

Two years post-doctoral position in Biochemistry/Integrated Structural Biology in Strasbourg

A two-year postdoctoral research position is available in the “nuclear signaling and cancer team” at the “Biotechnology and Cell Signaling” laboratory (UMR 7242) in Strasbourg (France), to study multiprotein complexes of the p53 family of proteins.

Research in our team focuses on the inactivation of the tumor suppressor p53 response during carcinogenesis. In the past, we have studied the protein-protein interactions involved in the degradation of p53 by the E6 oncoprotein from human papillomavirus (Martinez-Zapien et al., Nature, 2016, 529, 541-545). The present project focuses on the molecular mechanisms underlying the activities of oncogenic isoforms of the p53 family of proteins. More precisely, by carrying out proteomics analyses combined with functional studies, we have identified novel binding partners of one of the oncogenic isoforms of p73 that is found overexpressed in several types of human cancers resistant to chemotherapy. The main objective of the project will be to understand the overall architecture of these protein complexes and to obtain high-resolution structural data for key interactions within such complexes.

The work will involve protein-protein interaction analyses by a variety of methods (*in vitro* as well as *in cellulo*), *in vitro* reconstitution of recombinant protein-protein complexes and structural analyses. In addition, one part of the project will be devoted to the set-up of novel protocols for the purification of native complexes for proteomics analyses.

The candidate should hold a PhD and have less than two years of post-doctoral experience at the start of the contract. The candidate should be highly motivated, have a solid background in Biochemistry and experience with expression and purification of recombinant proteins. Knowledge of insect and/or mammalian expression systems would be preferred but it is not mandatory. The candidate should also be familiar with analysis and characterization of protein-protein or protein-nucleic acid interactions. Experience with one of the classical structure determination methods (x-ray crystallography, NMR spectroscopy or electron microscopy) would be preferred but it is not mandatory.

The project will be carried out under the supervision of Dr. Katia Zanier and involves collaborations with the International Agency for Research on Cancer in Lyon and Institut Pasteur. Our laboratory is located in the Illkirch campus near Strasbourg, which is internationally known for its excellence in life science research, and has access to numerous facilities equipped with state-of-the-art instrumentation.

Interested applicants should submit (1) a cover letter describing research interests (2) a CV; and (3) contact information for two references by e-mail to Katia Zanier (zanier@unistra.fr).

Expected date of employment: 01/05/2019 or later

Salary (NET): between 2050 and 2300 euros/month

<http://bsc.unistra.fr/en/research-teams/team-zanier/presentation/>