

Scientific Watch December 2023 (n°10)

The scientific watch led this month to the selection of 25 papers. Seven of them address misconduct and questionable research practices [1–7]. Six focus on scientific publishing [8–13]. Five of them deal with integrity issues related to new research practices [14–18]. Five papers relate to the institutionalisation of research integrity [19–23]. Finally, two address education and training [24], [25].



FOCUS OF THE MONTH

Octopus affiliations: a research misconduct?

A Spanish and American team investigated the extent of 'octopus affiliations' - a growing phenomenon in which authors of scientific papers increase the number of institutions with which they are affiliated, without actually carrying out any scientific activity [1]. This practice may allow researchers to access additional resources, secure funding or increase their chances of being funded or published by associating their names with prestigious institutions, without respecting the expected level of contribution or collaboration. Sometimes, universities themselves encourage the most prestigious researchers to declare being affiliated with their institution in order to boost their prestige and ranking.¹

In this study [1], the authors - including two from Clarivate's Institute for Scientific Information - extracted 21 million scientific articles published between 2008 and 2020 from the Web of Science database. They analysed the affiliations of almost 107 million authors. They observed a significant increase in the number of affiliations in recent years, particularly at international level. Affiliations with several institutions in different countries increased by 100% between 2008 and 2020. Meanwhile, affiliations with several institutions in the same country have increased by almost 50%. There are several possible reasons for this phenomenon, some of them legitimate. It may reflect, for example, the desire to create scientific networks, the need to respond to global issues or the effects of a change in a country's science policy. When the multiplication of affiliations has only reputational or financial objectives, it can nevertheless represent an issue for scientific integrity, according to the authors.

[1] G. Halevi, G. Rogers, V. P. Guerrero-Bote, and F. De-Moya-Anegón, « Multi-affiliation: a growing problem of scientific integrity », *Profesional de la información / Information Professional*, vol. 32, n° 4, July 2023, doi: [10.3145/epi.2023.jul.01](https://doi.org/10.3145/epi.2023.jul.01). 

¹ In particular through financial incentives, see the case of King Saud University in Saudi Arabia in newsletter No. 6 (in French only): <https://www.ofis-france.fr/infolettre/n-6/>



MISCONDUCT AND QUESTIONABLE RESEARCH PRACTICES

Questionable poster publication practices

- [2] A. Maleki and B. Lioger, « Comparaison des mauvaises pratiques de publication des communications affichées au cours des congrès de la Société française de médecine interne présentiel et distanciel », *La Revue de Médecine Interne*, vol. 44, p. A546, Dec. 2023, doi: [10.1016/j.revmed.2023.10.334](https://doi.org/10.1016/j.revmed.2023.10.334).

Effect of a national policy on the incidence of misconduct

- [3] H. Wang and J. Guan, « The impact of “Five No’s for Publication” on academic misconduct », *Accountability in Research*, available online: Nov. 2023, doi: [10.1080/08989621.2023.2279569](https://doi.org/10.1080/08989621.2023.2279569).

Chinese researchers' perception of misconduct

- [4] X. Liu, Y. Guo, W. Gao, Y. Xie, H. Zhao, and J. Du, « Current situation and influence factors of scientific integrity in China: A multicenter survey », *Asia-Pacific Journal of Oncology Nursing*, art. n° 100365, available online: Dec. 2023, doi: [10.1016/j.apjon.2023.100365](https://doi.org/10.1016/j.apjon.2023.100365). 


Integrity issues in the field of synthetic biology

- [5] J. Dalziell and W. Rogers, « Scientists’ Views on the Ethics, Promises and Practices of Synthetic Biology: A Qualitative Study of Australian Scientific Practice », *Science and Engineering Ethics*, vol. 29, n° 6, art. n° 41, Dec. 2023, doi: [10.1007/s11948-023-00461-1](https://doi.org/10.1007/s11948-023-00461-1).

Serial plagiarism: articles are still cited

- [6] M. V. Dougherty, « After “40 Cases”: The Downstream Citation of Plagiarizing Articles in Medieval and Early Modern Philosophy Research », *Vivarium*, vol. 61, n° 3-4, p. 245-287, Oct. 2023, doi: [10.1163/15685349-06103001](https://doi.org/10.1163/15685349-06103001).

