

SPRINGER NATURE

Springer Nature Response to the National Institutes of Health (NIH) Request for Information on Maximizing Research Funds by Limiting Allowable Publishing Costs
Notice Number: NOT-OD-25-138

September 15, 2025

Attention:

NIH Office of Science Policy
SciencePolicy@od.nih.gov

SPRINGER NATURE

1. PROPOSED POLICY OPTIONS

“NIH seeks input on the option, or other option not considered in the Request for Information, that best achieves the goal of balancing flexibility in providing research results with maximizing the use of taxpayer funds to support research.”

We appreciate the opportunity to respond to the National Institutes of Health (NIH) Request for Information on Maximizing Research Funds by Limiting Allowable Publishing Costs (NOT-OD-25-138).

The NIH is the leading government stakeholder in the global medical research ecosystem, and we are committed to providing all NIH-funded researchers with a platform that enables their work to be immediately and publicly accessible, trusted, widely read, and cited. We are a proud publisher of research funded by the NIH. In 2024, 17% of research publications acknowledging NIH funding (NIH articles) were published in Springer Nature journals—#2 amongst all publishers.

During 2024, Springer Nature:

- assessed close to 50,000 article submissions from NIH-funded authors across our portfolio of journals;
- delivered more than 360 million article downloads and HTML page views; and
- enabled approximately 1 million citations to NIH-funded articles published over the last 5 years.

We recognize the need to improve U.S. taxpayer return on investment (ROI). We currently estimate that publication costs represent less than 2% of NIH grants and unlock the value of the other 98-99% to researchers, institutions, industry, and the public—enabling them to build on these results and make better informed decisions about the health and wellbeing of U.S. citizens, as well as drive economic benefits. It has been shown that for every \$1 invested, NIH funding delivers \$2.56 in economic activity. This is only possible if NIH-funded research is discoverable, trusted, understandable, usable, and reusable. This is the benefit that we and other publishers deliver, and it has been a privilege to support the American research enterprise and serve the American public through this work.

China recognizes this and is now out-investing America. To compete and drive the U.S. economy by reducing publication costs would be a false economy (i.e., short-term savings that ultimately incur greater long-term expense). As explained further down in this section and in the evidence section of our submission, we have provided select examples of how Springer Nature and its journals apply the nine tenets outlined in OSTP’s [Memorandum for the Heads Executive Departments and Agencies](#). This demonstrates how we can better support NIH and help the Agency to efficiently deliver its [Leading in Gold Standard Science \(GSS\) Implementation Plan](#). Using publishers in this way delivers greater value than capping their costs.

The Springer Nature portfolio contains almost 3,000 research journals, all with open access (OA) options. In 2024, we received 3 million submissions and worked with almost 180,000 external academic editors, many of which are paid, in addition to over 700 in-house full-time expert editors and 1.2 million independent peer reviewers worldwide, to publish close to 500,000 research articles—half of which were published OA, enabling immediate free public access.

Maintaining that overall level of selectivity with this volume of submissions requires scalable, technology-assisted mechanisms of quality assurance for the journals we publish. We are committed to providing a variety of high-quality journals, each offering immediate free public access to the final published article—the Version of Record (VoR). The VoR is the definitive, citable version that carries any updates, corrections, or retractions. It is tagged for discoverability by both humans and machines, and held in perpetuity to ensure that when accessed, it is always the most current, reliable, and hyperlinked version.

The transparent pricing of each journal's Article Processing Charge (APC) reflects the true cost of publishing and the value we add. APCs vary across journals because more selective journals require greater investment. For example, *Nature* and *Nature Communications* have APCs that range from \$6,990 to \$12,690 and account for the time, infrastructure, and editorial expertise needed to evaluate a high volume of submissions. 85-95% of these submissions are not accepted but still require rigorous review, which is supported by more than 400 in-house expert editors who also help authors in developing their articles. In contrast, journals like *Scientific Reports* offer a sustainable APC of \$2,690, while still rejecting over 60% of submissions because they are incomplete or flawed in some way.

