

Senior Project – BioPrinter

10/02/2012

GOALS FROM LAST WEEK

- Budget
 - o Cell deposition - \$870.41
- Testing for PCL/sterilization
- Start update of Gant Chart
- Ordering of PCL
 - o Sigma
 - o Forward PDF of MSD to hall
- Ordering Arduino Mega
- Wed October 3rd at 4:30 – 5:30 PM meeting with Hall (safety)
 - o Safety meeting was cancelled.

ADVANCES FROM THIS WEEK

- T 75 flasks
 - o Doubling time
 - o Figure out how many cells for the scaffold
- Extruder
 - o Found extruders ranging from 60-140 dollars
 - o Filament needs to be 250 um
 - o Contacted German company
 - E-MAILED BACK AT 12:40 😊
 - Could provide extruder head and stepper motor driver
 - Did not specify price
- Spatial Design
 - o Sterilization and uv light dependent
- Tests
 - o Uv Light
 - Length of exposure
 - Distance of light
 - Wavelength
 - o Ethanol and PBS
 - Replacement of needle
 - Concern with use of same lead screw
 - 70% ethanol → 24 dollars → 16 oz
 - 70% denatured sterile ethanol → 315 dollars

- Some degree of contamination
- Budget increase
 - Drawings – Preliminary Pro-E and sufficient justification
 - Write in as much information as possible
 - “We plan ____ increase by the end of the semester”
- Travel Form – BME Conference
 - Estimates for traveling
 - Reimburse for gas not mileage
 - 15 dollars/day for food
 - Go to a website in e-mail sent by Dr.Hall
 - 75 dollar late fee
- Stepper motors
 - High resolution stepper motor
 - Need of step size
 - Based on the specs of the scaffold we need a high resolution to attempt to match the specs of the scaffold.
 - Ideal pore size and diameter vs tested usability
 - Provide references

GOALS FOR NEXT WEEK

- Dr. Hall
 - Key access – Request keys
 - Scheduling with other team (Electrospinning) working in the same area
- Start working on the abstract.
- Materials list
- Budget
- Timeline for class
- Interim review in October 31st
 - Specifications
 - Range of sensors
 - Length of axes