2 PhD positions Marie Curie ITN:

TOPIC: Targeting Cytotoxic Protein Oligomers

Aarhus (DK) and Utrecht (NL)

Advertised at:

http://inanoschool.au.dk/for-applicants/phd-at-inanoschool/open-phd-positions/phd-calls-by-project/topic-targeting-cytotoxic-protein/

Applications are invited for two Marie Curie Initial Training Network European Industrial Doctorates, available as two PhD fellowship/scholarships at the Graduate School of Science and Technology, Aarhus University, Denmark, within the Nanoscience programme. The project is expected to start from 1 November 2013 or earlier.

These two positions are part of the Marie Curie Initial Training Network TOPIC (Targeting Cytotoxic Protein Oligomers). This project is a European Industrial Doctorate at the interface between molecular biology and biophysics, and deals with oligomeric protein aggregates which accumulate in Parkinson's Disease and Huntington's Disease where they target nerve cells. Based on the working hypothesis that the cytotoxic oligomers engage in a number of unwanted interactions with proteins and membranes, the scientific objective of TOPIC is to identify, quantitate and rank these interactions within the context of the cellular interactome. This objective will be realized in 2 European Industrial Doctorates (EID). The two EIDs will spend half the time at Aarhus University, Denmark and the other half at Crossbeta Biosciences B.V., Utrecht, The Netherlands.

TOPIC's training programme offers a unique opportunity for the 2 EIDs to carry out central parts of translational research in both an academic and SME setting, spanning a multitude of different cellular, biophysical and mass spectrometric techniques of general use in the life sciences. Our target oligomeric proteins are proteins which are key players in Parkinson's Disease and Huntington's Disease. By analysing two different proteins in parallel projects, we will be able to validate the robustness of our approach and potentially identify generic small molecules to target misfolded protein oligomers in general. Each project involves 3 work packages, involving 1. Identification of oligomeric binding partners, 2. Elucidation of the biological effects of oligomer binding to binding partners and 3. Biophysical analysis of oligomer-binding partner interactions and ranking of appropriate binding partners. Techniques will include state-of-the-art mass spectrometry and biophysical techniques in combination with proprietary technology to stabilize these oligomers.

Qualitifications and competences:
Scientists having a high quality molecular biology or biophysics degree, excellent communication skills, are result/goal oriented, have a positive mind set and interest and/or experience in

interdisciplinary projects in the life sciences and in collaborations between different research groups are preferred.
All suitably qualified candidates irrespective of gender or nationality are welcome to apply as long as the following conditions have been fulfilled:
• Applicants should have good knowledge of English, both written and oral in order to be able to submit reports and the doctoral thesis in English.
• Applicants should have, or expect to obtain, a first class degree or diploma (Masters or equivalent) in an appropriate scientific discipline (including molecular biology, biochemistry or biophysics).
• Applicants should be in the first 4 years (full-time equivalent) of their research careers, including the period of research training, starting at the date of obtaining the degree which would formally entitle them to embark on a doctorate.
• **As part of a Marie Curie Initial Training Network, it is a requirement that applicants should not have resided or performed their main activity in Denmark for more than 12 months in the 3 year period immediately prior to the start date.**

Place of employment and place of work

The place of employment is Aarhus University. The two EIDs will spend half the time at iNANO, Aarhus University, Denmark and the other half at Crossbeta Biosciences B.V., Utrecht, The Netherlands.

Contacts:

Applicants seeking further information are invited to contact Professor Daniel Otzen (iNANO, Aarhus University), e-mail dao@inano.au.dk.

Application procedures:

Please apply for this specific project here:

http://talent.au.dk/phd/scienceandtechnology/opencalls/

Choose August 2013 Call with deadline 1 August 2013.

You will be directed to the call, and must choose the programme 'Nanoscience '
Then you must fill out the information regarding:

- Personal information
- Academic background
- Admission
- Financing (if any)
- Study: In the dropdown menu you must choose the project: " TOPIC: Targeting Cytotoxic Protein "
- Source (how you found out about the call)
- References (as a minimum 1 must be uploaded)
- Application material (pdf only, max 20 MB, no zip): Motivation, CV, Diploma and transcript of records, project description

Please be aware that you cannot save the application and continue working on it later. Therefore, you must have all relevant appendices, attachments, addresses for referees, etc. ready when you apply, as the entire application must be uploaded to the system in one go.

As a minimum you need to upload the application material:

- one reference letter
- curriculum vitae,
- motivation (max. 1 page)
- transcripts and diploma(s) in one merged file. Please enter your unweighted grade average calculated and based on your transcript's grading scale, BSc and MSc separately.
- project description (½-4 pages) For technical reasons, you must upload a project description. When - as here - you apply for a specific project, please simply copy the project description above, and upload it as a PDF in the application. If you wish to upload more than one document you must scan/merge all documents into one large file and upload this. Please note that we reserve the right to remove scientific papers, large reports, theses and the like. Instead you can indicate a URL where the information is available.

You cannot submit the application if one or several of these documents have not been uploaded.

An applicant for whom English is a secondary language must document that he/she is able to speak and write English at the level required by the Graduates School of Science and Technology. This is done by passing an IELTS test or TOEFL test before submitting the application for admission. These tests are not required from:

1. Applicants from countries where English is the official language
2. Applicants from European countries
3. Applicants able to document that English was the language of instruction during their BSc and/or MSc education.

Minimum test scores:
IELTS: 6.5 points
TOEFL: 560 (paper-based) or 83 (internet-based)

A certified English translation is required for documents written in languages other than Scandinavian.

The programme committee may request further information or invite the applicant to attend an interview.