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This document will help you when preparing your manuscript for initial submission and resubmission to a Nature Partner Journal. Please ensure that you familiarise yourself with our editorial policies as outlined in this section before submitting your work. An overview of key information on submitting primary research is also available in our [brief guide to manuscript submission](#) in PDF format.

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Once you have prepared your manuscript, the [Initial Submission](#) section will provide you with information on the submission system, while our editorial criteria and processes are described in the [Peer review and publication](#) section.

For information on the journal aims & scope, as well as content types, please refer to the About the Journal section on the individual journal website.

## Relationship to other Nature Research journals

The Nature Partner Journals are open access, online-only, Nature Research journals published by Springer Nature in collaboration with internationally renowned partners.

Each Nature Partner Journal is editorially independent. The editors make their own decisions, independently of the other Nature Research journals.

If a paper is rejected from one Nature Research journal, the authors can use an automated manuscript transfer

service to submit the paper to another journal via a link sent to them by the editor handling the manuscript.

For more information, please consult the following:

[Details of the manuscript transfer service](#)

[Listing of all Nature journals](#)

[A general explanation of the relationship between Nature Research titles](#)

## Content Types

Please refer to the About the Journal section on the individual journal website for details on what content types are considered.

## Editorial and Publishing Policies

As part of Nature Research, the Nature Partner Journals follow a number of common policies as detailed in our [authors and referees](#) site and we request that our authors and prospective authors abide by them.

In particular, when you submit a manuscript to the Nature Partner Journals its content must not significantly overlap with any other papers from you or your co-authors' groups that are under consideration or in press at other journals, with the exception of conference abstracts. We do, however, support the posting of the pre-review version of the manuscript on preprint servers.

If you submit a related manuscript to any other journal while the submission to a Nature Partner Journal is under consideration, you must send us a copy of the related manuscript and details of its progress towards publication. We reserve the right to decline publication of a paper even after it has been accepted if it becomes apparent that there are serious problems with the scientific content or violations of our publishing policies.

Some of our policies you need to familiarise yourself with are listed below:

- [Author responsibilities](#)
- [Duplicate publication](#)
- [Confidentiality and pre-publicity](#)
- [Plagiarism and fabrication](#)
- [Competing interests](#)
- [Licence agreement and author copyright](#)
- [Embargo policy and press releases](#)
- [Availability of materials and data](#)
- [Digital image integrity and standards](#)
- [Refutations, complaints and corrections](#)
- [Compliance with open access mandates](#)
- [Security concerns](#)
- [Correction and retraction](#)
- [Use of experimental animals and human subjects](#)

## Initial Submission

We do not request manuscripts to be formatted in Nature Partner Journals' style for initial submissions, as long as the study is described in a fashion that is suitable for editorial assessment and peer review.

You can submit either a single PDF file that includes the manuscript text and any display items, or separate files for text, figures and tables. Besides the manuscript files,

you should also provide a cover letter addressed to the editors and any supplementary information.

### Presubmission inquiries

If you are unsure whether your paper is in scope for a Nature Partner Journal, you can submit a pre-submission enquiry, providing at least an abstract of your work.

### Manuscript files

The manuscript file must contain the following essential information:

- Names and affiliations of all co-authors. The primary affiliation for each author should be the institution where the majority of their work was done. If an author has subsequently moved, the current address may also be stated. The corresponding author should be identified with an asterisk.
- A detailed description of the findings of the work (by means of text and display items), including sufficient information on methods and materials which would enable replication of the study by a fellow expert. As a guideline, the text should be structured in broad sections (abstract, introduction, results, discussion, methods).
- References to previous works.

If the manuscript includes personal communications, please provide a written statement of permission from any person who is quoted. E-mail permission messages are acceptable.

Our formatting requirements are detailed below, and information on sections, length limits and figure limits are detailed in the 'About the Journal' page on each journal website according to content type. While we do not ask you to comply with these requirements for initial submissions, they will be enforced prior to acceptance of the work. We accept manuscripts in PDF, Word or TeX/LaTeX formats; if you are using TeX/LaTeX, we prefer that you submit compiled PDFs up until the pre-acceptance stage. All textual content should be provided in a single file; figures should be provided in individual files (see below).

