



<a href="#">About the Journal</a> .....	1	<a href="#">Post-Acceptance</a> .....	7
<a href="#">Article Type Specifications</a> .....	2	<a href="#">Editorial Policies</a> .....	8
<a href="#">Preparation of Articles</a> .....	3	<a href="#">Further Information</a> .....	13
<a href="#">How to Submit</a> .....	7		

## [ABOUT THE JOURNAL](#)

### **Aims and Scope**

The *International Journal of Obesity* is a multidisciplinary forum for basic, clinical and applied studies of the biochemical, physiological, genetic, molecular, metabolic, nutritional, psychological and epidemiological aspects of obesity and related disorders.

### Topics covered:

Molecular, cellular, animal, human experimental and clinical studies, which address issues related to the development and treatment of obesity, and the functional impairments associated with the obese state. The problems of obesity are multifactorial, and the International Journal of Obesity will expect to publish articles with biological, psychological, clinical, sociological and environmental approaches to these problems.

Due to the high volume of submissions that the Journal receives, the following manuscripts will be deemed low priority:

- Simple prevalence studies involving a single country at a single time-point.
- Studies that merely confirm established facts from previous publications and that contain little new information. For example, it is hard to justify publication space for studies that report obesity is associated with known health risks. Therefore, studies that replicate the findings of previously published papers will tend to have a lower priority. If similar data are already published, it will be critical for authors to explain the novelty of their manuscript in the covering letter to the editor
- Those that involve co-morbidities of obesity (e.g. diabetes, cardiovascular disease), without having obesity-specific components to them. Recent examples include manuscripts that look at associations between inflammatory markers and diabetes or cardiovascular disease. This information is clearly of medical relevance, but is not necessarily a high priority for a journal devoted to obesity research.
- Those that report the absence of links between obesity and a specific genotype or polymorphism; it is possible that such a work could be considered in the form of a Short Communication, but a full manuscript is not justified.
- Those that describe anthropometric indices of obesity that might correlate with plasma markers of co-morbidities, but do not include any data relating to outcome of the co-morbidities.
- Retrospective studies, secondary analyses of data that arise from studies that were not primarily concerned with obesity or body weight, or clinical “audits” (for example of surgical interventions) that were not designed as appropriately controlled clinical research interventions, unless there is particularly novel information presented that is of importance to the medical literature.
- Those that claim to be pediatric articles but which do not deal specifically with children and adolescents up to the age of 18 years.
- Case reports that do not describe a critical finding or major addition to the literature.
- Clinical trials less than one year in duration – see further details below listed under ‘clinical trials’.

If authors wish to submit articles to the *International Journal of Obesity* in the above areas, they would need to state clearly in the covering letter and introduction to the manuscript what is novel and informative about the study and why it is a valuable addition to the scientific literature.

### **Editors-in-Chief:**

Nikhil Dhurandhar, Department of Nutritional Sciences, Texas Tech University, Lubbock, Texas, USA

Ian Macdonald, School of Biomedical Sciences, University of Nottingham Medical School, Nottingham, UK

### **Editorial office:**

Springer Nature, The Macmillan Building, 4 Crinan Street, London UK [ijo@nature.com](mailto:ijo@nature.com)

### **Abstracted in:**

EBSCO Discovery Service

Google Scholar

OCLC

PsycINFO

Summon by ProQuest

BIOSIS

Current Contents/Clinical Medicine

Current Contents/Life Sciences

Science Citation Index

Science Citation Index Expanded (SciSearch)

SCOPUS

EBSCO Academic Search

EBSCO Advanced Placement Source

EBSCO Agriculture Plus

EBSCO Biomedical Reference Collection

EBSCO CINAHL

EBSCO Family & Society Studies Worldwide

EBSCO Food Science Source

EBSCO STM Source

EBSCO TOC Premier

## ARTICLE TYPE SPECIFICATIONS

ARTICLE DESCRIPTION	SPECIFICATION
<p><b>Article</b> An Article is a substantial, in-depth, novel research study of interest to the readership of the journal. The structure an Article should follow is detailed below.</p>	<p>Structured abstract, max 300 words. Main body of text (excluding abstract, tables/figures, and references) not to exceed 4,000 words; Max 6 tables or figures; Max 60 references</p>
<p><b>Review Article (by Editor invitation only)</b> Reviews are comprehensive analyses of specific topics that are solicited by the Editor. Proposals for reviews may be submitted to the editorial office. PLEASE NOTE: All reviews should include search criteria and selection criteria in a Methods Section, along with the total number of articles identified and the total number selected for inclusion in the review. All invited reviews will undergo peer review prior to acceptance.</p>	<p>Unstructured abstract, max 300 words. If your Review is systematic, please provide a structured abstract. Main body of text (excluding abstract, tables/figures, and references) not to exceed 6,000 words; Max 8 tables or figures; Max 120 references</p>
<p><b>Technical Report</b> Technical Reports are original articles that address areas of more methodological interest. The content of these Reports must have direct relevance to the field of Obesity and have the same level of scientific rigour expected of the normal Articles.</p>	<p>Structured abstract, max 300 words. Main body of text (excluding abstract, tables/figures, and references) not to exceed 2,500 words; Max 4 tables or figures; Max 25 references</p>
<p><b>Brief Communications</b> These are studies that fall short of the criteria for full Original Articles (e.g. preliminary experiments limited by sample size or duration, or novel hypotheses). Apart from including an abstract, there is no obligation to divide the text into sections</p>	<p>Unstructured abstract, max 200 words. Main body of text (excluding abstract, tables/figures, and references) not to exceed 1,500 words; Max 2 tables or figures; Max 20 references</p>
<p><b>Correspondence</b> Correspondence articles must contain information critical to a certain area or referencing data recently published in <i>IJO</i>. Correspondence must reference the original source but can use an arbitrary title.</p>	<p>No abstract required. Main body of text (excluding tables/figures, and references) not to exceed 500 words; Max 2 tables or figures; Max 10 references</p>
<p><b>Editorial (by Editor invitation only)</b> If you wish to offer an unsolicited contribution, we ask you to first contact the editorial office with your request.</p>	<p>No abstract required; Main body of text (excluding tables/figures, and references) not to exceed 1000 words; Max 2 tables or figures; Max 10 references</p>
<p><b>Comment (by Editor invitation only)</b> Comments discuss issues of particular significance to the field, or highlight significant papers, in <i>IJO</i> or elsewhere. Comments are usually solicited by the editors. If you wish to offer an unsolicited contribution, we ask you to first contact the editorial office with your request, including a short description of the content and implications of your comment.</p>	<p>No abstract required; Main body of text (excluding tables/figures, and references) not to exceed 750 words; Max 2 tables or figures; Max 10 references</p>

### Clinical Trials

The *International Journal of Obesity* is interested in attracting the submission of manuscripts describing new therapeutic approaches to obesity treatment. These human intervention trials of new therapies can be pharmacological, surgical, dietary, physical activity, nutraceutical (including herbal preparations), behavioural or some other relevant intervention, but must be novel, include an appropriate control group and be of a sufficiently long duration to generate results of clinical relevance. Trials which also consider maintenance of weight loss would be of particular interest. With regard to the duration of such trials, the following will apply:

