E16 - Functional genomic data analysis : epigenomics

Fall 2024

Responsible : **Morgane Thomas-Chollier** (mthomas@biologie.ens.fr)

Required background

Computer knowledge: practice of Linux command lines. Knowledge of high-throughput sequencing data analysis, practice of quality check with FASTQC and mapping.

Program (physically at ENS, room 321)

	Morning	Afternoon
Monday 9/16	9h – 9h30 **Course introduction** 9h30 – 12h **Work in autonomy - Lectures**	14h – 15h00 **Discussion** 15h15 -17h **Work in autonomy - Lectures**
Tuesday 9/17	9h – 12h **Practical** ChIP-Seq analysis (i)	14h – 15h **Practical** ChIP-Seq analysis (i) 15h15 Introduction Open analysis 15h30– 17h **Open analysis**
Wednesday 9/18	9h – 12h **Practical** ChIP-Seq analysis (ii) + Motif analysis	14h – 15h **Open analysis** 15h15-16h15 **Seminar: Julien Richard Albert** *Title to be announced* 16h15– 17h **Open analysis**
Thursday 9/19	9h – 10h **Discussion / Collective Glossary** 10h – 12h **Open analysis**	14h-16h **Lecture+Seminar: Daan Noordermeer** *Our genome in 3 dimensions: why it's important and what can go wrong* 16h – 17h **Open analysis**
Friday 9/20	9h – 9h30 **Discussion** 9h30 – 12h **Open analysis**	14h –17h **Work in autonomy** Finalising and Submitting Open analysis

Teaching team

Morgane Thomas-Chollier (Associate Professor, ENS, Paris)
Nina Vittorelli (PhD student / Teaching Assistant ENS, Paris)
Lucie Gaspard-Boulinc (PhD student / Teaching Assistant ENS, Paris)

Invited Seminars

Julien Richard Albert (Post-doc, Institut Jacques Monod, Paris)
Daan Nordermeer (Group leader, I2BC, Gif-sur-Yvette)

Organization

Credits: 3 ECTS
Classes are held at the 3rd floor of the Department of Biology of ENS, 46 rue d'Ulm, 75005 Paris in room 321.
Students will be evaluated based on a technical report and participation throughout the week.