At a global level, journal publication costs represent just 1–2% of total R&D expenditure (estimated at \$10–11 billion out of \$1–2 trillion). Recent data from PLOS and EMBO further illustrate how publishing costs vary by model and service level. For instance, PLOS APCs range from \$1,900 to \$6,300, reflecting the costs in each case. In contrast, EMBO Press's APC is \$7,990, and they report that nearly 90% of their publishing costs are attributed to staff, production, and technology. Both PLOS and EMBO Press are not-for-profits. This range of APCs enables authors to assess their options, weigh costs and benefits, and choose the journal that best fits their research needs. Transparency in pricing and benefits support strong competition between publishers (both commercial and not-for-profits) and community-led publishing models, ensuring good value for money for researchers and funders alike.

We support NIH's goal to maximize the value of each research grant. However, the value and impact of NIH-funded research can't be fully realized without impactful journals that bring attention and provide access to the latest scientific discovery. Publication and dissemination of research is what delivers a full return on the taxpayer's investment. Without access to the trusted VoR, public impact and trust will be undermined. In general, NIH-funded research meets standards of quality at a level where it can attain global recognition and impact, and researchers need appropriate channels of dissemination to help achieve that. NIH researchers are best positioned to choose the most appropriate journals that reach their target audience and achieve impact. Empowering researchers to make these choices fits with American values and free

speech. Researchers require a wide variety of options that will support the sharing of incremental advances or null results, all the way up to paradigm-shifting advances of the highest significance. At Springer Nature, we support a wide portfolio of journals that provide the variety, flexibility, and support that NIH-funded researchers require.

For the most groundbreaking papers, researchers often prefer journals that have a demonstrably greater level of visibility, reach, and impact, such as the Nature-branded journals. The public also benefits when groundbreaking research is made accessible on the right platform. In 2024, on average, each *Nature* research article was cited more than 50 times and downloaded approximately 35,000 times compared with 2-3 citations and less than 1,000 downloads on average in more typical journals across our portfolio. More broadly, Nature-branded journals, including *Nature*, the Nature-branded research journals, and *Nature Communications* (which is fully OA) are, on average, cited 8 times more and downloaded 18 times more than the average journal across our portfolio. This is achieved by our dedicated and expert editorial teams, whose strong relationships with leading scientists enable the review of leading-edge research. Together, they undertake extensive work to ensure that published articles (e.g., unlimited methods sections) and their related information (e.g., open data and code) are thoroughly checked and clearly presented so others can understand, reproduce, and build on the work—while also ensuring that everyone, including the public, can trust the results. This level of editorial investment comes at a significant cost. It is this, together with the high level of selectivity (based on quality, novelty, and impact) of these journals, that significantly drives the total amount of work undertaken for each ultimately published article and the resulting higher publication costs (APCs) in these journals. While all journals ensure the integrity of the work they publish, the Nature-branded journals especially enhance the quality and impact of the research they publish.

Disallowing or capping publication costs would limit NIH authors' use of such journals, reducing the use and benefits of NIH-funded research disproportionately to any savings. This would therefore be counterproductive, undermining the NIH's goal to maximize the value of the research it funds. Caps could then lead to these unintended consequences and end up slowing progress to a more open and reproducible medical research ecosystem.

While the costs of complying with updated public access mandates have increased the expenses associated with open access, publication costs still represent a very small proportion of the NIH grant. In fact, they still account for less than 2%. Disallowing or capping this specific component of the research costs for each award would negatively impact the value of the other 98-99% of award funds by placing constraints on the discoverability, accessibility, and impact of the resultant publications. It would limit funded researcher choice of where to publish, and NIH may inadvertently push authors to choose less effective venues in search of lower publishing fees. It could lead them to publish their research in journals where the VoR is behind a paywall, relying on only the accepted article being publicly accessible, causing them to miss out on the [proven advantages](#) publishing OA provides in use (+400% v similar paywalled articles), collaboration, and citation (+60% v similar paywalled articles). Again, such constraints would reduce the benefit and impact of NIH-funded research.

The [NIH GSS Implementation Plan](#) could be significantly undermined by price or cost caps. Good communication of research acknowledges competing interests and is reproducible, transparent, judicious, collaborative, falsifiable, unbiased, and inclusive of negative results. Publishers' editors and peer reviewers work with authors to ensure all this and resulting articles benefit greatly from the quality assurance and dissemination services that strong and committed publishers like Springer Nature provide. Springer Nature has invested substantially—and continues to invest—to meet the goals of the upcoming [NIH GSS Implementation Plan](#). In 2024 alone, we spent more than \$206 million on technology, a significant portion of which supports research integrity, including our growing suite of in-house AI-enabled tools designed to help prevent fraudulent research. The evolving research landscape increasingly requires publishers to make such investments in both technology and expert staff to detect integrity issues, such as AI-generated data. Springer Nature's Research Integrity team has grown from 5 team members a few years ago to more than 70 full-time internal staff today, supported by over 300 external FTEs dedicated to quality control. The introduction of caps would inhibit future investments, unnecessarily putting at risk the quality of NIH-funded published research. For more detail, see pages 20-25 of our [Springer Nature Annual Report 2024](#); our [research integrity page](#); and our [reporting standards](#), which cover topics such as availability of data, materials, and computer code, as well as experimental protocols, pre-registration, replication studies, and clinical trials.