### Supplementary information

Any information (including display items) not directly related to the description of the main findings, but needed to properly understand and replicate the study, should be included in a supplementary information file, which can be submitted as a PDF, Word or TeX/LaTeX document. The supplementary information document will be sent to peer reviewers alongside the manuscript file.

### Language

Papers submitted to the Nature Partner Journals should be accessible to non-specialists; you should ensure that your findings are communicated clearly. Although a shared basic knowledge of scientific language may be

assumed, please bear in mind that the language and concepts that are standard in one subfield may be unfamiliar to colleagues working in another area. Thus, technical jargon should be avoided as far as possible and clearly explained where its use is unavoidable. Abbreviations should be kept to a minimum and should be defined at their first occurrence. The background, rationale and main conclusions of the study should be clearly explained. Titles and abstracts in particular should be written in language that will be readily intelligible to any scientists.

No paper will be rejected for poor language. However, if you would like assistance with writing your manuscript, you can consider asking colleagues for their input and/or use a professional editing service such as those provided by our affiliates [Nature Research Editing Service](#) or [American Journal Experts](#). The use of a language editing service has no bearing on editorial decisions and is not a requirement for publication.

### Cover letter

Providing a cover letter can help you convey the work's importance to the editors and explain why you consider it appropriate for the readership of a particular Nature Partner Journal. You must disclose details of any related manuscripts that you have under consideration or in press elsewhere, and you can provide suggested reviewers to include, or ask individuals to be excluded from peer review (explaining why). Finally, you should indicate whether you have had any prior discussions with a Nature Partner Journal editor about the work described in the manuscript. The cover letter is not transmitted to peer reviewers.

### Life sciences reporting guidelines

To improve the transparency of reporting and the reproducibility of published results, authors of life sciences research articles must provide a completed [reporting summary](#) that will be made available to editors and reviewers during manuscript assessment. The reporting summary will be published with all accepted manuscripts.

All authors must also complete an [editorial policy checklist](#) to ensure compliance with Nature Research editorial policies.

Please note: because of the advanced features used in these forms, you must use [Adobe Reader](#) to open the documents and fill them out.

Guidance and resources related to the use and reporting of statistics for life sciences are available [here](#).

## Formatting

The manuscript text file should include the following parts, in order: a title page with author names, affiliations and contact information (the corresponding author should be identified with an asterisk); the sections required for each content type, then Acknowledgements (optional), Author Contributions, Competing Interests statement, References, Figure Legends, and Tables.

### Word

The Nature Partner Journals do not use a manuscript template for Word documents. The manuscript file should

be formatted as double-spaced, single-column text without justification. Pages should be numbered using an Arabic numeral in the footer of each page. Standard fonts are recommended and the 'symbols' font should be used for representing Greek characters.

### TeX/LaTeX

To submit a TeX/LaTeX file, please use any of the standard class files such as `article.cls`, `revtex.cls` or `amsart.cls`. All textual material should be provided as a single file in default Computer Modern fonts. Please avoid

non-standard fonts and packages and remove all personal macros before submitting. For graphics, we recommend `graphicx.sty`. Please use numerical references only for citations, and include the references within the manuscript file itself. If you wish to use BibTeX, please copy the reference list from the `.bbl` file, paste it into the main manuscript `.tex` file, and delete the associated `\bibliography` and `\bibliographystyle` commands. Before submission, please ensure that the complete `.tex` file compiles successfully on your own system with no errors or warnings. There is no need to spend time visually formatting the manuscript: our style will be imposed automatically when the paper is prepared for publication.

### Methods

The Methods section should be written as concisely as possible but should contain all elements necessary to allow interpretation and replication of the results.

Authors can deposit the step-by-step protocols used in their study to [Protocol Exchange](#), an open resource maintained by Nature Research. Protocols deposited by the authors will be linked to the Online Methods section upon publication.

The Methods section should be subdivided by short bold headings referring to methods used and we encourage the inclusion of specific subsections for statistics, reagents and animal models.

### New structures

Manuscripts reporting new structures should contain a table summarizing structural and refinement statistics. To facilitate assessment of the quality of the structural data, a stereo image of a portion of the electron density map (for crystallography papers) or of the superimposed lowest energy structures (>10; for NMR papers) should be provided with the submitted manuscript. If the reported structure represents a novel overall fold, a stereo image of the entire structure (as a backbone trace) should also be provided.

