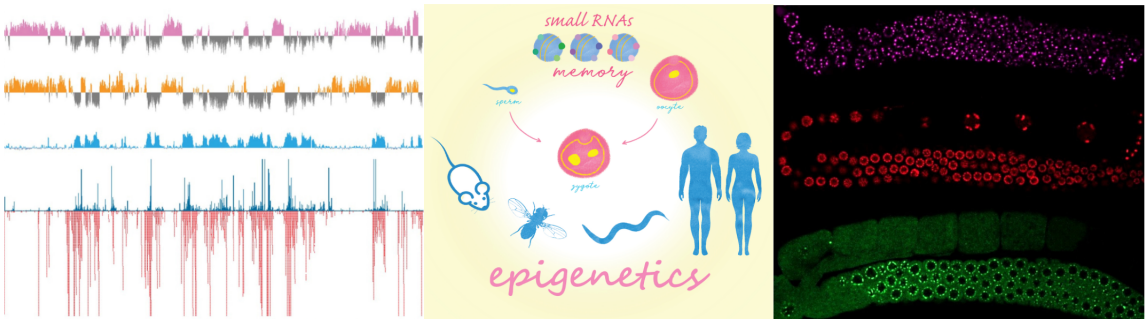
Permanent Engineer Position in Bioinformatics at Institut Pasteur Paris



The Bioinformatics and Biostatistics Hub at Institut Pasteur is hiring a permanent (CDI) research engineer in bioinformatics, who will be attached to the Mechanisms of Epigenetic Inheritance Laboratory headed by Dr. Germano Cecere (http://www.cecerelab.com).

The Hub provides analytical support to research units and platforms at the Institut Pasteur and is committed to this mission through:

- Collaboration on scientific projects submitted by research teams of our institute to the Hub.
- Training scientific staff from the Institut Pasteur Paris or other Institutes of the International Pasteur Network.
- Development of tools and applications to be shared with the broader scientific community.
- Direct interaction with scientists upon specific inquiries.

The engineer will dedicate 80% of their time to work in the team headed by Dr. Germano Cecere. The remaining 20% will be devoted to technical contribution, interaction with the Hub, and training and teaching activities.

The Mechanisms of Epigenetic Inheritance Team at Institut Pasteur investigate **the role of small RNAs and epigenetic chromatin modifications in epigenetic inheritance**. Their current research projects focus on the mechanisms by which small RNAs and chromatin modifications can transfer environmentally acquired information across generations and their impact on the organism's growth and survival to environmental stresses.

They address these questions in the animal model *C. elegans* by integrating genetic, biochemical, and molecular biology tools with a wide range of cutting-edge techniques to study chromatin and epigenetic regulations, which include: GRO-seq, ChIP-seq, Cut & Tag, RNA-seq, Ribo-seq, small RNA-seq, iCLIP, RNA and protein purification coupled with mass spectrometry. The bioinformatician will work with wet-bench biologists to develop pipelines for data analysis and contribute to data mining of specific projects.

For more information on our research projects, visit our website www.cecerelab.com , and our recent publications.

Candidate's Job Description

1. Will collaborate closely with wet-bench biologists to develop *Ad hoc* pipelines to analyze sequencing data derived from several approaches, including mRNA-seq, small RNA-seq, Cut&Tag, GRO-seq, and iCLIP-seq.
2. Will be responsible for continually identifying novel tools and annotation databases to improve the analysis's efficiency, sensitivity, and functionality.
3. Will identify and improve bioinformatics tools to help automate workflows for routine bioinformatics analyses.
4. Will be responsible for writing, updating, and improving custom scripts for analysis of genomic data derived from high-throughput techniques.
5. Will create and maintain the infrastructure of the lab informatics facilities and data, including a web server, workstation, compute cluster accounts, sequencing data, and remote storage.

Candidate's qualifications:

1. Master's degree in bioinformatics, computational biology, computer science, engineering, biological sciences, or another related discipline, preferably with some years of experience as a bioinformatician.
2. Experience in scientific programming in the area of genomics and next-generation sequencing analysis.
3. Must have excellent programming skills in languages such as Python and Bash.
4. Must be comfortable working in Unix/Linux operating systems.
5. Must be familiar with tools and processes for reproducibility and maintainability in software development and data analysis (such as Git, docker, ...).
6. Must know about sequence alignment, duplication removal, sequence retrieval, variant calling, gene and functional annotation, isoform and gene expression, transposable elements, and repeats.
7. Must have the ability to perform data analysis and plotting in R.
8. Must have strong knowledge of commonly used bioinformatics packages.
9. Familiarity with biological data repositories such as the UCSC Genome Browser and NCBI.
10. Ability to multitask while working independently, exercising sound judgment in meeting deadlines, maintaining well-documented and tested code, and thoroughly documenting analysis results.
11. Must have good communication skills focusing on teamwork and creating usable and accessible research software tools.
12. Experience with data mining and machine learning will be appreciated.
13. English is our working language. Knowledge of French is optional.

We offer

The bioinformatician will have a full-time permanent position (CDI) affiliated with the Cecere lab (80%, primary affiliation) and the Bioinformatics and Biostatistics Hub of the Institut Pasteur (20%, secondary affiliation). The candidates will benefit from technical and conceptual training, mentorship, and career development.

To apply

Click on the following link and select the corresponding profile "NGS data analysis (epigenetic inheritance)" when this will be proposed:

https://hub-jobs2023-fall.pasteur.cloud

Please submit your updated CV and a cover letter (explaining your past research experiences and motivation to join our laboratory and research programs.). You may indicate contact information for reference letters (3 max.). They will be automatically contacted when you validate your application.

The deadline for submitting your application is October 20th, 2023. The interview process with the selected candidates is to be held in mid-November.

We are a team committed to fostering a fair, inclusive, and diverse work environment. Diversity has been scientifically established as a critical factor in improving scientific objectivity. Hence, all applicants will be evaluated solely based on qualification regardless of gender, gender identity, sexual orientation, race, or disability.