1. Diet / lifestyle /nutraceutical interventions. The total duration (weight loss plus weight maintenance) must be at least 1 year. Anything less than this is of little practical value and is highly unlikely to reveal any novel mechanistic findings. The only exception would be if a shorter period of intervention was accompanied by a truly novel mechanistic approach. Even then the study should be at least 3 months in duration and such papers normally would be submitted as Short Communications.
2. Surgery Short term, post-surgery studies are of minimal value as many are likely to be in the rapid phase of weight loss and unlikely to achieve a state of weight maintenance. Thus, surgical studies should be 1 year or more in duration and linked with novel mechanistic/physiological measurements. The only exceptions would be if a shorter period of intervention were accompanied by a truly novel mechanistic approach and such papers normally would be submitted as Short Communications.
3. Drug studies 1 year or longer studies with truly novel agents are unrealistic. However, a 3 month study with a truly novel agent would not normally deserve to be published as a full paper and should be submitted as a Short Communication if it is of less than 1 year duration. Any established drug being applied to obesity (e.g. the recent application of anti-depressants to an obesity target) or any obesity drug which has already produced publications demonstrating efficacy in humans MUST be studied for at least 1 year.

In addition to these trials of new therapeutic approaches, the *International Journal of Obesity* is also interested in publishing systematic reviews of weight loss and weight maintenance interventions in human subjects. However, these reviews and any associated meta-analyses should only be concerned with studies that are of duration of at least 1 year. See the Editorial Policy section for further inform

## Special Issues

Special issues are comprised of a group of high quality, peer-reviewed manuscripts about a single specific theme / topic. Although the individual manuscripts are stand alone, they collectively make an important point by offering a comprehensive view, or by providing a diverse perspective. The number of manuscripts in a special issue is determined on case by case basis.

Special Issues are commissioned only by invitation or upon consultation with IJO editorial staff. Please contact the Editor, Margriet Westerterp-Plantenga ([m.westerterp@hb.unimaas.nl](mailto:m.westerterp@hb.unimaas.nl)) for preliminary inquiries about special issues. Usually, a person willing to be the Guest Editor of special issue should initiate this process. This Guest Editor will act as the point of contact between *International Journal of Obesity* and the individual authors submitting manuscripts.

## PREPARATION OF ARTICLES

**House Style:** Authors should adhere to the following formatting guidelines

- Text should be double spaced with a wide margin.
- All pages and lines are to be numbered.
- Do not make rules thinner than 1pt (0.36mm).
- Use a coarse hatching pattern rather than shading for tints in graphs.
- Colour should be distinct when being used as an identifying tool.
- Spaces, not commas should be used to separate thousands.
- At first mention of a manufacturer, the town (and state if USA) and country should be provided.
- **Statistical methods:** For normally distributed data, mean (SD) is the preferred summary statistic. Relative risks should be expressed as odds ratios with 95% confidence interval. To compare two methods for measuring a variable the method of Bland & Altman (1986, *Lancet* 1, 307–310) should be used; for this, calculation of P only is not appropriate.
- **Units:** Use metric units (SI units) as fully as possible. Preferably give measurements of energy in kilojoules or Megajoules with kilocalories in parentheses (1 kcal = 4.186kJ). Use % throughout.
- **Abbreviations:** On first using an abbreviation place it in parentheses after the full item. Very common abbreviations such as FFA, RNA, need not be defined. Note these abbreviations: gram g; litre l; milligram mg; kilogram kg; kilojoule kJ; megajoule MJ; weight wt; seconds s; minutes min; hours h. Do not add 's' for plural units. Terms used less than four times should not be abbreviated.
- **People friendly language:** IJO would like to encourage its authors to use people friendly language in the articles published in the journal. Thus, we encourage authors to use terms such as 'people with overweight or obesity' in manuscripts submitted to the journal.
- **Sex vs. Gender:** There is a need to clarify the use of "gender" vs "sex" in manuscripts. "Gender" is a self-identified term whereas "sex" is determined at birth by the presence or absence of a Y chromosome. For biological studies, "sex" is the term that should be used in the IJO. "Gender" may be used in manuscripts in which the participants have been asked to state their self-ascribed gender. We would expect all pediatric studies to use the term sex, because the questionnaires which are typically used for children use the word "sex" and list only M/F. In addition, BMI charts are based on biological sex. For adult studies, in which the participants have greater agency in self-ascribing gender, which term is used depends on how sex or gender was determined in the study. For example, if a survey is given to research participants asking how they categorize their own gender, then it should be stated throughout that the variable was "self-reported gender". By contrast if they were simply asked whether they were Male or Female then it should be reported as sex.

Please note that full Articles must contain the following components. Please see below for further details.

- Cover letter
- Title page (excluding acknowledgements)
- Abstract
- Introduction
- Materials (or Subjects) and Methods
- Results
- Discussion
- Acknowledgements
- Conflict of Interest
- References
- Figure legends
- Tables
- Figures

## Cover Letter

Authors should provide a cover letter that includes the affiliation and contact information for the corresponding author. Authors should briefly discuss the importance of the work and explain why it is considered appropriate for the diverse readership of the journal. The cover letter should confirm the material is original research, has not been previously published and has not been submitted for publication elsewhere while under consideration. If the manuscript has been previously considered for publication in another journal, please include the previous reviewer comments, to help expedite the decision by the Editorial team.

## Title Page

The title page should contain:

- Title of the paper - brief, informative, of 150 characters or less and should not make a statement or conclusion. Should have no mention of tradenames/products.
- Full names of all the authors and their affiliations, together with the name, full postal address, telephone number and e-mail address of the corresponding author. If authors regard it as essential to indicate that two or more co-authors are equal in status, they may be identified by an asterisk symbol with the caption 'These authors contributed equally to this work' immediately under the address list.  
**Group Authorship/Collaborations** - Please note that if in the list of authors you wish to include additional authors/collaborators/groups/consortiums that aren't part of the core list of authors as 'on behalf of', 'for the' or 'representing the' you need to ensure you list the authors correctly within the paper to ensure these are there deposited correctly in PubMed.

- Groups where there is an 'on behalf of', or 'representing the', or 'for the' will appear in the HTML/PDF as follows: Author A, Author B, Author C and Author D on behalf of...The list of individual members should then appear in the Acknowledgements section and not under Notes or Appendix
- A Group name who is an author in its own right should have the list of authors as usual and then all the individual authors of the group listed in their own section at the end of the article, NOT in Acknowledgement/Appendix or Notes
- Competing Interests statement (see [Editorial Policy](#) section). Authors should disclose the sources of any support for the work received in the form of grants and/or equipment and drugs.

### Abstract

Articles must be prepared with a structured abstract designed to summarise the essential features of the paper in a logical and concise sequence under the following mandatory headings:

- **Background/Objectives:** What was the main question or hypothesis tested?
- **Subjects/Methods:** How many subjects were recruited, how many dropped out? Was the study randomised, case-controlled etc? Interventions/methods used and duration of administration.
- **Results:** Indicate 95% confidence intervals and exact *P* value for effects.
- **Conclusions:** Answer (significant or not) to main question.

