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**DESCRIPTION**

The *Journal of Plant Physiology* is a broad-spectrum journal that welcomes high-quality submissions in all major areas of plant physiology, including plant biochemistry, functional biotechnology, computational and synthetic plant biology, growth and development, photosynthesis and respiration, transport and translocation, plant-microbe interactions, biotic and abiotic stress. Studies are welcome at all levels of integration ranging from molecules and cells to organisms and their environments and are expected to use state-of-the-art methodologies. Pure gene expression studies are not within the focus of our journal. To be considered for publication, papers must significantly contribute to the mechanistic understanding of physiological processes, and not be merely descriptive, or confirmatory of previous results. We encourage the submission of papers that explore the physiology of non-model as well as accepted model species and those that bridge basic and applied research. For instance, studies on agricultural plants that show new physiological mechanisms to improve agricultural efficiency are welcome. Studies performed under uncontrolled situations (e.g. field conditions) not providing mechanistic insight will not be considered for publication.

The *Journal of Plant Physiology* publishes several types of articles: Original Research Articles, Humboldt Reviews, Early-Career Researcher Reviews, Invited Reviews, Perspectives, Opinion Articles and Short Communications. Reviews, Perspectives and Opinion Articles will be solicited by the Editors; unsolicited reviews are also welcome but only from authors with a strong track record in the field of the review. Original research papers comprise the majority of published contributions.

Humboldt Reviews are expected take a broad approach, one that spans multiple areas of biological inquiry, and one that distinguishes itself from that taken in most regular review works by a deeper philosophical line of thought and a more global reach. Humboldt Reviews are also expected to be thoroughly respectful of the historical developments in a given field (i.e. not limit themselves to covering the literature of only the previous one to two decades) and speak to both its fundamental and applied aspects. They are named after Alexander von Humboldt (1769-1859), one of the most influential German natural philosophers of the 18th and 19th centuries. Our editors-in-chief take great inspiration from Alexander von Humboldt's profound and wide-ranging contributions. The *Journal of Plant Physiology* was founded in 1909 but it traces back to 1818 and to the geographic region Alexander von Humboldt was most active in. The Journal of Plant Physiology has consistently published landmark papers in plant physiology, and is one of the world's oldest international journals in the botanical sciences. For these reasons, we consider Alexander von Humboldt a particularly appropriate scholar after whom to name our prestigious review series.
Early-Career Researcher Reviews: This new category is specifically aimed at early-career scientists starting their independent research careers. Suitable candidates will be nominated by senior scholars. Nomination letters should include a brief curriculum vitae and a justification for the selection. Nominees will be evaluated by the Editors-in-Chief and officially invited to submit articles. ECR Reviews should not exceed 8,000 words and contain no more than 150 references plus figures and tables. Early Career Researchers are within their first eight years of academic or other research-related employment, following completion of postgraduate research training.

Founded in 1909, with roots tracing back to 1818, the Journal of Plant Physiology has consistently published landmark papers in plant physiology, and is one of the world's oldest international journals in the botanical sciences.

An official journal of the Federation of European Societies of Plant Biology (FESPB)

Authors are encouraged to carefully study the Aims & Scope of the journal to examine suitability of submissions. We discourage directly contacting editors about suitability of manuscripts, except in cases of proposals for Review, Opinion, or Perspectives articles, which are by invitation only. In the latter cases, well-developed proposals must be submitted for consideration.

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AUDIENCE
Plant physiologists, biochemists, botanists, taxonomists, ecologists, geneticists, agriculturists, forest scientists, plant molecular biologists

ABSTRACTING AND INDEXING
Biochemistry and Biophysics Citation Index
BIOSIS Citation Index
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Cambridge Scientific Abstracts
Chemical Abstracts
Current Awareness in Biological Sciences
Current Contents - Life Sciences
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Daniel Hofius, Swedish University of Agricultural Sciences, Department of Molecular Biology, Uppsala, Sweden
molecular and genetic mechanisms by which plants interact with and defend themselves against pathogens

Kaare Hartvig Jensen, Technical University of Denmark, Department of Physics, Kgs Lyngby, Denmark

Michael Knoblauch, Washington State University, Pullman, Washington, United States of America
Plant cell biology, long and short distance transport, phloem

Zoran Nikoski, Max Planck Institute of Molecular Plant Physiology, Potsdam, Germany
network-based modeling, metabolic networks, data integration

