

Editorial



Ethics in animal research: a focus on animal procurement and the Institutional Animal Care and Use Committee

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Despite the increasing availability of alternative methods to avoid animal experimentation and the implementation of the 3 Rs (replacement, reduction, and refinement) with respect to animal research, laboratory animals continue to be used in dental research. With the application of animal models in periodontology and implantology, dental researchers have aimed to explore the pathogenesis of oral diseases, including periodontitis, through experimental studies [1].

Principal investigators must first check whether their institution has the appropriate facilities and specialized skills to manage the animals for use. Before purchasing animals, prior approval from the Institutional Animal Care and Use Committee (IACUC) for the purpose and quantity of laboratory animals is required. The procurement of laboratory animals should also conform to the standards determined by governmental regulations. For example, the Laboratory Animal Act (LAA) in Korea stipulates that animals for testing or research should be supplied by 1 of these 3 routes: (1) another animal facility, (2) a qualified laboratory animal production facility, or (3) a registered animal supplier. If an animal experiment falls into a category regulated by the LAA, the researchers must obtain their animals through 1 of those routes. These categories include the safety and quality control of foods, functional health foods, medical and pharmaceutical products, non-medical and pharmaceutical products, biomedicines, medical appliances, cosmetics, and narcotics [2].

After approval of the animal protocol by the IACUC, researchers can finally purchase laboratory animals and perform their animal experimentation or testing. However, these experiments are regularly or occasionally monitored by the IACUC in a process called post-approval monitoring (PAM). PAM is an important service of the IACUC that is just as vital as protocol review. When performing PAM, the committee ascertains whether the researchers have followed all guidelines and whether the experiments have been conducted as approved. During a PAM review in an animal facility, if the committee members observe a violation, such as overcrowded housing or unreported animal reuse, the issue is subsequently reported to the facility representative and a preventive action report is requested. After receiving the report, accompanied by the necessary documents, the IACUC confirms whether all required corrections were made and if an unsolicited visit will be required [3].

Meanwhile, the animal rights movement has made its presence more known worldwide, and the differences in perspective between animal activists and animal researchers are wider than

before. Although scientists are making efforts to reduce laboratory animal use and follow animal experimentation-related laws and ethics with governmental regulations and support, activists and even the public often call for stricter regulations to protect animals. While some of their claims appear acceptable, others do not reflect science and reality. The use of companion animal species such as dogs and cats for research purposes often provokes the public and is scrutinized by animal activists. Because dental researchers quite often use dogs for periodontal research on topics such as implant surgery, they must be very cautious when performing animal experiments.

The authors hope that the brief information provided here will help dental researchers understand the principles regarding animal procurement and the IACUC.

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