
PhD Position in Cancer Biology and Protein Stabilization (PTEN)

We are offering a fully funded 3-year PhD position in the Computational Structural Biology laboratory of Andrea Cavalli at the Institute for Research in Biomedicine (IRB), Bellinzona.

The PhD project aims to develop and validate novel experimental strategies to stabilize and reactivate the tumor suppressor PTEN in cancer. The work will combine biophysical, biochemical, and cellular approaches, complemented by structural insights, to investigate innovative mechanisms of targeted protein stabilization with therapeutic relevance.

A central goal of the project is to link molecular mechanisms to functional outcomes and therapeutic potential through validation in relevant cellular and preclinical cancer models.

The PhD student will:

- Perform functional validation of lead compounds in cellular systems and contribute to *in vivo* testing in relevant cancer models, gaining insight into efficacy, mechanism of action, and translational potential;
- Gain hands-on experience with advanced experimental techniques at the interface of structural biology, chemical biology, and cancer research;
- Work in close interaction with interdisciplinary collaborators, including experts in medicinal chemistry and translational oncology;
- Be fully integrated into a highly interdisciplinary and international research environment, with strong links to translational and preclinical cancer research.

Profile:

- MSc. in biology, biochemistry, biophysics, structural biology, or related Fields;
- Strong motivation for experimental research;
- Interest in cancer biology and drug discovery;

We offer:

- A stimulating international research environment with journal clubs, seminars given by world-renown scientists, and scientific events;
- Outstanding training, mentoring, and regular scientific exchange;
- PhD students are enrolled in the PhD program of the Università della Svizzera italiana, Lugano;
- Access to state-of-the-art infrastructure;
- Competitive PhD salary according to Swiss standards.

Environment:

Bellinzona is located in the Italian-speaking region of southern Switzerland and offers a high quality of life, abundant outdoor activities, and excellent connections to Zurich and Milan.

Starting date: upon agreement

Duration: 3 years

To apply, please send a CV, a short motivation letter, names and email addresses of two referees to andrea.cavalli@irb.usi.ch