Ute Roessner, The University of Melbourne, Melbourne, Australia
Plant biochemistry, Metabolomics, Lipidomics, Abiotic stress, Plant microbe interactions

Yongling Ruan, Australian National University Research Division of Plant Sciences, Canberra, Australia
Plant Molecular Cell Biology, Plant Physiology, Gene Technology and Genetic Engineering

Handling Editors

Joong-Hoon Ahn, Konkuk University, Department of Integrative Bioscience and Biotechnology, Gwangjin-gu, South Korea
secondary metabolism, phenylpropanoid pathway, synthesize diverse bioactive and/or novel phenylpropanoids by using metabolic engineering and synthetic biology

Susanne Baldermann, Leibniz Institute of Vegetable and Ornamental Crops, Großbeeren, Germany
My research is about the secondary metabolism, phenylpropanoid pathway. We try to synthesize diverse bioactive and/or novel phenylpropanoids by using metabolic engineering and synthetic biology

Monica Borghi, Utah State University, Logan, Utah, United States of America
Flower, Flower metabolism, Volatile organic compounds (VOC)

Francisco Javier Cejudo, University of Seville, Sevilla, Spain
Redox signaling in plants; Mechanisms of defence against oxidative stress; Redox regulation of starch synthesis; Programmed cell death in plants

Devrim Coskun, Laval University, Department of Plant Science, Laval, Quebec, Canada
channels/transporters, mineral nutrition/toxicity, sodium, potassium, nitrogen, and silicon

John Cushman, University of Nevada Reno, Reno, Nevada, United States of America
Functional Genomics of Crassulacean acid metabolism (CAM); Evolutionary Origins of Crassulacean acid metabolism in Neotropical Orchids; Gene Discovery in Resurrection Species; Improved Abiotic Stress Tolerance in Camellina

Marina Cvetkovska, Université d’Ottawa, Ottawa, Ontario, Canada
Plants and algae, abiotic stress, Antarctica, cold adaptation, chloroplast, photosynthesis, reactive oxygen species, temperature stress, heat shock proteins, cell signalling

Emmanuel Delhaize, Commonwealth Scientific and Industrial Research Organisation, Canberra, Australia
nutrient efficiency, root morphology, mutants, acid soil tolerance, wheat

Sylvie Dinant, Institute Jean-Pierre Bourgin, Versailles, France
Physiology, Nutrition, Metabolomics, Proteomics, Transcriptomics

Marion Eisenhut, Heinrich Heine University Düsseldorf Institute for Plant Biochemistry, Düsseldorf, Germany
Cyanobacteria, Plants, Photosynthesis, Manganese Homeostasis

Brett Ferguson, University of Queensland, Brisbane, Queensland, Australia
nodulation, legumes, rhizobia, nitrogen fixation, CLE peptides

Jaume Flexas, University of the Balearic Islands, Palma de Mallorca, Spain
Ecophysiology of the responses of plants in dryness; Biology of endemic species of the Balearic Islands; Taxonomy and evolution of endemic plants of the Balearic Islands

Katalin Gémes, University of Szeged, Department of Plant Biology, Szeged, Hungary
Plant regeneration, Abiotic stress responses, Polyamines, Polyamine oxidases, Reactive oxygen species

Aurelio Gomez Cadenas, University Jaume I, Castello De La Plana, Spain
abscisic acid, combined abiotic stress, jasmonic acid, long distant signaling, plant hormones

Abir Igamberdiev, Memorial University of Newfoundland, St John’s, Newfoundland and Labrador, Canada
plant mitochondria, nitric oxide, hypoxic stress, plant respiration, photorespiration
Tibor Janda, Hungarian Academy of Sciences Centre for Agricultural Research Plant Physiology Department, Budapest, Hungary
Physiological and stress-protective effect of a new biologically active compound, S-methylmethionine salicylate, Role of light in the development of stress tolerance in cereals

Jing Bo Jin, Institute of Botany Chinese Academy of Sciences, Beijing, China
SUMO, abiotic stress, epigenetics

Jaakko Kangasjärvi, University of Helsinki, HELSINKI, Finland
signalling cascades activated by reactive oxygen species (ROS); endogenous processes in plants and various stress factors result in the formation of reactive oxygen species (ROS)

Yu-Jin Kim, Pusan National University, Geumjeong-gu, South Korea
Rice pollen, Reproductive development, Ginsenoside biosynthesis, Environmental stress

