Going into detail about the diversity of gene expressions between humans and chimpanzees, the excerpt from “Lessons from Chimpanzee-based Research on Human Disease: The Implications of Genetic Differences” by Jarrod Bailey explains:

“... for example, 19 genes linked to Alzheimer’s, Parkinson’s and Huntington’s diseases in humans were found to be expressed differently in chimpanzees. In the cerebral cortex, at least 169 genes are expressed differently — many of which are involved in neuroprotection and synaptic transport — and 916 genes are expressed at least two-fold differently in the cerebellum” (Bailey 527).

As shown above, the differences in genes do make a big difference in how an animal can be used in experimentation. Not only are these genetic differences found in the brain, but in the rest of the body as well. Other places include the liver, kidney, heart, and testes.

Other methods are being used in medical testing and experimenting instead of using chimpanzees. Those such as the EpiDerm system from MaTek have an equivalent to human skin cells and can detect the “toxicity of a chemical applied to them” (Watts 183). Another technique is called microdosing, which involves human volunteers being given a drug dose too small to cause an unfavorable effect on the subject. This method has the “ability to detect a liquid compound even after one litre