Rebalancing the rankings: championing equity and quality in neuroscientific publishing

Marcelo M. Valença
Editor-in-Chief
0000-0002-0678-3762

Carolina Martins
Deputy Editor
0000-0002-0197-3520

As an editorial board for a scientific journal dedicated to Neurological Surgery and Human Neuroanatomy, we recognize a troubling trend: valuable scientific findings are too often confined to university theses and not disseminated through scientific publications. This trend is exacerbated by the shift towards open-access models with associated publication fees and the pursuit of elevated impact factors (1, 2), which can sideline important work that may not attract a broad readership but is nonetheless vital to the field.

In the current academic landscape, publication records have become a new form of "currency" for scientists, influencing hiring, contracts, salaries, and grants (3, 4). The quantity and quality of these publications are gauged by the scientific community at the top echelons of leadership. It is based mainly on the impact factors of the journals where the evaluated author's articles are published (3, 5).

In an elegant study, Paulus and colleagues (5) demonstrated that the anticipation of publication elicits an enhanced reward signal within the nucleus accumbens, which intensifies with the Journal Impact Factor of the prospective publication venue. Furthermore, there is a positive correlation between this neural response and the individual's personal Journal Impact Factor. This suggests that scientists have internalized the scientific community's emphasis on high-impact publications as a critical component of their reward system.

Case reports, once a staple in scientific literature, are now frequently overlooked due to their lower citation potential, which affects the desired high "impact factor" that leading journals covet. The intense competition for journal space has also raised troubling trends: valuable scientific findings are too often confined to inaccessible in the archives of a university library.

Our mission is to share comprehensive knowledge across the diverse subspecialties of neurosciences, elevating the field without concealing any subject, even if it may effect the citation numbers and, consequently, the journal's impact factor. To reject the publication of low-citation-potential articles, particularly those on rare diseases, would be unjust and unethical. We must ensure the dissemination of such critical knowledge.

Moreover, allowing the publication of quality research by scientists who cannot afford Article Processing Charges (APC) bridges the gap between researchers in well-funded environments and those in developing countries. Such inclusivity counteracts the 'Matthew Effect,' preventing the concentration of scientific discourse among the already privileged (6, 7). By promoting a more equitable and diverse scientific community, we uphold our responsibility to advance knowledge and understanding in neurosciences for the benefit of all.

References


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