Zsuzsanna Kolbert, University of Szeged, Department of Plant Biology, Szeged, Hungary
Abiotic plant stress, Plant growth and development, Reactive nitrogen species, Reactive oxygen species, Nanoparticle-plant interactions, Heavy metals-plant interaction

Hojuong Lee, Korea University Division of Biotechnology, Seongbuk-gu, South Korea
Arabidopsis, Salt stress, Nitrogen use efficiency, Flavonoid, Abiotic stress

Baohai Li, Zhejiang University College of Environmental and Resource Sciences, Hangzhou, China
Root Biology, Casparian Strips and Suberin, Nutrition (iron, calcium, nitrogen) Physiology, Natural Variation

Yun-Kuan Liang, Wuhan University, Wuhan, China
environmental adaptation, gene expression, plant hormone, signal transduction, stomata

Honghui Lin, Sichuan University, Chengdu, Sichuan, China
Plant abiotic stress responses, plant-environment interactions, photosynthesis

Jinxing Lin, Beijing Forestry University, Beijing, China
Plant Cell Biology, Plant Molecular Biology

Yongxiu Liu, Institute of Botany Chinese Academy of Sciences, Beijing, China
Seed biology, Plant hormone, Saline-alkali stress

Kristiina M Mäkinen, University of Helsinki Microbiology, Helsinki, Finland
Plant viruses, host-microbe interactions, RNA regulatory networks, translation, protein chemistry

Ulrike Mathiesius, Australian National University Research Division of Plant Sciences, Canberra, Australia
nodulation, root development, rhizobia, plant parasitic nematodes, flavonoids

Autar Mattoo, USDA-ARS Beltsville Agricultural Research Center, Beltsville, Maryland, United States of America
Biotic-, abiotic-, environmental stress, antimicrobial peptide, polyamine, metabolomics, seed dormancy, plant hormones, fruit ripening, senescence, photosystem II reaction center proteins, genetically engineered crops, sustainable alternative agriculture

Veronica Maurino, University of Bonn, Bonn, Germany
Unraveling regulatory processes that coordinate plant metabolic pathways in dependence on developmental and environmental cues

Zbigniew Miszalski, Franciszek Górski Institute of Plant Physiology Polish Academy of Sciences, Krakow, Poland
Abiotic stress • biotic stress • carbon metabolism • photosynthesis

Utpal Nath, Indian Institute of Science, Bangalore, India
Genetic basis of organ morphogenesis in plants, CIN-TCP protein-mediate regulatory networks that induce cell and organ maturity in leaves and other lateral organs.

Zhi Qi, Inner Mongolia University, Hohhot, China
Molecular and cellular mechanism of Ca sensing, uptake and distribution in plants, Intracellular Ca2+ mediated signal transduction in plants, Identification of stress-adaptation related Ca2+ binding proteins in wild plants

Agepati S. Raghavendra, University of Hyderabad, Hyderabad, India
Plant biochemistry, plant physiology and plant molecular biology

Zed Rengel, University of Western Australia School of Earth Sciences, Perth, Western Australia, Australia
Aluminium and heavy metal toxicity; Soil-plant-microbe interactions; Nutrient-use efficiency; Genetics of nutrient uptake Among nutrients, I have been working on nitrate, phosphorus, potassium, magnesium and calcium as well as micronutrients (zinc, copper & manganese). Among toxic ions, aluminium, arsenic, zinc and sodium feature prominently. The approaches and techniques used range from ion imaging using confocal laser microscopy, to ion-specific microelectrodes, to enzyme assays and radioisotope tracking, to fiddling with bacteria and fungi in the rhizosphere, to chemical analysis of root exudates, to optimising fertilisation of crop and pasture plants, to computer modelling of root growth and nutrient uptake, and digging pits and holes in the field to access soil, roots and groundwater.

