

# The R Day

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# Today's program

- **10:45–12:45** : Session 1
  - **14:30–16:00** : Session 2
  - **16:30–18:30** : Session 3
- My first R Markdown report
  - Using dplyr
  - Using ggplot2

# Today's dataset

Scenario: I want to produce a nice figure and a short report for my boss.

The data is called “covid.csv”... let’s take a look!

```
1 id,time,status,ABCB1,ABL1,ADA,AHR,AICDA,AIRE,APP,A
2 HC59,0,HC,7.43,6.33,6.87,9.31,3.97,4.23,9.34,6.93,
3 HC60,0,HC,7.71,6.28,7.34,8.78,4.6,4.44,9.23,6.74,3
4 HC68,0,HC,7.01,6.02,7.09,8.69,3.95,3.81,9.02,5.72,
5 HC98,0,HC,7.44,6.47,7.31,8.74,3.73,3.73,9.06,6.77,
6 HC74,0,HC,7.48,6.53,7.14,9.6,3.89,4.33,9.45,6.24,3
7 HC88,0,HC,7.25,6.58,7.13,10.12,3.93,3.88,9.34,7.92
8 HC91,0,HC,7.52,6.21,7.06,8.84,4.17,4.17,9.56,7.65,
9 HC94,0,HC,6.84,6.51,7.59,9.41,3.77,3.95,9.39,6.96,
```

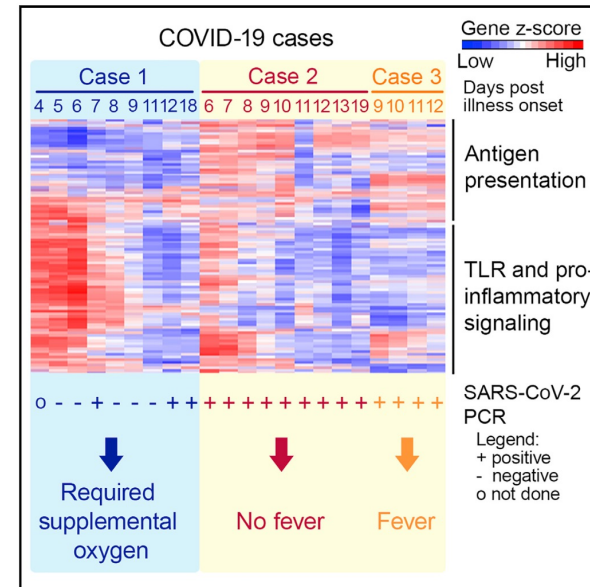
Which R command would you use to import this data into the environment?

## Brief Report

### Cell Host & Microbe

#### A Dynamic Immune Response Shapes COVID-19 Progression

##### Graphical Abstract



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##### In Brief

Through daily transcriptomic profiling of whole blood from SARS-CoV-2 patients, Ong et al. reveal that the early immune response is highly dynamic in COVID-19 patients. Aside from IL-1, peak cytokine expression occurs after the lowest point in respiratory function. These findings underscore the need for systematic sampling of COVID-19 patients.

