Job Title: Postdoctoral Bioinformatician - Omics Analysis

**Position Overview: **

We seek a highly motivated and skilled Postdoctoral Bioinformatician with expertise in OMICS data analysis to join our dynamic research team at the Mondor Institute of Biomedical Research (*IMRB-INSERM U.955*) of the University Paris-Est Créteil (*UPEC*) in the "Senescence, metabolism and cardiovascular diseases team" (Direction: Genevieve Derumeaux) under the supervision of Oliver Bischof. The successful candidate will be key in advancing our understanding of senescence, aging, and cancer by applying cutting-edge computational methods to various omics datasets.

Relevant team publications:

1. Martinez-Zamudio et al., Escape from oncogene-induced senescence is controlled by POU2F2 and memorized by chromatin scars, *Cell Genomics* (2023). https://doi.org/10.1016/j.xgen.2023.100293
2. Martínez-Zamudio, R.I., Roux, PF., de Freitas, J.A.N. *et al.* AP-1 imprints a reversible transcriptional programme of senescent cells. *Nat Cell Biol* **22**, 842–855 (2020). https://doi.org/10.1038/s41556-020-0529-5

**Responsibilities: **

1. **Omics Data Analysis: ** Conduct comprehensive analysis of high-throughput omics data, including but not limited to methylomics, transcriptomics, and epigenomics.

2. **Biological Interpretation: ** Collaborate with experimental researchers to interpret omics data in the context of biological questions, providing valuable insights into molecular mechanisms and pathways.

3. **Statistical Analysis: ** Apply advanced statistical methods to identify patterns, correlations, and significance in complex omics datasets, ensuring robust and reproducible analyses.

4. **Data Integration: ** Integrate multi-omics datasets to uncover synergistic relationships and provide a holistic view of biological systems.

5. **Visualization: ** Generate clear and insightful visualizations of omics data, facilitating effective communication of results to technical and non-technical audiences.

6. **Collaboration: ** Collaborate with interdisciplinary teams, fostering communication between bioinformaticians, biologists, and clinicians to achieve research objectives.

7. **Publication and Presentation: ** Prepare manuscripts for publication in peer-reviewed journals and present research findings at conferences and scientific meetings.

**Qualifications: **

- PhD in Bioinformatics, Computational Biology, Biostatistics, or a related field.
- Proven expertise in omics data analysis, with a strong publication record in relevant areas.
- Proficient programming skills in Python, R, or Perl languages.
- Experience with bioinformatics tools and databases.
- Strong understanding of statistical methods applied to biological data.
- Excellent communication and collaboration skills.

**Preferred Qualifications: **

- Familiarity with machine learning approaches in omics analysis.
- Experience with cloud-based computing and big data platforms.
- Knowledge of relevant biological pathways and systems biology.

**Application Process: **

To apply, please submit a cover letter, CV, a brief statement of research interests, and contact information for three references to [oliver.bischof@cnrs.fr]. Review of applications will begin on [01/01/2024] and continue until the position is filled. The position's start date is the second quarter of 2024 for 24 months, with a potential extension.

UPEC and INSERM are equal-opportunity employers, encouraging applications from diverse backgrounds. We value diversity and inclusion in all aspects of our work and research.