Setting up platform

* Using Anaconda, launch Visual Studio Code, pycharm, Jupyter Notebooks etc. or any platform you are most comfortable with
  + Make sure the kernel you are using is the latest version of Python (this code runs with version 3.10)
  + If you do not have the packages installed, in the terminal (In pycharm you may have to install the packages for each individual project):
    - pip3 install numpy
    - pip3 install pandas
    - pip3 install seaborn
    - pip3 install matplotlib
    - pip3 install scikit-image
    - pip3 install nibabel

Running the code

* Copy and paste the code into you new window
  + Locate the file paths of the necessary files/directories on your device
  + Open the cell image on FIJI and determine the threshold value
  + In each of following codes, and example of calling the function is provided at the end, you must modify these with your own file paths and values
  + All file paths must be a string, i.e. ' /Users/riyavarma/Desktop/test.tif '
    - **allplotsGP**
      * Call the function (after the code):
      * **GpCalculationStack(gp\_im\_stack, cell\_im\_stack, thresh)**
        + **gp\_im\_stack:** file path of the standard images
        + **cell\_im\_stack:** file path of the cell image specific stack
        + **thresh:** determined threshold value
      * Outputs will be saved on your device, must search for final.tif and GPs.txt
    - **calcGP**
      * Call the function (after the code):
      * **GpCalcIter(gp\_im\_stack, cell\_im\_dir, final\_dir, thresh)**
        + **gp\_im\_stack:** file path of the standard images
        + **cell\_im\_dir:** directory of the cell image stacks
        + **final\_dir:** directory of the where you want the outputs to be saved
        + **thresh:** determined threshold value
      * Outputs will be saved in specified folder
    - **givenGP**
      * Call the function (after the code):
      * **GivenGpIter(gp\_corrected, cell\_im\_dir, final\_dir, thresh)**
        + **gp\_corrected:** value (float) of the calculated GP correction value outputted from the standardvaluesGP script
        + **cell\_im\_dir:** directory of the cell image stacks
        + **final\_dir:** directory of the where you want the outputs to be saved
        + **thresh:** determined threshold value
      * Outputs will be saved in specified folder
    - **standardvaluesGP**
      * Call the function (after the code):
      * **StandardIter(standard\_dir, standard\_finish)**
        + **gp\_im\_stack:** file path of the standard images
        + **standard\_dir:** directory of the standardl image stacks
        + **standard\_finish:** directory of the where you want the outputs to be saved
      * Outputs will be saved in specified folder