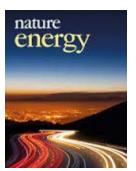
Nature Research Editorial Strategy & Innovation.

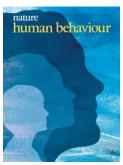
Ritu Dhand PhD

Nature Editorial Director





















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Nature Editorial Director

Ritu Dhand

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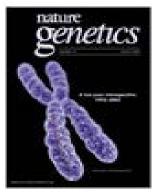
Nature Reviews

16 biology Editors 10 physical sciences 14 life science Journals12 physical science Js

27 life science Editors25 physical science Ed

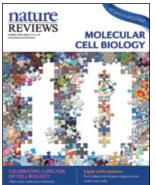
7 life science Js9 Clinical Js3 physical science













1869 to 2018



A WEEKLY ILLUSTRATED JOURNAL OF SCIENCE

"To the solid ground

Of Nature trusts the mind which builds for aye."—Wordsworth

THURSDAY, NOVEMBER 4, 1869

NATURE: APHORISMS BY GOETHE

ATURE! We are surrounded and embraced by her: powerless to separate ourselves from her, and powerless to penetrate beyond her.

Without asking, or warning, she snatches us up into her circling dance, and whirls us on until we are tired, and drop from her arms.

She is ever shaping new forms: what is, has never yet been; what has been, comes not again. Everything is new, and yet nought but the old.

We live in her midst and know her not. She is incessantly speaking to us, but betrays not her secret. We constantly act upon her, and yet have no power over her.

The one thing she seems to aim at is Individuality; yet she cares nothing for individuals. She is always building up and destroying; but her workshop is inaccessible.

Her life is in her children; but where is the mother? She is the only artist; working-up the most uniform material into utter opposites; arriving, without a trace of effort, at perfection, at the most exact precision, though always veiled under a certain softness.

Each of her works has an essence of its own; each of her phenomena a special characterisation: and yet their diversity is in unity.

She performs a play; we know not whether she sees it herself, and yet she acts for us, the lookers-on.

Incessant life, development, and movement are in her, but she advances not. She changes for ever and ever, and rests not a moment. Quietude is inconceivable to her, and she has laid her curse upon rest. She is firm. Her steps are measured, her exceptions rare, her laws unchangeable.

She has always thought and always thinks; though not as a man, but as Nature. She broods over an until he attempts to soar above it.

all-comprehending idea, which no searching can find out.

Mankind dwell in her and she in them. With all men she plays a game for love, and rejoices the more they win. With many, her moves are so hidden, that the game is over before they know it.

That which is most unnatural is still Nature; the stupidest philistinism has a touch of her genius. Whoso cannot see her everywhere, sees her nowhere rightly.

She loves herself, and her innumerable eyes and affections are fixed upon herself. She has divided herself that she may be her own delight. She causes an endless succession of new capacities for enjoyment to spring up, that her insatiable sympathy may be assuaged.

She rejoices in illusion. Whoso destroys it in himself and others, him she punishes with the sternest tyranny. Whoso follows her in faith, him she takes as a child to her bosom.

Her children are numberless. To none is she altogether miserly; but she has her favourites, on whom she squanders much, and for whom she makes great sacrifices. Over greatness she spreads her shield.

She tosses her creatures out of nothingness, and tells them not whence they came, nor whither they go. It is their business to run, she knows the road.

Her mechanism has few springs—but they never wear out, are always active and manifold.

The spectacle of Nature is always new, for she is always renewing the spectators. Life is her most exquisite invention; and death is her expert contrivance to get plenty of life.