### Introduction

The Introduction should assume that the reader is knowledgeable in the field and should therefore be as brief as possible but can include a short historical review where desirable.

### Materials/Subjects and Methods

This section should contain sufficient detail, so that all experimental procedures can be reproduced, and include references. Methods, however, that have been published in detail elsewhere should not be described in detail. Authors should provide the name of the manufacturer and their location for any specifically named medical equipment and instruments, and all drugs should be identified by their pharmaceutical names, and by their trade name if relevant.

### Results

The Results section should briefly present the experimental data in text, tables or figures. Tables and figures should not be described extensively in the text.

### Discussion

The discussion should focus on the interpretation and the significance of the findings with concise objective comments that describe their relation to other work in the area. It should not repeat information in the results. The final paragraph should highlight the main conclusion(s), and provide some indication of the direction future research should take.

### Acknowledgements

These should be brief, and should include sources of support including sponsorship (e.g. university, charity, commercial organisation) and sources of material (e.g. novel drugs) not available commercially.

### Competing Interests

Authors must declare whether or not there are any competing financial interests in relation to the work described. This information must be included at this stage and will be published as part of the paper, but should also be noted on the title page. Please see the Competing Interests definition in the [Editorial Policy](#) section for detailed information.

### References

Only papers directly related to the article should be cited. Exhaustive lists should be avoided. References should follow the Vancouver format. In the text they should appear as numbers starting at one and at the end of the paper they should be listed (double-spaced) in numerical order corresponding to the order of citation in the text. Where a reference is to appear next to a number in the text, for example following an equation, chemical formula or biological acronym, citations should be written as (ref. X) and not as superscript.

Example "detectable levels of endogenous Bcl-2 (ref. 3), as confirmed by western blot"

All authors should be listed for papers with up to six authors; for papers with more than six authors, the first six only should be listed, followed by *et al.* Abbreviations for titles of medical periodicals should conform to those used in the latest edition of Index Medicus. The first and last page numbers for each reference should be provided. Abstracts and letters must be identified as such. Papers in press may be included in the list of references. Personal communications can be allocated a number and included in the list of references in the usual way or simply referred to in the text; the authors may choose which method to use. In either case authors must obtain permission from the individual concerned to quote his/her unpublished work.

Examples:

*Journal article:*

Belkaid Y, Rouse BT. Natural regulatory T cells in infectious disease. *Nat Immunol* 2005; **6**: 353–360.

*Journal article, e-pub ahead of print:*

Bonin M, Pursche S, Bergeman T, Leopold T, Illmer T, Ehninger G *et al.* F-ara-A pharmacokinetics during reduced-intensity conditioning therapy with fludarabine and busulfan. *Bone Marrow Transplant* 2007; e-pub ahead of print 8 January 2007; doi:10.1038/sj.bmt.1705565

*Journal article, in press:*

Gallardo RL, Juneja HS, Gardner FH. Normal human marrow stromal cells induce clonal growth of human malignant T-lymphoblasts. *Int J Cell Cloning* (in press).

**Complete book:**

Atkinson K, Champlin R, Ritz J, Fibbe W, Ljungman P, Brenner MK (eds). *Clinical Bone Marrow and Blood Stem Cell Transplantation*, 3rd edn. Cambridge University Press: Cambridge, UK, 2004.

**Chapter in book:**

Coccia PF. Hematopoietic cell transplantation for osteopetrosis. In: Blume KG, Forman SJ, Appelbaum FR (eds). *Thomas' Hematopoietic Cell Transplantation*, 3rd edn. Blackwell Publishing Ltd: Malden, MA, USA, 2004, pp 1443–1454.

**Abstract:**

Syrjala KL, Abrams JR, Storer B, Heiman JR. Prospective risk factors for five-year sexuality late effects in men and women after haematopoietic cell transplantation. *Bone Marrow Transplant* 2006; **37**(Suppl 1): S4 (abstract 107).

**Correspondence:**

Caocci G, Pisu S. Overcoming scientific barriers and human prudence [letter]. *Bone Marrow Transplant* 2006; **38**: 829–830.

**Figure Legends**

These should be brief, specific and appear on a separate manuscript page after the References section.

**Tables**

Tables should only be used to present essential data; they should not duplicate what is written in the text. **It is imperative that any tables used are editable**, ideally presented in Excel. Each must be uploaded as a separate workbook with a title or caption and be clearly labelled, sequentially. Please make sure each table is cited within the text and in the correct order, e.g. (Table 3).

Please save the files with extensions .xls / .xlsx / .ods / or .doc or .docx. Please ensure that you provide a 'flat' file, with single values in each cell with no macros or links to other workbooks or worksheets and no calculations or functions.

**Figures**

Figures and images should be labelled sequentially and cited in the text. Figures should not be embedded within the text but rather uploaded as separate files. The use of three-dimensional histograms is strongly discouraged unless the addition of the third dimension is important for conveying the results. Composite figures containing more than three individual figures will count as two figures. All parts of a figure should be grouped together. Where possible large figures and tables should be included as supplementary material.

Detailed guidelines for submitting artwork can be found by downloading our [Artwork Guidelines](#). Using the guidelines, please submit production quality artwork with your initial online submission. If you have followed the guidelines, we will not require the artwork to be resubmitted following the peer-review process, if your paper is accepted for publication.

**Colour Charges**

There is a charge if authors choose to publish their figures in colour in print publication (which includes the online PDF):

Number of colour illustrations		1	2	3	4	5	6	7+	
Cost	Rest of world USA	£626 \$974	£930 \$1,433	£1,200 \$1,904	£1,422 \$2,192	£1,608 \$2,478	£1,768 \$2,725	£160 \$249	per additional colour figure

(VAT or local taxes will be added where applicable)

Colour charges will not apply to authors who wish to have their figures in colour online only (the HTML version of the article but NOT the PDF. If you wish figures to appear in colour in the PDF, colour charges apply). Authors must supply colour versions separately as supplementary information and need to state in the Cover Letter at submission that they would like their figures to appear in colour on the web version of their paper.

Colour charges will NOT apply to authors who choose to pay an article processing charge to make their paper Open Access.

**Graphs, Histograms and Statistics:**

- Plotting individual data points is preferred to just showing means, especially where N<10
- If error bars are shown, they must be described in the figure legend
- Axes on graphs should extend to zero, except for log axes
- Statistical analyses (including error bars and p values) should only be shown for independently repeated experiments, and must not be shown for replicates of a single experiment
- The number of times an experiment was repeated (N) must be stated in the legend

**Supplementary Information**

Supplementary information is material directly relevant to the conclusion of an article that cannot be included in the printed version owing to space or format constraints. The article must be complete and self-explanatory without the Supplementary Information, which is posted on the journal's website and linked to the article. Supplementary Information may consist of data files, graphics, movies or extensive tables.

Please submit supplementary figures, small tables and text as a single combined PDF document. Tables longer than one page should be provided as an Excel or similar file type. Please refer to the journal's Data Policies, outlined in the Editorial Policies section of these guidelines for additional options for such files, and which provides guidance on alternatives to supplementary files for data deposition, linking, preservation, and storage.

