**“The tale of the other dog”**

Pierre Chin loved to tinker, trying to improve things, even paper clips and mousetraps. On his birthday his wife gave him a puppy, so he set out to make a better dog food. Pretty soon he came up with a mixture of special vitamins he was proud of, and he began feeding it to his puppy.

 After a year Pierre was very pleased with the way the puppy had grown, and he showed his friends pictures of the dog. “That’s nothing” one friend said. “What did the dog look like before you started giving it the special food?” So Pierre produced pictures of the dog when it was a tiny puppy. By comparing the pictures you could see that the puppy had indeed grown. “That’s still nothing” the friend countered. “All puppies grow.” Undaunted, Pierre set out to raise another puppy on his special food. Fortunately, it happened that his son brought home a collie puppy just days before. Pierre went to the pound and brought home a second dog, a small mutt. Thus began his second experiment.

 To prove his dog food was better than standard dog food, Pierre added his special vitamin mixture to some commercial dog food and labeled it A. Then he labeled a second kind of dog B and did not add his special mixture. His son’s collie received food A and the mutt received food B. After a year of this, he brought the dogs to the company picnic and proudly displayed them both. The collie had grown nearly twice the size of the mutt. “You think you made some pretty good dog food, huh?” said Pierre’s rival at work, Johnny Walters. “You can’t say nothin’ about how good your special food is. Collies always grow more than little mutts.” Eileen Pharr was skeptical too. “You never fed them the same stuff, Pierre. You have to feed them both the same stuff to prove anything”.

 Pierre realized that he had made two mistakes this time. And he vowed that the third time his conclusions would be so compelling that no one could doubt them. So Pierre went back to work. He invested some of his savings in twin make beagles, identical puppies from the same litter. He restricted the puppies to a standard dry dog meal, and let them drink only the water from his garden hose. He called them Dog A and Dog B. Dog A got Pierre’s special vitamin mixture with its dog meal, and Dog B did not. That year’s picnic was quite a success. Pierre brought his dogs and a scale. From the dog’s identical collars hung brass letters of identical mass, saying Dog A and Dog B. He had even brought the two bags of dog food, identical except for the addition of his vitamins to bag A. “Hey, you have quite a thing going here” admitted Johnny Walters, smiling and petting Dog A. “Dog A sure did grow” said Eileen. “But poor little Dog B; if you don’t want it I’ll take it home.”

 Dog A weighed a full 2 kilograms more than its brother, Dog B, after only 1 year, and there wasn’t a bit of extra fat beneath its glossy coat. Dog B was as delightful and sweet as Dog A, and its coat was as shiny, but it was not a bit heavier than the average beagle.

 Pierre learned from his experiences, and this last time he had videotaped his beagles from the day he bought them. When his boss, Mr. Fitzgerald, called him in to congratulate him on his successful dog food work, Pierre popped a cassette into the office video system and Fitzgerald loved it. Within two hours, Pierre and Mr. Fitzgerald were in the company limo on their way to make a presentation to a leading dog food company. Within a month, Pierre has business cards identifying him as Pierre Chin, Experimental Dietician, and a six-figure contract with the dog food company to market his special vitamin mix worldwide.

QUESTIONS

1. What traits characterize a good scientist? How does Pierre demonstrate these traits?

2. What was wrong with Pierre’s first dog food experiment?

3. What two mistakes did he make in his second experiment?

4. Which was the control dog and which the experimental in Pierre’s third attempt?

5. What kind of records did Pierre keep?

6. Why is it important to keep records?

7. Could you re-create Pierre’s experiment?

8. Why is repeatability important in science?