

EDITORIAL

The Plant Cell in the New Age of Scientific Publishing

Dear friends,

I am happy to write to you in the New Year as the new Editor in Chief of *The Plant Cell*. It has been 25 years since my colleague Bob Goldberg launched the journal, which has become a top venue for publication of high-impact discoveries in plant science. The journal's scientific remit spans plant biochemistry, cell and molecular biology, and the genetic mechanisms of plants and their interactions with the environment and with other organisms. In addition to Bob, each editor—Brian Larkins, Ralph Quatrano, Rich Jorgensen, and Cathie Martin—has put his or her own stamp on the journal, broadening the scope of topics and article types, and hence the author and reader base. I thank Cathie Martin for leaving me with a vibrant, high-quality product, a fantastic staff at ASPB, and a caring, scholarly team of editors. I am especially pleased with the success of the “Large-Scale Biology” articles (the present format being an innovation of Cathie and Blake Meyers), which are heavily accessed by readers and hence a desired venue for publication of results from high-throughput, whole-genome, or systems-level approaches. I expect that the readers of *The Plant Cell* will soon see additional papers covering structural genomics and synthetic biology within our pages; we have added editors Nathan Nelson and Dan Voytas to our board to encourage your submissions in these areas.

A few changes will be immediately apparent to all of you. On the manuscript handling and publishing side, we are transitioning our peer-review system to eJournal Press (eJPress), and the journal is now an online-only publication. This means there is no additional cost for color images, which are especially relevant in plant biology. We ask for your patience as we transition to eJPress, but I think you will be excited by the new features. For instance, you can submit your references in any format—no more reformatting reference databases to output in a particular style! Your manuscript files can be uploaded by drag and drop on the eJPress platform, and figures will be automatically inserted into the PDF at the position where they are first mentioned, a feature reviewers will surely appreciate. The PDF options at eJPress will soon facilitate immediate online posting of your article upon final acceptance, making sure that your work reaches its audience more quickly. We have streamlined the submission process and the Instructions for Authors (IFA), http://tpc.msubmit.net/cgi-bin/main.plex?form_type=display_auth_instructions, so I urge you to look at it, especially as you prepare the figures and text for your next submission. I am proud of the visual appeal of *The Plant Cell* papers, and I fully intend to maintain the journal's high aesthetic standard.

On the reviewing side: here is where I hope to make the most changes. We have an eager new crop of Reviewing Editors with a charge to expedite the dissemination of high-quality plant science that will appeal to a broad audience both within the community of plant biologists as well as outside. Publication documents your scholarship and discoveries; any delay in publication increases the time to degree and the initiation of the job search. If you have made

an important discovery, you don't want to delay dissemination of this work to your colleagues. Therefore, my editorial board is committed to a rapid time to final decision. The journal already has an enviable record for time to first decision (32 days), but many of us have endured multiple rounds of review and revision prior to a final decision, and the final decision is what matters. Let me explain the path of a typical manuscript to you so that you have an appreciation for the time commitment of editors, reviewers, and production staff.

Step 1—Pre-review: Each submitted manuscript is screened by a Senior Editor and/or a Reviewing Editor for its suitability for *The Plant Cell*, based on scope, substance, and potential impact of the work. We are looking for papers that will move the field forward, whether by changing existing models or presenting new ideas and ways of thinking or by adding new information to fundamental pathways and processes in plants. If we feel that the manuscript is unlikely to be accepted after peer review, we will decline to review it so that the author may send it promptly to another journal. We hope to make this decision in a window of three working days after all authors have approved the submission. Short biographical essays describe the research interests and expertise of our editorial board (<http://www.plantcell.org/site/misc/edboard.xhtml>); we encourage you to suggest one or more potential Senior Editors and Reviewing Editors at the time of submission to guide your paper to the most appropriate reviewers.

We are also offering a “pre-review only” submission option, for which your manuscript may be submitted in any format. This option may be useful for young investigators who have less experience in presenting their work. Indeed, we are asking corresponding authors who are young investigators (i.e., within 5 years of their first independent position or within 5 years after completing postdoctoral studies) to identify themselves, so that the editorial board can pay special attention at the pre-review stage and offer guidance for the full submission to make a positive outcome more likely. I especially want the next generation of plant biologists to build their careers via ASPB, and one important way to do that is to disseminate your ideas and discoveries in the pages of our journals.