For optimal quality video files, please use H.264 encoding, the standard aspect ratio of 16:9 (4:3 is second best) and do not compress the video. Important: Supplementary information is not copyedited, so please ensure that it is clearly and succinctly presented, that the style and terminology conform to the rest of the manuscript, and that any tracked-changes or review mark-ups are removed.

Authors should submit supplementary information files in the FINAL format as they are not edited, typeset or changed, and will appear online exactly as submitted. When submitting Supplementary Information, authors are required to:

- Include a text summary (no more than 50 words) to describe the contents of each file.
- Identify the types of files (file formats) submitted.

Please note: We do not allow the resupplying of Supplementary Information files for style reasons after a paper has been exported in production, unless there is a serious error that affects the science and, if by not replacing, it would lead to a formal correction once the paper has been published. In such cases we would make an exception and replace the file; however there are very few instances where a Supplementary Information file would be corrected post publication.

### Video summaries

The *International Journal of Obesity* allows authors to include video presentations as part of their submission in order to support and enhance their scientific research. Authors should include these videos as 'Supplementary Material' uploaded upon submission and can refer to these within the body of the text. This can be done in the same way you would upload any other supplementary information and the file should be clearly labelled 'Video Presentation'. Please take note of the technical requirements listed below. Videos supplied will be published online in the electronic version of your article, therefore please note that since they cannot be included in the print version of the journal, that you include text at the end of the article stating that 'Supplementary information is available on the *International Journal of Obesity's* website'.

### Tips for presentation

1. The video should introduce the topic of the article, highlight the main results and conclusions, discuss the current status and potential future developments in the field
2. Videos should be uploaded as Supplementary Material when submitting
3. Please include a sentence or two to describe the file. This will accompany your video on the website
4. Write your script and practise first – explain any obscure terminology
5. Film in a quiet room against a plain (white if possible) background and ensure there is nothing confidential in view
6. Avoid using background music
7. Include figures, slides, video clips of the experiment, etc. to help explain your methods and results. Please try to include a mixture of you talking to the camera and slides – it is nice for viewers to see your face at times
8. Keep figures simple; don't show raw data and ensure any text is legible. Do not include lots of small text or data that won't be legible in a small video player that's the size of a smartphone screen.
9. Please do not use images, music, or insignia in your video for which you do not own the copyright or have documented permission from the copyright holder.

### Technical requirements

Videos should be no more than 8 minutes long, maximum 30MB in size so that they can be downloaded quickly - the combined total size of all supplementary files must not exceed 150 MB. Files should be submitted as .avi, .mov, .mp3, .mp4, .wav or .wmf. Videos need to be in widescreen (landscape), ideally 16x9 but 4:3 is also acceptable with a resolution of at least 640 x 360 pixels.

Any videos that are not in the correct format will not be published. Files will be viewed by the editorial office for quality; however the onus for creating, uploading and editing the video falls on the author. .

### Subject Ontology

Upon submission authors will be asked to select a series of subject terms relevant to the topic of their manuscript from our subject ontology. Providing these terms will ensure your article is more discoverable and will appear on appropriate subject specific pages on nature.com, in addition to the journal's own pages. Your article should be indexed with at least one, and up to four unique subject terms that describe the key subjects and concepts in your manuscript. Click [here](#) for help with this.

### Language Editing

The *International Journal of Obesity* is read by scientists from diverse backgrounds and many are not native English speakers. In addition, the readership of the *International Journal of Obesity* is multidisciplinary; therefore authors need to ensure their findings are clearly communicated. Language and concepts that are well known in one subfield may not be well known in another. Thus, technical jargon should be avoided as far as possible and clearly explained where its use is unavoidable. Abbreviations, particularly those that are not standard, should also be kept to a minimum. The background, rationale and main conclusions of the study should be clearly explained and understandable by all working in the field. Titles and abstracts in particular should be written in language that will be readily understood by all readers.

Authors who are not native speakers of English sometimes receive negative comments from referees or editors about the language and grammar usage in their manuscripts, which can contribute to a paper being rejected. To reduce the possibility of such problems, we strongly encourage such authors to take at least one of the following steps.

- Have your manuscript reviewed for clarity by a colleague whose native language is English.
- Visiting the [English language tutorial](#) which covers the common mistakes when writing in English.
- Using a professional language editing service where editors will improve the English to ensure that your meaning is clear and identify problems that require your review. Two such services are provided by our affiliates [Nature Research Editing Service](#) and [American Journal Experts](#).

Please note that the use of a language editing service is at the author's own expense and does not guarantee that the article will be selected for peer review or accepted.

## HOW TO SUBMIT

### Pre-submission Enquiries

Pre-submission enquiries for Review Articles should be submitted via the online submission system. All other pre-submission enquiries should be directed to the editorial office: [ijo@nature.com](mailto:ijo@nature.com)

### Online Submission

We only accept manuscript submission via our [online manuscript submission system](#). Before submitting a manuscript, authors are encouraged to consult both our [Editorial Policies](#) and the [Submission Instructions](#) for our online manuscript submission system. If you have not already done so, please [register for an account](#) with our online manuscript system. You will be able to monitor the status of your manuscript online throughout the editorial process.

### Summary of the editorial process

- The author submits a manuscript and it receives a tracking number.
- The editorial office perform an initial quality check on the manuscript to ensure that the paper is formatted correctly.
- An Editor-in-Chief is assigned to the manuscript and decides whether to send the manuscript out to review. If the decision is not to send the manuscript for review, the Editor-in-Chief contacts the author with the decision.
- If the Editor-in-Chief decides the paper is within the Journal's remit, the paper will be assigned to an Associate Editor.
- The Associate Editor selects and assigns peer reviewers. This can take some time dependent on the responsiveness and availability of the reviewers selected.
- Reviewers are given 14 days from acceptance to submit their reports. Once the required reports are submitted the Associate Editor will make a decision recommendation to the Editor-in-Chief based on the comments received.
- The Editor-in-Chief makes the final decision.

Authors are able to monitor the status of their paper throughout the peer review process

### Peer review

To expedite the review process, only papers that seem most likely to meet editorial criteria are sent for external review. Papers judged by the editors to be of insufficient general interest or otherwise inappropriate are rejected promptly without external review.

Manuscripts sent out for peer review are evaluated by at least one independent reviewer (often two or more). Authors are welcome to suggest independent reviewers to evaluate their manuscript. All recommendations are considered, but it is at the Editor's discretion their choice of reviewers. By policy, referees are not identified to the authors, except at the request of the referee.

