature.com/emboj/about/emboj_rejects_2006.html (when published)). We are not aware of any other published analysis of this sort and hope it will be of interest to the scientific public. As editors, we also learn from analysing the fate of individual rejected articles, but this of course cannot be made public. Overall, the vast majority of articles rejected from *The EMBO Journal* go to more specialized or lower impact journals and cite less well. Quite a few remain unpublished (after 2 years). The few that end up in higher impact journals are often significantly altered at that point. Also, a larger fraction of these were rejected after full review or on the basis of input from the Advisory Editorial Board, indicating that the different decisions obtained at different journals may often reflect disagreements among scientists in the field.

In conclusion

By implementing a transparent editorial process, *The EMBO Journal* is trying to address several issues of importance to the scientific community. First, authors should know more about the process they submit their articles to. It is too important for it to be a 'black box'. The numerical analyses we are making public on our website will give an overview. The specific case files attached to the published papers will add depth. Second, the new process may improve the quality

of reviewing and raise the level of argumentation and discourage unfair remarks. We are fortunate to have some excellent and thoughtful referees evaluating submitted papers for the journal. It seems reasonable for their work and insights to be made more visible—including their explanation of why they think a piece of work is significant. Finally, opening up the process such as this should enrich further discussion about publishing in the community and perhaps suggest further ways in which the editorial process can be improved.

For editors, the transparent editorial process will be even more demanding. Everything we do will now be open to scrutiny by all. We work for the scientific community and aim to do a good job providing a fair, a reasoned and an efficient decision-making process. This initiative will let you judge for yourselves. This initiative has been discussed with our Advisory Editorial Board, and although the overall sentiment is that it is the right thing to do, there are also uncertainties and concerns. We expect authors and referees will 'vote with their feet': your actions will tell whether you support such openness. We will pay attention to this and discontinue the process should it turn out that the scientific community is not supportive of the initiative. It is an experiment worth trying, and when we have data, an update on what has happened and where it is going will be provided in *The EMBO Journal*.

References

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