

## Editor's Note

### Authors, reviewers and editors at *The EMBO Journal*

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In this internet era, it is reasonable to question why we bother with scientific journals instead of just posting research data in accessible formats on the web. One reason is obviously that we use the scientific journals as a way of evaluating science (both at publication and after). A second equally important reason is that we use them to draw our attention to papers ‘worth reading’ outside our specialties. As scientists, we need to publish our findings, preferably in a venue that we think reflects the merit and importance of our contribution, and that reaches the intended target audience. To make the process work, journals must critically evaluate the submitted science, which means that scientists, in turn, act as authors, reviewers and editors and thus ‘wear different hats’ in the process.

As authors, we are naturally excited about, and attached to, our work. As reviewers, we are critical keepers of scientific standards, usually anonymously. Wearing the third (editor’s) hat involves overseeing the whole process and making decisions. Working at *EMBO Journal* as the Executive Editor, it has become abundantly clear to me that the world—and specific tiny pieces of it—can look very different depending upon which hat you are wearing. Evaluating a manuscript is often complicated and the process often not an ideal impersonal scientific discourse. In the following, I will describe how we do things at *The EMBO Journal* and why, as well as provide my personal views on some issues that come up.

#### How we do things at *The EMBO Journal*

For prospective authors and readers, it might be of interest to know how the editorial process is structured at *The EMBO*

*Journal*. *The EMBO Journal* is owned and run by the European Molecular Biology Organization, and is housed in the EMBO building in Heidelberg. The daily editorial work is carried out by 4–5 full-time scientific editors, three administrative assistants and the Executive Editor. I took over the Executive Editor job from Iain Mattaj on January 1, 2005. We receive lots of input from the Advisory Editorial board, the new Senior Editors (David Baulcombe, Ari Helenius, Tim Hunt and Tony Hunter) and, of course, the many incredibly valuable reviewers from all over the world.

You may be surprised to learn that we receive about 3000 manuscripts every year at *The EMBO Journal* office. Each manuscript is assigned to a scientific editor, who reads it, looks at the data, checks for relevant literature (whether cited in the manuscript or not) and finally presents the manuscript to the other editors at the daily meeting. At this meeting, a decision is made whether to send the manuscript out for full review or to return it to the authors directly if it seems clear that the manuscript is not appropriate for *The EMBO Journal* or that it is very unlikely to get a positive evaluation from our critical reviewers. If in doubt, the editor will ask for additional advice from an appropriate expert on the advisory editorial board or from me. Members of the advisory editorial board are very helpful at this stage. As this evaluation and decision process is quite efficient, with the initial editorial decision usually made within a week, we do not encourage pre-submission enquires. Judging the appropriateness of the whole manuscript is, in our opinion, more sound and less prone to oversimplification.

Finding the right reviewers can be hard work, as many editors know. We want those who are knowledgeable, careful and constructive—but many are very busy. We and other journals have seen that reviewers are increasingly reluctant to agree to review manuscripts, most likely because they are flooded with requests from multiple journals. One of our principal reasons for editorially rejecting manuscripts is to limit the burden we put on our reviewers by not asking them to review papers we know are unlikely to be accepted. When manuscripts are sent for review, we usually use three reviewers. An odd number helps, but the editorial decision is not just a simple majority vote. Sometimes one reviewer will be by far the most critical. This person may be the only one who clearly sees the flaws or limits of the study—or may be unreasonably critical. Conversely, only one reviewer may really see the potential of the work and communicate this to us. It is the editor’s job to find out which. Many manuscripts are rejected after the first review. Some may be flawed, but many may be rejected because, on the reviewers’ advice, it is clear that they are not appropriate for the journal in terms of the new insight they provide. Note that a rejection letter is not an invitation to resubmit with more data. If we are

interested in resubmission should the authors be able to answer the reviewers' requests, we say this explicitly in the decision letter. I should add that the full review process at *The EMBO Journal* is relatively efficient and usually completed with decision within 4 weeks. This means authors can take their work elsewhere without much loss of time if it is not appropriate for *The EMBO Journal*.

