RESEARCH ETHICS AND INTEGRITY

Scientific progress is not above ethics. In the fast pace of scientific advancements, it is crucial to know where the ethical boundaries lie. This infographic highlights some of the key aspects of doing research ethically.

DATA REPRODUCIBILITY

Plagiarism refers to copying or modifying words, images, ideas, or other works without crediting the source. Say no to and stay mindful of plagiarism; be it for a research publication or a class project.

DATA AUTHENTICITY

Do you have data that rejects your favourite hypothesis? Don’t ignore it or alter it in a rush to publish. Data fabrication, falsification and ‘cherry-picking’ are unethical and fraudulent, and hurt scientific progress. Change your hypothesis, not your data.

DATA REPRODUCIBILITY

Document everything. Follow good practices of recording and storing your work, including the ‘failed’ experiments. Your peers (and future self) will thank you for it.

CLINICAL RESEARCH ETHICS

Before a clinical study, ensure that the participants truly and entirely understand the goals of the study and its impact on them. Proceed only with their informed and understood consent. Uphold the confidentiality of their information.

UNDERSTANDING CONFLICT OF INTEREST

If your invention, research study, or other work could benefit you in ways that clash with your professional responsibilities, then there is a conflict of interest. Be transparent about it, even when the possibility of a conflict is remote.

ANIMALS IN RESEARCH

Animals feel stress, pain and fear too. Treat them humanely. Consider replacing them with non-animal models and products. If you can’t, consider reducing their usage and refining your experiments to get the most out of fewer animals.

RESOURCE MANAGEMENT

Use resources wisely. Avoid wasting paper, plastic, water, electricity, instruments, reagents or human resources. Take care in handling and disposing of hazardous materials. Do not compromise the safety of your workspace or the people in it or outside.

UPHOLDING A PROFESSIONAL CODE OF HONESTY

It is human to err. Own your mistakes and take the necessary steps to correct them. Create a workspace that encourages honesty and openness in your team members.

BROADER IMPACT OF RESEARCH

Think about how your work impacts the world. If unsure, talk to experts in the areas of ethics and integrity.

STAY UPDATED WITH RESEARCH ETHICS

Science is a social enterprise with multiple stakeholders, including scientists, educators, students, entrepreneurs, policymakers and the public. Engage in discussions on research ethics and integrity with all stakeholders. Revisit and revise the policies regularly.

*Did we miss something? Let us know by writing to hello@indiabioscience.org

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