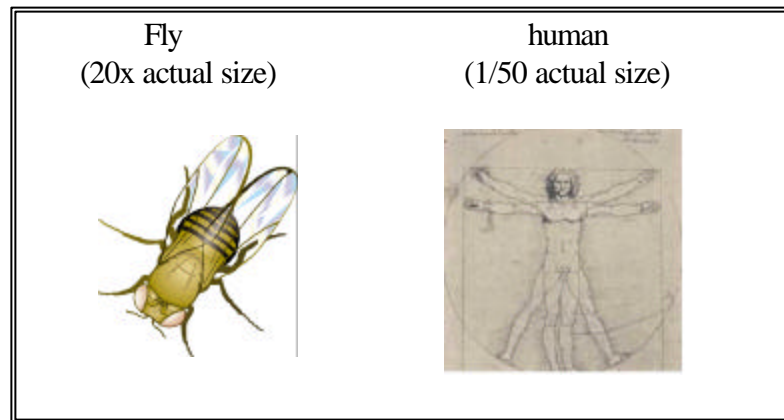


Why the Fly?



What is so great about the fruit fly?

If you think about it, the types of experiments you can do on your best friend are kind of limited. If you start trying to pull his legs off or zap him with an x-ray gun, he is likely going to get pretty upset. Similarly, it would not go over too well if we started altering human genes just to see what happens...

Not so with the fly. The fly (*Drosophila melanogaster*) has been a “model” for studying questions of human interest for decades. Fruit flies are so small that literally thousands of them can be neatly stored in a drawer. They can reproduce almost as soon as they can walk – in less than 2 weeks, 2 flies can turn into 200! In addition, scientists have discovered ways to alter individual genes in the fly, so we can study what happens when a single gene stops working.

You may look at a fly and think it is not built anything like a person. While there are (clearly) important differences between flies and people, there are also many similarities. Fruit flies move by walking or flying. They can sense their environment in ways similar to humans – they can see, smell, taste and touch. Fruit flies also have many similarities in their organs, including a heart, a brain, digestive system and more. And nowhere are these similarities more striking than in the genes that direct development – the fundamental components that make us different from flies (and each other) are also the link that connects us to the tiny fruit fly!