### Acknowledgements

Acknowledgements should be brief, and should not include thanks to anonymous referees and editors, or effusive comments. Grant or contribution numbers may be acknowledged.

### Author contributions

Nature Partner Journals require an Author Contribution statement as described in the [Authorship](#) section of our [Editorial policies](#).

### Competing interests

Submission of a signed [Competing Interests Statement](#) is required for all content of the journal. This statement will be published at the end of all articles, whether or not a competing interest is reported.

### References

References are numbered sequentially as they appear in the text, methods, tables, figure legends. Only one publication is given for each number. Only papers that have been published or accepted by a named publication or recognized preprint server should be in the numbered list. Meeting abstracts that are not published and papers in preparation should be mentioned in the text with a list

of authors (or initials if any of the authors are co-authors of the present contribution). Published conference abstracts, numbered patents and research datasets that have been assigned a digital object identifier may be included in the reference list. URLs for web sites should be cited parenthetically in the text, not in the reference list; articles in formal, peer-reviewed online journals should be included in the reference list. Grant details and acknowledgments are not permitted as numbered references. Footnotes are not used.

The Nature Partner Journals use standard *Nature* referencing style. All authors should be included in reference lists unless there are more than five, in which case only the first author should be given, followed by 'et al.'. Authors should be listed last name first, followed by a comma and initials (followed by full stops) of given names. Article titles should be in Roman text, the first word of the title should be capitalized and the title written exactly as it appears in the work cited, ending with a full stop. Book titles should be given in italics and all words in the title should have initial capitals. Journal names are italicized and abbreviated (with full stops) according to common usage. Volume numbers and the subsequent comma appear in bold.

Titles of cited articles are required for all articles. Example: Eigler, D. M. & Schweizer, E. K. Positioning single atoms with a scanning tunnelling microscope. *Nature* **344**, 524-526 (1990).

For book citations, the publisher and city of publication are required. Example: Jones, R. A. L. *Soft Machines: Nanotechnology and Life Ch. 3* (Oxford Univ. Press, Oxford, 2004).

Research datasets may be cited in the reference list if they have been assigned digital object identifiers (DOIs) and include authors, title, publisher (repository name), identifier (DOI expressed as a URL). Example:

Hao, Z., AghaKouchak, A., Nakhjiri, N. & Farahmand, A. Global Integrated Drought Monitoring and Prediction System (GIDMaPS) data sets. Figshare <http://dx.doi.org/10.6084/m9.figshare.853801> (2014).

To cite a preprint, please follow this style: Babichev, S. A., Ries, J. & Lvovsky, A. I. Quantum scissors: teleportation of single-mode optical states by means of a nonlocal single photon. Preprint at <http://arXiv.org/quant-ph/0208066> (2002).

### Figure legends

Figure legends begin with a brief title for the whole figure and continue with a short description of each panel and the symbols used, focusing on describing what is shown in the figure and de-emphasizing methodological details. The meaning of all error bars and how they were calculated should be described. Each legend should total no more than 250 words.

### Tables

Please submit tables at the end of your text document (in Word or TeX/LaTeX, as appropriate). Tables that include statistical analysis of data should describe their standards of error analysis and ranges in a table legend.

## Figures

Figures should be numbered separately with Arabic numerals in the order of occurrence in the text of the manuscript. One- or two-column format figures are preferred. When appropriate, figures should include error bars. A description of the statistical treatment of error analysis should be included in the figure or scheme legend.

Figure lettering should be in a clear, sans-serif typeface (for example, Helvetica); if possible, the same typeface in approximately the same font size should be used for all figures in a paper. Use symbol font for Greek letters. All display items should be on a white background, and should avoid excessive boxing, unnecessary colour, spurious decorative effects (such as three-dimensional 'skyscraper' histograms) and highly pixelated computer drawings. The vertical axis of histograms should not be truncated to exaggerate small differences. Labelling must be of sufficient size and contrast to be readable, even after appropriate reduction. The thinnest lines in the final figure should be no smaller than one point wide. Reasonable requests to enlarge figures will be considered, but editors will make the final decision on figure size. Authors will see a proof of figures.