For revisions, we aim to get the manuscript improved but also to be fair and reasonable. Since there is only one round of review, reviewers are expected to bring up all criticisms at the start and authors are expected to address all the significant issues. Trying to argue one's way out of doing experiments rarely makes our reviewers happy. If there are significant technical disagreements between reviewers, or if authors find a particular review technically unsound, members of the editorial board or additional experts may be asked to have another look at a specific issue in order to arbitrate.

If, along the way, there are questions or problems, the editors will often consult me. I usually go to *The EMBO Journal* offices once a day and also attend editorial meetings regularly to keep a finger on the pulse. Having an actively involved Executive Editor can be useful for having a second look at manuscripts and reviews, but also simply to make the final decision when necessary.

### What manuscripts are we interested in for *The EMBO Journal*?

The aim of *The EMBO Journal* is to publish papers that represent a significant advance in understanding of a topic associated with molecular biology. That the subject area covered is very broad is illustrated by our 18 subject categories (see 'Aims and scope'). We aim to be selective rather than archival; that is, we will not publish manuscripts that merely fulfill the criteria of being correct and containing material not previously published. A major issue in the overall evaluation of manuscripts is therefore whether their novelty and added understanding is sufficient to warrant publication in *The EMBO Journal*. I personally find publication by the thin-slice-salami method rather irritating. Another requirement for a broad journal such as *The EMBO Journal* is that the work should be of interest outside the specialty field. These requirements necessitate judgment calls on several levels, and our insistence on fulfilling the criteria is the cause of many disappointments to authors, as most of the submitted manuscripts are rejected. But herein also lies the possibility of scientists knowing that a paper in *The EMBO Journal* is something significant and worth a look. 'Of general interest' does not mean that we are only interested in the most mainstream, the most obvious or the hot topic of the moment. Again, as a personal view, I find insightful studies on topics not the least connected to my own research very interesting and inspiring, enjoying the nice experiments and the creative science. And I am surely not the only one. Scientists are generally speaking inquisitive people who appreciate really good work.

Evaluating the degree of advance and the general interest is clearly a matter of judgment—with no absolute right or wrong. Reviewers are always asked to advise in this matter. Expert reviewers are absolutely essential to determine whether a piece of work is factually novel, is done properly and is correct in its conclusions. Fulfilling these requirements

is of course a prerequisite for publication. With regard to general interest and importance, reviewers may or may not have a clear opinion. And, not infrequently, expert reviewers will disagree on this point. One change we implemented this year was to ask reviewers to formulate explicitly and in a positive way to the editors why they think something should be published in *The EMBO Journal*, if they support publication. Obviously, the final evaluation of appropriateness for *The EMBO Journal* then falls with the editors—based on input from the reviewers, discussions with other editors and, if needed, additional advice from the advisory editorial board and/or through discussion with me.

### Full-time scientific editors versus part-time job for active scientists

*EMBO Journal* is run by a scientific society. So, we are often asked why we have full-time scientific editors instead of having many part-time editors who are active scientists running their own labs. Both constellations work and I believe that both have advantages and disadvantages. The advantages of having full-time scientific editors are of two types. One is concrete: Full-time editors have the experience of having dealt with many manuscripts from different fields and knowing how they were evaluated (by referees). The editors' experiences are in fact pooled, as all manuscripts are discussed among the editors. In addition, they will attend to manuscripts in a timely manner, not distracted by other duties. The other type of advantage is less obvious: Full-time editors should have no potential conflict of interest in evaluating manuscripts—even manuscripts from powerful scientists whose wrath may be rather scary to those active in the field. The motivation of the full-time editor is to make the journal as successful as possible, meaning having the excellent papers, a good reputation for reporting interesting and technically excellent science.

Another point that is often brought up in connection with the above is how authors are supposed to trust editorial rejections or any other editorial decision from 'non-experts'. Are the editors experts in all the areas we cover? Obviously not. But they are intelligent, have extensive scientific research training, many competent advisors and, as mentioned above, have seen what expert reviewers say about papers on a wide range of topics. *The EMBO Journal* editors are also starting to attend more scientific meetings to hear about the latest in relevant fields. Some manuscripts received are quite different from the type of studies we normally see and this is where additional advice is particularly important. Some authors argue that we do not seek advice from the right people. But if only very few scientists in the world are able to appreciate a study at all, then it may genuinely belong in a specialty journal. I would maintain that scientists do not need to work on exactly the same things in order to judge a manuscript technically as well as its merit for a more general audience. If authors send their manuscript to us, we assume they think that a relatively broad group of scientists will be able to appreciate their work.

