## Cloning and the Behavior of Dogs Daniel Estep, Ph.D. and Suzanne Hetts, Ph.D. www.AnimalBehaviorAssociates.com Copyright ABA, Inc.

Recently it was announced by that Texas A&M University and a private corporation were going to offer genetic cloning of dogs for private individuals. If all goes well, in just a few years people will be able to get a clone of their beloved pet. The cloning procedure will produce a dog that will be genetically identical to the dog donating the genes. In essence, the two will be like identical twins. The question that many people have is, will the clone and the original dog look alike and behave alike? Imagine if we could produce a whole army of Lassies. Or if we could have back a beloved pet that died too soon. Will cloning allow us to produce dogs of identical temperament and intelligence? The answer is no and the reason is that all behavior is a result of combined effects of genetic and environmental influences, not just genetics alone.

Yes, the clone and the original dog will look very similar, about as similar as human identical twins appear. There will also be similarities in behavior between them. A number of scientific studies have shown that genetics does influence all kinds of behavioral traits such as fearfulness, intelligence and aggression. However, the environment is also important, and if you wanted to create an identical copy of your deceased dog, you would have to expose the cloned dog to exactly the same environment that your deceased dog was raised in and lived in . In practice, this would be impossible, because no two individuals, not even identical twins, ever experience exactly the same environment. If the environments are not the same, then the animals are not going to act the same. Think about human identical twins you have known. They are not the same person, they have different personalities and behavior.

There may be many good reasons why someone would want to clone a dog, such as trying to reproduce a championship physical appearance or phenomenal tracking abilities. Cloning an outstanding assistance dog, such as a guide dog for the blind, could improve the overall quality of the dogs and make training easier and cheaper. However, if people think that cloning a beloved pet will bring that animal back, they will be greatly disappointed to find that the cloned dog is not the same as the original.