

nature

Final submissions

These instructions apply only if your manuscript has been accepted in principle for publication and an editor has asked you to upload production-quality material.

Before your manuscript can be formally accepted for publication and passed to our subediting, art and production departments, you will need to upload electronic files of your text, figures and Supplementary Information (if any) to our server. You will also need to upload scanned copies of any forms and declarations requested by the editorial office for signing (these may be faxed if scanning is not possible, with the fax labelled clearly with the corresponding author name and manuscript reference number).

FINAL TEXT

Instructions for formatting and content of the text are at www.nature.com/nature/authors/gta.

We prefer Microsoft Word using the Nature MS Word template (www.nature.com/nature/authors/submissions/template), with the style tags removed. We are able to accept TeX files but an accompanying PDF must be supplied for reference, as we convert TeX to Word.

Formatting details in text

Fonts. We prefer the use throughout of a 'standard' font, preferably 12-point Times New Roman. For mathematical symbols, Greek letters, and other special characters, use normal text or symbol font. List non-standard keyboard symbols in the letter accompanying the final accepted version of your paper. Word Equation editor/MathType should be used only for formulae that cannot be produced using normal text or symbol font.

Page layout. Separate paragraphs by a single, not a double, carriage return ('enter'). Do not indent the start of paragraphs or insert page breaks at the end of sections. Do not insert a double space at the end of a sentence.

Reference citations (e.g. Water flows downhill¹³). Please observe the following:

- Use superscripts or subscripts for citations (see above example), not 'raised' or 'lowered' formats.
- **Do not use linked fields** (produced by 'EndNote' and similar programs).

FINAL ARTWORK

When preparing figures, authors are advised to refer to printed copies of *Nature* to get a sense of general size and style points.

When you send us your final artwork files, please include the email address of a person (an author or author's artist) who can promptly deal with our artwork format queries over a three-week period after your paper is accepted for publication.

For illustrated guide to preparing production-quality artwork after acceptance, see **Information sheet 4c: Guide to preparing final artwork**.

Lettering

Lettering should be in a sans-serif typeface, preferably Helvetica or Arial, the same font throughout all figures in the paper. Units, capitalization, etc. should follow *Nature* style (see www.nature.com/nature/authors/gta) and refer to recent issues of the journal published after 19 May 2005). Where practical, avoid placing lettering directly over images or shaded areas.

Separate panels in multi-part figures should each be labelled with 8 pt bold, upright (not italic) **a, b, c**. Maximum text size for all other

text should be 7 pt; minimum text size should be 5 pt. Amino-acid sequences should be presented in one-letter code in Courier.

Do not rasterize or covert text to outlines.

Sizing

Nature will often reduce figures to the smallest size possible for reasons of space. Authors are encouraged to indicate the smallest possible size they think appropriate for their figures, but *Nature* reserves the right to make the final decision.

For guidance, Nature's standard figure sizes are 89mm wide (single column) and 183mm wide (double column). The full depth of a Nature page is 247mm. Figures can also be a column-and-a-half where necessary (120–136mm).

Authors should check (using a reducing photocopier) that, at the smallest possible size, lettering remains readable and lines are sufficiently (but not too) heavy to print clearly. Line weights and strokes should be set between 0.25 and 1pt at the final size (lines thinner than 0.25 pt may vanish in print). Do not rasterize or outline these lines if possible.

Arrangement of parts

Nature will be guided by the authors' suggested layout of parts within figures, but may rearrange parts if necessary. Authors should indicate essential layout features, for example particular alignments of panels within a figure. We value clear instructions from authors to help us lay out their figures.

Image types

The best format for any particular figure depends partly on what sort of images it contains. Images fall into two basic categories: rasterized images (also called bitmapped images) and line (or vector) art.

Please do not rasterize line art or text in submitted figures and wherever possible supply editable, unflattened vector artwork.

Electronic image formats

If you cannot provide artwork in our preferred formats as described below, or have difficulty in understanding our requirements please send an email to art@nature.com so we can advise you as to how best to prepare your artwork in a compatible format.

