Testing the effect of simulated microgravity on the growth and biofilm development of bacteria using the EagleStat, a 2D microgravity analog.

Name: _____ Section: _____

Purpose

_____
_____
_____
_____

Hypotheses

1. _____
   _____
2. _____
   _____
3. _____
   _____

Results

Specie	Absorbance (260 nm)		Cell count (CFU/mL)		Biofilm (550 nm)	
	Gravity	Microgravity	Gravity	Microgravity	Gravity	Microgravity

Compare the absorbance and biofilm biomass, separately, among the different species using a bar graph.

Conclusions

1. Do you results support one or more of your hypotheses?

2. How can you explain the different response observed among the different species, if any, to simulated microgravity?

Questions

1. What is the composition of the microbiological media used for the different species?

2. Give three biological processes that bacteria regulate when they grow under microgravity conditions, either at the ISS or using a microgravity analog. Make sure you cite your sources.

3. Explain the use microgravity analogs for biological models other than bacteria (e.g. animals, plants, etc.)

4. Explain a non-space application for simulated microgravity research.