Alison Roberts, The James Hutton Institute, Department of Cell and Molecular Sciences, Dundee, United Kingdom
Use of novel fluorescent proteins and imaging technologies to ensure cutting edge methodologies, Cell biological research on virus movement, Macromolecular trafficking and phloem transport
Luigi Sanità di Toppi, University of Pisa, Pisa, Italy
Metal stress, adaptation and resistance

Diana Santelia, ETH Zurich Institute of Integrative Biology, Zurich, Switzerland
Carbohydrate metabolism

Weiming Shi, State Key Laboratory of Soil and Sustainable Agriculture Chinese Academy of Sciences, Nanjing, China
nitrogen, phosphorus, nutrients transport, root, abiotic stress

Sophia Sonnewald, Friedrich Alexander University Erlangen Nurnberg Institute of Biochemistry, Erlangen, Germany
Regulation of potato tuber dormancy and sprout induction; Bacteria - plant interaction to study regulation of plant primary metabolism and to elucidate mode of action of bacterial type 3 effector proteins

Sudhir K. Sopory, International Centre for Genetic Engineering and Biotechnology New Delhi, New Delhi, India
light, abiotic stress, gene expression, glyoxalase, transgenics

Ruth Stadler, Friedrich-Alexander-University Erlangen-Nurnberg, Department of Biology, Erlangen, Germany
Phloem transport, sugar carrier, plasmodesmata

Teruhiro Takabe, Meijo University, Faculty of Science and Technology Graduate School of Science and Technology, Nagoya, Japan

Akihiro Ueda, Hiroshima University, Higashihiroshima, Japan
Salinity stress, Potassium nutrition, Halophytes, Plant growth promoting microbes

Ian Woodrow, The University of Melbourne School of Ecosystem and Forest Sciences, Melbourne, Australia
secondary metabolism, terpenoids, carbon metabolism, Rubisco

Shaowu Xue, Huazhong Agricultural University, Wuhan, China
Hydrogen sulfide signaling in plant development and stress responses, Plant abiotic stress response, Electrophysiology, Ion channels and transporters

Changxi Yin, Huazhong Agricultural University, Department of Crop Physiology, Wuhan, China
The regulatory mechanisms of plant hormones (Jasmonate, ethylene, gibberellin, cytokinin, etc.) on rice growth, development, and stress (Salt, High temperature, etc.) responses

Kangquan Yin, Beijing Forestry University School of Grassland Science, Beijing, China
Developing genome editing tools for plant genome modification and applying them to the legumes to produce better traits, Understanding how Fusarium spp. cause root rot disease on alfalfa

Min Yu, Foshan University, Foshan, China
Plant nutrition, Plant hormone and signaling, Micronutrients, Heavy metal and AI toxicity, Stress physiology

Yali Zhang, Nanjing Agricultural University, College of Resource and Environmental Sciences, Nanjing, China
Plant nutrition, Molecular biology

Zhiguang Zhao, Lanzhou University School of Life Sciences, Lanzhou, China
Physiological, Molecular and bioinformatic mechanisms of plant response/adaption to chilling/freezing temperature

Gongke Zhou, Qingdao Agricultural University, Qingdao, China
Cell Wall Formation, cambium, Secondary Growth, Polysaccharide metabolism, Abiotic stress, Molecular breeding, Signal transduction

Agustin Zsögön, Federal University of Vicsosa, Department of Plant Biology, VICOSA, Brazil
Plant biotechnology, Molecular plant physiology, Plant development, Abiotic stress resistance, Water relations

Consulting Reviewers

David Barbosa Medeiros, Syngenta Seeds Ltda., Uberlândia, Minas Gerais, Brazil
Abiotic stresses, Photosynthesis, Primary metabolism, Respiration, Stomatal regulation

Liang Chen, Lanzhou University School of Life Sciences, Lanzhou, China
Stomatal development and pavement cell morphogenesis

Yaning Cui, Beijing Forestry University College of Biological Sciences and Biotechnology, Beijing, China
Plant Cell Biology, Plant Developmental Biology, Vesicle Trafficking, Single Molecular Technique

Sabrina Flütsch, Zurich, Switzerland
Guard Cells, Starch, Sugars, Stomatal Movements, Light

Yiqun Gao, University of Nottingham School of Biosciences, Loughborough, United Kingdom
Plant nutrition, Casparian strip, Vesicle trafficking, Transporters

Chong Hu, Lanzhou University School of Life Sciences, Lanzhou, China
Meristem, Peptide, Receptor like kinase, Protease, Signal transduction
Xi Huang, Xiamen University, Department of Genetics and Developmental Biology, Xiamen, China
Plant development, Light signal, Photoreceptor, Optogenetics

Zhonghao Jiang, Shenzhen University College of Life Sciences and Oceanography, Shenzhen, China
Calcium Signaling, Signal transduction, Salt stress, Arabidopsis

