

nature REVIEWS

NEUROSCIENCE

INTRODUCTION

Launched in October 2000, Nature Reviews has revolutionized review-journal publishing. This has been achieved by commissioning the leaders in the field to write reviews of the highest quality, authority and accessibility. Each article is also carefully crafted by our editorial staff, and is enhanced with glossaries, highlighted references and online links to databases, movies and animations. The print and online content is integrated with a clear and modern design.

After initially launching titles in Genetics, Neuroscience and Molecular Cell Biology, the series has been extended to cover Cancer and Immunology, both introduced in October 2001, Drug Discovery, which was launched in January 2002, and Microbiology, which was launched in 2003. Whatever your discipline, Nature Reviews provides access to the highest quality overview of your field.

Nature Reviews mission statement

- To be the premier source of reviews and commentary in each of the fields that we cover.
- To provide an unparalleled service to authors and readers.
- To maximize the usefulness and impact of each article by innovative use of print and online media.

ONLINE SUBMISSION

The Nature Reviews journals have adopted a new online submission and manuscript tracking system. Using this system, authors can upload manuscript files directly to the Nature Reviews offices, and referees can access manuscripts for refereeing.

ORGANIZATION OF CONTENT

Nature Reviews Neuroscience is organized into the following main sections: Research Highlights, Progress, Reviews, Analysis and Perspectives.

Research Highlights

The current-awareness section — short updates on new papers, written chiefly by the in-house editorial journal teams. We also include details of new web resources in short 'Web Watch' articles. Papers and web sites are selected with the aid of a panel of external, expert advisors. In the printed journal, around 10 Research Highlights are published each month, along with 4–8 'In Brief' items that provide a concise description of yet more significant papers. Research Highlights are published continuously online.

Progress

Progress articles are short, timely articles that focus on current papers of outstanding interest that are setting new standards in the field. Because of their topicality, Progress articles should be concisely written (2,000–2,500 words, 3 display items, 40 references maximum) and submitted in a timely manner.

Reviews

Commissioned from leaders in the field, reviews vary in length from around 2,500–5,000 words, depending on the topic. Reviews are thoroughly and carefully edited, and figures are drawn by our in-house art editors. All reviews are supplemented with glossary explanations for non-specialist readers, as well as highlighted references that are accompanied by an explanation as to why these references are essential reading. Reviews are continuously published online.

Analysis

Based on the Review format, Analysis articles are review-type articles that include a new analysis (using standard and well-defined methods) of existing data (typically large biological datasets, from genomes, microarrays, proteomes, and so on) that lead to a novel and exciting conclusion, or that substantially enhance our knowledge of a given topic. As with all articles we publish, Analysis articles will be subject to a rigorous peer-review process.

Perspectives

The Perspectives section is designed to cover broader issues. *Nature Reviews Neuroscience* has five types of Perspective articles: Timeline — historical foundations and influences, or possible future directions; Opinion — an opportunity to present particular views on a topic; Science and Society — the implications and applications of science in our society; Guidelines — to discuss guidelines being developed or developed recently, perhaps as part of a workshop, for a specific field; and Essay — an opportunity to present particular views on a topic.

IN-HOUSE EDITORIAL PROCEDURES

Commissioning articles

All review-type articles are commissioned. We welcome suggestions and ideas for articles, but discourage the submission of non-commissioned articles. Proposals for articles should be submitted online through our manuscript submission and tracking system using the

'submit review proposal' form. Suggestions should be sent in the form of a synopsis (consisting of a 100-word introductory paragraph, a description of the article structure, and a list of 10–20 key, recent references).

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); see <http://www.gene.ucl.ac.uk/nomenclature>. Approved mouse symbols are provided by The Jackson Laboratory; see <http://www.informatics.jax.org/mgihome/nomen>. Approved *Drosophila* symbols are provided by FlyBase; see <http://flybase.bio.indiana.edu> <<http://flybase.bio.indiana.edu/>> . Approved *C. elegans* symbols are provided by Caenorhabditis Genetics Center see <http://www.cbs.umn.edu/CGC/Nomenclature/nomenguid.htm>. For approved *S. cerevisiae* and *S. pombe* symbols see <http://www.yeastgenome.org/help/yeastGeneNomenclature.shtml> and http://www.sanger.ac.uk/Projects/S_pombe/SP_Name_FAQ.shtml, respectively. For approved Arabidopsis symbols see <http://www.arabidopsis.org/portals/nomenclature/guidelines.jsp>.

Graphics

All graphics are drawn and designed by our in-house team of art editors. We are happy for subscribers to use our graphics for presentations, and request that Nature Reviews journals are mentioned as the source of the material. To reproduce our graphics for publication, please request permission by contacting naturereviews@nature.com.

Peer review

Our review-type articles are subject to rigorous peer review. The purpose of peer review is to ensure that our articles are balanced and accurate. Authors are encouraged to express their opinions, but a clear distinction is made between generally accepted views and more personal perspectives.