### Editorial rejections

An editorial rejection is not worse than a rejection after review. It is simply faster. Many authors appear offended

that we will 'not even' send papers out for review. An editorial rejection means that we are confident that the manuscript would not make it through the stringent review process—we explain why in the decision letter. We use this procedure mostly to save work for our reviewers, who are already overburdened. We know that the procedure basically works as intended: In cases where editorial rejections have been challenged and we end up sending the manuscript out for review, in 95% of the cases it gets rejected by the reviewers anyway, but now with unnecessary loss of time for everyone. This illustrates that our editors are very good at evaluating whether or not a manuscript is likely to make it with our demanding reviewers. However, we are not perfect. To minimize mistakes, we send papers for review and/or to the editorial board for advice if we are in doubt. We are not going to be less strict and we will still reject manuscripts that are not suitable. Please consider that, in addition to not overburdening reviewers, an editorial rejection also saves you—the author—time, and allows rapid submission to another journal.

## Rebuttals

Sometimes authors do not accept the decision reached by the editors and send a rebuttal letter to argue why they think it was wrong. We always read rebuttals and carefully consider the issues. Questions of reviewer error or bias are taken seriously and additional input may be sought. But it is very rare that a rebuttal leads to a change in decision. Usually, the points brought up by the author are not new and nothing was done wrong—the authors are just unhappy that the manuscript was rejected. Also, some authors may not realize that our rejection letters are to be understood literally and are not invitations to resubmit an improved version (as discussed above). As the question of whether a manuscript represents a sufficient advance and might be of general interest is a matter of judgment, it is perhaps not surprising that many rebuttals dispute decisions based in this. Sometimes this is done in a civil and reasonable manner, sometimes not. A few unpleasant letters from authors of rejected manuscript even contain more or less veiled insults and threats. It is natural that we, as authors, think our work is important—this is why we do the work, and why we submit the manuscript in the first case. But acceptance at a specific journal is obviously not the author's decision. Another frequent reaction to a rejection is to generalize—if we are not accepting a manuscript, authors state that this 'obviously' means we do not want to

publish anything in that area, that we do not appreciate that area of research, etc. No, it means that this particular manuscript did not make it. We are interested in the best and the most insightful work in all the areas we cover.

The aggressiveness of some authors in rebuttals has surprised me. I believe it is our job at *The EMBO Journal* to evaluate the merit of the work as it is and give everyone a fair chance. I would not claim that we at *The EMBO Journal* never make mistakes, but we try hard to make good judgments—based on the science presented. And honestly, if you believe your work to be brilliant and the editors (and reviewers) to be fools for not seeing it, the sensible thing to do is to go elsewhere. Being persistent will not get your manuscript accepted, neither will bullying or threatening. It is difficult for me to understand why some authors do it, but perhaps they are used to editors caving in when pressured? Similarly, some authors will challenge and question every single decision against them. This brings to mind Peter and the wolf (or equivalent cautionary tale). I am not of the opinion that authors who push hard, who always send a rebuttal because it 'sometimes works' (it won't!), are more deserving in getting their work published than authors who take an editorial decision for what it is. Time spent evaluating rebuttals is naturally time not spent on all the other deserving manuscripts, so please rebut only if there is a very good reason.

## Concluding remarks

The most positive aspect of being an editor at *The EMBO Journal* is that it provides an opportunity to think carefully about many different questions and approaches in biological science, outside of one's own specialty. This is interesting and stimulating, and is the reason I took the job. In the above, I have focused somewhat on difficult issues associated with the reviewing process. This is in part because I, as the Executive Editor, often deal with the problem cases. It also reflects the first shock of seeing what the world looks like when you wear the editor's hat.

I would like to end this editorial on a quite different note, expressing gratitude and appreciation. *The EMBO Journal* owes its continued strength and significance to the many authors who submit interesting manuscripts for consideration and who work productively with the editorial process to make papers as good as they can be. Equally important are the critical, careful and involved reviewers and advisory editorial board. Thank you!