

Post-doc position in Chemistry - Organic synthesis of fluorophores and anticancer miRNA conjugates (ID: 6388)

MiR675 inhibition: from benchtop to potential Glioma therapy (MOONLIT)

Glioblastoma Multiforme (GBM), the most common malignant brain tumour in adults, is generally treated by surgical tumour resection followed by chemo- and radio-therapy. Temozolomide (TMZ) is the chemotherapeutic most extensively used but the frequent occurrence of TMZ resistance limits its therapeutic efficacy. In this context non-coding RNAs have been found to play pivotal roles in glioma progression and in resistance to TMZ.

Our preliminary data showed that miRNA675-5p (a pro-oncogenic, hypoxic- and angio-miRNA) inhibition is sufficient to impair cell proliferation and tumour growth. MOONLIT aims to develop a stable and traceable and potent antisense chemical tool for studying miRNA675-5p inhibition in human glioma models (cell lines, organoids, and animal) to assess its therapeutic potential.

The successful candidate will have a multidisciplinary background, will be willing to work at the interface with biology, and will devise the most appropriate synthetic strategy to achieve the designed fluorophores and conjugation products both via covalent and non-covalent tethering.

Starting date: March 2024

Duration: 18 months

Where: Chemistry Department, University of Milan, via Golgi 19, Milano

Qualifications: The successful candidate will hold a **PhD in Chemistry, Medicinal chemistry or equivalent** with a solid background in **small molecules organic synthesis** and their **characterization**. Organisation, communication skills are required, as well as the ability to work both in team and independently. A **multidisciplinary mindset** is mandatory. Previous experience on nucleotide/nucleic acids chemistry is a plus.

Funding: PRIN 2022 PNRR

Application deadline: 9th February 2024 h 23:59

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