Interim Summary – Team #1 – Team Heart

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Statement of Problem

The problem that we settled on working on was the fact that astronaut hearts decrease in muscle mass over time and become more spherical. For people on earth and for those in space, we need to improve maintain heart strength.

Description of Method

We first had to state our problem, then do research on the internet of scientific articles, such as from NASA and cardiology. Then, we had to obtain permission to upload NetLogo. We then had to spend a significant amount of time researching how to program.

1. A functioning model of the heart of an Earthbound person
2. A functioning model of a heart that has suffered from atrophy (weakening), when subjected to space or bed rest.

The heart reduces in size from weakening, according to _____.
We also want to give the agents:

1. oxygen enriched environments through time in a hyperbaric chamber,
2. oxygen enriched environments through changing the composition of the air they breath
3. providing plenty of vigorous exercise,
4. restoring the effects of gravity, by providing gravity for a limited time,
5. providing routine plasma transfusions (from young donors)
6. stimulating their systems to

Validating the Model

We are not to the validation process yet.

Results

Overview

Subcategory A

Subcategory B

Subcategory C

Subcategory Additionals (D, E, etc.)

Conclusion

Significant Achievement

Acknowledgements

Screenshots

Code:

Blender, Netlogo

References