



# Introduction to Statistics and Data Visualisation with R

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Introduction to the course



Course website

<https://sib-swiss.github.io/Introduction-to-statistics-with-R/>

# About this course-What you will learn:

- (Probably) Your first steps in the R environment
- Work on real-life datasets or made up datasets (mainly curated for you)
- Learn about standard statistical tools and ways to analyse simple problems
- Discuss major confusion or misunderstanding related to statistics.
- Practice data analysis.
- Learn how to visualise the/your data.
- Discuss your statistical question or your data.

# Schedule-tentative

## Day 1

block	start	end	subject
introduction	9:00 AM	9:30 AM	Introduction to us and the group
block 1	9:30 AM	10:30 AM	Introduction to summary statistics
	10:30 AM	11:00 AM	BREAK
block 2	11:00 AM	12:30 PM	Exercises
	12:30 PM	1:30 PM	BREAK
block 3	1:30 PM	3:00 PM	Introduction to hypothesis testing, multiple testing
	3:00 PM	3:30 PM	BREAK
block 4	3:30 PM	5:00 PM	Exercises

Monday :

Intro to graphics and intro to R  
Hypothesis testing

Tuesday:

Parametric vs non Parametric  
Multiple group comparisons

Wednesday:

Correlation  
Regression

Thursday

Clustering

Heatmap

PCA (Dimension reduction)

# Biomedical Data Science Facility

- <https://www.linkedin.com/company/bds-facility/>
- <https://agora-cancer.ch/scientific-platforms/bdsf/>



We are happy to hear about your projects and problems!  
We work as a facility with transdisciplinary collaborations.  
We are a team of bioinformaticians coming from very different backgrounds.

CONTACT US! @**bdsf@sib.swiss**

# The teachers- Presentation

- Joao Lourenço (joao.lourenco@sib.swiss)
- Rachel Marcone (rachel.marcone@sib.swiss)

Vevox-poll

# Now a round of table

- Let us know who you are, your background, what you are working on and where, and what type of data you might have to analyse (at some point) or what you expect from this course.



# If at any point you feel overwhelmed:

- Ask your neighbors (Interactive course)
- Do a quick search for further help on google
- Ask us!