

Institute for **Advanced Biosciences**

Two years post-doctoral position:
RNA splicing and response to chemotherapies in non small cell lung carcinoma

Team: RNA Splicing, Cell Signaling and Response to Therapies
Location: Institute For Advanced Biosciences, Grenoble, France

The management of Non Small Cell Lung Cancer (NSCLC) patients with resistance to treatment, including chemotherapies, remains a significant challenge, with therapeutic, social and economic impacts. RNA splicing alterations, such as aberrant splice variants or deregulated activity of spliceosome components, contribute to cancer initiation/maintenance as well as to cancer drug response, even though this last setting remains much less explored. In this project, we want to further deepen the relationships linking RNA splicing and acquired resistance to treatment in NSCLC patients, with a special focus on cross-talks between RNA splicing machinery and DNA Damage Response pathways. To reach our objectives, we propose an integrative project from bench to clinic combining in vitro approaches (2D/3D cultures, RNA-Seq), in vivo studies using relevant xenografts models in mice including Patient Derived Xenografts, and in situ analyses on human samples owing to the access to tumor biopsies with clinical annotations of NSCLC patients. Beyond the cognitive issues, the characterization of mechanisms underlying cancer cells therapeutic resilience through RNA splicing reprogramming is expected to lead to: (1) the identification of predictive biomarkers of resistance to key treatments of lung cancer; (2) the development of innovative therapeutic strategies to overcome drug resistance.

We are looking for a highly motivated and committed candidate for a 24-months, full-time postdoctoral position. A solid background in the field of RNA biology as well as in standard biochemical and cellular biological techniques is essential. Knowledge in the field of DNA Damage Response or DNA repair as well as experience in bioinformatic analyses dedicated to the study of large-scale datasets in genomics or transcriptomics will be appreciated.

The team RNA Splicing, Cell Signaling and Response to Therapies is part of the Institute For Advanced Biosciences, an INSERM-CNRS-Grenoble University joint multidisciplinary research center in the field of oncology, epigenetics, cell-matrix biology, immunology, parasitology and environmental epidemiology (<https://iab.univ-grenoble-alpes.fr>).

Screening of applications will begin immediately and position will remain open until filled. Please email your detailed CV including publication list with copies of the most relevant ones, and the names/contact information of two individuals/supervisors who can provide a detailed account of your accomplishments and abilities to:

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