

ICLAS Visiting Grant for Professional Development in LAS in Europe

REPORT

Awardee: Ksenia Petrova, Specialist of Quality Assurance department in the “Institute of Mitoengineering of Moscow State University” LLC and tutor in Rus-LASA

Host: Dr. Thomas Hubert
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My main goals during the internship were to gain work experience in an advanced foreign animal facility, to expand my ability to engage in complex processes, to gain knowledge about the maintenance and care of laboratory animals in animal facility.

My training programme consisted of several parts. In the first week I took part in the school of surgery. The training comprised lecture and practical parts, which were very intense according to the programme. The workshops involved both working on simulators and, most significantly, working on real animals. Various techniques were taught: microsurgery, macrosurgery, laparoscopy, laparotomy, ligatures, suture and plaster cast application. At the end of these workshops, we took an exam on the studied methods, where, by the way, it was possible to clarify points in which there was no clear understanding or just inquire exciting questions. Moreover, I was greatly excited and delighted by the real surgery on minipigs under anesthesia, in which I participated. I was able to apply the knowledge I gained at previous workshops. What is important to mention is the highest expertise of the teaching staff and postgraduate students with whom I was able to interact and imbibe their knowledge and techniques. Also, as part of the school of surgery, I visited the laboratory of pathomorphology, where an introductory excursion was conducted on approaches to the study of animal tissues and organs, as well as control and compliance with SOP, research protocols and archivation of these documents.

The second part of my programme was less intense, but also extremely useful and interesting. I visited different facilities containing animals in the conventional facility and in barrier facility. The department contains a various animal model: mice, rats, gerbils, sheep, minipigs. The personnel demonstrated to me the organisation of premises for animals, observance of welfare, the storage of bedding material, feed and other materials necessary for maintenance, as well as refrigeration units and other equipment for the technical support of facility. I saw full cycle of the daily routine work of the staff.

In the laboratory, I also learned a lot about barrier regulation, about the maintenance of SPF mice using IVCs, about enrichment procedures, I was very impressed by the unique, but quite complex

system of water delivery to each cage. The laboratory staff were very friendly and seemed eager to show me everything down to the smallest detail. I was demonstrated unique equipment for washing, cleaning and sterilizing cages, which was shown to me in the process of its functioning, among other things, and told me about waste disposal. I got more information about the behavioral equipment that the laboratory uses. Moreover, I was shown how interaction between the staff of the center, between technicians, veterinarian and researchers is ensured. It was also noted that all research takes place with the participation of a veterinarian and ethics committee, animal health monitoring is mandatory and the 3Rs policy is used. In addition, I also succeeded in attending the scientific council, where current research was considered and a discussion was held.

On top of that, it was incredibly interesting to take part together with postgraduate students of the university in conducting a study on minipigs as part of a diabetes research. I accompanied some researchers during minor procedures such as catheter insertion, blood sampling, blood analysis on equipment and other laboratory tests. My internship finished with an amicable tea party with the head of laboratory, staff and graduate students.

I would like to express my gratitude to Dr. Thomas Hubert and his astonishing team, all the staff and postgraduate students of the laboratory for the warm welcome and sincere desire to share their proficiency. And I would like to thank the ICLAS committee separately for getting the opportunity to enhance my knowledge in the field of biomedical science.