

JOURNAL OF SCIENCE

A New Paradigm for Scientific Publishing

A White Paper

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Executive Summary

The scientific publishing industry is at a crossroads. For decades, the traditional model has served as both gatekeeper and bottleneck, controlling which ideas reach the scientific community and which are silenced. Lengthy review cycles, exorbitant publishing fees, restrictive paywalls, and editorial bias have created a system that too often rewards conformity over curiosity, politics over progress, and financial interests over the free exchange of ideas.

The Journal of Science, published by the International Academy of Science (IAS), represents a fundamentally new approach to scientific publishing. It is built on a simple but powerful premise: every scientist deserves an equal opportunity to share their work with the world, and every reader deserves free access to the full body of scientific knowledge.

This white paper describes the Journal of Science, its mission, its innovative publishing model, and its vision for a more open, honest, and productive scientific community.

The Problem with Traditional Scientific Publishing

Bias and Politics in Peer Review

The traditional peer review system, while well-intentioned, has become susceptible to systemic bias. Editorial boards at legacy journals wield enormous power over which research sees the light of day. Too often, papers are rejected not because they lack scientific rigor, but because they challenge prevailing orthodoxies, question popular theories, or fail to align with the perspectives of a small number of gatekeepers.

This bias extends beyond intellectual disagreement. Researchers have documented how papers are rejected to protect established funding streams, to maintain the dominance of certain research programs, or simply because the findings are unfashionable. The result is a publishing landscape where conformity is rewarded and dissent is suppressed. This is not science. It is politics dressed in the language of science.

The consequences are real and far-reaching. Promising avenues of research go unexplored. Early-career scientists learn to self-censor rather than challenge the status quo. And the public loses trust in a system that claims objectivity while practicing favoritism.

The Cost Barrier

Open Access journals were supposed to democratize scientific publishing by removing paywalls for readers. Instead, many have simply shifted the financial burden to authors through Article Processing Charges (APCs) that typically range from \$1,500 to \$6,000 per article. For researchers at underfunded institutions, in developing nations, or early in their careers without grant support, these fees represent an insurmountable barrier. The promise of open science rings hollow when only the well-funded can afford to participate.

The Speed Problem

In traditional publishing, the journey from submission to publication routinely takes six months to a year or more. In fast-moving fields such as artificial intelligence, genomics, and climate science, this delay means that published findings are often outdated before they reach readers. The pace of discovery has outgrown the pace of dissemination.

The Frozen Paper Problem

Perhaps most fundamentally, the traditional model treats a published paper as a finished product, frozen in time at the moment of publication. But science is not frozen. New data emerges, methods improve, and understanding deepens. Under the current system, a researcher who discovers an error or makes a breakthrough advancement of their earlier work must start the entire publication process over again, often waiting another year to share what they have learned.

The Journal of Science: A New Model

Our Mission

The Journal of Science exists to completely remove bias and politics from scientific publishing. We believe that the free and pure flow of ideas and technology is essential for the benefit of all people on this planet. Our mission is to provide a platform where anyone and everyone has an equal opportunity to express their ideas, subject to the honest scrutiny of their peers rather than the prejudices of editorial gatekeepers.

We reject the notion that a small group of editors should decide which ideas deserve to be heard. We reject the idea that publishing science should require thousands of dollars. And we reject the premise that a scientific paper must be frozen in amber the moment it is published.

Open Access Without Article Processing Charges

The Journal of Science is a fully Open Access publication. All articles are freely available to anyone in the world, with no paywalls or subscriptions, published under the Creative Commons Attribution (CC-BY) license. Readers can read, download, and reuse articles and reviews as long as they give appropriate credit.

Critically, the Journal of Science does not charge Article Processing Charges. Instead, it is sustained through membership in the International Academy of Science, with modest annual dues of \$100 per year. Members may publish unlimited articles at no additional cost. This model eliminates the financial barrier that prevents so many researchers from sharing their work.

Publish First, Review Openly

In the traditional model, articles must survive an often opaque review process before they can be seen by anyone. The Journal of Science reverses this paradigm. Submitted articles are published immediately upon passing automated technical checks, without editorial filtering for novelty, originality, or significance. Articles are not rejected because an editor finds the topic uninteresting or the conclusions inconvenient.

Once published, articles are openly reviewed by members of the International Academy of Science. Reviews, responses, and revisions are all published alongside the article, creating a transparent record of scientific discourse. Reviewers are identified by name, ensuring accountability and giving credit for the vital work of peer review.

This approach reflects a core belief: because replication is essential to the scientific method, the community, not a handful of editors, should determine the value and validity of research.

Living Articles: Science That Evolves

One of the most important innovations of the Journal of Science is the concept of the living article. Authors can revise and republish their papers as often as necessary, incorporating new data, correcting errors, and expanding their findings. Previous versions remain available to readers as archived editions, preserving the full history of the work.

