



Swiss Institute of
Bioinformatics

Long-read sequence analysis

Teachers

- **Valeria DiCola:** Training coordinator at SIB
- **Joana Carlevaro Fita:** Trainer at SIB/bioinformatician at IBU Bern
- **Guest lectures:**
 - Alban Ramette: applications with ONT sequencing
 - Pamela Nicholson: applications with PacBio sequencing
- **Helper:**
 - Alexander Nater: Bioinformatician at IBU Bern

General learning outcomes

- Describe the **basics** behind **PacBio** SMRT sequencing and **Oxford Nanopore** Technology sequencing
- Use the command line to perform **quality control** and **read alignment** of long-read sequencing data
- **Develop** and execute a bioinformatics **pipeline** to perform an analysis of your choice
- Answer **biological questions** based on the **analysis** resulting from the pipeline

Learning experiences

- Lectures
- Quiz questions
- Exercises
- Group project

Question 1-3

Communication

- Course website:

<https://sib-swiss.github.io/NGS-longreads-training/>

- Shared document

Introduction round

- Introduce yourself:
 - Where do you work
 - Why are you joining this course