Postdoc position at Institut Curie in Computational Systems Biology Group

Machine learning and statistical analysis of multi-level cancer omics data

Duration: 18-36 months with possibility of extension, starting immediately

Links http://curie.fr http://u900.curie.fr http://sysbio.curie.fr

Context

Institut Curie is one of the biggest European institutions for cancer research with strong and old interdisciplinary traditions. It also comprises a hospital specialized in cancer treatment, and therefore dispose of a continuum of expertise from fundamental research to patient care. It is located in the centre of Paris in a both cultural and scientific rich environment (http://curie.fr).

The "Bioinformatics and Computational Systems Biology of Cancer" Unit (U900 INSERM, Mines ParisTech, Institut Curie) involves about 90 researchers and students. It is a very active and growing interdisciplinary team of biologists, physicians, mathematicians, statisticians, physicists and computer scientists (http://u900.curie.fr). Our research group focuses on deciphering determinants of tumorigenesis and tumor progression and proposing new strategies to combat cancer. The domains of expertise are big data analysis; signaling network construction and mathematical modeling; study of synthetic interactions in cancer mechanisms, drug response prediction, patient stratification and many others (http://sysbio.curie.fr).

The group has long term experience in implementing scientific methodology of data and biological network analysis into user-friendly software packages, currently used by other researchers world-wide (the list of developed software can be found at http://sysbio.curie.fr/software).

Job description and skills

We expect a candidate with a strong background in statistics, machine learning, computational systems biology or physics. The successful candidate should have experience in high-throughput data analysis in biology.

Ideally, the candidate should be able to demonstrate some knowledge of basic biological mechanisms involved in cancer and have experience of collaboration with biologists for solving concrete biological problems. He/she will have to understand the biological and clinical questions related to cell fate decision, tumor heterogeneity, interaction with microenvironment, drug response; define the most appropriate statistical and/or machine learning approaches; carry out the analyses and discuss the results with biologists or clinicians.

The candidate must have a good knowledge in multidimensional data analysis in biology, and be proficient in high-level languages like R, Java, Python or Perl. Familiarity and experience with existing systems biology methods and software would represent a strong advantage.

Excellent communication skills and team spirit, and a capacity to work in autonomy are essential.
Fluent English both spoken and written is required.

Degree: **PhD level in computer science, bioinformatics or systems biology**

Send CV, motivation letter, and contact details of 3 references to recruitment.U900-SYSBIO@curie.fr and indicate as subject the reference SB18B-DA