Swiss Institute of Bioinformatics

INTRODUCTION TO SEQUENCING-BASED SPATIAL TRANSCRIPTOMICS DATA ANALYSIS

Introduction

Deepak Tanwar

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elixir SWITZERLAND

Trainers/ organisers/ helpers

- **Deepak Tanwar**: Trainer at SIB & Bioinformatics Specialist at UZH
- **Joana Carlevaro-Fita:** Trainer at SIB & Senior Bioinformatician at UNIBE
- **Julien Roux:** Bioinformatician at SIB and UNIBAS
- **Ivan Berest: Senior** Bioinformatician at SIB, EMBL, and UNIBAS
- **Martin Emons:** Statistical Bioinformatics PhD student at SIB and UZH
- **Peiying Cai:** Statistical Bioinformatics PhD student at SIB and UZH
- **Mark Robinson:** Statistical Genomics Professor at SIB and UZH
- **Geert van Geest**: Training Project Manager at SIB
- **Patricia Palagi**: Training Group Leader at SIB

Learning outcomes

- **Explain & distinguish** SRT principles, applications, and sequencing vs. imaging approaches.
- **Identify & interpret** data outputs, pitfalls, and metadata in SRT workflows.
- **Apply** QC, feature selection, dimensionality reduction, differential expression, and spatial statistics to biological questions.
- **Use** standard tools for multi-sample SRT analysis.

Learning experiences

- Lectures
- Quizzes
- Exercises

Quiz: 1-4

Communication

- Course website: https://sib-swiss.github.io/seq-spatial-transcriptomics-training/

- Shared document
  - General links for the course
  - Please write your name for the exam

Introduction round

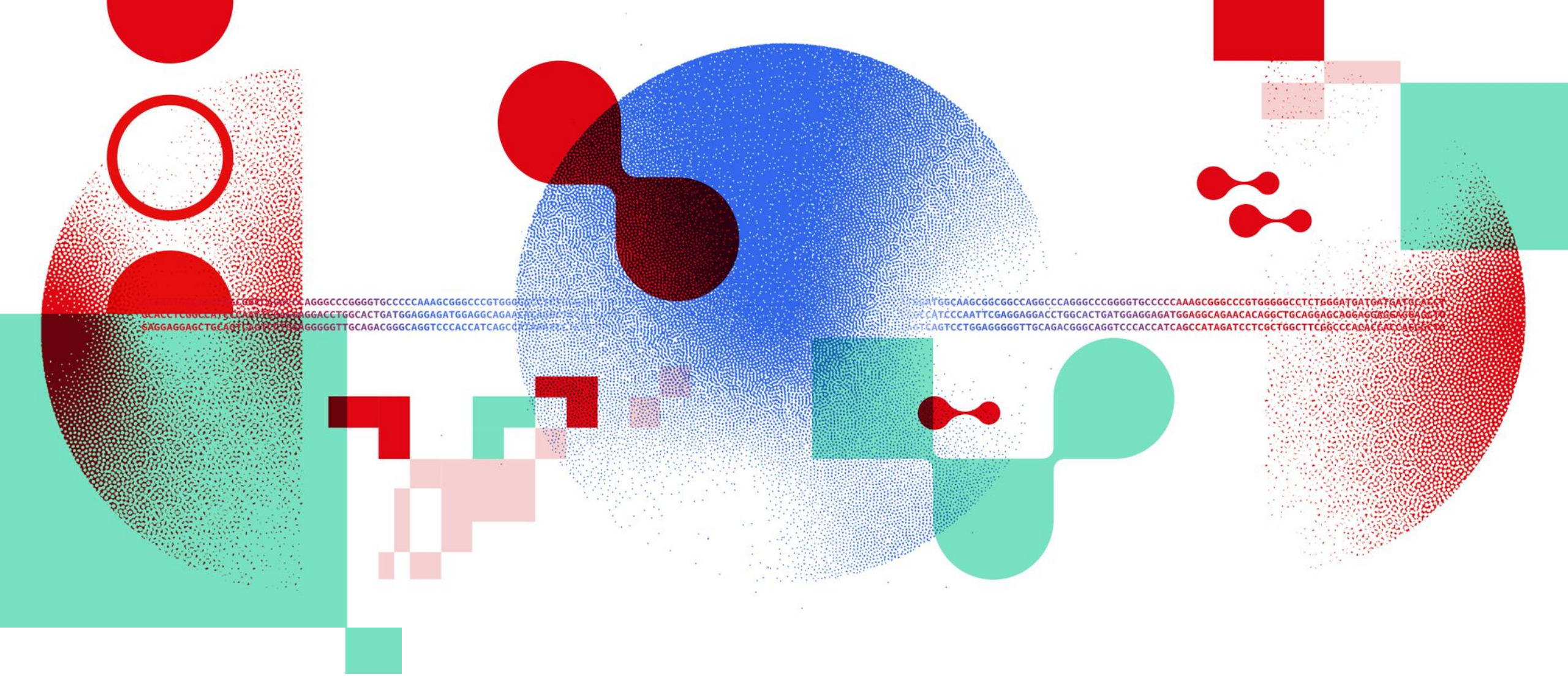
Your name

Your affiliation (SIB)

What do you do? (PhD/ postdoc)

Your topic of research

Why are you joining the course?



Thank you

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