

IBMC - Instituto de Biologia Molecular e Celular

Research fellowship (f/m)

Internal Code: Norte2020NEURO56

Project: NORTE-01-0145-FEDER-000008 – Porto Neurosciences and Neurologic Disease Research Initiative at i3S

Title: Structural studies of the amyloid beta interaction with transthyretin

IBMC/i3S is opening **1 (one) Research Fellowship** to join its Research Program in Molecular Biophysics

We are looking for a Fellow holding a MSc in Bioengineering, Biochemistry or related fields (final grade ≥ 15), preferentially with experience in protein production and purification, X-ray crystallography and kinetics studies of amyloid formation.

Group and PI: Bioengineering and Synthetic Microbiology Group (Luís Gales)

Work Plan:

Transthyretin (TTR) protein is a tetrameric protein that transports the thyroid hormone thyroxine (T4) in the plasma and in the cerebrospinal fluid. Amyloid beta (Ab) peptides are fragments of 36-43 amino acids originated from the amyloid precursor protein that may be cut by several enzymes to yield Ab. Ab peptides strongly aggregate being the main component of the amyloid plaques found in the brains of Alzheimer Disease (AD) patients.

Several studies indicate that TTR plays a role in AD pathogenesis. However, to the best of our knowledge, there is no atomic model of the TTR/Ab complex structure to disclose the inhibitory role of TTR in Ab aggregation.

X-ray crystallography, complemented with other biophysical techniques, will be used to investigate the interaction at the molecular level between TTR and Ab.

The work will be developed at Instituto de Investigação e Inovação em Saúde - i3S, Porto, Portugal.

The MSc Fellowship will be for 4 months, renewable up to 19 months, and it is expected to start in October 1st 2017.

The fellowship amount is 980 euros, paid by bank transfer, preferentially.
(<http://alfa.fct.mctes.pt/apoios/bolsas/valores>)

Fellowships are regulated by current laws relating to the Statute of Science Research Fellows, namely Law 40/2004 of August 18, amended and republished by Decree-Law No. 202/2012 of 27 August and the Regulation of Scientific Research Studentships of IBMC approved by Fundação para a Ciência e Tecnologia
(<http://www.fct.pt/apoios/bolsas/docs/RegulamentoBolsasFCT2015.pdf>)

Selection Committee:

Luís Gales, PhD

Isabel Cardoso, PhD

Paula Tamagnini, PhD

Applications are open from September 10th to September 23rd, 2017.

To apply for the MSc Fellowship interested candidates must hold a MSc degree and submit the following documents a) Complete CV; b) Letter of Motivation; and c) Referee Letter, *via* the online application system:

<http://www.ibmc.up.pt/gestaocandidaturas/index.php?codigo=Norte2020NEURO56>

The ranking list of candidates will be published at IBMC website, and the selected candidate will be notified by email.