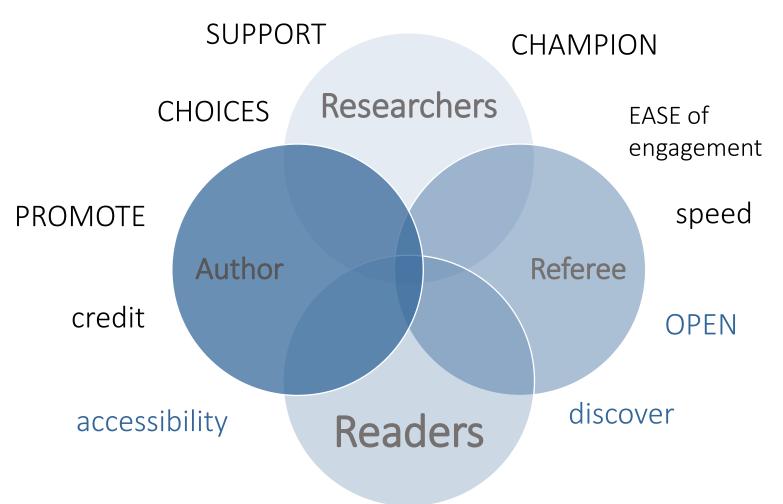
She wraps man in darkness, and makes him for ever long for light. She creates him dependent upon the earth, dull and heavy; and yet is always shaking him until he attempts to soar above it.

149 years

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transparency













Get Credit for Peer Review

COMMONS





PubPeer The online journal club



Peer Review Is there a perfect system?



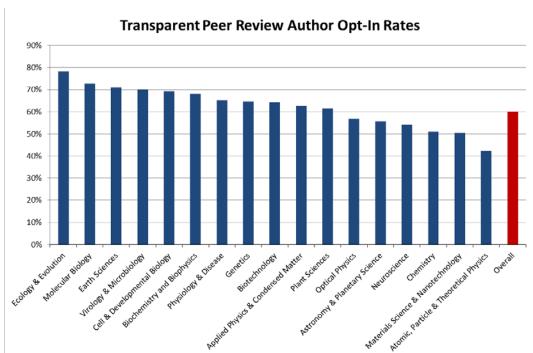
- Nature Journals have a two tier system. First review by the editor, followed by closed peer review by experts in the field.
- Traditional peer review is being challenged.
- We want to move towards giving more transparency in peer review and removing bias and as such have trialled and rolled out.
 - Double-blind Peer review
 - Publishing Referee Reports
 - Giving referees recognition at publication
 - Opening up the peer review procedure

Transparent peer review at *Nature Communications*

- Trial to publish anonymised referee reports (2016).
- Both author and peer reviewer agreement required.
- Ecologists and evolutionary biologists opt in at ~80% and most molecular biologists averaging around 70%.
- Atomic and particle physicists at ~40%. Materials scientists and Chemists also at around 50% for opt-in.
- The figure shows the author opt-in rate across the different research areas

for 741 published papers.

 The average opt-in across the journal is about 60%.



Transparenci

Sharing research early in peer review

Around 110 submissions
60% of papers added to preprint servers after our prompt
69% Life Sciences. Trial live on Nature Communications Sep 2017



UNDER CONSIDERATION UNDER CO

Parity-engineered lightmatter interaction

Dr. Jan Goetz, Frank Deppe, Dr. Kirill Fedorov, Peter Eder, Michael Fischer, Stefan Pogorzalek, Edwar Xie, Dr....



Nature Communications

UNDER CONSIDERATION

Membrane bending occurs at all stages of clathrin-coat assembly and defines endocytic dynamics

Prof. Adam Hoppe, Dr. Brandon Scott, Dr. Kem Sochacki, Dr. Shalini Low-Nam, Ms. Elizabeth Baile, Dr....



Nature Communications

UNDER CONSIDERATION

Microglia remodel synapses by presynaptic trogocytosis and spine head filopodia induction

Dr. Cornelius Gross, Miss Laetitia Weinhard , Urte Neniskyte , Giulia di Bartolomei , Dr. Giulia Bolasco ,...



Nature Communications

arXiv.org

PEER REVIEW





UNDER CONSIDERATION

Novel causative genes for heritable pulmonary arterial hypertension

Prof. Nicholas Morrell, Dr. Stefan Gräf, Matthias Haimel, Marta Bleda , Dr. Charaka Hadinnapola, Wei Li...



Nature Communications

UNDER CONSIDERATION

Snord116-dependent diurnal rhythm of DNA methylation in mouse cortex

Rochelle L. Coulson, Dag H. Yasui, Keith Dunaway, Benjamin I. Laufer, Annie Vogel Ciernia, Charles E....



