

SUSHANT UNIVERSITY

GUIDELINES FOR ETHICS IN RESEARCH

Research at any institution should bring innovation, creativity and creation of new knowledge/ideas without compromising on the ethical practices/academic integrity. Research that is being carried out should have societal/environmental impact and should not be done just for the sake of publishing. Recently, there has been an increase in number of publications in dubious/predatory journals in India. Hence, there is a need to frame these guidelines to make the researchers aware of the ethical practices to be followed while doing research at Sushant University

Guidelines suggested by several Government agencies (Sources 1 & 2) have provided a basis for the preparation of the below guidelines for the Sushant University.

1. Conduct of Research

While conducting research, whether independently or jointly, it is necessary to ensure that data collected (including raw data) are reliable, properly recorded and dated, and carefully stored. Fabrication and falsification of data, even data that may be perceived to be of relatively lower importance to the research outcome, clearly constitute scientific misconduct. The procedure followed should be described in sufficient detail to permit independent verification. Selective use of data without scientifically valid reasons is unacceptable. Not following the above guidelines on data collection can lead to scientific misconduct.

1.1 Scientific Misconduct

Scientific misconduct is the violation of the codes of scholarly conduct and ethical behaviour in the publication of professional scientific research. These include all acts from the initiation of an idea, its experimental verification, accuracy of results, accurate reporting without resorting to any malpractice in the presentation of data/images, due acknowledgement of all sources of information and people. Scientific misconduct(s) can be of various types and can occur at various stages-from the initiation of the scientific

study to publications and/or patent generation. While these involve violation of generally accepted research practices, inadvertent errors or genuine differences in interpretation or judgement in assessment of the results may not constitute scientific misconduct. Scientific misconduct may be categorized into the following:

- 1.1.1 **Embezzlement of ideas:** Claiming an idea to be one's own while it was obtained from privileged access while reviewing manuscripts, grant proposals or through participation in lectures and personal discussions and earlier publications (but not citing them). This also includes acts wherein ideas of others are presented as one's own through slight changes of words, phrases and illustrations.
- 1.1.2 **Plagiarism:** Using other's words, results, or published work without appropriate citation. This includes using one's own published work (self-plagiarism) without appropriate disclosure/citations.
- 1.1.3 **Falsification:** Misrepresentation or suppression/ addition of a part of data to generate cherry picked results or improper reporting of results in order to present a misleading outcome.
- 1.1.4 **Fabrication:** Reporting 'results' of experiments which were never done. This also includes images/ photographs being morphed to reach a particular interpretation.
- 1.1.5 **Fraud:** Deliberate suppression of previous work in publications and inappropriately claim originality and/or avoiding quoting previous publications which are contrary to present results.
- 1.1.6 **Non-compliance of Regulatory Guidelines:** Deliberate violation of ethical guidelines accepted for scientific research, non-adherence to safety regulations or inappropriate use of research funds.
- 1.1.7 **Inappropriate Authorship:** Excluding genuine contributors from authorship, including non-contributors, or claiming authorship for oneself without having made any meaningful contribution is inappropriate. In cases of publication of work carried out during a Ph.D. thesis, due care should be taken by the thesis Supervisor to ensure that the scientific contributions of a student are neither diluted nor exaggerated.
- 1.1.8 **Withholding data from Validation:** Not providing data or research material to the institute/journal for verification/validation purpose.
- 1.1.9 **Wrong versus Fraudulent paper:** It occasionally happens that a conclusion drawn in an earlier publication is negated, modified or shown

where it went wrong- either by the same author or others. This is how science progresses. The earlier paper is thus not fraudulent.

2. Good Research Practices

2.1 Laboratory Records: It is vital to keep proper records of each experiment, details of materials obtained from varied sources and how they were used, procedures, analysis and other related material. Graphs and printouts from instruments should be numbered and filed appropriately. If any software is used for handling and analysing the data, its name, version and other details should be recorded. The laboratory records of experiments carried out using a publicly funded institution should carry every single detail of the experiment. Such records are the property of the laboratory and are to be kept for archival and later retrieval purposes; a copy will of course be that of the researcher and can be used by anyone till after a defined moratorium period of 18 months. Due permission and acknowledgement of the researchers who carried out the experiments is essential at all times.