The proposed policy options also have negative compliance and associated cost implications. All options can be expected to increase administrative burdens on the NIH, institutions, and researchers by making it harder to find a compliant publication venue with the right aims and scope, as well as increasing the amount of time spent on cost and funding calculations. They also add to the administrative burden of the updated NIH public access mandate by encouraging publication of the VoR behind subscription paywalls. A recent [Consensus Study Report](#) from the National Academies of Sciences, Engineering, and Medicine highlights Federal Demonstration Partnership (FDP) research demonstrating that “the typical academic researcher in the United States spends over 40 percent of their research time on administrative and regulatory matters rather than on conducting their research.” Maximizing the value of each research grant is important and achieving good value for money for any publication costs, but it is equally important to minimize the researcher's administrative and compliance burden to aid their efficiency, which is where much of the other 98-99% of grant costs are spent.

The Code of Federal Regulations [§ 45 CFR 75.461](#) indicates costs associated with publication are allowable under a federal award, while [§ 2 CFR 200.461](#) states that article processing charges are specifically allowed. In addition, [NIH Grants Policy Statement 7.9](#) also confirms publication costs are allowed. A proposal to suddenly disallow grantees to recover NIH-mandated costs associated with publication appears to contradict long-standing and established OMB and NIH policy, and would require researchers to pay entirely out of pocket to publish articles that comply with NIH immediate public access requirements.

Stepping back, a “one size fits all” cap prevents these benefits and removes the researcher's flexibility to choose the best way to write up their work for maximum impact. We recommend NIH avoid any policies based on artificial price caps since they might encourage the ‘salami slicing’ of NIH-funded research articles. In other words, to fit with price caps some researchers

could choose to increase the volume of publications with redundant results that would previously have been combined into one larger, more impactful publication that would exceed the price cap (thereby trading volume for quality/impact). In aggregate this could offset the intended savings, increase costs in other grant cost categories to create multiple articles, increase NIH's own compliance monitoring work and costs, and reduce the impact of NIH research.

Finally, while we believe all the evidence shows that price controls rarely work and often create other problems, researchers are in the best position to understand where publication of their research will ensure maximum impact and benefit relative to the costs of publication. Strong competition between publishers (both commercial and not for profits) and community-led publishing models, is the most effective way to achieve good value for money from journals. However, if NIH is determined to intervene, a better approach would be to encourage publishers to increase transparency around the prices and benefits of different journals. This would help researchers make the best-informed decisions, and such an approach could enhance competition, expand choice, and increase the benefits of NIH-funded research.

Despite our concerns, and given NIH has asked for our response to the options they have presented, below is our response to each—building on the points made previously and including rationale:

Option 1: Disallow all publication costs. This would be a false economy. Short-term APC cost savings will ultimately make it harder and more costly for NIH to achieve its other goals over the longer term. This will likely result in unintended consequences such as higher costs in other grant cost categories and increases in NIH's own compliance monitoring work and costs.

Specifically:

- **No flexibility:** disallowing publication costs altogether means that NIH grantees have no option at all to pay for the necessary cost of disseminating research from their grant (i.e., any papers reporting their funded research results.)
- **Maximizes limits on publishing:** without funds to pay for publication costs, researchers will have few publishing choices. Public access via immediate Accepted Manuscript (AM) deposit (Zero Embargo Green) and Preprints do not offer a suitable alternative to the VoR. Publishing the VoR behind paywalls misses out on the [proven advantages](#) in use (400% higher on average), collaboration, and citation (60% higher on average) that open access provides, reducing the impact that NIH-funded authors are able to make in the scientific community and diminishing the impact of the U.S. taxpayer and NIH investment. Preprints provide a way of sharing early results and expanding author choice, and we support the sharing of preprints, but they are not an alternative to, or replacement for, the trusted peer-reviewed work that results in the publication of the VoR. Publication of the VoR is essential for sustaining trust in science.
- **Introduces additional financial burdens:** any publication costs for papers resulting from the project would need to come from the researcher's institutional employer or from their own pocket.