Nature Communications

UNDER CONSIDERATION

Mortality Data Suggests that Men Are More Fragile but Women Age Faster

Peter Lenart, Daniela Kuruczova, Julie Bienertová-Vašků



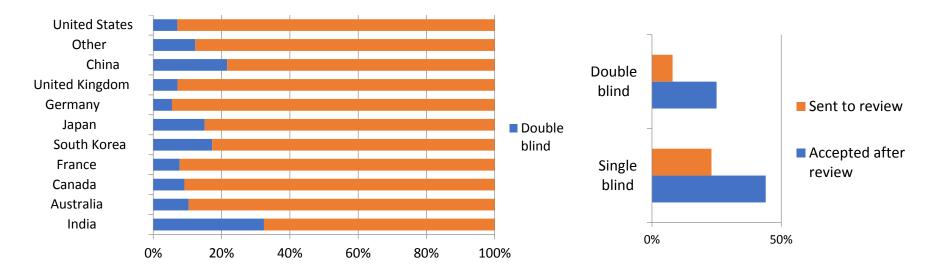
Nature Communications



Double-blind peer review - giving authors choices



- Trialled at Nature Geoscience and Nature Climate Change in 2014.
- Available to all authors, on all Nature Journals from March 2015
- Difficult to make major conclusions as uptake low 12%. Highest on journals like N. Eco and Evo, N. Human Behaviour (23%); lowest on N. Mol and Structural Biology and N. Biotechnology (6%)
- No difference in the distribution of peer review model by gender
- 10% of referees are withdrawing from Double blind peer review



Peer Reviewers want formal recognition

PEER REVIEW

Trial. *Nature* 29th March 2016
Authors and peer reviewers are given the option of peer reviewer names being disclosed at the end of the paper.

Referee Survey

- 63% of respondents agreed that publishers should experiment with alternative peer review methods
- 50% of our referees agree peer review could be more transparent and expect publishers to do more.
- ~50% noted recognition for peer review from publishers/editors was considered most important
- 78% felt that accrediting the reviewers would result in better written reports.

Contributions

H.D., R.G.S. and K.L.B. collected and analysed data; H.D., R.G.S., A.P.-P., J.S.D., and K.L.B. designed the study and wrote the paper.

Competing financial interests

The authors declare no competing financial interests.

Corresponding author

Correspondence to: Kevin L. Briggman

Reviewer Information *Nature* thanks G. Knott and the other anonymous reviewer(s) for their contribution to the peer review of this work.

	Biology	Physics	Total
% manuscripts where authors opted in	92.1	90.5	91.8
% manuscripts where one or more peer- reviewers opted in	79.6	77.7	79.3

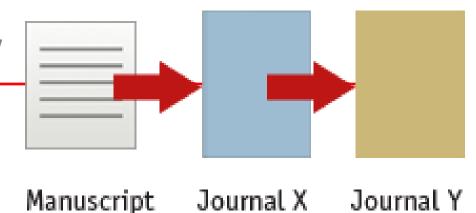
Referee Recognition Trial - Nature

PEER REVIEW

- 54% of referees opt-in (62% female; 67% male)
- 19% of the referee are non responders
- 27% referees opting out.
- Over 80% of referees are happy to choose accreditation again 18months post the first time.
- 50% of these referees want to publish their reports
- Also live on the Nature Reviews Journals: 72% author opt-in. 62%
 Referee opt-in

	Total	Bio	Phys
Total manuscripts	1767	1195	572
Referees contacted	4650	3332	1318
Referees opted in	2532	1811	721
% refs opted in	54%	54%	55%
Referees opted out	1239	859	380
% opt refs out	27%	26%	29%
Referees not responded	879	662	217
% NR refs	19%	20%	16%

