**Cell Biology and Physiology Lab Project – Exposing HeLa cells to Epinephrine**

(L)-Adrenaline Solution, 0.01%, Fisher Scientific

0.01% means 0.01g of epinephrine dissolved in 100mL

Molecular Formula: C9H13NO3

Molecular Weight (g/mol): 183.21

Need to determine the Molar concentration of the epinephrine:

For our bottle - every 100mL, there is 0.01g of epinephrine

The molarity is obtained by moles of solute in 1.0 L

0.01g/100mL = ? g/1000mL = \_\_\_\_g

So in our case, 1.0 L of this solution has 0.1g epinephrine

So, what is our molarity?

0.1g/(183.21g/mol) = 0.0005M = 500uM

Need to filter sterilize the solution before adding to media!

We need to make the following concentrations:

Each group will have 100ml “test” media

Group 1 – 50uM test media: 5mL epinephrine in 45mL media

Group 2 – 100uM test media: 10mL epinephrine in 40mL media

Group 3 – 150uM test media: 15mL epinephrine in 35mL media

Group 4 – 200uM test media: 20mL epinephrine in 30mL media

Each group will have 2 12-well plates and 2 flasks.

Experiment will run Monday-Friday

* You will need to make sure someone in your group (at least one person) can come in each day
  + This will have to be within operating hours of the labs, when Butch or a lab assistant can let you in (you will not be able to get in during the evening!)
  + You will need to take pictures of your cells each day
* Monday – seed your cells (we will seed at a low concentration, 5 x 103 cells/ml), let cells settle to bottom
  + Monday afternoon or Tuesday morning:
    - feed cells in both the plates and the flasks using test media (except control)
    - take picture of cells
* Wednesday
  + Feed cells in plates using test media (except control)
  + In flasks, use the cell scraper to make line (don’t feed)
  + take picture of cells
* Thursday
  + Feed cells in plates using test media (except control)
  + Feed cells in flasks
  + take picture
* Friday
  + take picture

Your group will have 2 12-well plates; each well will get 1.0mL each:



