

Time for change: what researchers think about the culture they work in

'It would be easy to look at the quality of UK research and its outputs – generally seen as good – and to conclude that UK research culture must be healthy'. But is it? Wellcome's report published in January, *What researchers think about the culture they work in*, paints a very different picture. Rather, the report shows a research community which is overworked, harassed and concerned about job stability. Its findings are based on a review of current literature, views shared in 94 individual interviews, four workshops and data from over 4000 survey respondents. Together, they offer a comprehensive overview of the current UK research environment as experienced by those within it. Importantly, the report provides a base for further investigations into the aspects of research culture and what can be done to improve it. The volume of survey responses, while self-selecting, speaks of the high interest in the subject. The #ReimagineResearch project continues, providing resources for researchers to hold 'Culture Cafes' at their institution and running further workshop events, with a shift to focus on the steps required to change research culture.

Collated here are some views in response to the report from one of Wellcome's senior policy advisers, the Biochemical Society and Portland Press.

Ben Bleasdale, Senior Policy Adviser, Wellcome

Working in the research community can be isolating and lonely. At least this is the experience of 70% of researchers in junior roles and 64% in senior roles, according to our survey of more than 4000 researchers (Figure 1).

In the largest ever survey into experiences of research culture, we learned that ever-increasing levels of competition are destroying collegiality and

fundamentally reshaping what it means to be a successful researcher.

"A PI told me there's no room for kindness, that I needed to be competitive." – Reimagine Research event participant, Newcastle University.

We heard how individuals are sacrificing their own wellbeing to sustain a career and the toll this is taking. We were told that 'having mental health issues seems to be the norm in the job', with a third of respondents reporting they had sought professional help for depression or anxiety during their research career.

Our report confirms that current practices are unsustainable. They are having a detrimental effect on wellbeing and undermining the quality of the work produced.



Figure 1. The different words used by researchers to describe current (left, n=2839 – UK and international) and an ideal (right, n=4079–4110 – UK and international) research culture. Image from Wellcome report *What researchers think about the culture they work in* (<https://wellcome.ac.uk/reports/what-researchers-think-about-research-culture>).

We recognize that Wellcome has helped to create this culture that prioritizes outputs at any cost, which is why we are determined to create a better research culture – one that is creative, inclusive and honest.

Since the report was published in January, we have held a series of events around the UK to discuss the findings with hundreds of members of the research community to begin to develop ideas for change.

Funders play a key role in setting expectations and aspirations, and Wellcome is committed to changing the way we operate as an organization to build a better research culture. But we cannot achieve this alone. Research culture is a product of the research system – from institutions to learned societies, publishers and individuals. We must all take ownership and work together to create better ways of working. Now is the time for change.

Hannah Macdonald, Policy and Public Affairs Officer, Biochemical Society

According to the report, 23% of junior researchers have felt pressured to produce a particular result (Figure 2). This stark figure points to one of the consequences of current research culture: diminished research integrity and quality. Researchers also describe practices including

cutting corners, cherry picking results, unpublished negative data and data massaging as a result of the pressures of the research environment they work in.

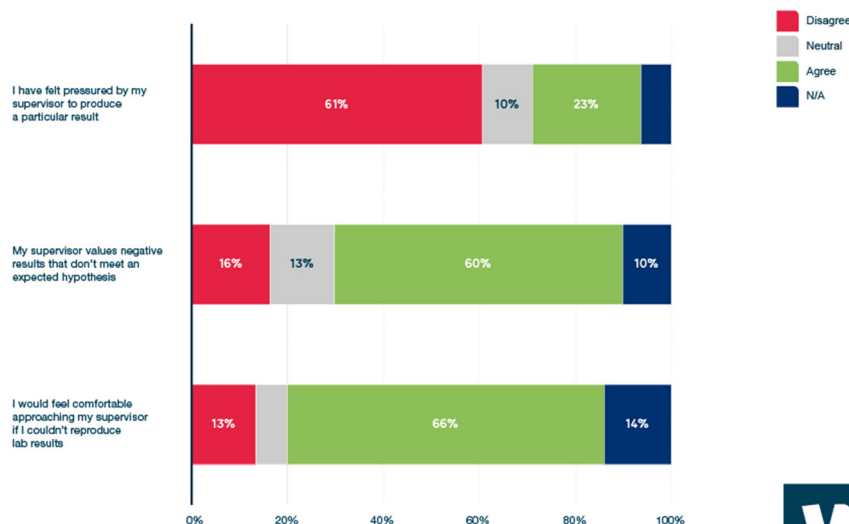
These behaviours are a threat to good science. They undoubtedly contribute to the so-called ‘reproducibility crisis’ in biosciences; are a waste of time, effort and funding; and risk impacting public trust in research. The vast majority of researchers I know and have worked with are committed to their work and the broader progression of science. Indeed, the report describes a workforce which is proud to work in research, viewing it more as a vocation than a job. Yet, at least anecdotally, many researchers will be aware of incidences such as those described in the report.