Figures divided into parts should be labelled with a lower-case bold a, b, and so on, in the same type size as used elsewhere in the figure. Lettering in figures should be in lower-case type, with only the first letter of each label capitalized. Units should have a single space between the number and the unit, and follow SI nomenclature (for example, ms rather than msec) or the nomenclature common to a particular field. Thousands should be separated by commas (1,000). Unusual units or abbreviations should be spelled out in full or defined in the legend. Scale bars should be used rather than magnification factors, with the length of the bar defined in the legend rather than on the bar itself. In legends, please use visual cues rather than verbal explanations, such as "open red triangles".

Authors are encouraged to consider the needs of colourblind readers (a substantial minority of the male population) when choosing colours for figures. Many colourblind readers cannot interpret visuals that rely on discrimination of green and red, for example. Thus, we ask authors to recolor green-and-red heatmaps, graphs and schematics for which colours are chosen arbitrarily. Recoloring primary data, such as fluorescence or rainbow pseudo-coloured images, to colour-safe combinations such as green and magenta, turquoise and red, yellow and blue or other accessible colour palettes is strongly encouraged.

Unnecessary figures should be avoided: data presented in small tables or histograms, for instance, can generally be stated briefly in the text instead. Figures should not contain more than one panel unless the parts are logically connected; each panel of a multipart figure should be sized so that the whole figure can be reduced by the same amount and reproduced on the printed page at the smallest size at which essential details are visible.

When a manuscript is accepted for publication, we will ask for high-resolution figure files, possibly in a different

electronic format. This information will be included in the acceptance letter. See below for [details of digital image production and submission](#).

## Gene nomenclature

Authors should use approved nomenclature for gene symbols, and use symbols rather than italicized full names (*Ttn*, not *titin*). Please consult the appropriate nomenclature databases for correct gene names and symbols. A useful resource is [Entrez Gene](#). Approved human gene symbols are provided by HUGO Gene Nomenclature Committee (HGNC). Approved mouse symbols are provided by [The Jackson Laboratory](#).

For proposed gene names that are not already approved, please submit the gene symbols to the appropriate nomenclature committees as soon as possible, as these must be deposited and approved before publication of an article.

Avoid listing multiple names of genes (or proteins) separated by a slash, as in '*Oct4/Pou5f1*', as this is ambiguous (it could mean a ratio, a complex, alternative names or different subunits). Use one name throughout and include the other at first mention: '*Oct4* (also known as *Pou5f1*)'.

## Supplementary information

Supplementary information should be submitted with the manuscript and will be sent to referees during peer review. Supplementary information is not copy-edited, so authors should ensure that it is clearly and succinctly presented, and that the style and terminology conform with the rest of the paper. The following guidelines detail the creation, citation and submission of supplementary information. Please note that modification of supplementary information after the paper is published requires a formal correction, so authors are encouraged to check their supplementary information carefully before submitting the final version.

Designate each item as Supplementary Table, Figure, Video, Audio, Notes, Data, Discussion or Equations. Number Supplementary Tables and Figures as, for example, "Supplementary Table 1". This numbering should be separate from that used in tables and figures appearing in the main printed article. Supplementary Notes should not be numbered and can have an optional title. Please provide a title for Supplementary Tables and a title and a caption for Supplementary Figures, Supplementary Video and Supplementary Notes. The latter should only be used in consultation with the editors for specific elements best presented in Supplementary Information, such as standalone descriptions related to methods (for example algorithm description, compound synthesis and characterization). Please note that Supplementary Methods will no longer be allowed.

Refer to each piece of supplementary information at least once within the text of the main article, at the appropriate point(s). Be sure to include the word "Supplementary" each time one is mentioned. Please do not refer to individual panels of supplementary figures.

Please also ensure that, where relevant, the appropriate reporting guidance checklist (e.g. CONSORT for randomised controlled trials, PRISMA for systematic

reviews, and STROBE for cohort, case-control and cross-sectional studies) has been completed and submitted as a supplementary file. These can be obtained from <http://www.equator-network.org>.

