

## FEBS Feedback to cOAlition S on Plan S

1. The Federation of European Biochemical Societies (FEBS) <http://www.febs.org> is one of the oldest (founded in 1964) and largest (over 35,000 members across more than 35 biochemistry and molecular biology societies) charitable organizations in the molecular life sciences in Europe. It represents and supports many researchers whose publishing activity will be strongly affected by Plan S. A large proportion of these scientists work in countries where signatories of cOAlition S are the main grant providers. Based on personal communications, it is clear that most scientists are very poorly informed about crucial details and specific timelines of Plan S. Furthermore, scientists are unaware of any consultation between them and their funding agencies either before the announcement of Plan S or prior to publication of the implementation guidance. On the other hand, strong criticisms have emerged during the last few months.
  - There are concerns about the Plan S mandate allowing publication only in full open access journals while excluding leading traditional subscription and hybrid journals. Although the possibility to publish in subscription journals with a CC-BY license and immediate deposition of either the version of record or author-accepted manuscript in approved open access repositories was introduced in the implementation guidance, it is hard to see how publishers of subscription journals will agree to this and how repositories which meet the strictly specified requirements will be established.
  - It is a major, unanswered worry that European researchers will be limited in competitiveness and gradually become isolated since colleagues in other parts of the world will not collaborate with them, seeing the draconian, top-down publishing rules forced upon most potential partners in Europe. It has been also noted that cOAlition S has not reached full support even in Europe; some countries with high research output (for example Germany) are hesitant to join or have decided to follow a different transition route to open access publishing. In some European countries a few but not all national agencies have adopted Plan S, emphasizing the confusion and lack of cohesion within the scientific community.
  - The preference for gold open access publishing by Plan S is highly problematic for several reasons. i) Researchers in different countries have radically different access to funds to pay APCs and currently rely heavily on subscription journals (such as The FEBS Journal and FEBS Letters) where they do not have to pay any charges whatsoever to publish their work. ii) Mandating the gold route for all authors favors non-transparent, for-profit

open access publishers while undermining the principle of equal opportunity at the institutional and international levels and increases the already existing gap in research output between countries, especially developing countries. iii) Researchers with limited funds for the gold requirement will be inevitably tempted to publish their findings in questionable, “predatory” open access journals which charge low author publication charges (APCs) but lack proper peer review processes and have a very low threshold for acceptance. iv) Capping the gold open access APC is a major disincentive for journals to focus on quality over quantity and to innovate in the Open Science area.

The publishing process is intimately interwoven with not just the process of research funding, but also with the processes of forming collaborative consortia and academic career development, including evaluation and promotion at academic institutions. The points outlined above suggest that Plan S would have a negative effect, especially on young and under-funded scientists. Thus, while seeking openness and equality in access to knowledge, Plan S indirectly might contribute to the inequality in the generation of this knowledge. Reform across all these interconnected nodes of the academic web is a good and progressive task, but one that requires careful discussion and adjustment, prior to implementation.

The concerns and uncertainties that have emerged around Plan S make it necessary to have open and constructive consultations involving all stakeholders, followed by readjustments of the Plan S scheme and timeline. Of utmost importance, there should be safeguards put in place to minimize the effects of Plan S on the ability of scientists to publish their work, irrespective of their ability to pay APCs.

2. FEBS owns four journals and is supportive of open access publishing, but is also aware of the need to implement this in a responsible manner. FEBS launched its first open access journal, FEBS Open Bio, in 2011 and ‘flipped’ another journal, Molecular Oncology, from a subscription to an open access model in 2017. Our two other journals (The FEBS Journal and FEBS Letters) are hybrid subscription journals with a long history (over 50 years) of serving the scientific community. Unsurprisingly, a significant proportion of articles published in these journals are from Europe, and so Plan S is likely to have a disproportionate effect on these two flagship journals, which at present support a large part of FEBS activities to promote molecular life sciences across Europe.