This transforms the very nature of a scientific publication. A paper published in the Journal of Science is not a static artifact. It is a living, breathing document that grows with the research it represents. When a reviewer identifies an error, the author can correct it immediately and the updated version is available to readers right away. When new experimental results become available, they can be added without waiting a year for a new paper to wind its way through a traditional review process.

In the terminology of the Journal, an actively supported paper that has been revised within the past twelve months is considered to be alive. This creates a powerful incentive for researchers to maintain and improve their work over time, and it gives readers confidence that they are accessing the most current findings on any subject.

Removing Bias: The Heart of Our Mission

The Journal of Science was founded on the conviction that the current system of scientific publishing is failing in its most fundamental duty: the honest, unbiased dissemination of knowledge. Too many good papers are being rejected by legacy journals because they do not speak in support of specific ideas or technologies. In some cases, papers are suppressed to protect research funding or to maintain the influence of established programs. This is not right, and it is counterproductive to the advancement of knowledge for the benefit of humanity.

Our publishing model addresses bias at every level:

No editorial gatekeeping. Articles are not filtered by an editorial board that decides which ideas are worthy of publication. Every submitted article that meets basic technical standards is published and made available for community review.

Transparent review. All reviews are signed and published openly. There are no anonymous rejections, no hidden agendas, and no backroom decisions. Reviewers must stand behind their evaluations, and the scientific community can judge the quality of reviews alongside the quality of articles.

No rejection based on conclusions. Articles are evaluated on the soundness of their methodology and the clarity of their presentation, not on whether their conclusions align with

prevailing opinion. A well-conducted study that challenges conventional wisdom is just as welcome as one that confirms it.

Equal access for all researchers. With no APCs and a modest membership fee, the Journal of Science ensures that a graduate student in Nairobi has the same opportunity to publish as a tenured professor at a major research university. Science does not care about institutional prestige, and neither do we.

We believe that the history of science has repeatedly demonstrated that breakthroughs come from unexpected places and often challenge the established consensus. A publishing system that filters out inconvenient ideas is not just unfair; it is an obstacle to human progress.

Journal Structure

The Journal of Science is organized into a three-tier structure designed to serve both breadth and depth across the scientific disciplines.

The Master Journal: Journal of Science

At the top of the hierarchy stands the Journal of Science itself. Publication in the master journal represents the highest level of recognition within the community. Articles are nominated for inclusion in the master journal based on their impact, rigor, and significance as determined through the open review process. Being published in the Journal of Science signals that a paper has been recognized by the broader scientific community as a work of exceptional quality and importance.

Disciplinary Sub-Journals

Beneath the master journal, a family of disciplinary sub-journals provides focused venues for researchers in specific fields. Each sub-journal is led by an editor who evaluates articles nominated by their authors for inclusion. The disciplinary sub-journals include:

Category	Sub-Journals
Physical Sciences	Physics, Chemistry, Astronomy & Astrophysics, Earth & Environmental Science, Materials Science
Life Sciences	Biology, Biochemistry & Molecular Biology, Genetics & Genomics, Ecology & Evolution, Microbiology, Neuroscience, Botany & Plant Science, Zoology
Medical & Health Sciences	Medicine & Clinical Research, Public Health & Epidemiology, Pharmacology & Toxicology, Biomedical Engineering, Nutrition Science
Engineering & Technology	Electrical & Computer Engineering, Mechanical Engineering, Civil & Structural Engineering, Chemical Engineering, Aerospace Engineering, Robotics & Automation
Computing & Mathematics	Computer Science & Artificial Intelligence, Mathematics & Applied Mathematics, Statistics & Data Science

Environmental & Agricultural	Environmental Science & Climate Change, Agricultural Science & Food Science, Ocean & Marine Science
Interdisciplinary	Nanotechnology, Energy Science & Sustainability, Cognitive Science, Science Education & Communication

This structure ensures that researchers can find a home for their work within their specific discipline while also having the opportunity to be recognized at the highest level in the master journal.

Special Focus Sub-Journals

In addition to the disciplinary sub-journals, the Journal of Science publishes a series of Special Focus sub-journals dedicated to narrow, high-interest topics where research activity and public attention are particularly intense. These special focus areas are also the subjects around which the Journal organizes its conference program.

