**Computational Biologist**

Research Group: Pediatric High-Grade Glioma team

Institute: Bambino Gesù Children’s Hospital, Research Unit of Genetics and Epigenetics of Pediatric Tumours

City and Country: Rome, Italy

The **Paediatric High-Grade Glioma research group**, led by Dr **Maria Vinci** is focused on the cellular and molecular mechanisms associated with tumour heterogeneity and cellular cross-talk (*Vinci et al., Nature Medicine 2018; Pericoli et al., Cell & Bioscience 2023*) and the identification and validation of innovative therapeutic strategies (*de Billy et al., Neuro-Oncology 2022*) for pediatric high-grade gliomas. The team uses patient tissue samples and has expertise in disease modelling by establishing *in vitro, ex vivo,* and *in vivo* patient-derived models of DMG/DIPG and other pHGG. Dr Vinci’s team at the Bambino Gesù is leading the application of the multi-dimensional mass cytometry technology on these aggressive brain tumours and other tumour types (*Petrilli et al., Frontiers in Oncology 2022; Herdlevær et al., Biomarkers of the Tumour Microenvironment 2022*) for the study of the tumour microenvironment and discovery of new biomarkers.

Position Overview:

We are looking for a highly motivated Computational Biologist. The ideal candidate should have experience in image analysis, spatial biology, machine learning and single-cell analysis. She/He will support advanced computational tasks in the lab by curating, processing, and analysing imaging mass cytometry and single-cell mass cytometry data, using already established pipelines and/or developing new tools for advanced analysis. She/He will contribute to a deeper understanding of the cell-cell interactions, in the identification of new biomarkers and their modulation upon different therapeutic approaches.

Key Responsibilities:

* To employ computational methods to analyse imaging and single-cell mass cytometry data.
* To work closely with the team, in particular with the experimental biologists for the experimental design, and interpretation of the computational findings.
* To apply innovative computational biology approaches to address complex scientific questions.

Qualifications:

* Ph.D. in computational biology, bioinformatics, or a related field but younger candidates with a solid computational experience will also be considered.
* Proficiency in programming languages, preferably with experience in developing bioinformatics pipelines and tools.
* Excellent communication skills and ability to collaborate effectively within a multidisciplinary team environment.
* Experience in the oncology field is preferable.

Type of Contract:

1-year fixed term, with the possibility of renovation. Salary will be decided based on the candidate's level of expertise.

Application should be sent to [maria.vinci@opbg.net](mailto:maria.vinci@opbg.net) and include a CV, a cover letter and the contact information of two referees.