Exacerbating any problem in both research integrity and workplace harassment is an apparent reluctance amongst staff to come forward and report instances without fear of personal consequences (only 49% would feel comfortable reporting compromised research standards). Perhaps unsurprisingly, women and members of underrepresented groups are less likely than others to come forward. It is not a stretch to see how aspects of current research culture as described in the report may contribute to a pressured environment which can impact on research conduct. These include the pressure to publish, metrics-driven institutions and

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Junior researchers' and students' views on supervisors' attitude to results

Survey, n = 1832 – Junior researchers and students, UK and International



Source: What researchers think about the culture they work in, 2020



Figure 2. Bar chart taken from Wellcome research culture report What researchers think about the culture they work in (<https://wellcome.ac.uk/reports/what-researchers-think-about-research-culture>): Impact of current research culture (Figure 19, p41)

progression, a feeling of job and future uncertainty, and bullying in the workplace. Overall, only 49% of researchers felt that current research culture promotes high-quality research.

Aspects of research culture have been increasingly discussed over recent years. Wellcome has put considerable effort into assessing current literature and taking an overview of the views and experiences of researchers across a breadth of disciplines, career stage and geographies (although mostly in the UK). As a result, we now have statistics behind the issues we perhaps suspect existed, including the impact on research quality. This provides evidence for the scale of different problems, allows us to see how they interact and how all players within the research ecosystem can help make improvements, from systems and infrastructure to individual team leaders and colleagues. It is encouraging to see commitments to this end from Wellcome, a high-profile funder of biomedical research, and an acknowledgement of their role within the current climate. I hope this evidence will spark more than just conversation across the research sector and instigate change towards a more open, supportive, equal and diverse research culture – the benefits of which will be seen beyond the important wellbeing of researchers themselves and will lead to better and more inclusive research.

Further information: Wellcome have made the dataset from their survey available on Figshare.

Clare Curtis, Publisher, Portland Press

Publishers clearly have a role to play in supporting researchers at every stage of their career and at different stages of the research cycle. Dissemination of research findings is key to scientific progress, but how many publications a researcher has or where these have been published cannot be the only measure of research success. Publishers need to support researchers by recognising other outputs, such as open data, peer review activity and outreach activities.

In support of researchers, and research culture, the Biochemical Society and Portland Press published their Open Scholarship position statement in October 2019. In addition to supporting open access and open data, the statement also sets out the position around research metrics and research integrity. In particular, the Society and Portland Press support measures to change and improve how research is currently assessed, and while journal/article citations are one metric, all articles published by Portland Press carry the Altmetric attention score (providing information on ‘mentions’ of articles in items such as blogs, social media, policy documents and

patents) as well as article-level downloads – providing a more holistic assessment of research. In addition, given the current research and publishing landscape, it is an opportune time to reconsider peer review practices to encourage transparency, diversity and equal opportunity and to foster conservation of reviewer effort – something that our editorial boards and the Publications Committee of the Society will be discussing over the coming 18 months.

John Doddy, Community Engagement Manager, Biochemical Society

As a learned society in the molecular biosciences field, the Biochemical Society's goal is to support and nurture a research culture that promotes excellence and at the same time endorses the well-being of researchers.

Learned societies occupy important roles in the research ecosystem in their ability to build dialogues across the sector, speaking to and connecting researchers, funders, institutions, industry partners, policymakers and other stakeholders. Cultivating affiliations and conversations between the various members of our community is part of our work; providing a voice for the views and opinions of the researchers we represent is massively important for this too. Key to this latter end is ensuring effective representation of our research community. From the makeup of our governing committees and advisory panels to the breadth of our outreach, it is vital that these are reflective of the community itself, and we are continually striving to improve representation on this front.

As an active member of Equality, Diversity and Inclusion in Science and Health (EDIS), the core values and best practices championed by this group underpin everything that we do and go some way to ensuring our work, and the support that we offer, meets the needs of the researchers we serve. Effective representation helps us to positively contribute to the health of our collective research culture, enabling the full breadth of our community's experience and expertise to feed into our initiatives and the composition of our content offerings and resources. This applies to our programme of conferences, events and training courses, the journals we publish, the awarding of grants and bursaries, the provision of career guidance and educational resources, the operation of public engagement programmes and policy networks, and beyond.

The integrity and quality of research being conducted can only be delivered by a workforce that is functioning in a sustainable manner. Clearly, it is vital that the work-life balance of our researchers begins to be redressed.