Helicopter research

- [7] W. J. Nyangulu, « Global health collaborative research: beyond mandatory collaboration to mandatory authorship », *Global Health Research and Policy*, vol. 8, art. n° 48, Nov. 2023, doi: [10.1186/s41256-023-00334-x](https://doi.org/10.1186/s41256-023-00334-x). 




SCIENTIFIC PUBLISHING

Impact of publishing models on misconduct management

This team from the Spanish National Research Council tested the impact of different journal publishing models on the incidence of errors and misconduct in scientific articles [8]. The research team also aimed to identify how these different models influence the ability of journals to react to problematic papers. The authors compared the content of over 45,000 discussion threads on Pubpeer with editorial responses to the 17,244 articles incriminated in these comments. Their observations include, for instance:

- Publishing fraud, which includes practices such as plagiarism and ghost authorship, is more frequent in journals without APC (38.5%) than in journals with APC (8.2%) ;
- Open-access journals seem to react better to misconduct than others, with, for example, 40.8% of retractions in the event of publishing fraud compared with only 25.9% for paywall journals.


[8] J. L. O. Priego and L. Delgado-Quirós, « Influence of different journal publishing models in the presence and detection of scientific errors and misconduct », *Revista Española de Documentación Científica*, vol. 46, n° 4, Sept. 2023, doi: [10.3989/redc.2023.4.1417](https://doi.org/10.3989/redc.2023.4.1417). 

Predatory journals

3

[9] I. Cojocaru, G. Cuciureanu, and I. Cojocaru, « Researchers' Quest for Productivity and Visibility: the Growing Problem of Predatory Publishing in the Republic of Moldova », in *Proceedings of the Central and Eastern European eDem and eGov Days*, in CEEeGov '22. New York, NY, USA: Association for Computing Machinery, Oct. 2022, p. 123-129. doi: [10.1145/3551504.3551510](https://doi.org/10.1145/3551504.3551510).

Peer-review

[10] V. Khanduja, « Peer reviewers: The unsung heroes of medical publishing », *Journal of ISAKOS*, vol. 8, n° 6, p. 393-395, Dec. 2023, doi: [10.1016/j.jisako.2023.12.001](https://doi.org/10.1016/j.jisako.2023.12.001). 

[11] L. D. McIntosh and C. Hudson Vitale, « Safeguarding scientific integrity: A case study in examining manipulation in the peer review process », *Accountability in Research*, available online: Dec. 2023, doi: [10.1080/08989621.2023.2292043](https://doi.org/10.1080/08989621.2023.2292043).

² Article Processing Charges (APC) are the fees paid by authors to a journal to have their article published in open access.





Retraction

- [12] L. H. Nicoll et al., « An examination of retracted articles in nursing literature », *Journal of Nursing Scholarship*, available online: Dec. 2023, doi: [10.1111/jnu.12952](https://doi.org/10.1111/jnu.12952).
- [13] S. R. Shimray, S. Tiwari, and C. K. Ramaiah, « Retractions covered by retraction watch from 2017 to 2022: a perspective from Indian researchers », *Global Knowledge, Memory and Communication*, available online: Dec. 2023, doi: [10.1108/GKMC-09-2023-0332](https://doi.org/10.1108/GKMC-09-2023-0332).