Figure files should be submitted as web-ready files through the online submission system. With the exception of spreadsheet, audio and video files, please submit the supplementary information as a single combined PDF, if possible. If necessary, we can accept any of these formats:

- .txt | Plain ASCII text
- .gif | GIF image
- .htm, .html | HTML document
- .doc, .docx | MS Word document
- .jpg | JPEG image
- .swf | Flash movie
- .xls, .xlsx | MS Excel spreadsheet
- .pdf | Adobe Acrobat file
- .mov | QuickTime movie
- .ppt, .pptx | MS Power Point slide
- .wav | Audio file
- Compressed Archive File (.zip),
- Encapsulated Postscript (.eps),
- MPEG animation (.mpg),

- PostScript (.ps),
- Rich Text Format (.rtf),
- Systems Biology Markup Language (.sbml, .xml, .owl),
- TAR archive file (.tar),
- TIFF image (.tif),
- WordPerfect document (.wpd).

File sizes should be as small as possible, with a maximum size of 30 MB, so that they can be downloaded quickly. The combined total size of all files must not exceed 150 MB. The combined total size of all files must not exceed 150 MB. Video files should use a frame size no larger than 320 x 240 pixels.

All panels of a figure or table (for example, Fig. 1a, b and c) should be combined into one file; please do not send as separate files. Image files should be just large enough to view when the screen resolution is set to 640 x 480 pixels. Remember to include a brief title and legend (preferably incorporated into the image file to appear near the image) as part of every electronic figure submitted, and a title as part of every table.

Audio and video files should use a frame size no larger than 320 x 240 pixels. The file size of each should not exceed 30 MB.

## Resubmission

If you have been invited to revise and resubmit your paper, you should follow the instructions provided by the editor in their decision email. You will be expected to provide: a revised version of the manuscript that addresses the issues raised by the peer reviewers; a response to each of the reviewers, replying to their comments in a point-by-point fashion; a cover letter that provides any additional confidential information or concern for the editors.

In addition, if your paper has been accepted, in principle, for publication, the revised manuscript must comply with the formatting requirements as specified by the editor and detailed [above](#), with the length and figure limits appropriate to the content type, and with the following requirements.

### ORCID

As part of our efforts to improve transparency in authorship, we request that all corresponding authors of published papers provide their Open Researcher and Contributor Identifier (ORCID) ID, before resubmitting the final version of the manuscript. ORCID helps the scientific community achieve unambiguous attribution of all scholarly contributions.

Authors can link their ORCID to their account in the manuscript tracking system (MTS). From the MTS homepage, click **Modify my Springer Nature account** and then **ORCID Create/link an Open Researcher Contributor ID (ORCID)** in the Personal Profile tab. This will re-direct you to the ORCID website. If you already have an ORCID account, enter your ORCID email and password and click on **Authorize**. If you don't have one, you can create one at this stage. Linking ORCID and MTS accounts can be done at any time prior to acceptance.

For more information please visit [ORCID at Springer Nature](#). If you experience technical issues please contact the [Platform Support Helpdesk](#).

### Language

As the Nature Partner Journals are read by scientists from diverse backgrounds, many of whom are not native English speakers, it is essential that the findings are reported in an accessible language. Manuscripts can be subject to editing, in consultation with the authors, to achieve this goal. You are welcome to discuss proposed changes with the editors, but the Nature Partner Journal editors reserve the right to make the final decision about matters of style and the size of figures.

After acceptance, a copy editor may make changes so that the text and figures are readable and clear to those outside the field, and so that papers conform to our style.

### Preparing production quality figures

Please read the [digital images integrity and standards](#) policy. When possible, we prefer to use original digital figures to ensure the highest-quality reproduction in the journal. For optimal results, prepare figures at actual size for the journal. Figures that do not meet these standards will not reproduce well and publication may be delayed until we receive high-resolution images. We cannot offer to provide corrected reprints with higher image quality if only poor quality images were supplied at accept stage.

Authors are responsible for obtaining permission to publish any figures or illustrations that are protected by copyright, including figures published elsewhere and pictures taken by professional photographers. The journal cannot publish images downloaded from the internet without appropriate permission.

When creating and submitting digital files, please follow the guidelines found [here](#).