Correspondence

Items of correspondence will be considered for publication online at the editors' discretion. These should be no more than 500 words long, and contain up to 15 references and no more than 2 display items. Editors reserve the right to edit items of correspondence.

Correspondence should be submitted by e-mail to: naturereviews@nature.com.

ONLINE FEATURES

We have added functions and features — such as links to PubMed and databases, animations and supplementary information provided by the authors (including movies) — to our articles online, to complement the print journal, and to extend the value of our articles as launching pads for further investigation.

Navigation

There are three main ways to navigate the Nature Reviews journals online. Searching can be done with the Quicksearch feature which is available on all journal pages, or by using the more advanced search window that is familiar to users of the online version of *Nature*. Browsing by issue is the second option and is straightforward, but we also support browsing by article type. So, if you want to just look at the most recent Research Highlights that we have published, select the Research Highlights link within the Archive section that is available on all pages.

How to view an article

Once you have found an article title that looks enticing, there are various options for viewing the article:

- 'At a glance', which provides a bullet-pointed summary of the article content;
- Full text (with added links);
- The PDF or printable version;
- Figure and tables index, which allows you to flick through the figures and tables in an article.

Links

Most of our articles feature linking from the text. Proteins, protein domains, genes and diseases are linked to specific pages in relevant and high-quality public databases. Links are also provided to related sources of information and relevant web sites. The links are listed in the 'Links box' at the end of review-type articles. We do not provide a full listing of all the URLs of the linked resources in print — the most efficient way to take advantage of these links is go to the relevant article in our online journals, and explore the online resources from there. Links are provided to articles by the in-house editorial teams under the guidance of authors.

Author biographies

A link at the end of the author list called 'About the authors' in the 'full text' versions of articles takes you to a short biography about the authors.

REPRINTS AND PERMISSIONS

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Self-archiving policy

Six months after the official article publication date, authors are free to post their own version of the accepted peer-reviewed article (not the official published PDF version) on their own personal website, in their funding agency's archive, or in their institutional repository. This is consistent with the policies of various funding bodies around the world. The Nature Reviews journals recognize the efforts of funding bodies to increase access to the research they fund, and we encourage authors to participate in such efforts. For further information, please see the Nature Reviews self-archiving policy FAQ (PDF 75KB).

COMPETING FINANCIAL INTERESTS

In the interests of transparency and to help readers to form their own judgements of possible bias, the Nature journals now require authors of primary and secondary research articles to declare any competing financial interests relating to papers accepted for publication. A detailed explanation of why this policy has been adopted can be found at the end of the statement. The policy applies to all review-type articles published in the Nature Reviews journals.

Authors are required, before final acceptance of their contribution, to return a declaration of competing financial interests. A shortened version of this declaration is published as part of the paper, with a more detailed version, if appropriate, published online accompanying the paper. If no such statement is present in the article, then the authors had declared to the editors that they do not have any competing financial interests.

The declaration form will be sent to the corresponding author only at the time of acceptance and the corresponding author is asked to reply on behalf of all the authors. The declaration form can also be downloaded.

Definition

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 may 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 publication of the paper.
- Employment: recent (while engaged in the research project), present or anticipated employment by any organization that may gain or lose financially through publication of the paper.
- Personal financial interests: stocks or shares in companies that may gain or lose financially through publication;

consultation fees or other forms of remuneration from organizations that may gain or lose financially; patents or patent applications whose value may be affected by publication.

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 (see, for example, B. Lo *et al.* *New Engl. J. Med.* **343**, 1616–1620; 2000). Any such figure is necessarily arbitrary, so we offer as one possible practical alternative guideline: “Any undeclared competing financial 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.

Application to authors

Unless/until the paper is published, authors' declarations will be considered confidential, and will not be disclosed to referees.

The published paper indicates the authors' response using one of the following standard wordings:

- The authors declare competing financial interests: see web version for details.
- The authors declare that they have no competing financial interests.
- The authors decline to provide information about competing financial interests.

For papers with more than one author, the corresponding author (the person responsible for communication with the journal) should provide a declaration on behalf of all authors.

We recognize that a comprehensive declaration could become unwieldy if a paper has too many authors or an author has numerous financial interests. If this is the case and itemized disclosure is unfeasible, editors may invite authors to use the following standard wording as an alternative: “The authors declare that their competing financial interests in this work are too numerous to itemize.”

We also recognize that some authors may be bound by confidentiality agreements. In such cases the authors may be invited to use the following standard wording as an alternative to itemized disclosure: “The authors declare that they are bound by confidentiality agreements that prevent them from disclosing their financial interests in this work”.

We do not require authors to state the monetary value of their financial interests.

Application to referees

The Nature Reviews journals invite referees to exclude themselves in cases where there is a significant conflict of interest, financial or otherwise. However, just as financial interests need not invalidate the conclusions of a paper, nor do they automatically disqualify a referee from evaluating it. Referees are asked to inform the editors of any related interests, including financial interests as defined above, that might be perceived as relevant.

