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Q&A

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Q&A with Professor Jennifer Andexer and Professor Wolfgang Kroutil

The importance of collaboration and good working relationships is unquestionable in our field, and is vital for the effective publication of research articles. In this series of Q&A's we talk to people involved in all aspects of the process and explore the relationships between them. Here we discuss interactions between authors and reviewers with Professor Jennifer Andexer (University of Freiburg) and Professor Wolfgang Kroutil (University of Graz).

Image credit: Jennifer Andexer

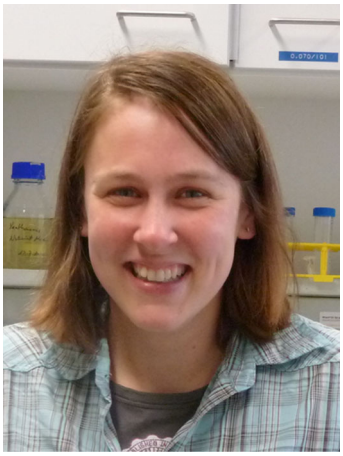

Image credit: Wolfgang Kroutil

Jennifer is Junior Professor of Pharmaceutical and Medicinal Chemistry working on enzymology, biochemistry and biocatalysis. Wolfgang is Professor of Chemistry working on enzymatic and biocatalytic methods for asymmetric organic synthesis. In 2018, Jennifer was one of three reviewers for Wolfgang's *Communications Chemistry* paper, Biocatalytic methylation and demethylation via a shuttle catalysis concept involving corrinoid proteins. In this interview we ask them about their experiences as authors and referees.

Finding the right reviewers for a given manuscript is critical to productive peer review. As an author, how do you decide who to recommend as a reviewer?/ As a reviewer, how do you choose which review invitations to accept?

[J.A.] When suggesting reviewers I normally try to get a good mix of people from different institutions and fields (if it is an interdisciplinary manuscript). I sometimes find it hard avoiding collaborators, as they often seem the most qualified. Having the possibility to exclude reviewers is certainly useful, although it is sometimes hard to predict a conflict of interest if you have never

actually met the person. There is certainly a tendency to always suggest the same people, which may also be the reason that I often get review requests for manuscripts from the same few groups. Regarding the decision if to accept a review, I find it important to be familiar with the topic as well as the methods—having to understand a completely new method costs a lot of time, and a lack of understanding might be unfair on the authors.

[W.K.] As an author I want my paper to be reviewed by the best qualified people, who know about the challenges in the area. Their answer should give you the feeling that they can frame the work within the scientific field. The review should then be critical and the more detailed the better. As a reviewer, it is a question of time and the journal making the request. Since I get several review requests per week, I tend to select based on the journal and the research topic.

Peer review serves multiple purposes including technical criticism, improving scholarship, and ensuring suitability for a given journal. What do you believe should be the goals of a reviewer when assessing a manuscript?

[J.A.] I primarily look at novelty and scientific soundness, including the theoretical background as well as the methods. I also think it is important that the reviewers communicate to the editor if they are not completely familiar with a particular part of the manuscript; otherwise it might be unfair on the authors or issues could be overlooked.

[W.K.] Additionally to what J.A. already stated, I think that the reviewer should be able to judge the suitability of a manuscript for a journal, and should provide constructive criticism. Connected to that, the reviewer should appreciate the (hopefully present) novelty but also clearly recognize if related work published is not represented correctly (in order to improve the paper) or not cited (correctly).

Authors' responses to manuscript reviews can mean the difference between publication and rejection. How do you believe authors should approach responding to reviewers' comments?

[J.A.] I guess the most important thing is to take every comment as constructive criticism, and not to take it personally (although this is not easy all the time). I normally try to see the situation from the position of the reviewer and discuss this with colleagues.

[W.K.] It is important to address each point, to see it as a chance to improve the paper and to minimize misunderstanding, which may have resulted in some of the criticism.

We may be biased, but we believe a journal requires a good editor. What role do you feel the editor should play in mediating the relationship between reviewers and authors?

[J.A.] First, the editor has to choose suitable reviewers, who are able to assess the results as well as the methods used. In my opinion, there is no point asking somebody to review a manuscript who might be an expert in a particular enzyme system, but has no clue about the method that was used to examine it. In the review process itself, one of the editor's roles should be to ensure a polite tone between authors and reviewers; however, I hope that this is not too much of a recurring issue! As the decision about acceptance is largely made on the reviewers' opinion, the editor also needs to evaluate the soundness of the reports in some way. Being an author, when a manuscript is declined, it is always nice to receive a tailored explanation from the editor, as opposed to a couple of stock sentences.

[W.K.] Indeed the editor has an important role. In addition to choosing the reviewers and communicating with author and reviewers, it is important to make a decision when author and reviewers disagree on some point. The reviewers are not always right, and neither are the authors. Just getting back to the selection of the reviewers: I would assume that reviewers should have a clear track record of publications (probably > 15–20 papers in trusted journals) before being selected to review.

More generally, we believe journals should serve scientific communities. How would you like to see journals supporting reviewers, and particularly the next generation of peer reviewers?

[J.A.] As said before, the choice of reviewer is important, as it is quite frustrating to have agreed to review something and then it turns out that the methodology is completely out of your field. Further, it would be useful if the manuscript were checked for readability before it goes to the reviewers.

[W.K.] Indeed, it would be great if papers were checked for their readability before being sent out. I also appreciate if journals offer tokens for free open access publication after having done a certain numbers of reviews. Some people might like to get certificates for having reviewed.

Broadly speaking, what advice would you give to reviewers and authors to ensure painless and productive peer review?

[J.A.] Proofread the manuscript before submitting, give it to a colleague and ask them to look at it as if they were a reviewer. Give and take the feedback in a positive way and always try to look at it from the "other" side.

[W.K.] For reviewers: take the time to read the paper and check related literature. For the author: see above.

Finally: what's the best (most useful, insightful, or amusing) comment you ever received from a reviewer?

[J.A.] In an attempt to create an interesting, colorful figure for a table of contents, we used different colors for the phosphates in a polyphosphate nucleotide. One of the reviewers stated that there would be "a wild mix of colors" in the TOC figure and as chemists are used to certain colors for certain elements, would we please stick to orange…

[W.K.] I have received many very useful comments and suggestions from excellent reviewers. Nevertheless, there were a handful of less useful statements, like the one for a paper which got rejected due to the reviewers comment: "Do the authors really think that a chemist will use an enzyme?". That was before companies started using enzymes for preparing optically pure alcohols or amines; so in hindsight this comment is amusing.

This interview was conducted by the editors at Communications Chemistry.

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