**Ethical Issues in your CTE Design Projects**

* Each person should post an ethical consideration (two posts per project group)
* In one sentence please describe the problem you are addressing.
* In one sentence please describe your solution strategy.
* Then describe one ethical or future consideration related to your proposed solution. It is ok to think out of the box here!
* Respond to at least two of your classmates.

Xenotransplantation potential benefits should be balanced with its potential risks in term of immune rejection (Azharuddin et al.)

Application of CRISPR/Cas9 technology offers a promising approach for genetic manipulation aiming to mitigate or even perhaps eliminates the risk of immune response increasing the probabilities of the desired outcome (Abrahimi et al.).

While CRISPR/Cas9 technology has revolutionized the work of biotechnologies, it has at the same time raised many ethical concerns. One of its major shortcomings is the cleavage of DNA segments at off-target sites, which may lead to oncogenic mutations or other severe problems in the receiving host. Active research is being conducted to address this drawback. Other concerns are gene editing or repair of human germline cells, and genome editing for non-therapeutic and enhancement purposes.

Abrahimi, Parwiz, et al. “Efficient Gene Disruption in Cultured Primary Human Endothelial Cells by CRISPR/Cas9.” *Circulation Research*, vol. 117, no. 2, July 2015, pp. 121–28. *PubMed Central*, https://doi.org/10.1161/CIRCRESAHA.117.306290.

Azharuddin, Nur Syamimi Mohd, et al. *Ethical Issues in Tissue Engineering: A Systematic Review*. 2022, p. 15.