**Microbrain Bioreactors**

**Introduction**

* This week our discussion will focus on microbrain bioreactors. We heard about the principles of bioreactor design from Dr. Grayson – about the importance of biomimetics strategies.
* In 2012, researchers at Vanderbuilt University received a grant from the National Center for Advancing Translational Studies to build an organ simulation system termed the “microbrain” bioreactor to use for drug testing. It is intended as an intermediary tool between animal models (with known difference from human brain biology) and human studies.
  + The article is listed in this week’s readings and is available in eReserves.

**Prompt**

* This week, please consider the ethical boundaries for bioreactors in the context of the microbrain bioreactor.
  + Do you agree with the NIH (the funding mechanism) that development of the microbrain bioreactor is ethical?
  + Do you think there should be limits on the system (e.g. size of tissues grown, duration of growth, …)?
  + Please comment on how you think bioreactors should be used in tissue engineering.

Respond to at least tswo of your classmates.

**Due: Initial post - Sunday 11:59 pm, responses - Tuesday 11:59 pm**