Nature Transfer Service

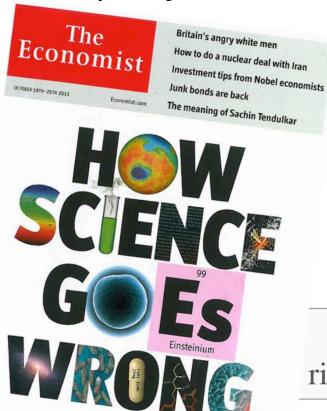


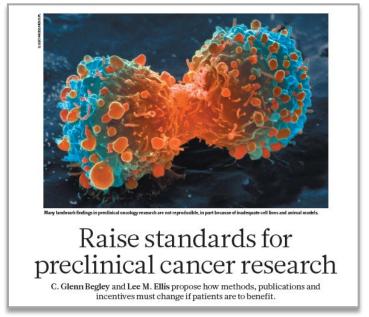
- If one journal is unable to consider a manuscript further and if deemed appropriate, Nature editors recommend another Nature Research Journal.
- With the author's permission, editors can also discuss manuscripts with other Nature Journal editors.
- Authors can transfer named referee reports to another Nature journal to continue the review process with the same referees.
- No further formatting is required automatic online transfer.
- No need to resubmit large files, fill in more forms.



Promoting transparency in reporting to allow for better reproducibility of research

"The scientific findings could be reproduced in only 6 of 53 studies."





Lack of attention to detail in the methods section

Increasing requirement to demonstrate rigorous experimental design and analysis

PROMOTING REPRODUCIBILITY



Increasing robustness of reporting



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Nature Research wishes to improve the reproducibility of the work we publish. This form is published with all life science papers and is intended to promote consistency and transparency in reporting. For further information on the points included in this form, see Reporting Life Sciences Research. All life sciences submissions use this form; while some list items might not apply to an individual manuscript, all fields must be completed for clarity.

Experimental design

MRI Studies Reporting Summ

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Solar Cells Reporting Summary

Reporting checklist for manuscripts with a claim of lasing

Independent assessment 2017. Macleod and co-workers

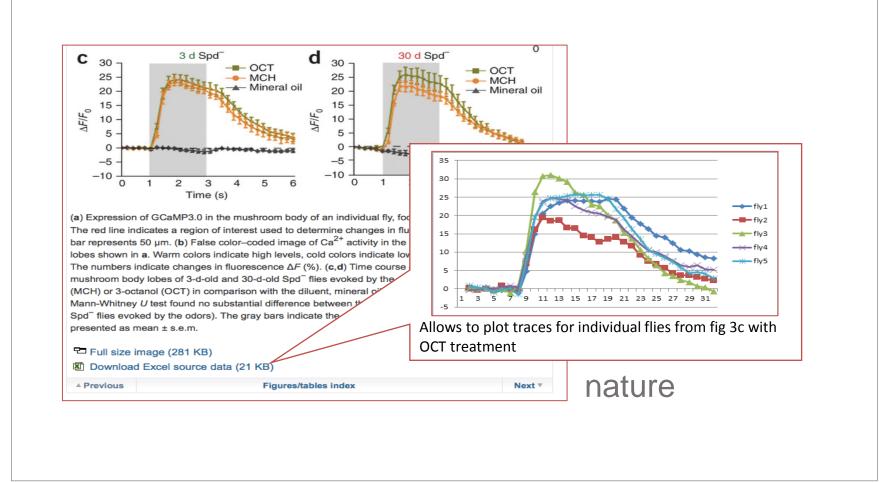
- The overall number of NPG publications meeting all relevant criteria for compliance for <u>in vivo</u> research reporting randomisation, blinding, exclusions and sample size calculations reached 68%, 62%, 31% and 64% respectively. For non NPG publications the performance was 12%, 5%, 12% and 3%.
- For reports of overall compliance (incl in vitro) for randomisation, blinding, exclusions and sample size calculations increased from 0/203 prior to May 2013 to 31/181 (16.4%). But note we didn't mandate this info for In vitro data

https://link.springer.com/article/10.1007/s11192-016-1964-8
nature research



DATA ACCESSIBILITY

Source Data – presenting the data behind the graph.