- **Threatens progress towards open access of the VoR:** the massive progress we have all made towards expanding open access to U.S. research, in addition to outputs from global funders (e.g., > 50% of research papers Springer Nature publishes were OA in 2024—see [Springer Nature 2024 Open Access Report](#)—a proportion that will further increase in 2025), would be severely threatened by NIH disallowing reasonable payments to make the results of their research OA. Without adequate alternative sources to cover those publication costs, publisher-provided quality assurance and dissemination functions will be undermined.
- **Limits cost recovery for federally mandated publication requirements:** the Code of Federal Regulations § 45 CFR 75.461 indicates costs associated with publication are allowable under a federal award, while § 2 CFR 200.461 states that article processing charges are specifically allowed. In addition, NIH Grants Policy Statement 7.9 also confirms publication costs are allowed. A proposal to suddenly disallow grantees to recover NIH-mandated costs associated with publication appears to contradict long-standing and established OMB and NIH policy and would require researchers to pay entirely out of pocket to publish articles that comply with NIH immediate public access requirements.
- **Undermines scientific impact:** the value of research is in part in its application and its advancement of other scientific work and knowledge. Without appropriate platforms for the dissemination of scientific knowledge, that vital function would cease.

Option 2: Set a limit on allowable costs per publication. This would be a false economy. Short-term APC cost savings will ultimately make it harder and more costly for NIH to achieve its other goals over the longer term. This option could result in some researchers ‘salami slicing’ NIH-funded research publications. In other words, to fit with price caps some researchers could choose to increase the volume of publications with redundant results that would previously have been combined into one larger, more impactful publication that would exceed the price cap (thereby trading volume for quality/impact). In aggregate this could offset the intended savings, increase costs in other grant cost categories to create multiple articles, increase NIH’s own compliance monitoring work and costs, and reduce the impact of NIH research.

Specifically:

- **Little flexibility:** capping costs per publication at \$2,000 would leave NIH grantees with very limited ability to pay for this small but vital cost of research from their grant for any papers reporting their funded research results.
- **Severely limits publishing options:** a per publication cap at the \$2,000 level would severely impact where and how researchers publish, adversely impacting the value of NIH grant funding via suboptimal research communication and collaboration. A [recent analysis](#) of NIH-funded research publication trends by ScholCommLab and collaborators shows that “fees for as few as 7% (=162) journals (or 6% of papers) would be fully covered by a \$2,000 cap”.
- **The extra costs are real:** our highly selective journals, like the Nature-branded journals portfolio, achieve their exceptional benefits for the research they publish (on average cited 8 times more and downloaded 18 times more than the standard journal across our portfolio) because of our investment in dedicated and expert editorial teams and their

strong relationships with leading scientists able to review leading-edge research. Together, they undertake extensive work to ensure that published articles and their related information (e.g., open data and code) have all been checked and clearly presented so others can reproduce (e.g., by providing unlimited methods sections) and build on their work—while also ensuring that everyone, including the public, can trust the results.

- **Reduces the reach and impact of NIH-funded research:** a \$2,000 cap would force many researchers to publish the VoR behind paywalls, limiting access to their work. As noted previously, OA articles are used approximately 400% more and cited 60% more than paywalled articles. This reduced visibility would hinder collaboration, slow scientific progress, and diminish the return on taxpayer and NIH investment. With many publishers charging above the cap, researchers would face barriers to sharing their work broadly, undermining the value and impact of NIH-funded research.
- **Creates additional financial burdens:** any publication costs accruing for papers resulting from the project that are above the cap would need to come from the researcher's institutional employer or from their own pocket, while the costs for compliance by researchers, their institutions, and NIH would likely more than offset any savings.

Option 3: Set a limit on allowable costs per publication and allow a higher amount to be paid when peer reviewers are compensated. Similar risks to Option 2, with added complexities due to the behavioral changes of some peer reviewers that these payments could result in—including the potential to undermine unbiased peer review and introduce conflicts of interest through peer-reviewer payments. These risks run counter to key goals of the [NIH GSS Implementation Plan](#). Of course, it is a free market with strong competition between publishers (both commercial and not for profits) and community-led publishing models, and all can pursue paid peer review if they see it aiding their authors, their journals, or their readers.