Once a sufficient number of reviews are received, the editors then make a decision based on the reviewers' evaluations

- *Accept* - The manuscript is appropriate to be accepted as it stands.
- *Minor or major revision* - In cases where the editor determines that the authors should be able to address the referees' concerns in six months or less the editor may request a revised manuscript that addresses these 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 for receipt of the revised manuscript and link via which the author should upload to the online submission system.  
When submitting a revision authors are asked to upload (1) A rebuttal letter, indicating point-by-point how the comments raised by the reviewers have been addressed. If you disagree with any of the points raised, please provide adequate justification in your letter. (2) A marked-up version of the manuscript that highlights changes made in response to the reviewers' comments in order to aid the Editors and reviewers. (3) A 'clean' (non-highlighted) version of the manuscript.
- *Reject with the option to resubmit* - In cases where the referees' concerns are very serious and appear unlikely to be addressed within six months, the editor will normally reject the manuscript. If the editor feels the work is of potential interest to the journal, however, they may express interest in seeing a future resubmission. The resubmitted manuscript may be sent back to the original referees or to new referees, at the editor's discretion. If the authors decide to resubmit, the updated version of the manuscript must be submitted online as a new manuscript and 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.
- *Reject outright* - Typically on grounds of specialist interest, lack of novelty, insufficient conceptual advance or major technical and/or interpretational problem

## POST-ACCEPTANCE

Once a manuscript is accepted and typeset, the corresponding author will be prompted to complete and sign a Licence to Publish form on behalf of all authors. **Failure to complete the form will result in delay of publication.**

Springer Nature does not require authors of original research papers to assign copyright of their published contributions. Authors grant Springer Nature an exclusive licence to publish, in return for which they can re-use their papers in their future printed work. Springer Nature's [author licence page](#) provides details of the policy.

The corresponding author will be prompted to choose Standard or Open Access publication.

### Standard Publication

Manuscripts published under the standard method of publication will be behind a paywall, requiring readers to pay to view the article, either via their institutional or personal subscription or on a pay-per-view basis. Government employees from the United States and Crown are required to sign and submit the relevant license to publish form.

### Open Access Publication (gold open access)

Upon acceptance, authors can indicate whether they wish to pay an optional article processing charge (APC) for their article to be made open access online immediately upon publication. Open access articles are published under a CC BY Creative Commons license, which allow authors to retain copyright to their work while making it open to readers.

The cost for open access publication in the *International Journal of Obesity* is £2,980/ \$4,390/ €3,490 (VAT or local taxes will be added where applicable).

If the authors opt to publish via the open access route, then the corresponding author will receive instructions to complete an open access License to Publish form on behalf of all authors, and will be contacted to arrange payment of the associated Article Processing Charge. Please note that this process must be completed prior to publication and failure to do so will result in delay of publication. Government employees from the United States and Crown are required to sign and submit the relevant government open access license to publish form.

Please note with regards to payment that usual credit terms are 30 days from receipt of invoice. Failure to pay your invoice within the stated credit term may result in the Open Access status of the paper being rescinded, with the paper being placed behind the paywall. You may also be subject to such penalties as restrictions on your ability to publish with Springer Nature in the future, involvement of a third party debt collection agency and legal proceedings.

To facilitate self-archiving Springer Nature deposits open access articles in PubMed Central and Europe PubMed Central on publication. Authors are also permitted to post the final, published PDF of their article on a website, institutional repository or other free public server, immediately on publication.

Visit our [open research site](#) for further information about licenses, APCs, and our free OA funding support service.

### Waiver of institutional open access policies

Please note that Harvard University FAS, MIT, Princeton, UCSF, University of Hawaii at Manoa, California Institute of Technology (Caltech) and the Georgia Institute of Technology have enacted Open Access policies that conflict with our own policy for articles published via the subscription route. If any corresponding or contributing authors are from these institutions, you will need to provide a waiver from the institution of every affected author, which can be obtained from the institution. This waiver should be submitted at the same time as the Licence to Publish form. This requirement does not apply to articles published via the open access route.

### Self-archiving and manuscript deposition (green open access)

Authors of original research articles are encouraged to submit the author's version of the accepted paper (the unedited manuscript) to a repository for public release six months after publication. Springer Nature also offers a free, opt-in Manuscript Deposition Service for original research articles in order to help authors fulfil funder and institutional mandates.

Learn more about [self-archiving and manuscript deposition](#)

### E-Proofs

The Springer Nature e-proofing system is a unique solution that will enable authors to remotely edit /correct your article proofs.

The corresponding author will receive an e-mail containing a URL linking to the e-proofing site. Proof corrections must be returned within 48 hours of receipt. Failure to do so may result in delayed publication. Extensive corrections cannot be made at this stage.

For more information and instructions on how to use the e-proofing tool please see [here](#).

### Advance Online Publication

The final version of the manuscript is published online in advance of print. AOP represents the official version of the manuscript and will subsequently appear unchanged, in print.

### Protocol Exchange

If your manuscript is accepted for publication, we encourage you to upload the step-by-step protocols used in your manuscript to the Protocol Exchange. Protocol Exchange is an open online resource that allows researchers to share their detailed experimental know-how. All uploaded protocols are made freely available, assigned DOIs for ease of citation and fully searchable through nature.com. Protocols can be linked to any publications in which they are used and will be linked to from your article. You can also establish a dedicated page to collect your entire lab Protocols. By uploading your Protocols to Protocol Exchange, you are enabling researchers to more readily reproduce or adapt the methodology you use, as well as increasing the visibility of your protocols and papers. Upload your protocols at the [Protocol Exchange web site](#). Further information can be found [here](#).

### Content Sharing

In order to aid the dissemination of research swiftly and legally to the broader community, we are providing all authors with the ability to generate a unique shareable link that will allow anyone to read the published article. If you have selected an Open Access option for your paper, or where an individual can view content via a personal or institutional subscription, recipients of the link will also be able to download and print the PDF.

As soon as your article is published, you can generate your shareable link by entering the DOI of your article here: <http://authors.springernature.com/share>

We encourage you to forward this link to your co-authors, as sharing your paper is a great way to improve the visibility of your work. There are no restrictions on the number of people you may share this link with, how many times they can view the linked article or where you can post the link online.

More information on Springer Nature's commitment to content sharing is available [here](#)

## EDITORIAL POLICIES

Researchers should conduct their research – from research proposal to publication – in line with best practices and codes of conduct of relevant professional bodies and/or national and international regulatory bodies.

Springer Nature is committed to upholding the integrity of the scientific record. As a member of the [Committee on Publication Ethics](#) (COPE), the *International Journal of Obesity* abides by COPE's principles on how to deal with potential acts of misconduct, which includes formal investigation of all perceived transgressions.

### Authorship

Requirements for all categories of articles should conform to the "Uniform Requirements for Manuscripts Submitted to Biomedical Journals," developed by the ICMJE ([www.icmje.org](http://www.icmje.org)).

Each author must have contributed sufficiently to the intellectual content of the submission. The corresponding author should list all authors and their contributions to the work. The corresponding author must confirm that he or she has had full access to the data in the study and final responsibility for the decision to submit for publication.

To qualify as a contributing author, one must meet all of the following criteria:

1. Conceived and/or designed the work that led to the submission, acquired data, and/or played an important role in interpreting the results.
2. Drafted or revised the manuscript.
3. Approved the final version.
4. Agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Contributions by individuals who made direct contributions to the work but do not meet all of the above criteria should be noted in the Acknowledgments section of the manuscript. Medical writers and industry employees can be contributors. Their roles, affiliations, and potential conflicts of interest should be included in the author list or noted in the Acknowledgments and/or Contributors section concurrent with their contribution to the work submitted. Signed statements from any medical writers or editors declaring that they have given permission to be named as an author, as a contributor, or in the Acknowledgments section is also required. Failure to acknowledge these contributors can be considered inappropriate, which conflicts with the journal's editorial policy.