Making data more accessible



a natureresearch journal SCIENTIFIC DATA Scientists who share their data in a FAIR manner deserve appropriate credit and recognition. Publishing at Scientific Data:

- Provides citable, peer-reviewed credit for dataset creation.
- Grants recognition to researchers who may not qualify for authorship on traditional
- Allows publication of valuable datasets that may not be well-suited for traditional research journals.

Reuse

Standardized and detailed descriptions make research data easier to find and reuse. Data Descriptors:

- Provide the information needed to interpret, reuse and reproduce data including standardized and curated experimental metadata.
- Ensure linking to one or more trusted data repositories where data files, code and/or workflows are stored.
- Fulfil a significant part of funders' data-management requirements, particularly by demonstrating and promoting the reuse potential of research data.

Open

We believe scientists work best when they can easily connect and collaborate with their peers, so Scientific Data aims to:

- · Offer transparency in experimental methodology, observation and collection of data.
- Use open licences that allow for modifications and derivative works.
- Break down barriers to interdisciplinary research facilitating understanding, connectivity and collaboration.
- Ensure all interested parties scientists, policy-makers, NGOs, companies, funders and the public can find, access, understand and reuse the data they need.

Descriptors – unique Format

Format of Data Descriptor manuscripts

Title | Authors & Affiliations | Abstract | Background & Summary | Methods | Data Records | Technical Validation | Usage Notes | Acknowledgements | Author contributions | Competing interests | Figures & Tables | References | Data Citations

Data Descriptor | 21 September 2017 | OPEN

Whole genome characterization of sequence diversity of 15,220 Icelanders

Hákon Jónsson, Patrick Sulem [...] Kari Stefansson

Comment | 19 September 2017 | OPEN

The stuff and nonsense of open data in government

lan L. Boyd

Article | 19 September 2017 | OPEN

Precision annotation of digital samples in NCBI's gene expression omnibus

Dexter Hadley, James Pan [...] Atul J. Butte

Data Descriptor | 19 September 2017 | OPEN

The public cancer radiology imaging collections of The Cancer Imaging
Archive

Fred Prior, Kirk Smith [...] John Freymann

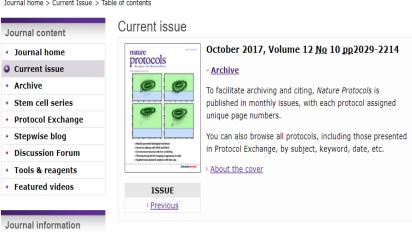




At the bench – the latest protocols



Journal home > Current Issue > Table of contents



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Protocols top 🛧

Multiparametric characterization of rare HIV-infected cells using an RNA-flow FISH technique pp2029 - 2049

Amy E Baxter, Julia Niessl, Rémi Fromentin, Jonathan Richard, Filippos Porichis, Marta Massanella, Nathalie Brassard, Nirmin Alsahafi, Jean-Pierre Routy, Andrés Finzi, Nicolas Chomont & Daniel E Kaufmann

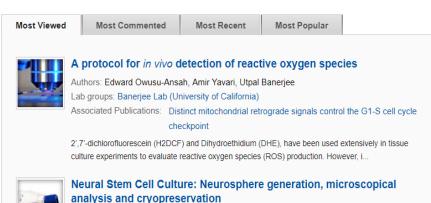
doi:10.1038/nprot.2017.079



Welcome to the Protocol Exchange

Welcome to Protocol Exchange from Nature Protocols. The Protocol Exchange is an open resource where the community of scientists pool their experimental know-how to help accelerate research. Discover the protocols, share a protocol, join a lab group, comment on protocols, organize your favorites and personalize your experience.