Editors will consider these statements when weighing referees' recommendations.

Application to editors

All editorial staff are required to declare to their employer any interests — financial or otherwise — that might influence, or be perceived to influence, their editorial practices. Failure to do so is a disciplinary offence.

Application to publishing policy

All of the Nature Publishing Group (NPG) journals thrive on their independence. Their strict policy is that editorial independence, decisions and content should not be compromised by commercial or financial interests, or by any specific arrangements with advertising clients or sponsors. Our policy is to disclose such arrangements where there is any risk of a perception of compromise on this issue. Please see a list of all sponsors associated with Nature Publishing Group.

Reasons for policy

The introduction of this policy is based on a recognition of potential problems for three principal reasons.

First, there is suggestive evidence in the literature that publication practices in biomedical research have been influenced by the commercial interests of authors. Several related discussions that contain the relevant references can be found in the *Journal of the American Medical Association*, 1 November 2000 (for example, A. D. DeAngelis. Conflict of interest and the public trust. *J. Am. Med. Assoc.* **284**, 2237–2238; 2000; see also *Nature Neuroscience* **3**, 299; 2000). This evidence is consistent with the truism that, although, in principle, science may be objective and its findings independent of other interests, scientists can be imperfect and subjective. There are circumstances where selection of evidence, interpretation of results or emphasis of presentation might be inadvertently or even deliberately biased by a researcher's other interests.

Second, there is a more general concern among researchers and others about the possible undermining of the integrity of scientific research by increasing commercial links and consequent influences. We believe that the best way to maintain readers' trust in the integrity of the research we publish is through a policy of transparency. If financial interests are disclosed, readers will be able to make an informed judgment about their significance or lack of significance. We believe this will be to the benefit of readers and authors alike.

Third, many institutions have introduced policies on competing interests that require authors to include descriptions of financial and other interests in publications. We are happy to support them.

We do not expect to police this policy ourselves: we believe that primary responsibility for ensuring that researchers' conduct is appropriate lies with their employers, rather than with journal editors. However, where we believe trust has been significantly compromised by an author's actions, we will seek to redress the matter by an appropriate combination of sanctions and communications to readers and employers.

We welcome comments and suggestions about this policy, which should be sent to nature@nature.com, marked "Competing interests policy".

Dr Philip Campbell

Editor, *Nature*

Editor-in-Chief, Nature publications

POLICY ON BIOSECURITY ISSUES

Editors may seek advice about submitted papers not only from technical referees 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. Very occasionally, concerns may also relate to the societal implications of publishing a paper, including threats to security. In such circumstances, advice will usually be sought simultaneously with the refereeing process. As in all publishing decisions, the ultimate decision whether to publish is the responsibility of the editor of the journal concerned.

The threat posed by bioweapons raises the unusual need to assess the balance of risk and benefit in publication. Editors are not necessarily well qualified to make such judgements unassisted, and so we reserve the right to take expert advice in cases where we believe that concerns may arise. We recognize the widespread view that openness in science helps to alert society to potential threats and to defend against them, and we anticipate that only very rarely (if at all) will the risks be perceived as outweighing the benefits of publishing a paper that has otherwise been deemed appropriate for a Nature journal. Nevertheless, we think it appropriate to consider such risks and to have a formal policy for dealing with them if need arises.

The editorial staff of Nature journals maintain a network of advisers on biosecurity issues. All concerns on that score, including the commissioning of external advice, will be shared within an editorial monitoring group consisting of the Editor-in-Chief of Nature publications, the Executive Editor of the Nature research journals, the Chief Biological Sciences Editor of Nature, and the chief editor of the journal concerned.

Once a decision has been reached, authors will be informed if biosecurity advice has informed that decision.

INDEXING INFORMATION

The Nature Reviews journals are indexed by all of the following abstracting and indexing services:

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Providing over 1.8 million records since 1994, and updated weekly

- <http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed>

CrossRef

CrossRef aims "to promote the development and cooperative use of new and innovative technologies to speed and facilitate scholarly research".

- <http://www.crossref.org>

EBSCO Publishing

The full-text and bibliographic database division of EBSCO information services

- <http://www.epnet.com>

BIOSIS

A bibliographic reference for life science research

- <http://edina.ed.ac.uk/biosis/>

ISI

Products and services that enable the scientific community to gain access to historical research and keep abreast of recent developments

- <http://www.isinet.com/isi/>

ULRICHS periodicals directory

Cites itself as “the global source for periodicals information since 1932”

- <http://www.ulrichsweb.com/ulrichsweb/>

Elsevier Bibliographic Databases

EMBASE and BIOBASE (Current Awareness in Biological Sciences)

- <http://www.embase.com>
- http://www.info.sciencedirect.com/content_coverage/databases/biobase.shtml

Chemical abstracts service (CAS)

Services the Chemport connection, enabling users to connect directly to full-text information

- <http://www.cas.org/>