Open science

A position statement from the Biochemical Society

October 2023

For more than 100 years, the Biochemical Society has been at the forefront of advancing molecular bioscience, promoting its importance as a discipline, facilitating the sharing of knowledge and expertise, and supporting molecular bioscientists across all career stages to uphold the values of research quality, visibility and impact.

The central role of science in tackling wider societal challenges has never been clearer. As global issues such as climate change, lifelong health, disease, and food security become ever more pressing concerns, we need to ensure our strategy supports the sharing of scientific knowledge through open practices that maintain the integrity of research.

Advancing science relies on the open exchange of ideas and researchers' ability to collaborate and build on each other's work in interconnected and multidisciplinary ways. This position statement sets out the key principles underpinning our support of <u>open science</u>, placing equity, diversity and inclusion at the heart of our agenda.

Open access

We support sustainable <u>open access</u> that maximizes the availability and accessibility of research, while maintaining ethical and technical standards to ensure the highest quality service for researchers, institutions and funders around the world. We strongly believe that the ability to publish research should not be linked to an individual researcher's financial resources or circumstances. That is why we have pledged to provide a funder/institutionally compliant <u>open access route</u> for all articles published in the Society's journals by February 2025. Through this approach, we will be championing the needs of all researchers, whatever their career stage and wherever they are in the world.

Preprinting

We support the posting of <u>preprints</u> as a method for researchers to share findings quickly and efficiently, and do not consider this to be prior publication as it can be an integral part of scientific publishing. We also allow citing of preprints in our published articles so that the most relevant data can be referenced.

Open data

We believe that <u>research data</u> should be <u>FAIR</u> – Findable, Accessible, Interoperable and Reusable. We encourage researchers to upload their data to open repositories, making data open in a way that best enables the future development of life science research.





Research integrity and reproducibility

As members of <u>COPE</u> (Committee on Publication Ethics), our journals encompass their guidelines and practices as the norm, and our Editorial Boards and Publications Committee oversee <u>policies</u> central to this mandate. Maintaining ethical standards in the practice and publication of scientific research is essential. All submitted articles undergo rigorous checks and a robust, responsible peer review process, and we are constantly reviewing and evolving our practices to ensure the most rigorous processes are in place.

Research metrics

We support and understand measures to change and improve how research is assessed, and we are a signatory of the San Francisco Declaration on Research Assessment (DORA). While journal and citation metrics play an important role, they should not be used alone to assess research value. All articles published in our journals from 2020 onwards carry Altmetric scores and information on article-level downloads to provide a more holistic assessment of research impact.

Transparency

We understand the need for transparency in our workflows, processes and governance. As a learned society, we have a high level of public accountability and therefore transparency is essential. Our financial and annual reports are publicly available, and we have participated in the Journal Comparison Service so that customers can compare journal publishing services in a standardised format. In addition, we support the use of unique persistent identifiers/tools through our workflows – such as ORCID, Crossref technology and CRediT for authorship – ensuring reliable and consistent reporting mechanisms and transparency across our platforms.

Public engagement, education and outreach

The widest possible engagement with science and participation across all sections of society is fundamental to the principles of open science. We support students and researchers to communicate their work and promote <u>public engagement</u> of the molecular biosciences to the widest possible audiences wherever in the world they may be. Our Scientific Outreach Grants and Diversity in Science Grants have been used to support projects in all areas of the molecular biosciences, communicating the excitement and importance of science and research. With our early career editorial board mentorship scheme and early career positions on our committees and panels, we ensure education and support for the next generation of molecular bioscientists.

Technology and collaboration

We accept that we cannot pursue an open science agenda without the support of others, whether that be technology partners who enable our workflows, reporting and standards, or likeminded societies and organisations who support an equitable and sustainable transition to open science. As members of <u>ALPSP</u> (Association of Learned and Professional Society Publishers), <u>OASPA</u> (Open Access Scholarly Publishers Association), the <u>Publishers Association</u> and the <u>Society Publishers' Coalition</u>, and by working closely with consortia partners and agents, we are embedded within the publishing landscape to hear and contribute to ongoing conversations supporting a more open future.



