

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) - Metal-Mediated Site-selective Modification of Proteins at Tryptophan

Deadline of application: 30/10/2015

Objectives: Development of two metal-based complementary methods for the chemical-site selective protein modification of proteins at tryptophan (Trp).

This PhD project explores metalmediated methods for site-selective modification at tryptophan (Trp). Of all proteinogenic amino acids, Trp it is the only amino acid that contains an indole ring which is key for specific Trp recognition in many biological processes, and also provides a handle with unique reactivity. In addition, many proteins possess a single Trp residue such as biologically relevant Annexin V or MCP-1 (the two proteins that will be used to demonstrate the methodology proposed).

The ESR1 will use molecular modelling studies to assess which Trp side chains on the sequence of an anti-HER2 IgG antibody are more reactive (secondment at Universidade de la Rioja) and will perform the chemical modification of the same antibody with a potent cytotoxic drug through a C-C bond and subsequent efficacy tests.

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. Gonçalo Bernardes through the general email 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)

- Living allowance – 33.252, 12€
- Mobility allowance – 7.200€
- Family allowance – 6.000€

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.