

## Post-Doctoral position for In silico design of high affinity and selectivity protein binders

*Project: AIRC IG 24589 - Computational design of theragnostic nanobodies: targeting missense mutants in metastatic breast cancer cells*

*Commitment & contract: up to 2 years, collaboration contract*

*Location: Genoa, Via Enrico Melen 83*

### **WHO WE ARE**

At IIT we work enthusiastically to develop human-centered Science and Technology to tackle some of the most pressing societal challenges of our times and transfer these technologies to the production system and society. Our Genoa headquarter is strictly inter-connected with our 11 centres around Italy and two outer-stations based in the US for a truly interdisciplinary experience.

### **YOUR TEAM**

You will be working in a multicultural and multi-disciplinary group, where computational scientists in the fields ranging from physics, to chemistry, to engineering collaborate, each with their own expertise, to carry out common research.

The Computational mOdelling of NanosCaIE and bioPhysical sysTems – (CONCEPT) Research Line is coordinated by Dr. Walter Rocchia, who has extensive experience in Computational Biophysics.

The research focuses on development in the fields of molecular modeling and simulation of systems at the nanoscale, with relevant applications to health and biomedical sciences.

Within the team, your main responsibilities will be:

- developing and applying enhanced sampling techniques to accelerate the molecular dynamics simulation of relevant biomolecular processes;
- developing and applying computational techniques for the description, characterization and prediction of protein-protein interaction, especially regarding antigen-antibody recognition and binding;
- following experimental validation of the computational predictions.

### **WHAT WOULD MAKE YOU SHINE**

- A PhD in Computational Chemistry or Biophysics, and similar disciplines
- Good skills in molecular dynamics simulation
- Expertise in using enhanced sampling techniques
- A strong publication record
- The ability to properly report, organize and publish research data
- Good command in spoken and written English

## **EXTRA AWESOME**

- Experience on the application of computational methods to health and medical relevant challenges
- Experience on pharmaceutical applications of computational approaches
- Documented experience in coaching junior scientists
- Good communication skills
- Strong problem solving attitude
- High motivation to learn
- Spirit of innovation and creativity
- Good in time and priority management
- Ability to work in a challenging and international environment
- Ability to work independently and collaboratively in a highly interdisciplinary environment
- Proactivity

## **COMPENSATION & BENEFITS**

- Competitive salary package for international standards
- Private health care coverage
- Wide range of staff discounts

## **WHAT'S IN FOR YOU?**

- An equal, inclusive and multicultural environment ready to welcome you with open arms. Discrimination is a big NO for us!
- We like contamination and encourage you to mingle and discover what other people are up to in our labs!
- If paperwork is not your piece of cake, we got you! There's a specialized team working to help you with that, especially during your relocation!
  
- If you are a startupper or a business-minded person, you will find some exceptionally gifted professionals ready to nurture and guide your attitude and aspirations.
- If you want your work to have a real impact, in IIT you will find an innovative and stimulating culture that drives our mission to contribute to the improvement and well-being of society!
- We stick to our values! Integrity, courage, societal responsibility and inclusivity are the values we believe in! They define us and our actions in our everyday life. They guide us to accomplish IIT mission!

If you feel this tickles your appetite for change, do not hesitate and apply!

For any question you can write to [walter.rocchia@iit.it](mailto:walter.rocchia@iit.it)

**The application can be submitted at:**

<https://iit.taleo.net/careersection/ex/jobdetail.ftl?lang=en&job=2200000F>

**including a detailed CV, university transcripts (in case of junior applicants), cover letter outlining motivation, experience and qualifications and contact details of 2 references.**

**Present deadline is February 2<sup>nd</sup> 2022, possibly it may be extended.**