



**RESEARCH CELL**  
**UNIVERSITY OF LUCKNOW**  
**LUCKNOW-226007**

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**Ethical Guidelines**  
**2020**

## **Ethical Guidelines in Research to be followed in University of Lucknow**

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Scientific research involves the cooperation and coordination of different people to achieve goals that have impact on society and are essential for overall development in all areas. Research requires experimentation, data analysis, writing research papers and grant proposals and educating future scientists. Thus, it is essential that research is carried out in ways that are ethically correct. Guidelines for research ethics are laid in such a way that concerns of research institutions and individuals are simultaneously addressed. Also, it is important to adhere to these ethical guidelines in order to preserve the dignity, rights and welfare of researchers and research participants. Based on area of research and subjects involved, guidelines for carrying research has been defined by various agencies. These guidelines can be found on WEBSITE of various government agencies. All the researchers at University of Lucknow are expected to follow the Ethics of research as described in the guidelines.

Research Cell will ensure that the ethics guidelines mandated by the funding agencies are followed. Some of the guidelines are given below:

### **1. Biomedical Research on Human Participants**

The Nuremberg Code formulated in 1947, was the first international statement on ethics of medical research using human subjects. Over the years, various international and national advisory bodies have revised and laid down principles for scientific research involving human beings. Clinical research is required for better understanding of science and developing drugs, vaccines, diagnostics, instruments and materials which can enhance quality of human health. However, it is important to give credit to individuals who volunteer to participate in biomedical research. To protect the interest of participants in

biomedical research, ethical guidelines are established. In India, the Indian Council of Medical Research (ICMR), Govt. of India, sets ethical guidelines for biomedical research involving human participants. Research on human subjects follows the principles of essentiality of the research, voluntariness, informed consent, non-exploitation, confidentiality, accountability and transparency. The guidelines can be found at: [https://www.iitm.ac.in/downloads/ICMR\\_Ethical\\_Guidelines\\_2017.pdf](https://www.iitm.ac.in/downloads/ICMR_Ethical_Guidelines_2017.pdf)

## **2.Working with Laboratory Animals**

In India, the Committee for the Purpose of Control and Supervision on Experiments on Animals (CPCSEA), has laid down guidelines to assure quality maintenance and humane care of laboratory animals while conducting scientific experiments. These guidelines also set rules for proper procurement, quarantine and rearing of laboratory animals. University of Lucknow will have an Animal Ethics Committee which will examine and approve all the proposals of research involving small experimentation animals. The guidelines can be found at:

[http://cpcsea.nic.in/Content/55\\_1\\_GUIDELINES.aspx](http://cpcsea.nic.in/Content/55_1_GUIDELINES.aspx)

## **3.Working with Chemicals**

The Bureau of Indian Standards, Govt. of India, recommends a code of safety for all chemical laboratories in India. It involves guidelines for recognizing potential chemical hazards and employing corrective actions in order to expeditiously minimize accidents. Every researcher at University of Lucknow is expected to follow the guidelines especially with the hazardous chemicals. Details can be found at:

<https://images10.newegg.com/UploadFilesForNewegg/itemintelligence/Pacon/is.4209.19871453376681588.pdf>

#### **4.Radiation Safety**

These guidelines set by the Department of Atomic Energy, Govt. of India, apply to practices adopted and interventions applied while working with radiation sources in Indian laboratories. They ensure that the ionizing radiation and nuclear energy does not cause any risk to the health of researcher and the environment. Close monitoring by institutional radiation safety committee helps in ensuring compliance to these guidelines so that the exposure to all sources of ionizing radiation should be ‘as low as reasonably achievable’.

<https://www.aerb.gov.in/index.php/english/regulatory-facilities/radiation-facilities/application-in-medicine/nuclear-medicine1>

#### **5.Recombinant DNA Technology and Bio-contaminants**

Recombinant DNA technology is the most popular method of introducing gene or related material in microorganism, plants and animals. Department of Biotechnology has given guidelines for research work in this area. The details can be found at:

[https://ibkp.dbtindia.gov.in/DBT\\_Content\\_Test/CMS/Guidelines/20181115134719867\\_Regulations-Guidelines-for-Reocminant-DNA-Research-and-Biocontainment-2017.pdf](https://ibkp.dbtindia.gov.in/DBT_Content_Test/CMS/Guidelines/20181115134719867_Regulations-Guidelines-for-Reocminant-DNA-Research-and-Biocontainment-2017.pdf).