Post-doc in Medicinal Chemistry

Titre: Development of new therapeutic modalities for targeting non-coding RNAs

Key words: RNA, RNA ligands, non-coding RNAs, binding, inhibition

Scientific Director: Dr. Maria Duca, PhD, CNRS Research Director (http://univ-cotedazur.fr/mariaduca)

Post-doc start date: October 2024 – January 2025

Host laboratory: Université Côte d'Azur - Institut de Chimie de Nice in collaboration with Sanofi

Project: RNA represents an extremely original and promising therapeutic target for the discovery of innovative drugs in a wide range of pathologies. Several drugs currently on the market target RNA, such as certain antibiotics (aminoglycosides, tetracyclines, macrolides) or Risdiplam, approved in 2020 as a modulator of alternative splicing in patients with spinal muscular atrophy in which splicing is defective. The aim of this project is to develop novel RNA ligands with target RNA degradation or covalent modification properties. In this context, we envisage, for example, the use of a RIBOTAC strategy (by analogy with PROTACs) or the introduction of chemical motifs capable of covalently binding the RNA target. The bioactive molecules thus identified will then be evaluated on several RNA targets for their affinity, selectivity and activity in vitro in the laboratory and at cellular level through collaborations with biologists. The results obtained will lead to the design and synthesis of optimized compounds with a view to therapeutic applications.

Candidate profile: the candidate must have a strong knowledge and experience in organic chemistry, and must have obtained his/her PhD in organic chemistry, medicinal chemistry or chemical biology within the last 2 years. Candidates must also be highly motivated and interested in projects at the chemistry-biology interface.

To apply: send a CV (with contacts of at least two previous supervisors) and a cover letter describing your scientific interests and career plans, in English or French, to maria.duca@univ-cotedazur.fr

Location: Institut de Chimie de Nice (ICN), Faculté des Sciences, 28 avenue Valrose, 06100 Nice, France (http://univ-cotedazur.fr/tna)