

Meeting Minutes

Friday, September 14, 2012 @ 2:30 pm

Location: Armstrong 106

Long term goals:

Vishal:

1. Determine procedure for culturing, seeding, and differentiating cell.
2. Determine the specifics of NGF on cell and periphery.
3. Ensure the integrity of the NGF protein during the electrospinning process

Ritesh:

1. Determine which bio-materials will be used in developing our scaffold
2. Determine Processing Parameters (Applied voltage, Polymer flow rate, Capillary-collector distance)
3. Determine Solution Parameters (Polymer concentration, Solvent volatility, Solvent conductivity)
4. To develop a hybrid scaffold that releases NGF at a rate that is to be determined

Lee:

1. Determine which equations best model NGF release into tissue
 - a. Tissue/ECM and protein configuration factors
2. Model NGF flow over time and space via a computer program
3. Automate Harrison Ford* with LabView

Rohit:

1. Design and create CAD drawings for coaxial nozzle, heating element, new box for humidity control
2. Select appropriate material for Harrison Ford
3. Machine & construct the parts required for Harrison Ford

Short term goals:

Vishal: Research techniques to increase cell viability and differentiation. Cell culture techniques

Ritesh: Research different biomaterials that have been used in scaffolds and culturing PC12 cells

Lee: Find 2-3 papers on modeling and choose options for algorithm as well as programming language.

Update website to include names and list of tasks

Rohit: Research possible designs for the coaxial nozzle, heating element, and a new box for humidity control, preliminary parts/material list

*Electrospinning apparatus hereafter known as Harrison Ford - APPROVED BY TEAM LEADER