Letter to Editor

Launching "Research Audit Units" to Curb Research Misconduct

Dear Editor,

Scientific misconduct affects the whole scientific universe and is a mounting concern. It wastes the energy, time, and money of other researchers and can adversely affect the health of people.[1-3]

A survey in the British Medical Journal showed misconduct to be worryingly prevalent in the UK, with 13% of researchers having first-hand knowledge of misconduct.[4] In a study in India, 56% of researchers reported observing data alteration by others.[5] In another study in Arizona State University, 84%–91% of the students in seven introductory biology and zoology courses admitted to manipulate data.[6]

Some organizations have endeavored to circumvent this important issue through special education programs. For example, the University of Minnesota reported on an ethics program that spent $500,000 in a year, but the effectiveness of this approach has been doubted.[6] The United State has tried to curb misconduct by protecting whistle-blowers, but this approach, too, has not been very effective as, for example, it is hard to resolve minor acts of retaliation.[7] China's Office of Research Integrity Construction has been one of the first organizations made to probe into alleged cases of misconduct,[8] but still many cases can escape suspicion and report. In some of the other countries, Office of Scientific Research Integrity Construction, or Ethics Committee have been set up for curbing research misconduct, but at most of the time, the activity of these offices is limited to evaluate ethical issue and methodology of the proposal of the researches before performing the research. In the other words, verifying the authenticity of data such as the actual patient's presence in the research is not being considered when the research ended.[3,9]

Launching "*Research Audit Units*" (RAUs) in universities and research centers for annual auditing of the data of a percentage of their researchers to ensure their truthfulness can help towards curbing this conundrum. Although this approach certainly has its own limitations and may not be able to put an end to misconduct, it definitely can mitigate it. The huge benefits of this scheme to the institution itself, funding organizations, journal editors, and the whole humanity do not need to be addressed. The involved instrument for setting up of RAUs depends on the facilities, infrastructure, goals, and priorities of research centers and universities, but also what is clear is that this center will be set up with a few experts and simple required equipment. RAUs can get set up and operate with a website infrastructure and internet system; therefore, the researchers can upload their document in this system, and the experts evaluate the documents for research misconduct. The researchers should receive confirmation code from this office before submitting an article to any journal. This code could indicate that the article is in line with the ethics guideline and protocols.

The place of RAUs can be at the research deputy. Members of RAUs should be selected from experienced researchers of the organization and ethics experts. Furthermore, the experts of RAUs should have valuable experience and knowledge in research methodology, medical journalism, medical statistics, medical ethics, and also basic and medical sciences. The RAUs can be affiliated with state universities or established as independent private offices. In either case, regulation of RAUs in universities and institution can be performed by higher centralized regulation authority.

It is worth mentioning that the activities of this unit are started when the research projects finishes. For example, RAUs can check the authenticity of the result of a clinical study by contacting some of the cases to confirm their real participation at the study and/or whether their response to the treatment has been the same as that reported by the researchers.

Definitely, these are some limitations and pitfalls for "research auditing," as proposed above, but these restrictions should not prevent launching RAUs, as restrictions and pitfalls are encountered in every human activity. Moreover, the limitations and drawbacks of RAUs will be circumvented by appropriate planning over time.

We hope that opening this unit in universities and research institutes can decrease the research misconduct, and also, increase the confidence in the reported results of the articles.

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Conflicts of interest

There are no conflicts of interest.

Mohammad Reza Namazi[1], Mohammad Mahdi Parvizi[1,2]

[1]Molecular Dermatology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran, [2]Essence of Parsiyan Wisdom Institute, Phytopharmaceutical and Traditional Medicine Incubator, Shiraz University of Medical Sciences, Shiraz, Iran

Address for correspondence:
Dr. Mohammad Mahdi Parvizi, Molecular Dermatology Research Center, Shahid Faghihi Hospital, Shiraz University of Medical Sciences, Shiraz, Iran.
E-mail: mmparvizi@gmail.com

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