Initial post

Abi, as a statistical analyst, is expected to deliver a faithful and rigorous interpretation of the data. Even when there's no actual falsification, presenting results in a skewed way harms scientific objectivity. Ravn and Sorensen (2021) point out that this sort of drift, quite common in collaborations between science and industry, falls under questionable research practices (QRPs) because it undermines trust in the analysis itself. This is especially clear in the case of cherry-picking, where only the favourable data are highlighted. Andrade (2021) shows how this kind of selective reporting, though it may seem methodologically sound, can distort the bigger picture and lead to poor or biased decision-making.

In this light, Abi's responsibility is more than just producing data. Even if he doesn't control the final communication, he remains fully accountable for the quality and clarity of what he delivers. Schatman and Thoman (2014) stress that a lack of control downstream doesn't excuse a lack of rigour upstream. And if Abi sees that his results might be misused, he must respond. According to Rao et al. (2024), the duty to raise concerns means he should inform the relevant parties and clearly document any limits or risks in the interpretation. He can't just stay silent if an ethical issue is foreseeable.

The lack of a clearly defined legal framework in this case only strengthens that obligation. The National Academies of Sciences (2017) suggest that in situations with legal uncertainty, especially across countries, professionals should rely on core ethical principles like transparency, accountability, and protection of the public. These principles align with the Declaration of Helsinki (WMA, 2013), which calls for traceability and honesty in any research likely to affect individuals. And even though this isn't strictly medical research, the fact that it involves a consumer product with potential health risks makes those standards just as relevant.

Finally, the social and health implications shouldn't be overlooked. What seems like a small risk on an individual level can become serious when it affects an entire population. Hofseth (2018) reminds us that the build-up of micro-risks in mass-consumed products can lead to significant public health outcomes. This need for vigilance becomes even more pressing when the product, like cereal, is often consumed by vulnerable groups, especially children. The Codex Alimentarius (FAO/WHO, 2023) requires that any potential danger in widely distributed food products be made known. Downplaying those risks weakens the whole safety net meant to protect the public.

In short, Abi can't stick to a neutral or purely technical approach. Scientific rigour, professional ethics, and social responsibility all come together here with a shared demand: to act with transparency, integrity, and foresight, even when the law doesn't explicitly require it.

References

Andrade C (2021) 'HARKing, cherry-picking, p-hacking, fishing expeditions, and data dredging and mining as questionable research practices', *Journal of Clinical Psychiatry*.

Available at: https://www.psychiatrist.com/jcp/harking-cherry-picking-p-hacking-fishing-expeditions-and-data-dredging-and-mining-as-questionable-research-practices/ (Accessed: 7 June 2025)

FAO/WHO (2023) *Codex Alimentarius: International food standards*. Rome: FAO. Available at: https://www.fao.org/fao-who-codexalimentarius (Accessed: 12 June 2025)

Hofseth LJ (2018) 'Getting rigorous with scientific rigor', *Carcinogenesis*, 39(1). Available at: https://academic.oup.com/carcin/article-pdf/39/1/21/24346864/bgx085.pdf (Accessed: 11 June 2025)

National Academies of Sciences, Engineering and Medicine (2017) *Fostering integrity in research*. Washington DC: The National Academies Press. Available at:https://www.ncbi.nlm.nih.gov/books/NBK475953/ (Accessed: 10 June 2025)

Rao KN, Mair M, Arora RD and Dange P (2024) 'Misconducts in research and methods to uphold research integrity', *Indian Journal of Cancer*. Available at: https://journals.lww.com/indianjcancer/_layouts/15/oaks.journals/downloadpdf.aspx?an=02223310-202461020-00026 (Accessed: 9 June 2025)

Ravn T and Sorensen MP (2021) 'Exploring the gray area: Similarities and differences in questionable research practices (QRPs) across main areas of research', *Science and Engineering Ethics*. Available at: https://link.springer.com/article/10.1007/s11948-021-00310-z (Accessed: 6 June 2025)

Schatman ME and Thoman JL (2014) 'Cherry-picking records in independent medical examinations: strategies for intervention to mitigate a legal and ethical imbroglio', *Psychological Injury and Law*. Available at: https://link.springer.com/article/10.1007/s12207-014-9194-y (Accessed: 8 June 2025)

World Medical Association (2013) *Declaration of Helsinki - Ethical principles for medical research involving human subjects*. Available at: https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/ (Accessed: 10 June 2025)