Charanpreet Kaur, International Centre for Genetic Engineering and Biotechnology New Delhi, New Delhi, India
Abiotic stress biology, Plant-microbe interactions, Plant growth promoting bacteria, Plant memory, Glyoxalase

Guangjie Li, Institute of Soil Science Chinese Academy of Sciences, Nanjing, China
Plant nutrition, Nutritional stress, Ammonium, Iron, Molecular physiology

Shan Li, Nanjing Agricultural University College of Agriculture, Nanjing, China
Nitrogen use efficiency, Auxin, Gibberellin, Grain yield, Rice

Fang Lin, Lanzhou University, Lanzhou, China
Light signal transduction in plant, The crosstalk of light and brassinosteroid signaling, Receptor-Like Kinase (RLK)-mediated photomorphogenesis in Arabidopsis

Wen-Cheng Liu, Henan University State Key Laboratory of Crop Stress Adaptation and Improvement, Kaifeng, China
Reactive oxygen species, Nitric oxide, Abiotic stresses, Phytohormone, Melatonin

Yufang Lu, State Key Laboratory of Soil and Sustainable Agriculture Chinese Academy of Sciences, Nanjing, China
Plant-microbe interactions, Secondary metabolism, Root exudates, Nitrogen

Mehanthan Muthamilarasan, University of Hyderabad, Department of Plant Sciences, Hyderabad, India
Abiotic stress biology, Transcriptomics

Ting Pan, Foshan University, Foshan, China
Transporters, Ion homeostasis, Abiotic stress

Wanju J. Shi, Hunan Agricultural University, School of Agronomy, Changsha, China
Crop physiology, Abiotic stress

Chengliang Sun, Zhejiang University College of Environmental and Resource Sciences, Hangzhou, China
Molecular mechanisms underlying plant responses to harsh environments such as acid soils, limited nutrition, Environmental fate, transport and risk assessment of legacy and current-use xenobiotics to crops, Root developmental programs and nutrient uptake mechanisms initiated by plant growth-promoting rhizobacteria

Meng Wang, Institute of Soil Science Chinese Academy of Sciences, Nanjing, China
Wheat, Omics, Salinity, Nitrogen, Molecular pathway

Xuexia Wu, Qinghai University The State Key Laboratory of Sanjiangyuan Ecology and Plateau Agriculture and Animal Husbandry, Xining, China
Plant, Crop, Abiotic stress

Xingqiu Xu, Nanjing Agricultural University College of Agriculture, Nanjing, China
Light is necessary for all photosynthetic organisms and light signaling has profound effect on developmental transitions in plants such as germination, photomorphogenesis, and flowering. Various components including photoreceptors, E3 ligases, and transcription factors work in concert to precisely control light signal transduction pathways in plants. We are using a combination of biochemical, genetic, molecular and functional genomic approaches to understand how light affects plant development using Arabidopsis and Soybean.

Xi Zhang, Beijing Forestry University College of Biological Sciences and Biotechnology, Beijing, China
Botany, Cytology and Forestry including the direction of plant cell biology, Plant developmental biology, Vesicle trafficking, Single molecular technique, Plant imaging in vivo, Tree development and physiology

Sheng Zheng, Northwest Normal University College of Life Sciences, Lanzhou, China
K(+)/H(+) antiporter, Na(+)/H(+) antiporter, Nutrition stress, Abiotic stress, Stress tolerance

Yang Zhou, Hainan University, School of Horticulture, Haikou, Hainan, China
(1) the mechanisms of plant response to salinity stress at the levels of physiological, biochemical and molecular biology, with special emphasis on the functional characterization of ion transporters involved in ionic homeostasis, (2) Efficient utilization of nitrogen nutrition in plants, with special emphasis on the functional characterization of ammonium transporters and nitrate transporters. The approaches involve bioinformation, gene overexpression, the purification of proteins, the isolation of biological membranes, the analysis of transporter activity, yeast two-hybrid system and bimolecular fluorescence complementation technique, etc.
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INTRODUCTION
The Journal of Plant Physiology (J Plant Physiol) publishes, in English, Original Research Articles, Humboldt Reviews, Invited Reviews, Perspectives, Opinions and Short Communications in all areas of plant physiology, plant biochemistry, plant molecular biology and functional biotechnology of plants. Manuscripts covering applied issues can be accepted only if establishing general principles in plant physiology and contributing to the understanding of physiological mechanisms. Studies that merely confirm known facts in just another species will normally not be considered for publication.

