PhD POSITION

Title: Elucidating the role of NDRG1 structural dynamics in lung cancer pathogenesis by a multiscale approach

A 3-year PhD fellowship is available at the Centre national de la recherche scientifique (CNRS), in Marseille, France.

Our PhD program is sponsored by Aix-Marseille University and involves the collaboration between 2 laboratories, one at the Institute for Bioenergetics and Protein Engineering (https://bip.cnrs.fr), and the other one at the Cancer Research Center of Marseille (CRCM) (https://www.crcm-marseille.fr/en). This is a full-time position and is funded for 3 years.

Our laboratories focus on deciphering the structural dynamics of intrinsically disordered proteins in living cells and study their role in the mechanisms underlying lung tumor evolution. Our long-term goal is to develop new and improved therapeutics for lung cancer patient clinical treatment. To develop this research program our laboratories are currently seeking to hire a highly motivated student interested in starting a PhD track and available to start in 2023. The project is expected to hit the ground in the fall of 2023. Prospective candidates with the following skillsets are encouraged to apply: chemistry, biochemistry, molecular biology, and tumor mouse models.
Our labs are extremely collaborative; the PhD candidate will have the opportunity to work in close collaboration with scientists from different fields of expertise, including: molecular and structural biologists, biochemists, and clinicians. This position will also provide many opportunities for presentation and publication and foster the candidate's career development. The compensation will be very competitive.

Additional Information
Our project aims to determine the role of structural dynamics and interactions of the protein NDRG1 in physiology and lung cancer pathogenesis. For our investigation, we will use multiscale approaches combining in-cell spectroscopy studies, molecular biology, biochemistry, mouse genetics, proteomics, and bioinformatics. In particular, we will employ an unprecedented technology based on spin labeling technique combined with EPR spectroscopy (in-cell SDSL-EPR) to analyze intrinsically disordered proteins directly inside living cells. In addition, the trainee will have access to state-of-the-art instrumentation throughout the CNRS campus, as well as resources available through collaborations at the Marseille area including Luminy research center and "la Timone" hospital. This trainee will also benefit from the support of an international expert on NDRG1-related studies, Dr. Zambelli from the University of Bologna (Italy).

Qualifications
- Master degree in chemistry, biochemistry, molecular biology, or a similar field.
- Personal capabilities: Creative thinking, ability to work independently, willingness to learn new skills, excellent problem solving and organizational skills, and the ability to handle multiple tasks are expected. Priority goes to highly motivated and organized individuals committed to doing impactful research, with great attention to detail and excellent organization and team-work skills.
- English proficiency (oral and written) is strongly considered.

Thesis supervisors
Elisabetta MILEO, Institute for Bioenergetics and Protein Engineering (BIP), Marseille, France. emileo@imm.cnrs.fr

Luca LIGNITTO, Cancer Research Center of Marseille (CRCM), Marseille, France.
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Application Procedure
Applicants should submit their curriculum vitae, motivation letter and contact information for master thesis supervisors. Applications will be considered immediately. In addition, informal inquiries are strongly encouraged. Interested applicants can send their CV and motivation letter to:
Dr. Elisabetta Mileo (emileo@imm.cnrs.fr) and,
Dr. Luca Lignitto (luca.lignitto@inserm.fr)

You can also visit our websites at:

www.lignittolab.com or https://bip.cnrs.fr/contact/mileo-elisabetta/