# A few practical details...

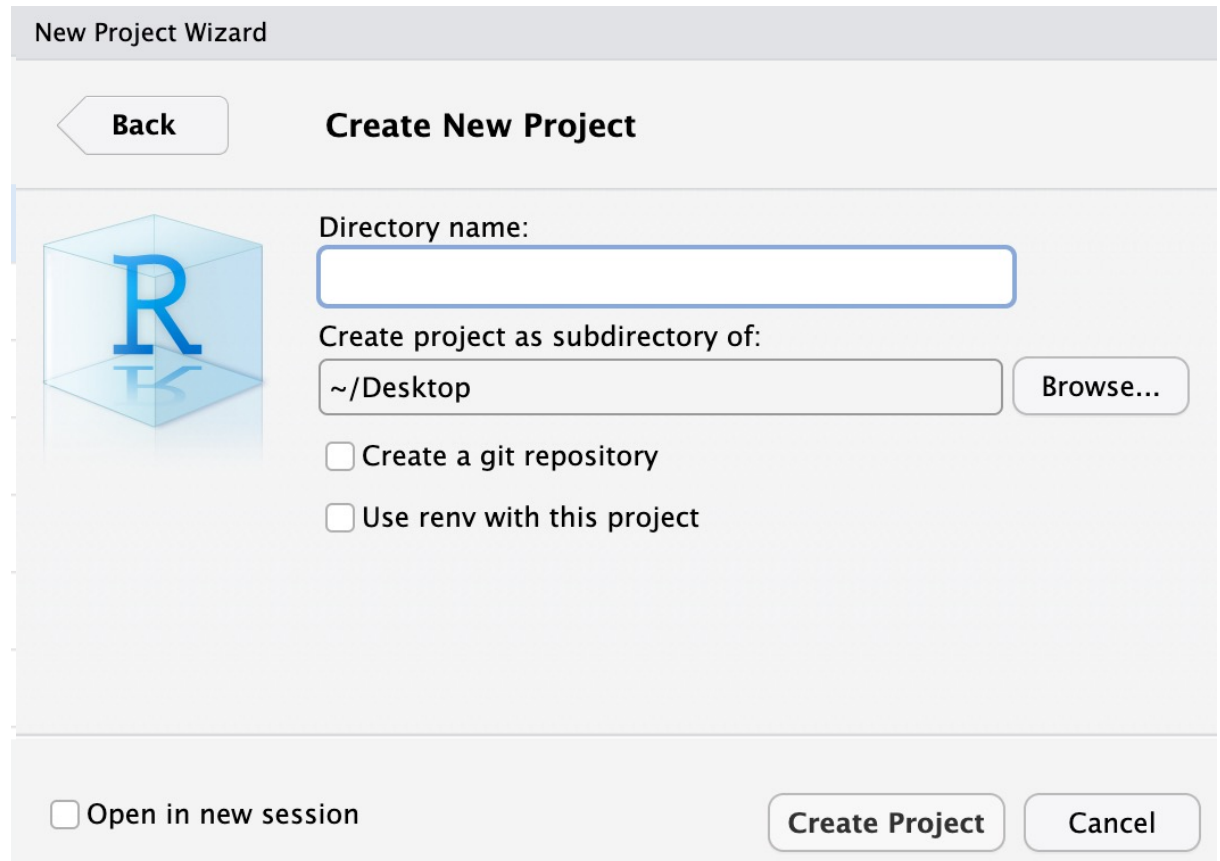
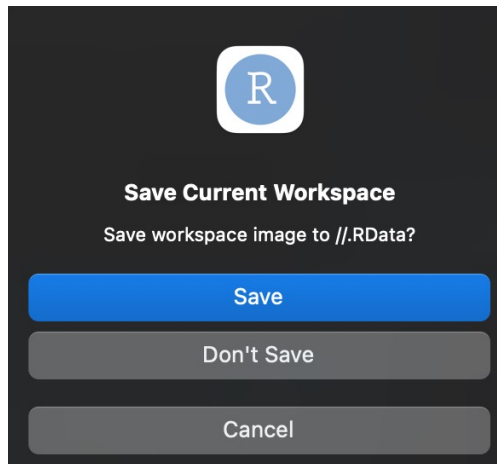
- Training material:
  - On Moodle!
  - In /shared/projects/2514\_ebiii\_n2/01\_R
- R and Rstudio
  - [OnDemand](#)
  - On your laptop ( see here to install R and Rstudio <https://posit.co/download/rstudio-desktop/>)
    - R  $\geq$  4.3.0
    - Rstudio  $\geq$  2024
- If the OS on your laptop is too outdated.....

Welcome Quiz

**Kahoot!**

# Before we move on...

- Let's create a project
- File > New Project... >



# Exercise: shared script

Share your current Rstudio version in the shared script:

- Help > About Rstudio + “Copy Version”
- Link to [shared script](#)