### Chemical structures

Chemical structures should be produced using ChemDraw or a similar program. All chemical compounds must be assigned a bold, Arabic numeral in the order in which the compounds are presented in the manuscript text. Figures containing chemical structures should be submitted in a size appropriate for direct incorporation into the printed journal. Authors using ChemDraw should make use of our [journal template](#) or use the preferences below, submitting the final files at 100% as .cdx files. Creating molecules within or copying them into the template will ensure that most of our journal style points

are followed. For more information, please also review our [Chemical Style Guide](#).

Drawing settings: chain angle, 120° bond spacing, 18% of width; fixed length, 14.4 pt; bold width, 2.0 pt; line width, 0.6 pt; margin width 1.6 pt; hash spacing 2.5 pt.

Atom Label settings: font, Arial; size, 8 pt. "Show labels on Terminal Carbons" and "Hide Implicit Hydrogens" should be unchecked.

### Stereo images

Stereo diagrams should be presented for divergent 'wall-eyed' viewing, with the two panels separated by ~5.5 cm. In the final accepted version of the manuscript, the stereo images should be submitted at their final print size.

## Peer Review and Publication

This section explains the editorial processes at the Nature Partner Journals, which can be outlined in the following steps:

1. The author submits a manuscript and it receives a tracking number.
2. An editor is assigned to the manuscript.
3. The editorial team decides whether to send the manuscript out to review. If the decision is not to send the manuscript for review, the editor contacts the author with the decision.
4. The editor assigns potential reviewers to the manuscript and the author is notified.
5. Reviewers agree to review the manuscript.
6. Reviewers submit their reports to the editor.
7. The editorial team discusses the reports and the editor makes the final decision. This process may involve further consultation with the reviewers and editor-mediated communications between the reviewers.
8. The editor contacts the author with the decision.
9. If the decision is negative, the author can choose to transfer their manuscript to another journal. If the manuscript was peer reviewed the referee comments are also transferred. Please see our [Manuscript Transfer FAQ](#) for more information about this service.

### First editorial decision

When a new submission is received, it is assigned to an Editor in Chief, who reads the paper, and decides whether to assign it to an Associate Editor. The Associate Editor can then consult with other editors (including in-house Managing Editors), and decide whether it should be sent for peer review based on the editorial criteria of the journal of novelty and significance. The novelty of a submitted paper might be considered to be compromised if it has significant conceptual overlap with a published paper. Preprint archives do not compromise novelty.

If a paper was previously reviewed at a Nature journal, the authors can use an automated manuscript transfer service to transfer the referees' reports to a Nature Partner Journal via a link sent by the editor who handled the manuscript. The reviewer identities will not be transferred, and although the journal editors will take the previous reviews into account when making their

decision, the editors will likely choose to take advice from additional or alternative referees. Alternatively, authors may choose to request a fresh review, in which case they should not use the automated transfer link, and the editors will evaluate the paper without reference to the previous review process. However, this decision must be made at the time of initial submission and cannot be changed later.

If the authors ask the editors to consider the previous reviews, they should include a note explaining the relationship between the submitted manuscript and the previous submission and (assuming it has been revised in light of the referees' criticisms) giving a point-by-point response to the referees. In cases where the work was felt to be of high quality, papers can sometimes be accepted without further review, but if there were serious criticisms, the editors will consider them in making the decision. In the event of publication, the received date is the date of submission to the Nature Partner Journal.

When the editors have reached a first decision on the paper, they notify the corresponding author by email.

### Peer review

If the editor decides to send the paper to external peer reviewers, they will contact researchers with relevant expertise. Referee selection is critical to the review process, and we base our choice on many factors, including expertise, reputation, specific recommendations and our own previous experience of a referee's characteristics. For instance, we avoid using referees who are chronically slow, careless, too harsh or too lenient. Authors may suggest referees; these suggestions are often helpful, although they are not always followed. By policy, referees are not identified to the authors, except at the request of the referee.

Conceptually similar manuscripts are held to the same editorial standards as far as possible, and so they are often sent to the same referees. However, each of the co-submitted manuscripts must meet the criteria for publication without reference to the other paper. Thus if one paper is substantially less complete or convincing than the other, it may be rejected, even if the papers reach the same conclusion.