FEBS partners with a commercial publisher that has the capacity to negotiate, with our permission, transformative agreements as a way of transitioning the two

subscription journals to open access. However, the offered time period to achieve such agreements on a large scale is unrealistic and it seems that not all forms of negotiated or signed transformative agreements meet the narrowly defined requirements and criteria of Plan S. FEBS suggests that cOAlition S should consider broadening the scope of transformative agreements after expert discussions and pushing back the deadline set for completing such agreements.

3. FEBS is committed to high standards for all of its journals, regardless of the business model. In addition to thorough peer review supervised by active scientists on the journal editorial boards, our editorial office staff runs many checks on the ethical integrity of the papers considered for publication. All manuscripts are screened for plagiarism, the integrity of data contained in the manuscript, as well as scientific scope and advance. Our journals are highly selective to safeguard quality and reproducibility; such a rigorous and trusted reviewing process also carries very significant expenses. Indeed, the time and effort devoted by our editorial staff to engaging with the up to 80% of submissions that do not make it into the pages of our journals is a major hidden cost of running a journal. The more selective a journal is, the greater these hidden costs are. The cost of all this editorial work needs to be reflected in subscription fees and APCs charged now and in the future. This is a particularly important element in the consideration whether our two flagship journals can be flipped to full open access. If journals are expected to fund their operating costs on the basis of modest, capped, APCs that do not reflect the real costs associated with handling, reviewing and rejecting the great majority of submissions that do not meet our acceptance thresholds, this will inevitably lower standards across the board and create a 'race to the bottom' mentality that will favor predatory journals. Therefore, FEBS is looking forward to see how Plan S funders intend to structure APCs and whether there will be a rational system to recognize high standards and selectivity.

We strongly believe that cOAlition S should seek constructive discussions with learned society journals and editors in an effort to have better mutual understanding and to achieve the goal of open access in a way that maintains and enhances the quality of scientific publications.

4. Publishing journals is just one of the many activities of FEBS; the rest are largely funded by the surplus created by the journals. FEBS has a long tradition of supporting young scientists, through a number of schemes such as its long-term fellowships (1–3 years) and short-term fellowships (up to 3 months). Last year

FEBS funded 15 long-term and nearly 40 short-term fellows, who are primarily early-career scientists seeking to develop their research ideas and skills through collaborations with established groups and laboratories across Europe. Last year we also funded the participation of over 440 young scientists in FEBS Advanced Courses, the FEBS Young Scientists' Forum (YSF) or the annual FEBS Congress through travel grants and bursaries, as well as providing grants for the organization of these events. Advanced Courses (20 to be funded in 2019) particularly allow postgraduate or early-career scientists to develop their knowledge and understanding of cutting-edge research areas, while the popular annual FEBS Congress attracts over 1500 participants, who attend lectures on the latest developments across the molecular life sciences, present their work in poster sessions and network with other scientists of similar interests. For academics, we run education workshops across Europe each year where we highlight the latest innovative educational practices to improve student understanding and engagement within the molecular life sciences. Other activities funded by FEBS include promoting Women in Science, Science and Society and better integration of Science across Europe.

It is clear that Plan S in its present form would severely limit the fulfilment of our charitable activities. Many of our current activities would need to be dramatically curtailed or eliminated. The knock-on consequences will mean a severe reduction in training and career development opportunities for the many hundreds of postgraduate students and early career scientists that we currently support on an annual basis. Restricting opportunities for development and growth of the next generation of biochemists, due to limited availability of funds from FEBS and those of similar learned societies, could ultimately restrict the future progress of science in Europe.

It is an often-heard argument from opponents of the subscription-based publishing activity of learned societies that the libraries are not supposed to pay for research-supporting activities of scientific societies. However, it shouldn't be forgotten that national budgetary resources used for journal subscriptions are public funds and it is in the interest of the public and decision-making bodies to ensure training of the next generation of scientists which is partially carried out in a professional way by traditional learned societies and financed through journal income. The societies are, and will continue to be, fully transparent in providing detailed information on how they use scientific journal income for the support and benefit of the scientific community.

*From the FEBS Publications Committee on February 7, 2019*