1) Install RStudio and get some R libraries

- Go to the following link and install RStudio for your Operating System.
- Open Rstudio
- In the *console*, copy and paste the following commands:

source("http://bioconductor.org/biocLite.R")

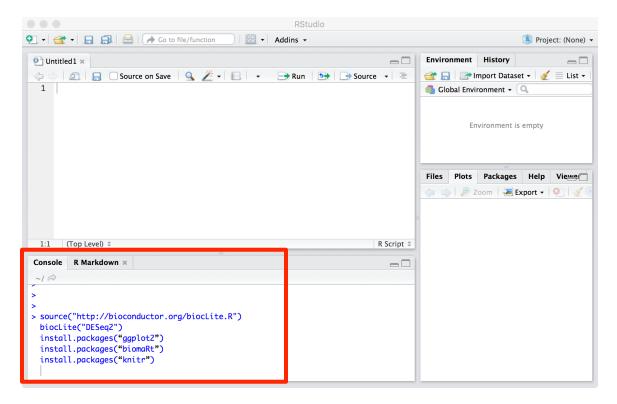
biocLite("DESeq2")

install.packages("ggplot2")

install.packages("biomaRt")

install.packages("knitr")

- Make sure you press Enter!!



2) Get Data Files

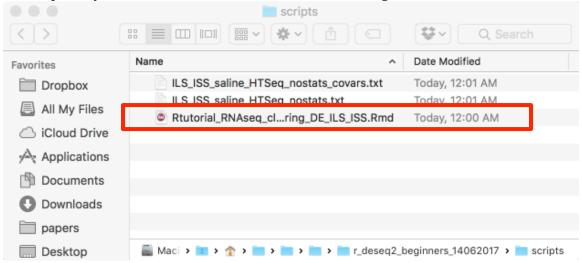
- You should have downloaded 2 files:
 - ILS_ISS_saline_HTSeq_nostats.txt
 - ILS_ISS_saline_HTSeq_nostats_covars.txt
- Make sure you save these files in the same directory.

3) Get Analysis Script (Rmarkdown)

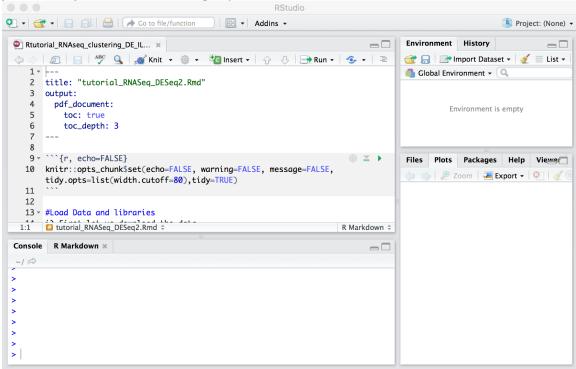
- Go to
 - https://github.com/jasgrewal/common/tree/master/seminars/r_deseq2_be ginners_14062017/scripts
- Right click "Rtutorial_RNAseq_clustering_DE_ILS_ISS.Rmd"
- Click 'Save Link As'
- In the pop-up menu, save the file to the same directory as your data files. (see Step 2 above).

4) Open Analysis Script (Rmarkdown)

At this point, you should have a folder with the following 3 files in it:



Double-click the .Rmd file to open it. It will open automatically in RStudio (provided you already installed it, in Step 1!).



You can follow along with me in-person as I walk through this Rmd and show you how to *execute* the lines of code in it (the lines of code show up in grey, within the triple-quote sections).

<u>Recommended for beginners:</u> Alternatively, you can follow along with the pdf version of this file, which already has the different lines of code executed. That way, you can

see the output from each line of code. At the end of this presentation, you will 'knit' your copy of the rmarkdown file and generate a similar pdf.

5) Get follow-along pdf version

- Go to https://github.com/jasgrewal/common/tree/master/seminars/r_deseq2_beginners_14062017/scripts

Click "Rtutorial_RNAseq_clustering_DE_ILS_ISS.pdf" Introduction to Genomic Analy × C common/seminars/r_deseq2_b × ← → C 🕯 GitHub, Inc. [US] https://github.com/jasgrewal/common/tree/master/seminars... 🛠 🕟 🔯 🛗 🗓 🗞 🤝 😘 🚨 Apps 🚍 Admin 🚍 cool science notes 🚍 reading list phd 🚍 chutzpah 🗦 pubmed 🚇 arrrrr 🗋 Spotify Web Player 💥 POG wiki 📋 Introduction To Gen. This repository Search Pull requests Issues Marketplace Gist □ jasgrewal / common O Unwatch → 1 ★ Star 1 Ÿ Fork 0 <> Code ! Issues 0 Pull requests 0 | Projects 0 Wiki ☆ Settings Branch: master v common / seminars / r_deseq2_beginners_14062017 / scripts / Create new file Upload files Find file History jasgrewal ILS ISS Saline DE Latest commit 5541d75 8 minutes ago Rtutorial_RNAseq_clustering_DE_ILS_ISS.Rmd ILS ISS Saline DE 8 minutes ago Rtutorial_RNAseq_clustering_DE_ILS_ISS.pdf ILS ISS Saline DE 8 minutes ago

Click 'Download' if you want to download the pdf and follow along. You can also view the pdf in the browser, as shown below in the screenshot.

