

NXR (single-cell) Bioinfo Workshop 2026

(Tentative Schedule)

Exercise data: *X. laevis* animal cap time course development data from Lee, et al., *Science Adv.* (2023) <https://doi.org/10.1126/sciadv.add5745>

- <https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE118088>
- <https://cells-test.gi.ucsc.edu/?ds=xenopus-dev>
- <https://www.ebi.ac.uk/ena/browser/view/PRJNA663910>

Date	Morning (0900-1200)	Afternoon (1400-1730)	Night (1930-2200)
Apr/18(Sat)	Arrival		
Apr/19(Sun)	Xenbase 101: Genome & annotation	Bioinfo 101: Install Python & R, Terminal shell script	Single-cell 101: Experiment and Data Analysis Overview
Apr/20(Mon)	Cell dissociation and cell viability check session	Main experiment to generate cDNA <i>Keep running the cell dissociation session.</i>	NGS 101: FASTQC, mapping (bulk RNA-seq example) & DEG
Apr/21(Tues)	Library preparation <i>Keep running the cell dissociation session.</i>	Library QC & Submission	NGS 101: ChIP-seq and peak calling
Apr/22 (Wed)	Single-cell 101 Practice with The animal cap data: Mapping	Single-cell 101 Practice with The animal cap data: Clustering & DEG	Proteomics 101: Quantitative Proteomics Analysis with FragPipe
Apr/23 (Thurs)	Advanced single-cell data analysis: Quality Control	Advanced single-cell data analysis: Data integration with Harmony & Species-to-species comparison	Advanced single-cell data analysis: Signaling activity inference
Apr/24 (Fri)	Exercise with sequencing data #1	Exercise with sequencing data #2	PARTY!
Apr/25 (Sat)	Departure		

Green: Topics for Bioinformatics Workshop

Orange: Wet-lab experiments for single-cell sample preparation

Blue: Topics for single-cell data analysis