

## Senior Project – BioPrinter

10/09/2012

### GOALS FROM LAST WEEK

- Dr. Hall
  - Key access – Request keys
  - Scheduling with other team (Electrospinning) working in the same area
  - Wednesday October 10<sup>th</sup>, 2012 at 4:30 PM
- Start working on the abstract.
- Materials list/Budget
  - Unfortunate incident
  - Will present later today 10/9/2012 or tomorrow 10/10/2012
- Timeline for class
- Interim review in October 31<sup>st</sup>
  - Specifications
    - Range of sensors
    - Length of axes

### ADVANCES FROM THIS WEEK

- How long should we observe bacteria for?
  - Seven days – probably longer than we need
  - Not early detection but doubling time for bacteria is pretty quick so after a day we should be able to see it microscopically
  - Consider pH change
- Ability to start
  - Someone has to be in the building in order for us to work (testing)
- Sterilization Procedure
  - If two washes with EtOH
    - Should not change the needle
    - Ordering syringes
      - Sigma: syringes with 30 gauge (expensive + shipping)
      - Bd syringes, Stub adaptor
      - Use Fisher
- Creation of PCL filaments as opposed to granules
  - Melting granules to convert them to filaments
  - Hook out polymer with copper wire → roll out on two boards (low “stickability” until acquiring desired diameter.
  - Avoid dust, and procedure should be done in sterile environment.
- May need to get sterile gloves

- Volumes needed
  - o 1ml of EtOH, 1mL PBS (x2 washes)
- Kyle intends to order parts for the y-axis this Thursday 10/11/2012

#### GOALS FOR NEXT WEEK

- Equipment Safety Training
  - o To start preliminary testing
- Scanning electron microscope
  - o Dr. Hall will meet with Dr. Lovett about student access/use