Option 4: Set a limit on the total amount of an award that can be spent on publication costs. Notwithstanding the limitations outlined above and our stated concerns about disallowing or capping publication costs, Option 4 is the simplest, most flexible, and practical of the options proposed. It enables NIH researchers to make the best choice for how and where to publish their work and minimizes compliance costs for all. We would note though, that for this to work for the long term, the grant limits would need to be set at 1.5%+ plus \$20,000 minimum, which our analysis and experience tell us would cover most of the varying costs associated with publishing and the \$20,000 minimum should be indexed to a standard measure of inflation (CPI).

Specifically:

- **Author choice:** the award-level cap with two possible options for determining the maximum (% of award or \$20,000, whichever is greater) allows researchers more flexibility to determine the number of publications resulting from their grant, as well as select the best publication venue for their work and for engagement with their subject community—leading to a lighter compliance burden for all.

- **Collaboration:** flexible opportunities for cost sharing (with no APC cap), which enables better institutional, interagency, or international collaboration.
- **Real costs:** the analyses contributing to the estimates in Option 4 are out of date, which should be addressed in the final policy. First, as the RFI was released prior to the Agency’s [response to the OSTP’s Memorandum for the Heads of Executive Departments and Agencies](#) on GSS implementation, the cost analysis does not take into consideration the impact of GSS implementation. GSS will result in an increased volume of publication and deposition of results—and by extension increase publication cost—to accommodate related outputs such as null hypotheses, data, protocols, and registered reports. Second, the analysis is based on FY25 grants, so does not anticipate the additional APC costs associated with the early implementation of the unembargoed public access mandate implemented as of July 1, 2025. Third, the analysis fails to account for the NIH researcher’s publication preferences. A [recent analysis](#) of NIH-funded research publication trends by ScholCommLab and collaborators shows that “fees for a few as 7% (=162) journals (or 6% of papers) would be fully covered by a \$2,000 cap”. All these factors have led to our conclusion that the 0.8% calculation underestimates the amount of money needed to fairly and consistently cover OA publication fees. Based on global publication costs as a proportion of publishable R&D spend (see section on evidence related to publication costs) and the limitations of the original analyses highlighted above, if **Option 4** were to be implemented, we propose an award-level cap of at least 1.5% rather than 0.8% and that the \$20,000 be indexed to a standard measure of inflation (CPI).

Option 5: Set a limit on both the per publication cost and the total amount of an award that can be spent on publications. This would undermine the benefits of Option 4 by applying individual article price caps that make it harder and more costly for NIH to achieve its other goals. It would compromise researchers’ ability to get the most important research funded by NIH published, accessed, used, and reused as much as possible—potentially increasing the volume of redundant research publications, offsetting intended savings, and increasing costs in other grant cost categories, including NIH’s own compliance monitoring work and costs.

Specifically:

- **Limited flexibility:** the award-level cap with two possible options for determining the maximum (% of award or \$20,000, whichever is greater) allows researchers more flexibility (but see comments on Option 4 regarding the % cap level). However, capping costs per publication at \$6,000 would undermine the possibility of publishing some of their **most important** work OA in the most impactful journals with the biggest audiences that will deliver targeted engagement for the NIH-funded research findings.
- **Limits publishing options:** a per publication cap at the \$6,000 level would impact where and how researchers publish some of their **most important work** and hence severely negatively impact on the value of NIH grant funding via suboptimal research communication and collaboration. Again, [research](#) from ScholCommLabs illustrates the challenges this would pose for NIH-funded researchers based on their current publication choices. The analysis shows that “a \$6,000 cap would not be sufficient to cover the APCs of 10% of papers (=4,908 in 2025 so far) in 104 (=5%) journals”. The

proposed cap would result in a significant proportion of the **most important NIH-funded research papers** publishing behind paywalls, missing out on the [proven advantages](#) publishing OA provides in usage (+400% v similar paywalled articles), collaboration and citation (+60% v similar paywalled articles), reducing the impact that NIH-funded authors are able to make in the scientific community, and diminishing the impact of U.S. taxpayer and NIH investment.

- **Creates additional financial burdens:** any publication costs accruing for papers resulting from the project that are above the cap would need to come from the researcher's institutional employer or from their own pocket, while compliance costs for such an option would be significantly higher, offsetting any likely savings.

