Sudarshan Srirangapatanam

**Week 10 Reflection**

**1** My stance did not change before and after the debate, I continued to agree. However, I did think about switching at times as the team that were arguing against made their points. One point that I considered in my decision and made by the team arguing for, was that 1% is just an arbitrary number. I do agree that 1% is enough for us to change and play around to get the desired results, as noted my team arguing against. My overall view was that, we should restrict researcher to the amount of genetic material they can modify, but 1% is an arbitrary number and is very low when a need for changing higher amount comes into play.

**2** On the topic of reintroducing extinct animals, I stated neutral but decided that we should, given that the animals we are trying to revive are the ones that were extinct due to human intervention. One argument that was very interesting was the cost of doing such things and questioning ourselves, should we be spending huge amounts of money instead of spending it on much more useful things. The answer to this was again given by team arguing for, reasoning with duty-based approach. We are morally obligated to revive these animals since they were lost solely because of human actions. Whether the humans that caused it are still alive or not doesn’t matter.

**3.A** This particular risk is very low and virtually zero since a particular non-autonomous transposon called piggyBac is used. This is used to prevent remobilization since it doesn’t code for any transposase enzyme which is essential for such action. Since this region lies within the rDNA, and since DNA is inherited in blocks this transposon ensures inheritance of surrounding DNA and also protects the region from remobilization, due to the lack of necessary enzymes.

**3.B** The risk very low since a sorting mechanism is set so that only males are obtained with >99% accuracy. Since males do not bite any animals or humans, the rDNA being inserted in these animals is eliminated. However the possibility is not zero since the mechanism for sorting uses size sorting and some of the female pupae for variety of reasons could possibly have decreased development. Resulting in approximately equal size to healthy males and end up in the release sample.

**3.C** Considering the above article and the possibilities listed there, I would definitely vote yes, approving the release of GM mosquitos. Since they would be ideally eliminating current situation of dengue disease and other mosquito borne diseases. I am pretty sure that the probability of getting a mosquito borne disease from a mosquito bite is far more than possible effects of inserted genes on humans. Also, humans are evolved enough to fight off small gene changes vs. diseases.