Authors: Laura Pacey KK, Shelley Stead, Jacqueline Gleave A, Kasia Tomczyk, Laurie



Editorial initiatives

Author Contributions

//

- Nature mandates author contribution information
- They give transparency, credit and accountability
- We are looking to also add CRediT taxonomy
- Nature has trialled requesting ORCID IDs to corresponding authors and will roll out on all journals this year

Contributions

Q.V. performed the experiments and analysed the data. T.B., S.H.R., O.B., S.S., S.P., F.M., B.K., P.M., N.G., D.J., V.C.-D., C.M., A.P., S.C.J., V.S., S.Ly., C.L.-R., L.G., C.B., J.A. and C.L. followed the patients and analysed the data. L.B. and N.B. performed the patient CT scans and MRIs and analysed the data. E.B. performed the PET scans and analysed the data. S.La., S.M, J.Y. and S.C.J. performed some in vivo and in vitro experiments. C.H. performed some mouse experiments. J.-P.D. analysed all the histological findings. C.B.-F performed PIK3CA genotyping in patients. J.S., L.S. and C.C. performed and analysed the mouse CT scans. F.T. was involved in data analysis and helped to write the paper. G.C. followed the patients, provided the conceptual framework, designed the study, supervised the project, and wrote the paper.

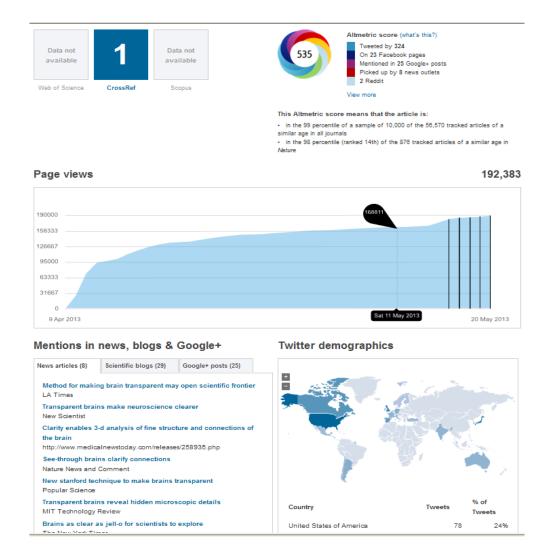
Promote and Support Diversity

"Nature journals strive toward a diverse demographic representation"

"Nature journals strive toward a diverse demographic representation within our reviewer database. In the spirit of our own efforts, we encourage authors who wish to suggest reviewers to provide a diverse list of peer reviewers."

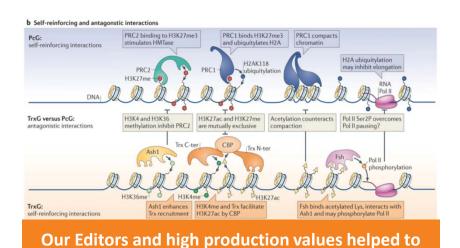
- We are encouraging our editors to think more diversely when commissioning content and when finding referees
- We are encouraging our authors and reviewers to be more diverse when recommending referees

RESEARCHER A range of metrics reported on each paper





ENHANCE & MAKE ACCESSIBLE



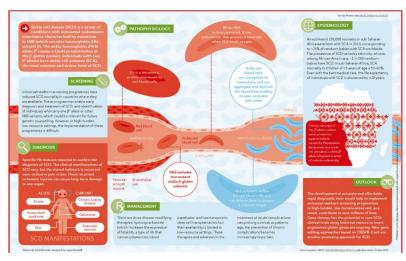
make the Nature Reviews journals market leaders

Key points. Accessible summary

Key points

- The clinical phenotypes of patients with proteinopathies do not always enable identification of the underlying cause of the disorder, especially in early disease
- By contrast, biochemical and imaging biomarkers can identify, even at presymptomatic stages, the underlying proteinopathy likely to cause the disease
- Imaging biomarkers of pathology and neuronal injury can also help to stage these diseases
- Amyloid-β and tau imaging studies can aid in patient selection, assess target engagement and monitor intervention efficacy in disease-specific treatment trials
- Incorporation of biochemical and imaging biomarkers into new diagnostic criteria for Alzheimer disease offers a rational and flexible diagnostic approach that does not require the presence of dementia
- Integration of biochemical and imaging biomarker findings with cognitive assessment is also expected to improve the predictive paradigm for Alzheimer disease

Primeview. Sickle cell disease



Laminar-airflow isolation

A method that provides a low-pathogen environment and prevents exogenous infection during hospitalization of patients with neutropenia and other immunodeficient diseases. It involves filtered air moving along separate parallel flow planes to patient rooms with no or minimal crossover of air streams (or lamina).