2. AVAILABLE EVIDENCE RELATED TO PUBLICATION COSTS AND PROPOSED OPTIONS

“NIH seeks any evidence (either from your own work or other publicly available sources) that can be publicly shared that addresses the considerations of one or more of the options.”

At Springer Nature, we have made significant investments to support development and maintenance of the platforms, processes, and people that underpin our journals and those of our partners, such as scientific and academic societies. These investments allow us to make publishing and finding research easier, faster, and overall, a better experience for the research community and the public. In 2024 alone we spent more than \$206 million on technology, which includes a substantial portion focused on research integrity support, including our growing suite of in-house AI-enabled tools helping us prevent fraudulent research (see pp20 – 25; [Springer Nature Annual Report 2024](#)).

At the macro scale, global journal publication costs represent 1-2% of global R&D expenditure (total journals cost = \$10-11 billion, and global R&D \$1-2 trillion depending on definition). At a journal-level, the Invest in Open Infrastructure (IOI) report [“The Cost and Price of Public Access to Scholarly Publications: A Synthesis](#), brought together previous work on publications costs. Many of the studies cited in this analysis are too dated to be informative, but the PLOS data and EMBO data are more recent. These data clearly show that APCs and underlying publishing costs vary hugely according to the publishing models and services provided (PloS APC range: PloS One - \$1,900 to PloS Medicine - \$6,300)—with staff, production/sales/marketing, and technology accounting for the vast majority of the publishing cost base (EMBO: staff costs = 46% of their EUR 4.6 million cost base accrued in publishing 825 articles in 2023; outsourced production, sales and marketing = 30% and digital platforms = 13%). In particular, the more selective the model, the greater the resources and the higher the cost per published paper to sustain it. For example, the APC of *Nature*, the Nature-branded research journals, and *Nature Communications* (the Nature-branded journals) reflect the time, investment, and value of producing and publishing research articles in these journals with the support of more than 400 in-house expert editors who assist authors in developing their articles as well as check and quality assure the articles with the input of expert peer-reviewers.

Because these Nature branded journals have a large professional staff who support authors all the way from initial submission to publication, including providing developmental input, the underlying costs associated with each published article are higher than for other journals. These

journals receive a high volume of submissions, which require an investment of time to evaluate and select those that meet discipline-specific standards for quality and novelty. This means that the journal staff invest a considerable amount of time and attention to assess papers that are not ultimately accepted for publication. Without this context, an APC of \$6,990-\$12,690 per published paper could understandably be seen as too high. However, these APCs are a reflection of the scale of the real costs and the resource needed to process and consider the high number of submissions we receive, as well as maintain the platform infrastructure needed to disseminate the published works while maximizing discovery and impact. Meanwhile, at a “sound science” journal like *Scientific Reports*, which still rejects >60% of submissions, an APC of \$2,690 is sustainable based on its real costs.

Springer Nature and all publishers (commercial, not for profits and community-led publishing models), are responsible for the research they have published, distributing it and making it accessible in perpetuity, even as technology and regulations change. In Springer Nature’s case this goes back to 1843 (Springer) and 1869 (Nature); everything we have published is available online. These costs and many others are all covered by the fees we generate today so that governments and others don’t need to take on such costs.

Springer Nature has invested substantially, and is investing more, to meet the goals of the upcoming [NIH GSS Implementation Plan](#). Based on its publishing capabilities and this commitment, Springer Nature is well-positioned to partner with NIH to deliver this plan as an integrated part of its research publishing services. Some select GSS examples are listed below:

- **Reproducible Research** – extended article method sections enable experiments to be replicated, and data availability statements enable other researchers to find and interrogate the experimental outcomes and analyze the resulting data.
- **Transparency** – Journal policies, data-sharing requirements, conflict of interest declarations, and editor identities are all published online to ensure accountability. [Transparent peer review](#) has recently been added, and we also encourage early sharing of results via any suitable preprint server prior to, or in parallel with, submission to our journals. The scale of this commitment is substantial: in 2024, we worked with 1.2 million independent peer reviewers and nearly 180,000 external academic editors, many of which are paid, and well over 700 in-house full-time expert editors to help evaluate over 2.3 million submissions. We also voluntarily regularly publish a Research Integrity report to show the work and outcome of our work in this critical area (see [2024 Research Integrity Report](#)) an annual Open Access (OA) report to increase transparency around the return on investment of OA publishing. This includes metrics such as downloads per article and broader impact. This report helps researchers and funders make informed decisions and reinforces our commitment to openness and accountability (see [2024 OA Report](#)).
- **Communicative of Error and Uncertainty** – setting out the limits of what conclusions can be drawn from the results is essential in all our articles.
- **Collaborative and Interdisciplinary** – Springer Nature journals provide the ideal platform to showcase, acknowledge, and track NIH collaborations across disciplines while acknowledging each individual author contribution. Bibliometric analysis of the published literature can also support the identification of future collaborators and tools like [protocols.io](#) can support pre-publication collaboration.