Acceptable electronic formats

Nature preferred formats are:

- **Layered Photoshop (PSD) or TIFF format** (high resolution, 300–600 dots per inch (dpi) for photographic images. In Photoshop, it is possible to create images with separate components on different layers. This is particularly useful for placing text labels or arrows over an image, as it allows them to be edited later. If you have done this, please send the Photoshop file (.psd) with the layers intact.
- **Adobe Illustrator (AI), Postscript, Vector EPS or PDF format** for figures containing line drawings and graphs, including figures combining text and line art with photographs or scans.

If these formats are not possible, we can also accept the following formats: JPEG (high-resolution, 300–600 DPI), Canvas (up to version 8), CorelDraw (up to version 8), Microsoft Word, Excel or PowerPoint (see below).

Please **do not** send the following formats, as we cannot use them for print-quality reproduction: DeltaGraph, Tex, ChemDraw, SigmaPlot.

These files should be converted to postscript, EPS or PDF format before submission. For further help and advice, contact our art editors at art@nature.com.

Although PowerPoint can export JPEG format, the resulting files are low resolution and not suitable for printing. The only way to obtain sufficiently high-quality graphics format from Microsoft Office documents is to generate Postscript using 'Print to file'.

All photographic images must be supplied at a minimum of 300 dpi at the maximum size they can be used. Artificially increasing an image's resolution in an artwork program will not improve its quality.

We prefer Photoshop or TIFF format for rasterized images. Where JPEG is the only option available, the quality should be set to the highest possible to minimize loss of information.

Colour artwork

Colour artwork must be provided in CMYK format.

Computer screens display colours using red, green and blue pixels (RGB), whereas the four-colour printing process uses inks in cyan, magenta, yellow and black (CMYK). Therefore, colour figures supplied in RGB mode must be converted to CMYK in preparation for printing.

However, the range of colours that can be achieved in CMYK is limited, so converting from RGB to CMYK often affects the appearance of images. In particular, brighter colours are likely to appear muted, and the contrast between different coloured areas may be reduced.

If applicable, please carry out the conversion from RGB to CMYK before submitting figures, so that you can see how the colours will be affected and, if necessary, make adjustments to ensure that no important detail is lost.

SUPPLEMENTARY INFORMATION

General information

- **SI is peer-reviewed material directly relevant to the conclusion of a paper** that cannot be included in the printed version for reasons of space or medium (for example, movie clips or sound files).
- *Nature* strongly encourages authors to include a simple schematic as Figure 1 of their SI that summarises the main finding of the paper, where appropriate (for example, to assist understanding of complex detail in cell, structural and molecular biology disciplines).
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- We do not take responsibility for the maintenance of any links or e-mail addresses provided in SI.

Content

Please note that we do not encourage deposition of references within SI as they will not be live links and will not contribute towards citation measures.

Please check the following when submitting SI:

1. Each piece of SI designated to one of eleven categories with a separate numbering system from that used for figures and tables

in the print version of the paper, combined where possible into a single PDF.

2. SI is referred to at least once in the print version of the paper at an appropriate point in the text.
3. Formats are among those accepted by *Nature*.
4. **Total size of all files does not exceed 5 MB** (unless sound/movie file).
5. SI Guide.doc text file submitted containing titles of each SI file, descriptive summaries, file format types and file sizes.

For further information on SI, including full list of categories and acceptable formats, please see www.nature.com/nature/authors/submissions/final/supinfo.html.

Microarrays and other databases

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- If you are not able to do this at the time of submission, you may supply the data as SI on a CD. Five copies of the CD are required. Please send this to the UK editorial office: Nature, 4-6 Crinan Street, London N1 8XW, UK.
- The data must be MIAME-compliant, with all variables completed.
- See *Nature* editorial of 26 September 2002 (www.nature.com/nature/journal/v419/n6905/full/419323a.html) for further details and explanation.

FORMS & DECLARATIONS

After your paper has been accepted in principle for publication, please ensure that the following forms and declarations are signed and included when you upload your production-quality material. The forms can be either scanned and uploaded to our server with your production-quality files, or faxed to the number provided in the accept-in-principle letter. They are available at www.nature.com/nature/authors/submissions/final/forms.html.

Author checklist, and amend your manuscript as appropriate.

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