### Changes to authorship

It is the corresponding author's responsibility to ensure that the author list is correct, both in the manuscript file uploaded and the online submission form. Any changes to an author list, including the removal or addition of any authors, between initial submission and acceptance will require written agreement from all authors should the manuscript be considered for publication. New authors must also confirm that they fully comply with the journal's authorship requirements.

Changes to authorship (addition or removal) will not be allowed once the manuscript has been accepted for publication.

### Correspondence with the Journal

One author is designated the contact author for matters arising from the manuscript (materials requests, technical comments and so on). It is this author's responsibility to inform all co-authors of matters arising and to ensure such matters are dealt with promptly. Before submission, the corresponding author ensures that all authors are included in the author list, its order agreed upon by all authors, and are aware that the manuscript was submitted. After acceptance for publication, proofs are e-mailed to this corresponding author who should circulate the proof to all co-authors and coordinate corrections among them.

### Anonymity and Confidentiality

Editors, authors and reviewers are required to keep confidential all details of the editorial and peer review process on submitted manuscripts. Unless otherwise declared as a part of open peer review, the peer review process is confidential and conducted anonymously. All details about submitted manuscripts are kept confidential and no comments are issued to outside parties or organizations about manuscripts under consideration or if they are rejected. Editors are restricted to making public comments on a published article's content and their evaluation.

Upon accepting an invitation to evaluate a manuscript, reviewers must keep the manuscript and associated data confidential, and not redistribute them without the journal's permission. If a reviewer asks a colleague to assist in assessing a manuscript, confidentiality must be ensured and their names must be provided to the journal with the final report.

We ask reviewers not to identify themselves to authors without the editor's knowledge. If they wish to reveal their identities while the manuscript is under consideration, this should be done via the editor; if this is not practicable, we ask authors to inform the editor as soon as possible after the reviewer has revealed their identity. Our own policy is to neither confirm nor deny any speculation about reviewers' identities, and we encourage reviewers to adopt a similar policy.

We deplore any attempt by authors to confront reviewers or try to determine their identities. Reviewers should be aware that it is our policy to keep their names confidential and that we do our utmost to ensure this confidentiality. We cannot, however, guarantee to maintain this confidentiality in the face of a successful legal action to disclose identity.

Regardless of whether a submitted manuscript is eventually published, correspondence with the journal, referees' reports, and other confidential material must not be published, disclosed, or otherwise publicised without prior written consent.

### Communication with the Media

Material submitted must not be discussed with the media. We reserve the right to halt the consideration or publication of a paper if this condition is broken. If a paper is particularly newsworthy, the press release will be sent to our list of journalists in advance of publication with an embargo that forbids any coverage of the manuscript, or the findings of the manuscript, until the time and date clearly stated. Authors whose papers are scheduled for publication may also arrange their own publicity (for instance through their institution's press offices), but they must strictly adhere to our press embargo and are advised to coordinate their own publicity with our [press office](#).

### Pre- and Post-Submissions

Authors are welcome to post pre-submission versions or the original submitted version of the manuscript on a personal blog, a collaborative wiki or a recognized preprint server (such as [ArXiv](#) or [BioRxiv](#)) at any time (but not subsequent pre-accept versions that evolve following peer review).

For subscribed content, the accepted version of the manuscript, following the review process, may only be posted 6 months after the paper is published in a Springer Nature journal. A publication reference and URL to the published version on the journal website must be provided on the first page of the postprint. The published version — copyedited and in the individual Springer Nature journal format — may not be posted on any website or preprint server. For open access content published under a creative commons license, authors can replace the submitted version with the final published version at publication as long as a publication reference and URL to the published version on the journal website are provided

### Permissions

If a table or figure has been published before, the authors must obtain written permission to reproduce the material in both print and electronic formats from the copyright owner and submit it with the manuscript. This follows for illustrations and other materials taken from previously published works not in the public domain. The original source should be cited in the figure caption or table footnote. Permission to reproduce material can usually be obtained through the [Copyright Clearance Center](#).

### Competing Interests

In the interests of transparency and to help readers form their own judgments of potential bias, authors must declare whether or not there are any competing financial interests in relation to the work described. The corresponding author is responsible for submitting a competing financial interests statement on behalf of all authors of the paper. This statement must be included on the title page of the manuscript, as well as within the article before the References section listed under 'Competing Interests'.

In cases where the authors declare a competing financial interest, a statement to that effect is published as part of the article. If no such conflict exists, the statement will simply read that the authors have nothing to disclose.

For the purposes of this statement, competing interests are defined as those of a financial nature that, through their potential influence on behaviour or content, or from perception of such potential influences, could undermine the objectivity, integrity or perceived value of a publication. They can include any of the following:

- *Funding*: Research support (including salaries, equipment, supplies, reimbursement for attending symposia, and other expenses) by organizations that may gain or lose financially through this publication. The role of the funding body in the design of the study, collection and analysis of data and decision to publish should be stated.
- *Employment*: Recent (while engaged in the research project), present or anticipated employment by any organization that may gain or lose financially through this publication. This includes positions on an advisory board, board of directors, or other type of management relationship.
- *Personal financial interests*: Stocks or shares in companies that may gain or lose financially through publication; consultation fees or other forms of remuneration from organisations that may gain or lose financially.
- *Patents*: Holding, or currently applying for, patents, relating to the content of a manuscript; receiving reimbursement, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript.

It is difficult to specify a threshold at which a financial interest becomes significant, but note that many US universities require faculty members to disclose interests exceeding \$10,000 or 5% equity in a company. Any such figure is arbitrary, so we offer as one possible practical alternative guideline: "Declare all interests that could embarrass you were they to become publicly known after your work was published." We do not consider diversified mutual funds or investment trusts to constitute a competing financial interest.

The statement included in the submission must contain an explicit and unambiguous description of any potential competing interests, or lack thereof, for any of the authors as it relates to the subject of the report. Examples include:

- Competing Interests  
The authors declare no competing financial interests
- Competing Interests  
Dr Caron's work has been funded by the NIH. He has received compensation as a member of the scientific advisory board of Acadia Pharmaceutical and owns stock in the company. He also has consulted for Lundbeck and received compensation. Dr Rothman and Dr Jensen declare no potential competing interests.

Neither the precise amount received from each entity nor the aggregate income from these sources needs to be provided.

Non-financial interests that authors may like to disclose include:

- a close relationship with, or a strong antipathy to, a person whose interests may be affected by publication of the article,
- an academic link or rivalry with someone whose interests may be affected by publication of the article,
- membership in a political party or special interest group whose interests may be affected by publication of the article, or
- a deep personal or religious conviction that may have affected what the author wrote and that readers should be aware of when reading the article.

### Studies involving animals and other human subjects

Research involving human subjects, human material, or human data must have been performed in accordance with the Declaration of Helsinki and must have been approved by an appropriate ethics committee. A statement detailing this, including the name of the ethics committee and the reference number where appropriate, along with a statement confirming that informed consent was obtained from all subjects, must appear in all manuscripts reporting such research.

