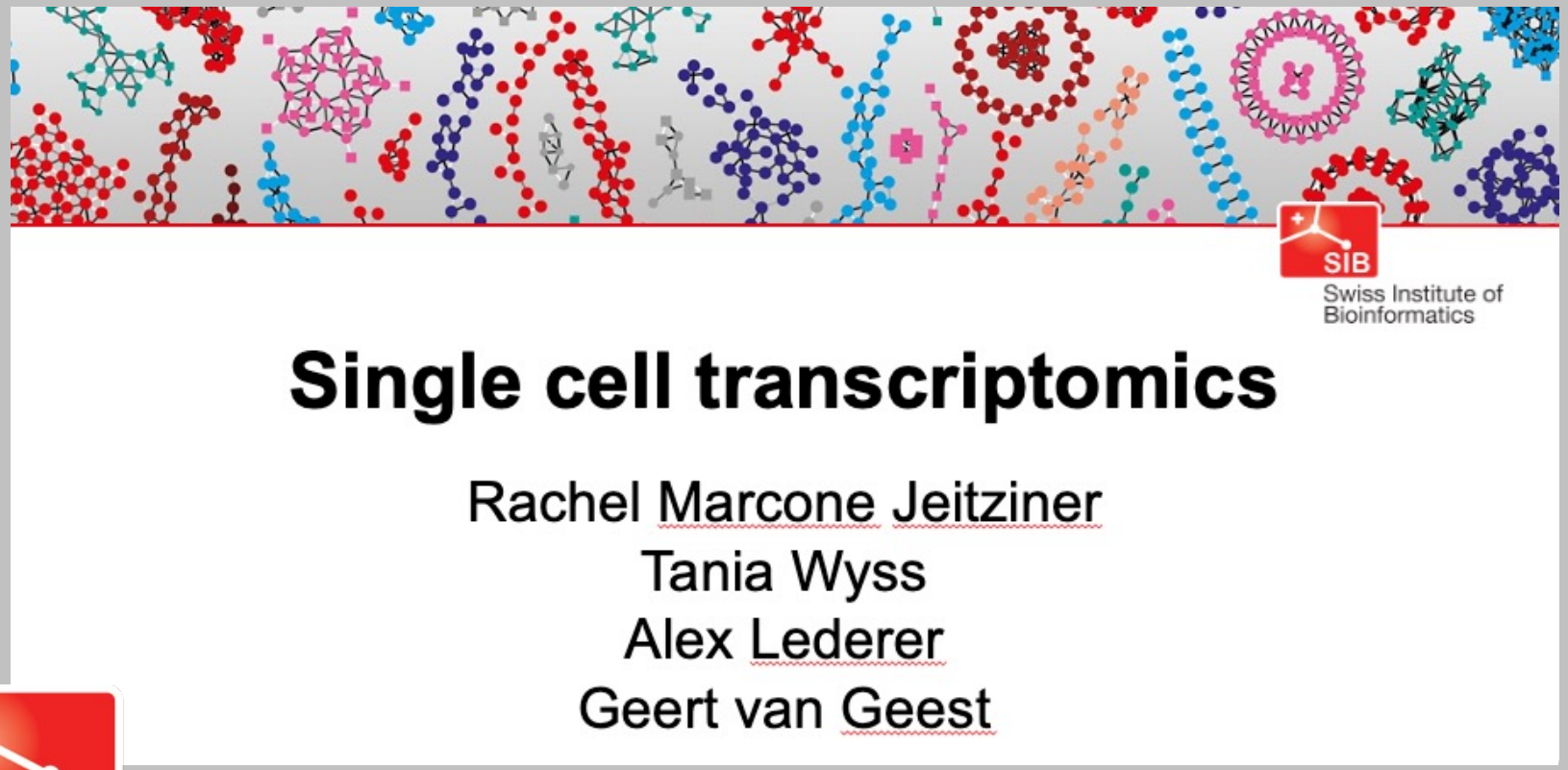
Course on scRNA-seq Data Analysis

Based on the course by SIB https://sib-swiss.github.io/single-cell-r-training/



SIB
Swiss Institute of Bioinformatics

Single-Cell Omics Community

Course on scRNA-seq Data Analysis

- Day 1 – Introduction and QC
- Day 2 – Data processing and visualisation
- Day 3 – Annotation and interpretation
- Day 1-3 – Group work

https://www.elixir-czech.cz/events/course-on-scrna-seq-data-analysis-2025

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Course on scRNA-seq Data Analysis