### Decision after review and revision

When all the referee reports are received, the editors then make a decision based on the reviewers' advice, from among several possibilities:

- Accept, with or without editorial revisions
- Invite the authors to revise their manuscript to address specific concerns before a final decision is reached
- Decline publication, typically on grounds of specialist interest, lack of novelty, insufficient conceptual advance or major technical and/or interpretational problems

Editors consider not only how good the paper is now, but also how good it might become after revision. In cases where the referees have requested well-defined changes to the manuscript that do not appear to require extensive further experiments, editors may request a revised manuscript that addresses the referees' concerns. The revised version is normally sent back to some or all of the original referees for re-review. The decision letter will specify a deadline, and revisions that are returned within this period will retain their original submission date.

In cases where the referees' concerns are more wide-ranging, editors will normally decline publication of the manuscript.

An invited revision should be submitted via the revision link to the online submission system **provided in the decision letter, not as a new manuscript**. The revised manuscript should be accompanied by a cover letter that includes a point-by-point response to referees' comments and an explanation of how the manuscript has been changed.

### Acceptance and publication

If the authors have successfully addressed all the comments of the reviewers and the editors, the editors will deem the paper acceptable for publication in the Nature Partner Journal. They will send a request for final submission possibly requiring some text changes but usually no revisions to the data or conclusions. These letters are accompanied by detailed comments on the paper's format compiled by the Managing Editors. At this stage, authors may receive an edited manuscript from the editor indicating editorial concerns that must be addressed in the revision. A priority of the Nature Partner Journals is that all papers be accessible to non-specialists. After acceptance, a copy editor may make further changes so that the text is readable and clear to

those outside the field, and so that papers conform to our style.

For the final revision, authors should use the revision link to the online submission system provided in the decision letter to upload a final version of the text with all the requested format changes. Electronic files of the final figures, at high resolution, should be submitted at this time.

When all remaining editorial issues are resolved, the paper is formally accepted. Contributors are sent proofs and are welcome to discuss proposed changes with the editors, but the Nature Partner Journals team reserves the right to make the final decision about matters of style and the size of figures.

### Appeals

Even in cases where editors did not invite resubmission, some authors ask the editors to reconsider a rejection decision. These are considered appeals, which, by policy, must take second place to the normal workload.

Decisions are reversed on appeal only if the editors are convinced that the original decision was a factual mistake. Further consideration may be merited if a referee made substantial errors of fact or showed evidence of bias, but only if a reversal of that referee's opinion would have changed the original decision. Similarly, disputes on factual issues need not be resolved unless they were critical to the outcome.

If an appeal merits further consideration, the editors may send the authors' response or the revised paper to one or more referees, or they may ask one referee to comment on the concerns raised by another referee. On occasion, particularly if the editors feel that additional technical expertise is needed to make a decision, they may obtain advice from additional referees.

### Transfers

If the editors of a Nature Partner Journal decline publication of a manuscript, before or after peer review, the authors can easily resubmit it to a different journal within the Nature Research family, in most cases without the need to reformat or upload the files, by following the link provided in the editor's decision email.

More information about the manuscript transfer service can be found [here](#).

Follow this link for [a list of all Nature Research journals and subject areas](#)

Follow this link for [a general explanation of the relationships between Nature Research titles](#)

## Post-Acceptance

Once a manuscript is accepted, the corresponding author must complete a Creative Commons licence and Article Processing Charge Payment form online on behalf of all authors. Failure to promptly return this information will result in delay of publication.

### Publication

Publishing Open Access will mean the paper is freely accessible online immediately upon publication. By paying this charge authors are permitted to post the final, published PDF of their article on a website, institutional

repository or other free public server, immediately on publication.

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#### Article Processing Charge Waiver policy

The Nature Partner Journals offer [APC waivers](#) for papers whose corresponding authors are based in the world's lowest income countries as defined by the World Bank. Discretionary APC waivers for authors will be considered on a case-by-case basis, and may be granted in cases of financial need. All applications for discretionary APC waivers should be made prior to, or at the point of, manuscript submission. To request a waiver please contact us at [apcwaivers@springernature.com](mailto:apcwaivers@springernature.com). Full details of our APC waiver and discount policies can be found [here](#).

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