NEW RESEARCH PRACTICES

Artificial intelligence systems

- [14] S. R. Cooperman and R. A. Brandão, « AI Assistance with Scientific Writing: Possibilities, Pitfalls, and Ethical Considerations », *Foot & Ankle Surgery: Techniques, Reports & Cases*, art. n° 100350, Dec. 2023, doi: [10.1016/j.fastrc.2023.100350](https://doi.org/10.1016/j.fastrc.2023.100350). 
- [15] D. Gödde et al., « A SWOT (Strengths, Weaknesses, Opportunities, and Threats) Analysis of ChatGPT in the Medical Literature: Concise Review », *Journal of Medical Internet Research*, vol. 25, art. n° e49368, Nov. 2023, doi: [10.2196/49368](https://doi.org/10.2196/49368). 
- [16] M. Kasun et al., « Academic machine learning researchers' ethical perspectives on algorithm development for health care: a qualitative study », *Journal of the American Medical Informatics Association*, art. n° ocad238, Dec. 2023, doi: [10.1093/jamia/ocad238](https://doi.org/10.1093/jamia/ocad238).
- [17] P. P. Ray, « Striking a balance: embracing LLMs while upholding scientific integrity », *Japanese Journal of Radiology*, Sept. 2023, doi: [10.1007/s11604-023-01489-w](https://doi.org/10.1007/s11604-023-01489-w).

Issues related to science in times of crisis

- [18] W. Lipworth, I. Kerridge, C. Stewart, D. Silva, and R. Upshur, « The Fragility of Scientific Rigour and Integrity in "Sped up Science": Research Misconduct, Bias, and Hype and in the COVID-19 Pandemic », *Journal of Bioethical Inquiry*, Dec. 2023, doi: [10.1007/s11673-023-10289-w](https://doi.org/10.1007/s11673-023-10289-w).



INSTITUTIONALISATION

More about expert communication in research integrity guidelines

This philosopher from the University of Leibniz in Germany examined the ethics of expert communication with a view to supplementing codes of conduct on research integrity [19]. In his view, guidelines for scientific communications intended to inform decision-making are lacking. Current measures, such as the disclosure of potential conflicts of interests, would not be sufficient to ensure honest expert communication. According to the author, at the heart of the ethics of expert communication lies a fundamental dilemma between "prioritizing the actionability of their communications" and "prioritizing the transparent conveying of the scientific state-of-the-art". The author analysed the challenges and ambiguities inherent in this type of communication, and suggests a number of points that could be incorporated into current codes of conduct.

[19] H. Desmond, « The ethics of expert communication », *Bioethics*, vol. 38, n° 1, p. 33-43, available online: Dec 2023, doi: [10.1111/bioe.13249](https://doi.org/10.1111/bioe.13249). 

Analyses related to the investigation of cases

[20] B. Long *et al.*, « Factors related to the severity of research misconduct administrative actions: An analysis of office of research integrity case summaries from 1993 to 2023 », *Accountability in Research*, available online: Nov. 2023, doi: [10.1080/08989621.2023.2287046](https://doi.org/10.1080/08989621.2023.2287046).

[21] L. Tang, L. Wang, and G. Hu, « Research Misconduct Investigations in China's Science Funding System », *Science and Engineering Ethics*, vol. 29, art. n° 39, Nov. 2023, doi: [10.1007/s11948-023-00459-9](https://doi.org/10.1007/s11948-023-00459-9).

Independent monitoring committees for the integrity of clinical trials

[22] C. Locher *et al.*, « Data Monitoring Committees and clinical trials: from scientific justification to organisation », *Therapies*, available online: Nov. 2023, doi: [10.1016/j.therap.2023.10.013](https://doi.org/10.1016/j.therap.2023.10.013).

Legal foundation of responsible research

[23] G. Peruginelli and J. Pölönen, « The legal foundation of responsible research assessment: An overview on European Union and Italy », *Research Evaluation*, art. rvad035, Nov. 2023, doi: [10.1093/reseval/rvad035](https://doi.org/10.1093/reseval/rvad035). 

EDUCATION AND TRAINING

[24] D. Crean, B. Gordijn, and A. J. Kearns, « Teaching research integrity as discussed in research integrity codes: A systematic literature review », *Accountability in Research*, available online: Nov. 2023, doi: [10.1080/08989621.2023.2282153](https://doi.org/10.1080/08989621.2023.2282153).



- [25] F. Greco, S. Ceruti, S. Martini, M. Picozzi, M. Cosentino, and F. Marino, « Educating and Training in Research Integrity (RI): A Study on the Perceptions and Experiences of Early Career Researchers Attending an Institutional RI Course », *Journal of Academic Ethics*, Dec. 2023, doi: [10.1007/s10805-023-09497-1](https://doi.org/10.1007/s10805-023-09497-1). 