Domain	Special Focus Sub-Journals
AI & Computing	Artificial Intelligence & Machine Learning, Quantum Computing, Cybersecurity
Biomedical & Health	CRISPR & Gene Editing, mRNA Therapeutics, CAR-T Cell & Immunotherapy, Alzheimer's Disease, Long COVID & Post-Viral Syndromes, Gut Microbiome, Psychedelic Medicine, Antibiotic Resistance, Brain-Computer Interfaces
Energy & Environment	Solid-State Batteries, Solar Cell & Perovskite Technology, Carbon Capture, Hydrogen Fuel, Fusion Energy, Wildfire Science, Coral Reef Restoration, PFAS & Forever Chemicals
Materials & Nanotechnology	Graphene, Semiconductor & Chip Design, Quantum Dots, Biodegradable Plastics & Biopolymers
Space & Planetary	Exoplanet Discovery, Mars Exploration, Space Debris & Orbital Sustainability, Asteroid Mining
Robotics & Engineering	Soft Robotics, Autonomous Vehicles, Drone Technology, 3D Bioprinting
Agriculture & Food	Vertical Farming, Lab-Grown Meat & Cellular Agriculture, Pollinator Decline, Soil Carbon Sequestration
Science & Society	Science Education & Literacy, AI Ethics & Governance

Each Special Focus sub-journal serves as the organizing hub for its associated conference, creating a direct pipeline from published research to live scientific discussion.

The Journal of Science Conference Program

The Journal of Science hosts focused scientific conferences tied to each of its Special Focus sub-journals. These conferences are held in Kansas City, Missouri, the home of the International Academy of Science, and are simultaneously available for live attendance over the internet.

This hybrid model reflects the same philosophy of openness that defines the Journal itself. A researcher in Tokyo, a graduate student in Lagos, or an independent scientist in rural Montana can attend, present, and participate just as fully as someone who travels to Kansas City in person. Geography should not determine who gets to participate in the scientific conversation.

Conference presentations are drawn from the best and most actively discussed papers in the relevant Special Focus sub-journal, creating a natural cycle: publication drives conference participation, and conference participation drives new submissions. Each conference is designed to be intimate and focused, bringing together the leading minds in a specific area for substantive discussion rather than the sprawling, impersonal gatherings that characterize many traditional scientific meetings.

The Community: International Academy of Science

The Journal of Science is published by the International Academy of Science (IAS), a 501(c)(3) nonprofit organization. The IAS is not driven by profit. It is supported entirely by membership dues and donations, ensuring that its decisions are guided by the interests of the scientific community rather than by commercial pressures.

All IAS members besides affiliates may publish articles in the Journal. Members without advanced degrees may also publish, though their articles are held to the same standard of peer review as any other submission. This inclusivity is deliberate. Science has always benefited from contributions by people outside the traditional academic establishment, and the IAS welcomes all who are committed to the honest pursuit of knowledge.

Reputation and Recognition

Each member of the Academy can earn reputation through their contributions to the community, including publishing articles, writing reviews, and posting comments. This reputation system creates a meritocratic environment where standing is earned through the quality and quantity of one's contributions, not through institutional affiliation or personal connections.

Papers that receive ten or more citations or peer reviews from other authors are considered to be published, marking a threshold of community validation that replaces the traditional editorial decision.

Code of Ethics

The IAS maintains a Code of Ethics to which all members commit. This code emphasizes

honesty, fairness, transparency, and a commitment to the public good. Members agree to be realistic in stating claims, to disclose conflicts of interest, to treat all persons fairly regardless of background, and to seek and accept honest criticism of their work. These principles form the foundation of the trust that makes open publishing and open review possible.

How the Journal of Science Compares

Feature	Traditional Journals	Journal of Science
Cost to Publish	\$1,500–\$6,000 per article (APC)	\$100/year membership, unlimited articles
Cost to Read	\$30–\$50 per article or institutional subscription	Free and Open Access (CC-BY)
Time to Publication	6–12+ months	Immediate upon submission
Peer Review	Pre-publication, anonymous, opaque	Post-publication, open, transparent
Editorial Gatekeeping	Articles filtered by editorial board for novelty, significance	No content-based rejection; community evaluates
Article Updates	Frozen at publication; corrections require errata or new paper	Living articles; authors revise and update freely
Reviewer Credit	Anonymous; reviewers receive no public recognition	Named reviews published alongside articles
Inclusivity	Favors well-funded institutions and established researchers	Equal access for all researchers worldwide

A Vision for the Future of Science

The Journal of Science is more than a publishing platform. It is a statement about what scientific publishing should be in the twenty-first century. It should be open, so that anyone can read the latest research. It should be fair, so that anyone with a sound idea can share it with the world. It should be fast, so that knowledge reaches those who need it without unnecessary delay. It should be living, so that our published record of science evolves as science itself evolves. And above all, it should be honest, free from the bias and politics that have corrupted the traditional system.

We are building a community of scientists, educators, students, and citizens who believe that the free and pure flow of knowledge is not just an ideal but a practical necessity for addressing the challenges facing our world. From climate change to disease, from energy to food security, the problems we face are too urgent and too complex to be solved by a system that suppresses inconvenient truths and charges admission to the marketplace of ideas.

The Journal of Science invites every researcher, every thinker, and every curious mind to join this community. Publish your work. Review the work of others. Challenge assumptions. Defend your ideas in the open. Revise and improve as you learn more. This is how science is supposed to work.

The free and pure flow of ideas and technology, unencumbered by bias and politics, is essential for the benefit of all on this planet.

— Dr. Roger Billings