For primary research manuscripts reporting experiments on live vertebrates and/or higher invertebrates, the corresponding author must confirm that all experiments were performed in accordance with relevant guidelines and regulations. The manuscript must include in the Supplementary Information (methods) section (or, if brief, within of the print/online article at an appropriate place), a statement identifying the institutional and/or licensing committee approving the experiments, including any relevant details regarding animal welfare, patient anonymity, drug side effects and informed consent. Sex and other characteristics of animals that may influence results must be described. Details of housing and husbandry must be included where they are likely to influence experimental results. *International Journal of Obesity* recommends following the [ARRIVE reporting guidelines](#) when documenting animal studies.

### Clinical Trials

All clinical trials must be registered in a public registry prior to submission and the trial registry number must be included in the manuscript and provided on submission. The journal follows the trials registration policy of the ICMJE ([www.icmje.org](http://www.icmje.org)) and considers only trials that have been appropriately registered before submission, regardless of when the trial closed to enrolment. Acceptable registries must meet the following ICMJE requirements:

- be publicly available, searchable, and open to all prospective registrants
- have a validation mechanism for registration data
- be managed by a not-for-profit organization

Examples of registries that meet these criteria include:

1. [ClinicalTrials.gov](http://ClinicalTrials.gov) the registry sponsored by the United States National Library of Medicine
2. the [International Standard Randomized Controlled Trial Number Registry](#)
3. the [Cochrane Renal Group Registry](#)
4. the [European Clinical Trials Database](#)

Randomised Controlled Trials (RCTs) must adhere to the CONSORT statement, (CONsolidated Standards Of Reporting Trials) and submissions must be accompanied by a completed CONSORT checklist (uploaded as a related manuscript file). Further information can be found at [www.consort-statement.org](http://www.consort-statement.org).

### Informed Consent

When publishing identifiable images from human research participants, authors must include a statement attesting that they have obtained informed consent for publication of the images. If the participant is deceased, consent must be sought from the next of kin of the participant. All reasonable measures must be taken to protect patient anonymity. Black bars over the eyes are not acceptable means of anonymization. In certain cases, the journal may insist upon obtaining evidence of informed consent from authors. Images without appropriate consent will be removed from publication.

### Cell Line Authentication

If human cell lines are used, authors are strongly encouraged to include the following information in their manuscript:

- the source of the cell line, including when and from where it was obtained,
- whether the cell line has recently been authenticated and by what method, and
- whether the cell line has recently been tested for mycoplasma contamination.

Further information is available from [the International Cell Line Authentication Committee \(ICLAC\)](#). We recommend that authors check the [NCBI database](#) for misidentification and contamination of human cell lines.

### Biosecurity Policy

The Editor may seek advice about submitted papers not only from technical reviewers but also on any aspect of a paper that raises concerns. These may include, for example, ethical issues or issues of data or materials access. Occasionally, concerns may also relate to the implications to society of publishing a paper, including threats to security. In such circumstances, advice will usually be sought simultaneously with the technical peer-review process. As in all publishing decisions, the ultimate decision whether to publish is the responsibility of the editor.

### Reproducibility

*International Journal of Obesity* requires authors of papers that are sent for external review to include in their manuscripts relevant details about several elements of experimental and analytical design. This initiative aims to improve the transparency of reporting and the reproducibility of published results, focusing on [elements of methodological information](#) that are frequently poorly reported. Authors being asked to resubmit a manuscript will be asked to confirm that these elements are included by filling out a [checklist](#) that will be made available to the editor and reviewers.

### Research Data Policy

An inherent principle of publication is that others should be able to replicate and build upon the authors' published claims. We strongly encourage that all datasets on which the conclusions of the paper rely should be available to readers. We encourage authors to ensure that their datasets are either deposited in publicly available repositories (where available and appropriate) or presented in the main manuscript or additional supporting files whenever possible. If a public repository does not exist, the information must be made available to editors and referees at submission, and to readers promptly upon request. Any restrictions on material availability or other relevant information must be disclosed in the manuscript's Methods section and should include details of how materials and information may be obtained. Please see the journals guidelines on Research Data policy [here](#).

### Sequences, Structures and "Omics"

Papers reporting protein or DNA sequences and molecular structures will not be accepted without an accession number

to [Genbank](#), [EMBL](#), [DDBJ](#), [Uniprot](#), [ProteinDataBank](#), or other publicly available database in general use in the field that gives free access to researchers from the date of publication.

Authors of papers describing structures of biological macromolecules must provide experimental data upon the request of Editor if they are not already freely accessible in a publicly available database such as [ProteinDataBank](#), [Biological Magnetic Resonance Databank](#), or [Nucleic Acid Database](#).

### Misconduct

Springer Nature takes seriously all allegations of potential misconduct. As a member of the [Committee on Publication Ethics](#) (COPE), *International Journal of Obesity* will follow the COPE guidelines outlining how to deal with cases of suspected misconduct. As part of the investigation, the journal may opt to do one or more of the following:

- suspend review or publication of a paper until the issue has been investigated and resolved;
- request additional information from the author, including original data or images or ethics committee or IRB approval;
- make inquiries of other titles believed to be affected;
- forward concerns to the author's employer or person responsible for research governance at the author's institution;
- refer the matter to other authorities or regulatory bodies (for example, the Office of Research Integrity in the US or the General Medical Council in the UK); or
- submit the case to COPE in an anonymized form for additional guidance on resolution.

Please note that, in keeping with the journal's policy of the confidentiality of peer review, if sharing of information with third parties is necessary, disclosure will be made to only those Editors who the Editor believes may have information that is pertinent to the case, and the amount of information will be limited to the minimum required.

### Duplicate Publication

Papers must be original and not published or submitted for publication elsewhere. This rule also applies to non-English language publications..

Springer Nature allows and encourages prior publication on recognized community preprint servers for review by other scientists before formal submission to a journal. The details of the preprint server concerned and any accession numbers should be included in the cover letter accompanying manuscript submission. This policy does not extend to preprints available to the media or that are otherwise publicized outside the scientific community before or during the submission and consideration process.

Springer Nature also allows publication of meeting abstracts before the full contribution is submitted. Such abstracts should be included with the journal submission and referred to in the cover letter accompanying the manuscript. Again this policy does not extend to meeting abstracts and reports available to the media or which are otherwise publicized outside the scientific community during the submission and consideration process.

### Plagiarism

Plagiarism is when an author attempts to pass off someone else's work as his or her own. Duplicate publication, sometimes called self-plagiarism, occurs when an author reuses substantial parts of his or her own published work without providing the appropriate references. This can range from getting an identical paper published in multiple journals, to 'salami-slicing', where authors add small amounts of new data to a previous paper.

Plagiarism can be said to have clearly occurred when large chunks of text have been cut-and-pasted. Minor plagiarism without dishonest intent is relatively frequent, for example, when an author reuses parts of an introduction from an earlier paper. Journal editors judge any case of which they become aware (either by their own knowledge of and reading about the literature, or when alerted by referees) on its own merits.

