



Reproducibility, Validity, and Integrity in Scholarly Research: What Accountability for Willful Disregard?*

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Commentary

The [Aims and Scope](#) of the [Brainiacs Journal](#) encompass the *Information And Communication Sciences* in addition to the *Imaging And Computing Sciences*. These IACS fields find a nexus in the ethically and legally challenging realm of establishing credibility of witnesses in courts of law. How do we differentiate evidentiary fact from fiction and truth from lies when related as stories told by witnesses to juries in court? Should we trust scientific reports when researchers claim that brain imaging, physiologic monitoring devices, and psychological questionnaires ([US Congress Office of Technology Assessment 1983](#); [Langleben and Moriarty 2013](#); [Meltzer et al. 2013](#); [Walczyk et al. 2018](#); [Hsu et al. 2019](#); [Díaz Soto and Borbón 2022](#)) can or cannot be used as *lie detectors* to reveal when a person is not telling the truth? In the current era of information wars that have spread from politicians to scientists, how do we maintain reproducibility, validity, and integrity in scholarly research for science, engineering, and medicine?

Brain Health Alliance (BHA) has been studying these questions for the past several years ([Craig, Ambati, et al. 2019](#); [Taswell, Triggles, et al. 2020](#); [Athreya et al. 2020](#); [Taswell, Athreya, et al. 2021](#); [Craig, Lee, et al. 2022](#)). The BHA Virtual Institute (BHAVI) has now hosted two annual Guardians conferences ([Guardians 2022](#) and [Guardians 2023](#)) focused on truth and integrity in science ([Craig, Taswell, et al. 2022](#); [Taswell and Craig 2023](#)). BHAVI has answered the question “Who are the Guardians of Truth and Integrity?” each of the past two years by honoring Dr. Peter Wilmschurst and Dr. Anthony Fauci, respectively, as the [2022 Guardian](#) and [2023 Guardian](#). Next year for [Guardians 2024](#), we pose the following questions seeking answers:

- What accountability should be imposed on researchers for willful disregard of reproducibility, validity, and integrity in scholarly research? What should be the sanctions for those researchers who violate professional codes of conduct?
- Doctors must be licensed to practice medicine with patients. Lawyers must be licensed to practice law with clients. Teachers in schools must be licensed to teach students. Why do we not require researchers to be licensed to conduct research?
- Which organizations should respond to concerns and complaints

about fraud, falsification, plagiarism, and misconduct in research? Which organizations should impose and enforce the sanctions for those researchers who violate professional codes of conduct?

- To which independent and impartial venue (one which is devoid of conflicts of interest and mandated to disclose the legal and financial nature of the entity by clarifying the funding sources and controlling parties), should we submit complaints when a researcher with less power and money becomes a victim exploited by a researcher with more power and money?
- Educators at academic universities in our communities should be leaders and example role models who teach and promote moral, ethical, civil, courteous, tolerant, and respectful behavior between and amongst all members of our communities. How should we heal and cure the worsening triple-G problem in academia of *Grooming, Gaslighting, and Ghosting*?
- What is the meaning and purpose of policies and procedures in academic policy manuals if the rules are not imposed and enforced for all members of the university including both teachers and students? What is the meaning and purpose of ethical codes of conduct if the guidelines are not imposed and enforced by the professional societies that adopt and promote such codes of conduct for their members?
- Can truth and integrity exist in academic science, engineering, and medicine without accountability for willful disregard?

Report submissions for [Guardians 2024](#) will open on 9 January 2024. Author presentations will be held at an online event via GoToMeeting videoconference at meet.goto.com/965055533 on 9 October 2024. For further information, please contact [guardians at BHAVI.us](#).

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