- **Skeptical of Its Findings and Assumptions** – authors, editors, and peer reviewers work together in our journals to challenge each other, knowing that the results will be published and they will be held accountable by the community for these research articles.
- **Structured for Falsifiability of Hypotheses** – in our journals we publish both hypothesis-generating and hypothesis-driven science. Effective falsifiability requires researchers to design experiments to rigorously test their hypothesis, using mechanisms like controlled experiments and randomized trials. These are all set out transparently in our articles.
- **Subject to Unbiased Peer Review** – while this tenet is primarily geared towards NIH’s internal peer review processes, we are also committed to unbiased peer review in our own publications, which complements the work of the Agency. Ensuring we engage reviewers with sufficient expertise (e.g., adding a specialist statistician when needed) and avoiding any conflicts has been strengthened recently by our transparent peer review [initiative](#) and the public sharing of peer-review reports.
- **Accepting of Negative Results as Positive Outcomes** – many of our journals and our preprint server ([Research Square](#)) have been publishing negative results and replication studies for many years.
- **Without Conflicts of Interest (Col)** – while this tenet is largely focused on the grant application process at NIH, we can support further transparency in the publication of NIH-funded research. All articles published in our journals contain verified Col statements. Our editors are prohibited from handling articles where they have a conflict with the author. Part of selecting peer reviewers is ensuring they have no conflicts. In addition, we require the acknowledgement of research-funding sources to provide further transparency for all.

More generally, at Springer Nature we are well aligned with these nine tenets. Many of them are part of open science initiatives, policies, and services that have been [central to our mission](#) for more than 20 years (see p17; [Springer Nature Annual Report 2024](#)). We have committed significant resources to [improving reproducibility in medical research](#) (see [Springer Nature Annual Report 2024](#) and [Reporting standards and availability of data, materials, code and protocols | Nature Portfolio](#)). As such, our values and ongoing investments (see p13 and pp20-25; [Springer Nature Annual Report 2024](#)) align with key components of the [NIH GSS Implementation Plan](#).

3. PEER REVIEW COMPENSATION

“NIH is interested in hearing ideas about factors related to paying for peer review. Specifically, NIH invites input on factors that NIH should consider in determining whether peer reviewers are appropriately compensated.”

Paying for peer review risks undermining unbiased peer review and creating conflicts of interest, both of which are key goals of the [NIH GSS Implementation Plan](#). This is because some researchers could change their judgements or adjust their behavior as they seek more paid review work.

Springer Nature has previously trialed paid peer review arrangements, but they were found to be unsuccessful. Recent Springer Nature [surveys](#) indicate most (85%) reviewers rate their experience positively without compensation. There is a need for more recognition of reviewers' work, and we have recently introduced [Transparent Peer Review](#). The publisher assumes significant infrastructural and administrative costs, involving the identification, checking, selection, and management of peer reviewers. These are essential for maintaining quality and integrity of the process and resulting publications. Further investment is currently being made to improve the peer-reviewer experience, reduce the amount of time required of them, and increase recognition of their work to better align with their feedback. Implementing peer review payments has not been requested but would increase costs substantially, especially given the need to also pay for the review of the greater number of articles that are ultimately not accepted, and risk damaging the integrity of the review process.

4. PUBLISHING BEST PRACTICES

“In addition to compensating peer reviewers, other kinds of publishing best practices, such as use of automated fraud detection capabilities, may contribute to higher publishing costs. NIH is seeking further input on additional factors that it should consider in determining the allowability of a higher per publication cost.”

Publishers like Springer Nature do more than offer researchers flexibility in where to publish. We also provide and invest in extensive services, infrastructure, publicity, and procedural support that help researchers achieve broad impact for their work. Publishers provide critical quality assurance, dissemination, and archiving services that are fundamental to open science and reproducibility.