Specific pathogen-free (SPF) mice

Mice housed under standard laboratory conditions. These mice are free of specific pathogens but otherwise have a normal microbiota. The lists Glossary, Boxes, Annotated references to enhance understanding

Box 1 Microbiota and immune reconstitution

Given the recent findings of the role of microbiota in immune homeostasis^{21,49}, it is possible that intestinal microbiota could affect immune reconstitution after allogeneic haematopoietic stem cell transplantation (allo-HSCT) and could be targeted as a strategy to increase post-transplant immunity. Defects in haematopoiesis have been reported in germ-free mice; specifically, the intestinal microbiota promotes steady-

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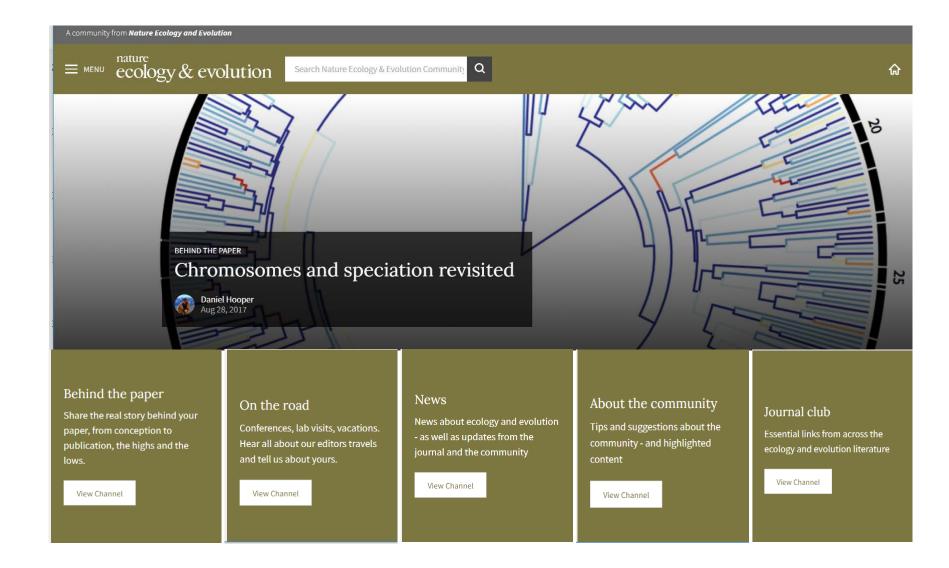
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Research Articles

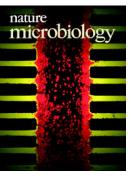
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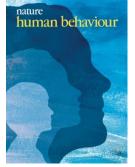




Addressing 'core' community demand - filling in long-standing gaps



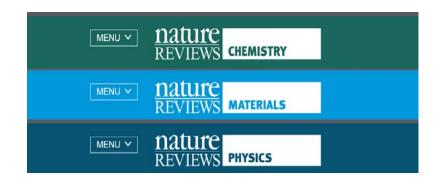
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INABLE GOALS





































2016: 193 UN member states signed up to help deliver goals

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The path towards sustainable energy

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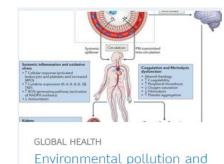
日本語要約

Microorganisms and ocean global change

Paris Agreement climate proposals need a boost to keep warming well below 2 °C

Joeri Rogelj, Michel den Elzen, Niklas Höhne, Taryn Fransen, Hanna Fekete, Harald Winkler, Roberto Schaeffer, Fu Sha, Keywan Riahi & Malte Meinshausen





kidney diseases



THE RESEARCH COMMUNITY An over reliance on the Journal Impact Factor

Editorial

Nature 435, 1003-1004 (23 June 2005) | doi:10.1038/4351003b; Published online 22 June 2005

Not-so-deep impact

Research assessment rests too heavily on the inflated status of the impact factor.

NATURE | EDITORIAL

عربي

Time to remodel the journal impact factor

NATURE | COLUMN: WORLD VIEW عربي

Nature and the Nature journals are diversifying their presentation of performance indicators.