Learning outcomes

- Explain the **characteristics** of the most-used **methods** to scRNA-seq data
- Perform **quality control** at different steps of the analysis
- Use **dimensionality reduction** (PCA, t-SNE, UMAP)
- Apply **best practices** for **translating** single cell transcriptomic data into **biological knowledge**

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Course on scRNA-seq Data Analysis

Learning experiences

- Lectures
- Quiz questions
- Exercises

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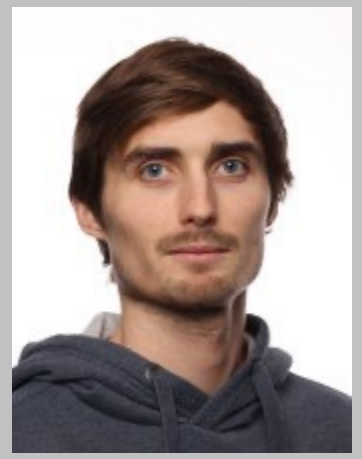
Course on scRNA-seq Data Analysis

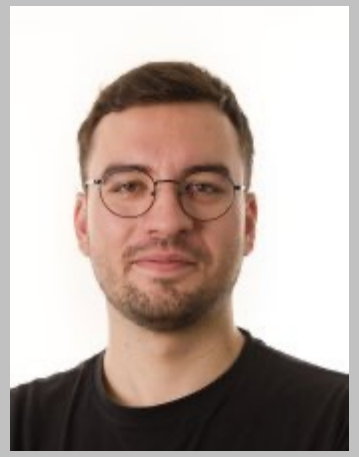
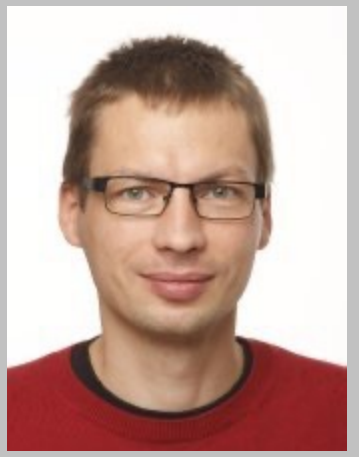
Trainers

Lucie Pfeiferová (IMG)
Jan Kubovčiak (IMG)
Yusuf Çağlar Odabaşı (IBT)



Helpers

Mathys Delattre (IMG)
Vojtěch Melichar (IMG)
Michal Kolář (IMG)
Eva Rohlová (IMG)

Course on scRNA-seq Data Analysis

Communication

- Slack channel [courseonscrna-8vr3370.slack.com]
- GitHub page [bioinfocz.github.io/Course-on-scRNA-seq-data-analysis]
- Google docs
- In person ;-)

Course on scRNA-seq Data Analysis

Day 1 – Monday – Introduction and QC

9:00 – 9:30	Introduction
9:30 – 10:30	Introduction to scRNA-seq
10:30 – 11:00	Break
11:00 – 12:30	10× and Cellranger
12:30 – 13:30	Lunch
13:30 – 15:00	Analysis tools and QC
15:00 – 15:30	Break
15:30 – 17:00	Group work

elixir CZECH 10th ANNIVERSARY

IMG

Course on scRNA-seq Data Analysis

- Cable connection is preferred
  Eduroam WiFi is preferred
  Free WiFi is an alternative

- AC sockets are below the desks

- Please sign the attendance list ☺

- Any technical difficulties?

- Any specific requirements?

Introduction round

- Your name
- What do you do?
- Why you join the course