2.2 Consultancy work: External consultation should be done with explicit permission from the Institutional Head where the scientist/technologist works. At the same time, permissions, if denied, should be justified and the reasons thereof be formally recorded. If the facilities of the institution are used, the details should be declared and recorded with due confidentiality in terms of the interest of the client. A clear statement on the resources to be used and finances that would accrue to the consultant and the institution should be recorded ab initio.

2.3 Project grants and awards Project proposals, as well as selection of candidates for awards and fellowships, are usually evaluated by committees with the help of peer review. It is important that the highest ethical standards are observed by committee members. Both positive and negative bias, due to one's personal position, role or involvement, are inappropriate.

3. Publication

3.1 Authorship: The authorship of scientific publications is a very important issue since it is the way in which scientists receive credit for their contributions. All listed authors of a publication should have contributed significantly to it. It is inappropriate to offer 'guest authorship' to anyone who has not made a significant contribution. Likewise, it is wrong to exclude from authorship anyone who deserves to be an author. It is unethical to include

anyone as an author of a paper without their knowledge and clear consent. The order of authorship is very important. In this matter, conventions vary in different fields, and in general, one should be consistent with the conventions in the field and the criteria laid down by the journal to which the work is submitted.

3.2 Plagiarism: The Oxford English Dictionary defines plagiarism as 'the practice of taking someone else's work or ideas and passing them off as one's own'. In the context of scientific research, it can involve unattributed lifting of textual material or scientific ideas or actual research results. The most extreme example would be a deliberate attempt to pass off someone else's entire research project as one's own. However, it can also involve (deliberate or unintentional) incorporation of some ideas or results of other researchers, without proper attribution, within one's own research publication. Though the degree of severity can vary, plagiarism always amounts to ethical misconduct. Use of someone else's work in one's own is not by itself unethical. A limited amount of textual material in someone else's paper can be copied if it is clearly marked as a quote (typically by enclosing it within quotation marks) and the source is explicitly cited where the quote starts or ends. Alternatively, text may be paraphrased with a general indication of where the concepts originated. Occasional re-ordering or substituting of words is not sufficient to count as paraphrasing: the recommended procedure is to read and understand the source material, and then to put it away and express the idea in one's own words. Besides textual material, incorporation of ideas, figures, graphs, etc. from other sources in a manner that conveys a false impression that they are original amounts to plagiarism. Taking one's own published results and reproducing them in another published work as if they were new is 'self-plagiarism'. 'Duplicate publication' – submitting the same research results to two or more journals and treating them as separate publications – is also a form of self-plagiarism and must be avoided. Plagiarism is an issue not only for publications in journals but also for reports, textbooks, monographs and grant proposals. The above considerations apply equally in all these cases.

3.3 Redundant /Salami Publications: Resorting to 'Redundant' publications for artificial enhancement of the number of publications is also a serious act of misconduct. Also, the simultaneous submission of the same manuscript in multiple journals, in order to have one of them accept it, is gross misconduct.

3.4 Responsibility of Reviewers: Scientists who are asked to review a manuscript or a research proposal have the responsibility to ensure they do not misuse their advance access to the information and ideas in these documents. The use of such advance access to publish a competing work, or to carry out research that pre-empt a proposed project is unethical.

3.5 Peer review: Scientists often act as referees in review of manuscripts submitted for publication as well as project proposals submitted for financial support. This exercise should be carried out with the maximum possible objectivity. It is essential to avoid personal bias and/or conflicts of interest.

4. Dealing with Misconduct

A University level Committee on Ethics called the Ethical Committee, involving people at different levels (scientific and administrative) have been established. The committee is chaired by an Associate Dean of the School of Law. Scientific misconducts would be investigated by the Ethical committee and the recommendations would be made to the Vice-Chancellor by the chairperson of the committee.

References

1. University Grants Commission (Promotion of Academic Institution and Prevention of Plagiarism in Higher Educational Institutions) Regulation, 2018. The Gazette of India, Extraordinary, Part III-Section 4, July 31, 2018.
2. "Our Core Practices", Committee On Publication Ethics (COPE), 1999.
3. Williams C. L. et al., Errors, Sloppy Science and Fraud: Keeping Eyes on Your Data. *J. Clin Invest* 2019; 129(5): 1805- 07. <https://doi.org/10.1172/JCI128380>.

Sources

1. https://www.ias.ac.in/About_IASc/Scientific_Values:_Ethical_Guidelines_And_Procedures/
2. "Draft National Policy on Academic Ethics", Office of the Principal Scientific Advisor to the Government of India, 11-6-2019.