Research Integrity and Quality Control: In 2024 alone, we spent more than \$206 million on technology, which includes a substantial portion focused on research integrity support, including our growing suite of in-house [AI-enabled tools helping us prevent fraudulent research](#) (see also pp20-25 [Springer Nature Annual Report 2024](#); [Reporting standards and availability of data, materials, code and protocols | Nature Portfolio](#) and our [research integrity page](#)).

Author service: We understand that publication is a critical component of the author's professional development. To that end, we have invested in editorial and technological services that serve our authors at every stage in their career including tools that support impact and reach (e.g., automated data deposition, preprint integrations, [SharedIt](#) service, PID integration); submission and transfer services, including a state-of-the-art AI-assisted [peer review system](#); and many other tools (e.g., Open Science Assistant, Journal Finder).

People: Our people are at the heart of what we do, and investment in them is every bit as important as the substantial technology investments we make. We employ more than 9,000 people, and in 2024 our personnel costs totaled more than \$780 million (see [Springer Nature Annual Report 2024](#)). These investments are fundamental to the work we do in publishing nearly half a million articles in 2024 and assessing 2.3 million submissions. The 17% of NIH-funded papers we published in 2024 made a substantial contribution to those published articles and we assessed close to 50,000 NIH papers overall. The academic editors that work on most of our journals are also a critical component of the quality assurance process at the heart of our

mission. As previously mentioned, we work with almost 180,000 editors (many of them paid) and well over 700 full-time in-house expert editors, who manage the peer review process across almost 3,000 journals. Over 400 of these full-time in-house expert editors are dedicated to the Nature-branded research portfolio, which includes *Nature*, the Nature-branded research journals, and *Nature Communications* (a fully OA journal). This is a large investment in developing and supporting the publication of some of the most impactful and groundbreaking research. As previously noted, for these articles, the per article cost and the corresponding APCs are much higher, but this investment at the same time delivers a substantial amount of value to the published researcher, their institution, and the research funder. In 2024, on average, each *Nature* research article was cited over 50 times and downloaded approximately 35,000 times. This compares with 2-3 citations and less than 1,000 downloads per article on average in non-Nature journals across our portfolio. More broadly, Nature publications, including *Nature*, the Nature-branded research journals, and *Nature Communications* (a fully OA journal) are, on average, cited 8 times more and downloaded 18 times more than the average journal across our portfolio.

5. OTHER COMMENTS

“NIH welcomes input on any aspect of the RFI.”

We urge the NIH to consider the following, in addition to our responses above:

- We recommend waiting until at least January 1, 2027, before implementing any changes to allowable publishing costs so that the impacts of current and potential policy changes are better understood. We recommend this delay for the following reasons:
 - This publication cost guidance introduces an update to the NIH public access policy, which was only just implemented July 1, 2025, and the [GSS Implementation Plan](#), which NIH is also now progressing. We urge the NIH to consider the practicality of issuing publication cost policy changes simultaneously with the above major changes, preventing sufficient time to review and analyze the impact of the already announced policy changes and gather feedback from NIH-funded researchers.
 - Additionally, the RFI response and implementation deadlines do not allow time to understand the impact of the facilities and administrative (F&A) cost restructuring on indirect funding for publication costs if the Uniform Guidance for Federal Awards is updated this Fall or the FAIR model, or similar, is adopted.
- We recommend including an annual inflation adjustment for publishing costs. The proposed budget allocation and spending limits offers no flexibility for annual adjustment to align with changing market conditions, inflation, or other factors. The singular focus on article sharing disregards any costs associated with the sharing of other research artifacts such as data.
- We recommend developing an annual review of the impact of, and compliance to, any implemented policy change. None of the proposed options allow for any mechanisms for recurring policy review or impact monitoring, which is necessary for evaluating if the policy is meeting the needs of NIH-funded researchers and the mission of the Agency.

We refer NIH to our previous responses to the NIH public access RFIs for further detail on Springer Nature's value proposition and related comments, which are not covered here.

Thank you again for the opportunity to comment. We would be happy to engage with the NIH Office of Science Policy to consider further opportunities for consultation and collaboration. If there is any additional information we can provide, please do not hesitate to reach out to Kaia Motter, Head of Academic Affairs, at policy.submissions@springernature.com.