Authors are encouraged to carefully study the Aims & Scope of the journal to examine suitability of submissions. We discourage directly contacting editors about suitability of manuscripts, except in cases of proposals for Review, Opinion, or Perspectives articles, which are by invitation only.

Types of paper
The Journal of Plant Physiology accepts the following types of manuscripts:

(HR) Humboldt Reviews (HR)
The aim of the review series is to provide a platform for reviews that take a broad approach, one that spans multiple areas of biological inquiry, and one that distinguishes itself from that taken in most regular review works by a deeper philosophical line of thought and a more global reach. We expect Humboldt authors to provide unique synthesis and ask challenging questions. Humboldt Reviews are also expected to be thoroughly respectful of the historical developments in a given field (i.e. not limit themselves to covering the literature of only the previous one to two decades) and speak to both its fundamental and applied aspects. Humboldt Reviews will be by invitation only and are expected to be authored by leading scholars or emerging leaders within the global plant physiology community, but the journal's board remains open to exceptional proposals from authors. The length of review articles should not exceed 8000 words. They should contain no more than 150 references plus figures and tables.

(ECR) Early-Career Researcher Reviews (ECR)
This new category is specifically aimed at young scientists starting their independent research careers. Suitable candidates will be nominated by experienced scholars. Nomination letters should include a brief curriculum vitae and a justification for the selection. Nominees will be evaluated by the editors-in-chief and officially invited to submit articles. ECR Reviews should not exceed 8000 words and contain no more than 150 references plus figures and tables. Early Career Researchers are within their first eight years of academic or other research-related employment, following completion of postgraduate research training.

(IR) Invited Reviews (IR)
Authors interested in writing a review article should contact one of the editors in advance by submitting a summary of the intended manuscript. The editor may then send an official letter of invitation with further instructions.

(OP) Original Papers (OP)
Original Papers represent a substantial novel finding in plant physiology, normally produced through the application of a combination of experimental techniques. The text should not exceed 10 printed pages including tables and figures (45000 characters plus up to ten figures and/or tables).

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Short Communications should not exceed 4 printed pages including tables and figures (20000 characters and up to 4 figures and/or tables). Please note: A SC is not a publication that contains too few or preliminary data to justify a full paper. It should report "urgent data" that should be communicated to the scientific community prior to the completion of the full investigation.
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JPP Perspectives provide a platform for authors to present their visionary concepts and personal viewpoints of future trends and challenges in Plant Physiology. Open research questions, current challenges, new technological developments and potential solutions should be discussed. With this visionary, future-oriented viewpoint, Perspectives distinguish themselves from Opinion Articles. Articles may be opinionated but should always be balanced. Perspectives are intended to stimulate scientific discussions and provide guidelines for future research directions. JPP Perspectives typically are 2000-3000 words long and are illustrated with 1-2 figures or tables. Articles are subjected to full peer review.

O Opinions (O)
To provide a platform for stimulating discussion of "hot" or controversial topics in plant physiology, the Journal of Plant Physiology encourages Opinion articles that discuss current themes or comment on research published recently either in our journal or another journal in the plant sciences. Proposals for Opinion articles are reviewed for suitability by the editorial board and may be followed by an Opinion article presenting a dissenting view or analysis to the original Opinion article. Opinion articles must have a full Abstract and should ideally not exceed 1,000-2,000 words and can include display items. A respectful and professional writing style must be maintained, and ad-hominem attacks of other scientists or offensive language are not tolerated. However, critical analysis of arguments and proposals is encouraged. Articles are subjected to full peer review.

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gender neutrality by using plural nouns ("clinicians, patients/clients") as default/wherever possible to avoid using "he, she," or "he/she." We recommend avoiding the use of descriptors that refer to personal attributes such as age, gender, race, ethnicity, culture, sexual orientation, disability or health condition unless they are relevant and valid. When coding terminology is used, we recommend to avoid offensive or exclusionary terms such as "master", "slave", "blacklist" and "whitelist". We suggest using alternatives that are more appropriate and (self-) explanatory such as "primary", "secondary", "blocklist" and "allowlist". These guidelines are meant as a point of reference to help identify appropriate language but are by no means exhaustive or definitive.

**Reporting sex- and gender-based analyses**

**Reporting guidance**

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