

**University Grants Commission
New Delhi**

Notification

No.F.14-6/2014 (CPP-II)

July, 2014

Subject: Dissection and Animal Experimentation in Zoology /Life Sciences and allied disciplines in undergraduate, postgraduate and research programmes.

In exercise of powers conferred by Section 12 (j) of the UGC Act, 1956, the UGC hereby issues the following instructions in regard to animal experimentation in Zoology/Life Sciences and allied disciplines.

1. Application

The instructions contained in this notification shall be applicable to Undergraduate, Postgraduate and Research programmes run by Departments of Zoology/Life Sciences and allied disciplines of all Universities including their constituent and affiliated colleges, , institutions declared as Deemed to be Universities under Section 3 of the UGC Act and Institutions of National Importance empowered to award degrees under Section 22 of UGC Act, 1956.

- 2.** The instructions contained in this notification shall come into force with immediate effect.

3. Introduction:

Animal dissection as an aspect of Zoology curriculum is in practice for a long time. Further, with the increase in number of institutions, more than a million students undergo programs requiring animal dissections. Most of these animals are caught from the wild life. Their indiscriminate removal from their natural habitats disrupts the biodiversity and ecological balance. Thus, use of animals in dissections has come to be a factor compounded with habitat loss, pollution and climate changes responsible for the gradual depletion of animal populations. It is a fact that the demand for

dissection specimens increases pressure on threatened species. The case of frogs, the population of which has declined to alarming levels in the recent times, is often cited as the example. Also, it has been noticed that laws/regulations/guidelines about animals and their welfare are not observed while prescribing animal use in the curriculum. It is, therefore, felt that the curriculum must be revamped to accommodate the latest developments. Considering the seriousness of the issue, the UGC has decided to issue appropriate instructions in the form of this notification to all universities and other higher educational institutions to do away with the animal experimentation in Zoology/Life Sciences and allied disciplines at Undergraduate and Postgraduate levels.

4. Objective/Aim to be achieved:

To prevent the disruption of bio-diversity & maintaining the ecological balance with the acquisition of appropriate alternative technology in place of animal experimentation and to develop competent skilled human resources.

5. Immediate Actions:

All Institutions of Higher Education shall:

- 5.1 abide by Section 51 A (g) of the Constitution of India, which states, "it shall be the duty of every citizen of India to protect and improve natural environment including forests, lakes, rivers and wildlife, and to have compassion for all living creatures";
- 5.2 abide by the Wildlife Protection Act, 1972, amended from time to time, which has all Elasmobranchii (sharks and rays) included in the Schedule I, and all frogs belonging to genus *Rana* included in the Schedule I, and Schedule IV. Therefore, all educational institutions shall prescribe laboratory curriculum involving animals in such a way as to be compassionate with the animals, avoid experiments on animals merely for the purpose of acquiring manual skill, and

not use animals protected under the Wildlife Protection Act, 1972, particularly frogs belonging to genus *Rana* and any elasmobranch fish, in laboratory exercises;

- 5.3 abide by the Prevention of Cruelty to Animals Act, 1960 which requires that experiments on animals are avoided wherever it is possible to do so. Sec 17.1 (d) of the Prevention of Cruelty to Animal Act, 1960 states that in medical schools, hospitals, colleges and the like, other teaching devices such as books, models, films, and the like shall be used if they may equally suffice. Sec 17 (f) of this Act requires that, as far as possible, experiments on animals are not performed merely for the purpose of acquiring manual skill;
- 5.4 include, "Animal Ethics" as a chapter in appropriate courses of study in order to sensitize the students and other stakeholders;
- 5.5 display the highlights of the Acts mentioned vide supra, in the laboratories and elsewhere;
- 5.6 adopt other modalities to popularize the science and sentiments of the provisions of these Acts;
- 5.7 revise the curriculum in line with the instructions contained in this notification.

6. Constitution of Dissection Monitoring Committee (DMC)

- 6.1 All Institutions of Higher Education shall constitute "Dissection Monitoring Committees" (DMC) to ensure strict compliance of instructions relating to the use of animals for research purposes only;
- 6.2 The Head of the concerned Department shall be the Convener and Chairperson of DMC. Two senior faculty members of the concerned Department, one faculty member of a related Department from the same institution and one or two faculty members of

the concerned Department from a neighboring institution(s) shall be members of the DMC.