Step 2—Review: If the manuscript will be reviewed, it will be assigned to a Reviewing Editor who will choose reviewers with expertise in the subject of your manuscript. I have asked the editors to solicit multiple (more than two) reviewers, especially for interdisciplinary papers. I would like the papers to be reviewed for impact on the field as well as for technical merit. Collaborative projects may therefore require multiple reviewers, but some reviewers may be asked to provide comments on only part of the paper. If you are solicited to review a paper, keep this in mind—you need review only those aspects in which you have expertise (and please indicate to the editor where additional expertise may be required). The authors can help the editor as well by offering suggestions of reviewers with expertise in particular areas.

Reviewers are asked to prioritize their requests for revision. We do not want reviewers to offer authors a shopping cart of new experiments; requests for additional information or experiments



Major Revisions

1. Please provide a more detailed description of the data, and a number of alternative hypotheses.
2. The manuscript would be strengthened by additional data.
3. Provide a more complete description of the data, and a number of alternative hypotheses.

Minor Revisions

1. Delete the paragraph in the discussion of the data, and a number of alternative hypotheses.

Confidential Comments for the Editor:



Instructions are being streamlined and made more visual.

should be restricted to what is essential for publication. Authors are encouraged to communicate with Reviewing Editors through eJPress if the requirements for revision are not clear.

The new manuscript handling system will keep better track of reviewer solicitations, assignments, and responses so we can avoid overloading any single reviewer. We hope that the community of reviewers as a whole will rise to this challenge as well; we will all appreciate and benefit from your prompt responses to review requests and timely completion of reviews. We urge you to review a manuscript as if it were your own work. If this work is in your field, it will become part of the knowledge base upon which you will rely for your own discoveries. Are the experiments well controlled and rigorous? Are important conclusions supported by multiple lines of evidence? Our best reviewers, recommended each year by the editorial board using criteria of number of reviews, timeliness of response, and quality of evaluations, will be recognized at the annual Plant Biology meeting.

Step 3—Pre-decision: When all reviewers have submitted their reviews, they will be able to view all other reviews anonymously, with an option to edit their own comments and offer additional comments to the editor within 48 hours. We hope that this additional step will allow reviewers to educate themselves and/or catch mistakes and misunderstandings. Reviewer input at this stage will also help the editor reach a decision.

Step 4—Decision: The Reviewing Editor will prepare a decision based on his/her own evaluation of the paper and the reviewers' comments. For any paper, but especially interdisciplinary ones, a Reviewing Editor may consult with another Reviewing Editor, Guest Editor, or Editorial Consultant at this stage (or earlier at the stage of reviewer selection). If it appears likely that the work will become publishable after revision, the Reviewing Editor will recommend to the authors a specific set of essential revisions in addition to providing a verbatim copy of the referee reports.

If the reviewers collectively point out valid experimental flaws or indicate that the data do not support the claims, or if their comments indicate that substantial additional work is required, the Reviewing Editor will decline to consider the manuscript any further. As an author, the onus is on you to present us with a complete story—a piece of work that will be admired in the journal clubs of your colleagues, collaborators, and competitors! The function of the editorial board is to provide peer review for your work as you have conceived it, not to guide the direction of your work or the questions you choose to address. Nevertheless, we hope that the reviewer comments will prove to be thought provoking and stimulating of other models or lines of investigation. The Reviewing Editor has the option to remain anonymous at this stage, but the decision letter will be signed by the Senior Editor, so

that the author has a sense that the manuscript was evaluated by the appropriate group of scientists. The typical manuscript will reach this stage in about a month after submission.

