

Xenopus Bioinformatics Workshop

April. 07. 2023 ~ April. 11. 2023 @ NXR/MBL, Woods Hole, MA, USA



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- How to analyze RNA-seq, ChIP-seq and Proteomics data
- How to use the latest *Xenopus* genomic resources in my research
- How to handle large-scale data in the public database
- How to analyze single-cell transcriptome data (*Xenopus* & others)

	April 06 (Thurs)	April 07 (Fri)	April 08 (Sat)	April 09 (Sun)	April 10 (Mon)	April 11 (Tues)
08:00 - 09:00	Arrival	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
09:00 - 10:00		Intro: XenBase (Konrad/Malcolm)	Intro: ChIP-seq & RNA-seq (Taejoon)	Intro: Single cell analysis (even with non-model organisms) (ChangHee)	Intro: Proteomics (Leonid)	Make-over time + Remaining exercise (Taejoon & Leonid)
10:00 - 12:00		Lecture: Basic setting UNIX/R/Python/Jupyter (Taejoon)	Lecture: ChIP-seq analysis MACS2 & HOMER (Taejoon)	Lecture: single cell analysis 1 Preprocessing & clustering with Seurat & Scanpy (ChangHee)	Lecture: single cell analysis 3 Xenopus Cell Atlas with STRING (Leonid)	
12:00 - 13:00		Lunch	Lunch	Lunch	Lunch	Lunch
13:00 - 15:00		Lecture: Working with Genome Indexing & Visualization (Konrad/Malcolm)	Lecture: RNA-seq analysis edgeR/DESeq2/limma (Taejoon)	Lecture: single cell analysis 2 preprocessing & clustering with Seurat & Scanpy (ChangHee)	Lecture: Proteomics 1 Xenopus Proteome Atlas (Leonid)	Presentation & Discussion (Taejoon & Leonid)
15:00 - 15:30		Break & Snack	Break & Snack	Break & Snack	Break & Snack	Departure
15:30 - 17:30		Lecture: Working with FASTQ Trimming & Mapping (Konrad/Malcolm)	Lecture: RNA-seq analysis kallisto (ChangHee)	Make-over time + R exercise (Taejoon & ChangHee)	Lecture: Proteomics 2 MaxQuant & FragPipe (Taejoon)	
17:30 - 19:00		Dinner	Dinner	Dinner	Dinner	
19:00 - 22:00	Ice-Breaking Meeting (20:00 - 21:30 Captain Kidd) https://thecaptainkidd.com/ (Taejoon & instructors)	Exercise Time	Exercise Time	Exercise Time	Exercise Time & PARTY!	

Instructors:

- Taejoon Kwon (UNIST, Korea)
- Leonid Peshkin (Harvard Medical School)
- ChangHee Lee (Harvard Medical School)
- Konrad Thorner (XenBase)
- Malcolm Fisher (XenBase)

Registration is now open:

<https://www.eventsquid.com/event.cfm?id=19559>

For more information, please contact

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