- 6.3 The tenure of DMC shall be 2 years and on expiry of a term, the DMC should be reconstituted wherein only the Convener and Chairperson (the Head of the Department) may continue for two or more terms if he/she happens to continue to be the Head of the Department. A vacancy arising during the tenure of a DMC shall be filled with a faculty belonging the respective category. The quorum for the meeting shall be 3 out of 6 where in at least one member from the neighboring institution must be present. The DMC shall meet at least once each semester/half year and approve/review alternative experimentation of animals for laboratory exercises;
- 6.4 It shall be the responsibility of DMC to ensure that animals that are permitted to be used for dissections/experiments in the instructions herein are procured from ethical sources, and not removed from the wild, transported to the laboratory without stress or strain to the animals, if live, and anesthetized appropriately if they are to be used in dissections;
- 6.5 The DMC shall ensure that the Institution maintains appropriate records of procurement of animals, their transport, number of animals used, use of anesthesia/euthanasia etc.
- 6.6 The DMC shall be different from the Institutional Animal Ethics Committee (IAEC), under the purview of Committee for Purpose of Care and Supervision of Experimental Animals (CPCSEA), Department of Environment and Forests, Government of India. However, the DMC shall not have powers over-riding the powers of IAEC. For animals covered by the IAEC, the Standard Operating Procedures (SOPs) for IAECs prescribed by CPCSEA will apply.

7. Reduction in the number of animals for dissection and experimentation

Ensuring a close observance of high ethical considerations, the use of animals for dissection and experimentation is prohibited both at Undergraduate and Postgraduate levels except for research. Higher educational institutions are to make it their moral responsibility to do away with the use of animals for various academic purposes.

Animals used in research should be, to the best extent possible, procured from laboratory bred sources, especially breeders approved by CPCSEA in which case their use will be under the purview of IAEC. Removal of animals from their natural habitats should be avoided.

7.1 Undergraduate and Postgraduate programs

7.1.1 For undergraduate and postgraduate programs, both at major and allied levels, no animal from any species shall be dissected, either by teachers or students for any purposes. The teachers shall demonstrate one or more aspects of anatomy to students with the help of digital alternatives, models and charts etc.

7.1.2 The curriculum, both theoretical & practical for Invertebrates and Chordates, as the case may be, shall be oriented towards levels and patterns of organization, biosystematics, biodiversity, adaptations, developmental stages, population dynamics, ecological implications, etc. The laboratory exercises should make use of museum specimens and microscopic preparations, photographs, video clippings, models, charts, plastinated specimens, field observations combined with photography and/or videography, and so on. Intermittent field visits should be arranged.

7.1.3 Digital alternatives such as ProDissector Frog, BioLab Frog, DigiFrog, Dissection Works etc. are available in plenty on various platforms and market. They should be suitably procured from commercial sources or internet. Many of these digital learning devices have modules for testing, which can be used to evaluate the students at the

examination. Separate budgetary provision should be made by the concerned institution for the procurement of digital material and technology.

7.1.4 During the field visits, the students shall only observe the animals and make record of the observations. The animals shall neither be killed nor removed from their natural habitat. To that effect, students should be told about the importance of biodiversity and its conservation.

7.1.5 Skill laboratories should be developed by institutions to train students on interactive plastic models.

7.2 For Research programs

The curriculum for research students pursuing research programmes shall be designed and taught in accordance with instructions at 5.2 and 5.3.

8. **Long Term Actions:**

8.1 Human Resource Development through training programs towards adopting alternative modalities for research should be envisioned & systematically planned for.

8.2 Instructions at 7.1.3 above touches upon digital alternatives for animal anatomy and physiology. These and several other digital alternatives, readily available, make laboratory learning much more rewarding than wet lab exercises. Since these are ICT based, the teachers need to be trained in these alternatives. The Higher Educational Institutions may conduct 3-5 day dedicated workshops for this purpose with the help of Organizations with experience/ expertise in the field.

9. While software(s) are already available, it is important that newer software/simulations adapted to the Indian context are developed. Being one of the Software Giants of the World, appropriate software should be developed in India and be made available in downloadable form to the institutions without cost through INFLIBNET/ NMEICT.

10. Departments of Zoology/Life Sciences and allied disciplines should be empowered with appropriate information communication technology (ICT) for implementing the above recommendations. All departments dealing with animals for teaching and learning should be empowered with ICT infrastructure required for the purpose. Such infrastructure can be developed by using specific assistance given by UGC under the components of "Books and Journals" and "Laboratory equipment and infrastructure" within General Development Assistance (GDA). Institutions of higher education which do not receive development assistance from UGC shall ensure that such infrastructure is created from their institutional funds and resources.
11. All universities and colleges shall report the compliance to these instructions to the UGC immediately and also indicate suggestions, if any, for better implementation of this notification within three months from the date of this notification.

(Jaspal S. Sandhu)
Secretary