Getting the word out about lab animal science

Toni T. Mufford, CVT, RLATG, Veterinary Technician II, Center for Comparative Medicine, Office of Laboratory Animal Resources, University of Colorado, Denver, Aurora, CO.

Ms. Mufford shares her favorite aspects of her job and talks about her outreach efforts.

How did you first become interested in the field of laboratory animal science?

If someone had told me during my formative years growing up in Boulder, CO, that I would eventually work in the lab animal science field, I would have laughed. When I was studying to become a veterinary technician, I knew immediately that working in a clinic or a shelter was not for me, but the Health Sciences Center here at the University of Colorado, Denver, piqued my interest. I took a lab animal science course, and my professor, Dr. Michael Royals, and his passion for the field proved infectious. After a tour of Colorado State University's facility in Fort Collins, I knew laboratory science was for me. I secured an internship at the University of Colorado Denver Anschutz Medical Campus (as it is now named), and the state-of-the-art facility combined with the opportunity to do translational research proved a perfect fit; 6 years later I am still here.

In your current position at the University of Colorado, Denver, you are in charge of large animal surgeries. What types of animals have you worked with?

I have had the opportunity to participate in surgeries with pigs, sheep, goats, chinchillas, dogs, cats, rabbits, thirteen-lined ground squirrels, gerbils, rats and, of course, lots of mice. I have also had the pleasure of working with naked mole-rats, opossums, *Xenopus* frogs, leopard frogs, guinea pigs

and hamsters, but not necessarily in a surgical setting. My favorite species to work with is a toss-up between the pigs and the squirrels. The surgeries are extremely interesting, and I enjoy working closely with the lab staff to make sure that all surgeries go smoothly, that the surgeons' needs are met and that we gain the most knowledge to benefit the investigators' research. I also enjoy providing baths, enrichment (we have been very creative in this area!) and socialization to the pigs, and I am always impressed by how smart they truly are. Every pig has a personality, which makes working with them challenging and fun.

The squirrels are my other favorite species; I have been working with them since I was an intern 6 years ago. Because they hibernate, we have a small window in late summer to work with them. It has been a challenge working with the many caveats that slow the healing process in these animals. Lab personnel and I have worked very hard to refine surgical wound closure procedures for these animals, sometimes performing 50 wound closures in a day and re-suturing them again the next day. I love solving problems and working as a team with the lab and veterinarians.

You are also the training coordinator for research staff in your facility. What has been the most challenging aspect of this work?

I love when I am asked to train on a procedure I've never performed, because this means I get to learn something new! When I am presented with the challenge of training on an unknown procedure,



I can rely on the veterinarians, research assistants, investigators and my IACUC for direction so that I may master the skill and pass on my knowledge.

You and your coworker Julie Reisinger recently started an outreach program with the tech program at the Bel-Rea Institute of Animal Technology in Denver, CO. Tell us more about this effort.

The majority of veterinary technicians, as well as some husbandry techs and research assistants, here at the university attended the Institute. Julie Reisinger has kept in touch with one of her teachers and arranged for us to come speak to the students. We created a presentation that included pictures of the multitude of species and manipulations we perform and told our stories of how we became interested in lab animal science. We now speak to two lab animal classes each quarter. It is paramount that we get the word out about biomedical research and the important work we do for not only humans but animals as well. I would also like to add that it is truly a fantastic group I work with at the university, and I am privileged to be a member of this team.