**Master’s research project in development of computational methods for personalized medicine**

**Location:** Inserm unit U900 / Institut Curie Research Center

**Duration:** 6 months

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Located in the center of Paris, Institut Curie Research Center is one of the biggest European institutions for cancer research with interdisciplinary tradition. The "Bioinformatics and Computational Systems Biology of Cancer" Unit (U900 INSERM, Mines ParisTech, Institut Curie http://u900.curie.fr) hosts different teams of researchers and students: Bioinformatics and computational systems biology of cancer, Clinical biostatistics, Epidemiology of cancer, and Statistical machine learning and modelling of biological systems. One of the main axes of the lab is to create computational methods for analysis of biomedical data, including data for personalized medicine, in particular, high throughput sequencing and proteomics data, to answer relevant questions in close collaboration with biologists from other units of the institut.

The objective of the master’s research project is to apply computational methods to multi-omics data (mRNAs, microRNAs and proteome profiles) of medulloblastoma patients, the most malignant pediatric tumor arising from the cerebellum, to improve personalized medical treatment of patients according to their genetic and molecular properties. The project is developed in close collaboration with the team “Signaling in development and brain tumors” headed by Dr. Olivier Ayrault.

The candidate should have experience in multidimensional data analysis and be proficient in scientific programming in Python, R or MATLAB. Communication skills and good English will be an advantage.