We need a measured approach to metrics

Quantitative indicators of research output can inform decisions but must be supported by robust analysis, argues James Wilsdon.

08 July 2015







Transparency in reporting journal metrics

< ₽



26 April 2017

NATURE | EDITORIAL

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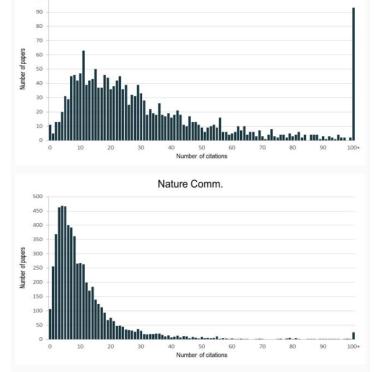
Nature journals have	signed	up to	the	princ
agreement.				

Nature Research journals	Submission to first editorial decision (median days)	Submission to first post- review decision (median days)	Submission to Accept (median days)
<u>Nature</u>	7	42	173
Nature Astronomy	4	34	138
Nature Biomedical Engineering	4	44	163
Nature Biotechnology	7	50	210
Nature Cell Biology	8	49	245
Nature Chemical Biology	8	46	180
Nature Chemistry	8	46	193
Nature Climate Change	7	65	180
Nature Communications	8	48	170
Nature Ecoloav & Evolution	5	46	109

Peer Review Metrics for Nature Research journals

Nature Research journals' metrics							
Multidisciplinary Journals	2-year Impact Factor	5-year Impact Factor	Immediacy index	Eigenfactor® score	Article Influence Score	2-year Median	
<u>Nature</u>	40.137	43.769	9.129	1.43399	22.976	24	
<u>Nature</u> <u>Communications</u>	12.124	13.092	1.993	0.72229	5.732	8	
Scientific Reports	4.259	4.847	0.647	0.38761	1.482	3	
Scientific Data	4.836	4.852	1.051	0.00469	2.67	2	

Nature-branded research journals	2-year Impact Factor	5-year Impact Factor	Immediacy index	Eigenfactor® score	Article Influence Score	2-year Median
<u>Nature</u> <u>Biotechnology</u>	41.667	46.223	7.542	0.16993	23.881	25
Nature Cell Biology	20.060	20.594	3.829	0.10315	10.531	14
Nature Chemical Biology	15.066	14.519	3.057	0.06534	7.055	10
Nature Chemistry	25.870	28.129	6.750	0.10137	11.207	16
<u>Nature Climate</u> <u>Change</u>	19.304	21.108	4.436	0.08218	9.353	11
Nature Genetics	27.959	31.694	4.776	0.24177	16.456	20
Nature Geoscience	13.941	14.350	3.400	0.08196	7.438	10
Nature Immunology	21.506	22.751	5.890	0.11348	12.253	17
Nature Materials	39.737	47.494	8.331	0.20402	18.911	23



Nature

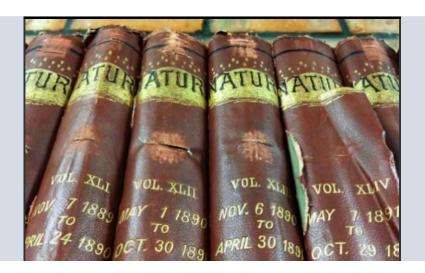
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- Nature endorses open archive policy. We encourage deposition of accepted paper in Pubmed Central 6 month after publication
- Open Archives Initiative: allows full text to be searchable by Google.
- Part of HINARI initiated by WHO in 2002 -Free online access to world's poorest countries
- Genome papers are published under the creative Commons license.
- NPG has launched Nature Communications 100% Gold Open access.
- The Nature Journals support deposition of content on preprint servers



Natureresearch

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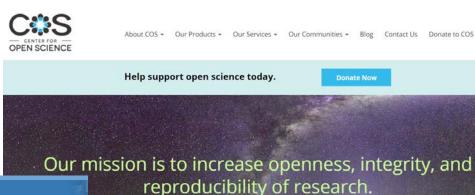
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