Springer Nature is a member of Similarity Check (formerly CrossCheck), a multi-publisher initiative used to screen published and submitted content for originality. *International Journal of Obesity* uses Similarity Check to detect instances of overlapping and similar text in submitted manuscripts. To find out more about visit the [Similarity Check](#) website.

If a case of plagiarism comes to light after a paper is published, the Journal will conduct a preliminary investigation, utilising the guidelines of the [Committee on Publication Ethics](#). If plagiarism is proven, the Journal will contact the author's institute and funding agencies as appropriate. The paper containing the plagiarism may also be formally retracted or subject to correction.

### Data Fabrication & Falsification

Falsification is the practice of altering research data with the intention of giving a false impression. This includes, but is not limited to, manipulating images, removing outliers or "inconvenient" results, or changing, adding or omitting data points. Fabrication is the practice of inventing data or results and recording and/or reporting them in the research record. Data falsification and fabrication call into question the integrity and credibility of data and the data record, and as such, they are among the most serious issues in scientific ethics.

Some manipulation of images is allowed to improve them for readability. Proper technical manipulation includes adjusting the contrast and/or brightness or colour balance if it is applied to the complete digital image (not parts of the image). The author should notify the Editor in the cover letter of any technical manipulation. Improper technical manipulation refers to obscuring, enhancing, deleting and/or introducing new elements into an image. See Image Integrity & Standards below for more details.

### Image Integrity and Standards

Images submitted with a manuscript for review should be minimally processed (for instance, to add arrows to a micrograph). Authors should retain their unprocessed data and metadata files, as editors may request them to aid in manuscript evaluation. If unprocessed data is unavailable, manuscript evaluation may be stalled until the issue is resolved.

A certain degree of image processing is acceptable for publication, but the final image must correctly represent the original data and conform to community standards. The guidelines below will aid in accurate data presentation at the image processing level:

- Authors should list all image acquisition tools and image processing software packages used. Authors should document key image-gathering settings and processing manipulations in the Methods section.

- Images gathered at different times or from different locations should not be combined into a single image, unless it is stated that the resultant image is a product of time-averaged data or a time-lapse sequence. If juxtaposing images is essential, the borders should be clearly demarcated in the figure and described in the legend.
- Touch-up tools, such as cloning and healing tools in Photoshop, or any feature that deliberately obscures manipulations, is to be avoided.
- Processing (such as changing brightness and contrast) is appropriate only when it is applied equally across the entire image and is applied equally to controls. Contrast should not be adjusted so that data disappear. Excessive manipulations, such as processing to emphasize one region in the image at the expense of others (for example, through the use of a biased choice of threshold settings), is inappropriate, as is emphasizing experimental data relative to the control.

For **gels and blots**, positive and negative controls, as well as molecular size markers, should be included on each gel and blot – either in the main figure or an expanded data supplementary figure. The display of cropped gels and blots in the main paper is encouraged if it improves the clarity and conciseness of the presentation. In such cases, the cropping must be mentioned in the figure legend.

- Vertically sliced gels that juxtapose lanes that were not contiguous in the experiment must have a clear separation or a black line delineating the boundary between the gels.
- Cropped gels in the paper must retain important bands.
- Cropped blots in the body of the paper should retain at least six band widths above and below the band.
- High-contrast gels and blots are discouraged, as overexposure may mask additional bands. Authors should strive for exposures with gray backgrounds. Immunoblots should be surrounded by a black line to indicate the borders of the blot, if the background is faint.
- For quantitative comparisons, appropriate reagents, controls and imaging methods with linear signal ranges should be used.

**Microscopy** adjustments should be applied to the entire image. Threshold manipulation, expansion or contraction of signal ranges and the altering of high signals should be avoided. If 'pseudo-colouring' and nonlinear adjustment (for example 'gamma changes') are used, this must be disclosed. Adjustments of individual colour channels are sometimes necessary on 'merged' images, but this should be noted in the figure legend. We encourage inclusion of the following with the final revised version of the manuscript for publication:

- In the Methods section, specify the type of equipment (microscopes/objective lenses, cameras, detectors, filter model and batch number) and acquisition software used. Although we appreciate that there is some variation between instruments, equipment settings for critical measurements should also be listed.
- The display lookup table (LUT) and the quantitative map between the LUT and the bitmap should be provided, especially when rainbow pseudo-colour is used. It should be stated if the LUT is linear and covers the full range of the data.
- Processing software should be named and manipulations indicated (such as type of deconvolution, three-dimensional reconstructions, surface and volume rendering, 'gamma changes', filtering, thresholding and projection).
- Authors should state the measured resolution at which an image was acquired and any downstream processing or averaging that enhances the resolution of the image.

#### Correction and Retraction Process

Publishable amendments that affect the publication record and/or the scientific accuracy of published information will receive a DOI and be published in the journal. Five categories of amendments are relevant for peer-reviewed material – detailed below. All five correction types are bi-directionally linked to the original published paper.

*Erratum or Publisher Correction.* Notification of an important error made by the journal that affects the publication record or the scientific integrity of the paper, or the reputation of the authors or of the journal.

*Corrigendum or Author Correction.* Notification of an important error made by the author(s) that affects the publication record or the scientific integrity of the paper, or the reputation of the authors or the journal.

*Retraction.* Notification of invalid results that affect the reliability of a previously published article. The original article is marked as retracted but remains available to readers, and the retraction statement notifying readers of the invalidity of the published paper is bi-directionally linked to the original published paper.

*Addendum.* Notification of additional information about a paper. Addenda are published when the editors decide that the addendum is crucial to the reader's understanding of a significant part of the published contribution. Addenda include Editorial Expression of Concern, which is an editorial statement alerting our readership to serious concerns with the published paper. Editorial Expressions of Concern are typically updated with another amendment once further information is available.

*Editor's Note.* An editor's note is a statement from editors notifying readers of issues related to the published paper. It is an online update made only to the HTML version of record of the published article. Editor's notes are typically updated with another amendment once further information is available.

All correction requests should be submitted to the [editorial office](#).

Decisions about corrections are made by the Editor (sometimes with peer-reviewers' advice) and this sometimes involves author consultation. Requests to make corrections that do not affect the paper in a significant way or impair the reader's understanding of the contribution (a spelling mistake or grammatical error, for example) are not considered.

In cases where co-authors disagree about a correction, the editors will take advice from independent peer-reviewers and impose the appropriate correction, noting the dissenting author(s) in the text of the published version.

If there is suspicion of misconduct, the journal will carry out an investigation following COPE guidelines. Following an investigation, if the allegation raises valid concerns, the author will be contacted and given an opportunity to address the issue. If misconduct is established beyond reasonable doubt, this may result in the Editor implementing one of the following measures:

- If the article is still under consideration, it may be rejected and returned to the author.
- If the article has already been published online, depending on the nature and severity of the infraction, either a correction will be published alongside the article or, in severe cases, complete retraction of the article will occur. The reason for the correction or retraction must be given.
- In either case, the author's institution or funding agency may be informed.

#### **FURTHER INFORMATION**

For further information please contact [the editorial office](#).