Computational Biologist - Postdoctoral Researcher (REQ-0035889 Post Doc)

Job Summary

A computational biologist position is immediately available in the laboratory of Dr. Fadia Ibrahim in the Department of Biochemistry and Molecular Biology, at Thomas Jefferson University. Our research program is focused on studying the molecular mechanism of a novel co-translational RNA decay process "ribothrypsis" and investigating the role of RNA dysregulation in neurodegenerative diseases. Our research integrates molecular biology, biochemistry, innovative RNA sequencing technologies, and advanced computational approaches. We are seeking a highly motivated computational biologist to support ongoing research projects, develop and implement bioinformatics tools and pipelines, and oversee the processing, management, and analysis of next-generation sequencing (NGS) data.

Required Qualifications:

- Ph.D. in Computational Biology, Bioinformatics, Computational Sciences, or a related discipline.
- Proficiency in R and Python and in working in Linux/Unix environments with command-line-based bioinformatics tools.
- Experience analyzing and interpreting NGS data, including RNA-Seq and Ribo-Seq, with expertise in data evaluation and visualization (e.g., differential expression, ribosome occupancy, poly(A) tail analysis, and modifications detection).
- Basic knowledge of molecular biology techniques and familiarity with biological data.
- Knowledge of statistical methods and their applications to biological datasets.
- Strong analytical, problem-solving, and quantitative skills, with the ability to collaborate effectively in a multidisciplinary team environment.
- Publication track-record in relevant fields.

Preferred Qualifications:

- Familiarity with NGS platforms, including Illumina and Oxford Nanopore Technologies.
- Demonstrated ability to integrate, mine, and analyze diverse large-scale biological datasets.
- Experience with commonly used bioinformatics resources, tools, and databases, including ENCODE, UCSC Genome Browser, Ensembl, Bioconductor, and NCBI databases.
- Experience managing computational servers and data storage and backup.
- Ability to formulate and develop scientific hypotheses that support ongoing research.
- Strong organizational, written, and verbal communication skills.

Interested applicants are invited to submit a single PDF containing their CV, a cover letter outlining their research experience and interests, and the contact details of three referees.