

## 2 Post-doctoral positions in Organic chemistry/Medicinal Chemistry

### Design, synthesis and optimization of new Targeted therapy agents with anti-melanoma activity

**Laboratory:** Institut de Chimie de Nice, UMR7272

**Institute :** Université Nice Sophia Antipolis, Parc Valrose 06108 Nice cedex 2, France

**Team :** Molécules Bioactives.

**Contacts :** Dr. Rachid Benhida & Dr. Cyril Ronco

**Duration:** 12 months x 2 fixed term contract

**Application deadline:** 28/02/2019

**Starting date:** From March 2019

Melanoma is an aggressive form of skin cancer that occurred in more than 230,000 people and resulted in more than 60,000 deaths/year, mainly in developed countries. Despite significant progress brought by the new anti-Braf and anti-PD1 targeted therapies, patients in the metastatic phase have a median life expectancy of only 8 - 9 months, because of the rapid emergence of resistance to these treatments. Thus it is of utmost importance to find new alternative and innovative approaches to treat these diseases.

Recently, in collaboration with our partners biologists of the Mediterranean Centre of Molecular Medicine (C3M - Team Dr. Stéphane Rocchi), we have discovered new molecular targets and developed new specific ligands thereof, able to bypass these resistance phenomena. These lead compounds induced a strong apoptosis rate in melanoma cells *in vitro* and in *in vivo* xenograft models, without causing side effects or toxicity in non-cancer cells or in animals.

The candidate will aim to pursue and develop this medicinal chemistry and chemical biology program to upgrade these lead compounds to a preclinical candidate, and to help the understanding of their mode of action by synthesizing chemical tools and probes for biochemical studies. The work program will include all aspects of organic and medicinal chemistry, chemical biology and structural biochemistry, in collaboration with biologists and clinicians: development of faster and more efficient synthetic methods, synthesis of analogues to establish structure activity relationships, optimization of biological activities and pharmacological properties. Dockings, biophysical studies (ITC, DSC, DSF), co-crystallization, and preparation of affinity probes will be conducted to study the interactions with biological targets to decipher the mechanism of action of synthesized drugs.

**Profile:** The candidate must have a PhD in organic chemistry and excellent skills in organic synthesis and synthetic methodologies. An interest for Chemistry-Biology interface is required and knowledge of biochemistry, pharmacology, and bioanalytical methods will be highly appreciated.

**Application:** Please send your cover letter and CV (including 3 references) to [cyril.ronco@unice.fr](mailto:cyril.ronco@unice.fr) and [benhida@unice.fr](mailto:benhida@unice.fr)