**How to run Puppeteer (Mac OS) for Dummies (a.k.a. biologists)**

1. **INTRODUCTION**
   1. Go to Puppeteer GitHub repository: <https://github.com/hicsail/puppeteerlite>
   2. Go to “README.md”
2. **README.md**
   1. Open your Terminal. If you do not know where to find it, go to “Finder” and search for “Terminal”;
   2. Verify if you have the Python 3 by typing python3;
   3. Remember: you can always exit python by typing quit ();
   4. If you do not have python, follow the instructions:
      1. Install Homebrew by typing or coping and pasting: $ usr/bin/ruby -e "$(curl -fsSL <https://raw.githubusercontent.com/Homebrew/install/master/install>)" on your terminal;
      2. Do not use “$” at the beginning if it already exists in our command line;
      3. During the installation process you might need to insert your computer’s password (you are not going to see anything being typed but if you type it and push enter, it will work);
      4. After the Homebrew installation you can proceed to install Python 3 by typing $ brew install python3
   5. Now you need to install the pip program:
      1. Go to <https://pip.pypa.io/en/stable/installing/>;
      2. Right click on get-pip.py;
      3. Select download linked file as;
      4. Save it in your desktop;
      5. To find your desktop on your Terminal type in cd desktop;
      6. Type python get-pip.py to install pip.
   6. Now you need to install several dependencies
      1. Type in: $ pip3 install biopython requests xlwt
3. **RUN PUPPETEER LITE**
   1. Go back to the repository: <https://github.com/hicsail/puppeteerlite>
   2. Click on the green button “Clone or Download”;
   3. Click “download ZIP”;
   4. Copy and paste the folder on your desktop;
   5. On your Terminal, type in pip3 install requests
   6. On your Terminal, go to your desktop by typing cd desktop
   7. Go to your saved file by typing cd puppeteerlite-master
   8. Run the command by typing: $ chmod u+x run\_puppeteer\_lite
   9. Run your design by typing the command in this format: $ ./run\_puppeteer\_lite [input archive] [number of designs requested] – see example below;
   10. The “puppeteerlite-master” folder contains the example: $ ./run\_puppeteer\_lite HeadtoHead2.zip 40
   11. If you want to insert other basic parts to be combined in-between, just use the same information / format you find on the HeadtoHead2.zip file, for both .gb files and excel spreadsheets.