

## **Celebrate laboratory animals for all they've done for us!**

Every day several billion of us ( $10^9$ ) benefit from what has been learned by studying our fellow mammalian species. If astronauts from another galaxy were to visit, they would find that we are not so different in our genetic material from mice, rats, pigs and the like. This can be seen by noting our basic body parts such as a heart, two kidneys, one liver, two lungs, a nose, eyes and so on.

What was learned from dogs 80 years ago has helped millions of diabetics. Mice are great pals when it comes to understanding cancer. Rats have been wonderful companions for research on central nervous system diseases such as Parkinson's, Alzheimer's, depression, stroke and schizophrenia. Pigs are marvelous friends to those with cardiovascular disease and much more. I never pass up the opportunity to quote Winston Churchill who said, "I like pigs. Dogs look up to us. Cats look down on us. And pigs treat us as equals."

When medical research is introduced to students their immediate reaction is that animals are too cute to participate in learning about new medicines. I explain that over 97% of animals used in research are rodents, and every single one of them was born only for this purpose. Were they not helping us understand new medicines, they'd not exist at all. Likewise, few chickens would exist were they not purpose-bred to lay eggs and provide food.

It is also important to understand that we develop medicines not just for people, but also to benefit other animals such as dogs, cats and farm animals. Veterinary medicine is important. We want our pets to be as healthy as they can possibly be. The research mice help our cats. I'm not sure the mice would want to know they are helping cats, a natural enemy, but nevertheless, this is how science works.

Laboratory animals are given great respect today. They are used in the smallest possible numbers and are treated in the best way possible to minimize any pain or suffering that can come from some research. They return the favor by helping to limit the pain and suffering of humans. Overall, it is a reasonable exchange. In the final stages of the process, humans also participate in research, and some medicines tested on humans are later used to benefit animals. Our students should be taught to understand this balance from an early age.

We are in a life sciences revolution. Opportunities for further progress abound, and the seventh graders of today are the scientists, biomedical engineers and research physicians of tomorrow.



Pete Kissinger, Ph.D.  
*pete@bioanalytical.com*