

*A training network for the chemical site-selective modification of proteins: Preparation of the next-generation of therapeutic chemically-defined protein conjugates – ProteinConjugates (MSCA-ITN-2015-ETN-675007)*

**PhD Project Title (Task) - Chemical site-selective functionalization of proteins with boronic acids**

**Deadline of application:** 29/02/2016

**Objectives:** To create more stable homogeneous conjugates based on cysteine functionalization

**Description:** Boronic acids are unique chemical entities with unmatched reactivity for chemical synthesis and exhibit unique structural features to be used as building blocks. Recognizing the potential of these reagents for selective chemical protein modification, Shultz and co-workers have disclosed a seminal study in which p-boronophenylalanine was genetically encoded into proteins. In this project, we envisioned to perform the site-selective chemical incorporation of this functionality through the use of suitable reagents that enable the formation of stable thioether ligations. This will be achieved using reaction of engineered cysteine residues with vinyl dipicolinic acid derivatives.

**Candidates Profile**

- Valid degree in any field of Life Sciences or Natural Sciences
- Knowledge in chemical synthesis.
- Good knowledge in English, spoken and written
- Good informatic skills
- Experience with standard laboratory equipment and tools
- Motivation for new challenges

**Documents for application**

- Motivation Letter
- Detailed CV
- Academic Certificates
- 2 reference letters

Applications should be addressed to Dr. Gonalo Bernardes through the general email [imm-hr@medicina.ulisboa.pt](mailto:imm-hr@medicina.ulisboa.pt)

The successful candidate will be employed **for a maximum of 36 months** and will receive an annual salary package according to the allowance amounts defined in the rules for Early Stage Researchers (ESRs) EU Marie Skłodowska-Curie Actions Innovative Training Networks (ITN) ([http://ec.europa.eu/research/participants/portal/doc/call/h2020/h2020-msca-itn-2015/1622613-itn\\_2015\\_-\\_guide\\_for\\_applicants\\_v1\\_en.pdf](http://ec.europa.eu/research/participants/portal/doc/call/h2020/h2020-msca-itn-2015/1622613-itn_2015_-_guide_for_applicants_v1_en.pdf))

- Living allowance – 33.252, 12€

- Mobility allowance – 7.200€
- Family allowance – 6.000€ (if applicable)

**IMPORTANT NOTE:** The annual amounts above include all charges with gross salary and other allowances under the contract, work accident insurance and all taxes due according to Portuguese Labor Law.

**Eligibility criteria:**

- IMM Lisboa welcomes candidates of any nationality, irrespective of gender, age, race or ethnic background

- be an 'early stage researcher' (i.e. in the first four years of his/her research career and not have a doctoral degree)

- Not have resided in Portugal for more than 12 months in the 3 years prior to the recruitment date and not have carried out their main activity (work, studies, etc.) in Portugal.