We are committed to maintaining the high standing of the journal in the scientific community. Many manuscripts submitted contain quality data that are of value to the community and should be published somewhere; this doesn't necessarily mean that they meet the standards of *The Plant Cell* with respect to novelty of the findings, providing substantial insight into plant biology, or perceived impact and importance. It is also possible that in our enthusiasm to provide you with a rapid decision, we may occasionally make a mistake in declining to publish important work. We would regret such a decision, but we know that good work will be published, and we will be satisfied that we did not contribute to delay in the publication of such work.

Step 5—Revision: Your revised manuscript will be sent directly to the same Reviewing Editor, who generally will make a decision with minimal additional review since he/she has already evaluated the work and has recommended a specific set of essential revisions. To ensure that your revision is accepted, I urge you to consider reviewer and editor input thoughtfully. Prepare a detailed "response to peer review" letter that clearly explains how the manuscript was revised to address the reviewer and editor comments rather than a "rebuttal" letter. Be mindful that most reviewers are graciously donating their time to help you present your work to your audience in the most effective way.

The Reviewing Editor will prepare a decision letter for the revised manuscript but may retain the option to remain anonymous at this stage as well. Typically, this stage should not take more than a week or two.

Step 6—Science Editor Review: Following initial acceptance by the Reviewing Editor, your manuscript will be assigned to a science editor who will evaluate it with respect to scientific content presentation, presentation for a broad readership, and compliance with journal standards. *The Plant Cell* has appointed several science writers with doctoral degrees in plant biology or a related discipline to serve in this capacity. We are at the forefront of scientific publishing with this service, which helps to ensure that your work is presented as clearly and effectively as possible. Although we are leaving the print journal behind, we retain a commitment to excellence in the presentation of your data. The science editors will pay special attention to the appearance of figures and tables. You will receive feedback from the science editor within a week or so. The service is an expensive option for the journal, but it is valuable to the authors and readers because it facilitates communication of your best work.

Step 7—Production: The science editor will issue final acceptance, and your corrected manuscript will be sent into production. You will receive page proofs within two weeks and an invoice upon final publication. The manuscript will be published in the "Latest Articles" section of the journal website shortly after you return your proof corrections. By mid-2015, your time to first publication will be reduced even further as we complete the transition to our new peer-review workflow. The final version of your article will be published in the monthly issue and will support enhanced viewers like Utopia (for pdfs) and Lens, developed by eLife (for html). These viewers make it possible to explore figures, figure descriptions, references, and more, without losing your place in the article text. We also provide researchers with content collection, storage, organization, and metadata sharing functionality via Stackly, a cloud-based content manager.



The Plant Cell editorial team is young and enthusiastic—over half the board members are new to the team, but we are fortunate that most of the Senior Editors will stay to guide us through this transition. I have included a few Guest Editors and Editorial Consultants—Volker Brendel, Oliver Jensen, Fabrice Rappaport, Pamela Soltis, and Dan Voytas—on the board to stimulate submission and improve the quality of our evaluation of papers in the areas of biophysics, computational biology and modeling, synthetic biology, and molecular evolution. We have expanded the team of editors with an interest in plant-microbe interactions—Barbara Kunkel, Tesfaye Mengiste, and Michael Udvardi join

Xinnian Dong, Regine Kahmann, and Scott Peck under the leadership of Jean Greenberg—so that we can handle manuscripts in this area more effectively.

Although the journal does not impose a strict page limit, I urge you to present a focused story. It is not necessary to present peripheral experiments that may be marginally relevant. Indeed, this may diffuse the impact of the paper and increase time to review. I would like to avoid the trend in page bloat that I have seen in *The Plant Cell*. I confess that I have contributed to this myself, but I wonder if the work might not have greater impact if each publication were more focused.

I hope you will contact me with your ideas of how *The Plant Cell* may serve the scientific community by providing a rapid route to publication of your best work and helping to make your research program more visible. In the meantime, submit your best work to us. We are thanking all our authors by offering them a choice of images from our beautiful covers for use as wallpapers on their mobile devices. I hope this will remind you daily of your pleasant experience with *The Plant Cell* and the major impact the journal has had on communicating new knowledge in plant biology.

Sabeeha Merchant
Editor in Chief
The Plant Cell

ORCID ID: 0000-0002-2594-509X

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Sabeeha Merchant

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