



## POST DOCTORAL POSITION – Lab of Maria Veiga da Cunha and Emile Van Schaftingen

We are a small but very active research group, which is part of the Duve Institute, a multi-disciplinary and international biomedical research institute of the UCLouvain in Brussels. We are experts in regulation of metabolism and pioneers in the discovery of “metabolite-repair enzymes” and their involvement in the new class of “Inborn Errors of Metabolite repair”.

**Our goal:** We focus on understanding unsolved metabolic questions related to defects in enzymatic activities as often seen in many Inborn Errors of Metabolism.

In our most recent discovery, we showed that neutropenia, leading to severe infections in patients with Glycogen Storage Disease type Ib and G6PC3-deficiency was due to the accumulation in neutrophils of an inhibitor of glucose metabolism [1]. This resulted in a new treatment for these patients’ neutropenia, with a major improvement in “neutrophils health” and patients’ clinical state [2], which is now starting to be tested world-wide. Consequently, in our lab, part of our work is devoted to understanding why neutrophils are so sensitive to the accumulation of this inhibitor, to improve our understanding of the pathology.

We have also recently identified and published [3] a **new neurological disease** due to a defect of an enzyme involved in sugar metabolism in brain, but whose precise function is not understood. We now aim at understanding the physiological role of this enzyme with the ultimate goal of improving the clinical state of the patients.

We use state of the art metabolic analysis techniques in cell cultures and mouse models that we combine with biochemical and enzymatic approaches to unravel these questions.

**Your qualifications and skills:** We require a PhD degree on the fields of biomedical or biochemical sciences. Experience in cell biology, metabolomics, enzymology and/or experience with working with mouse models are assets. We like highly motivated researchers, quality-oriented, with a strong interest in questions of fundamental research related to biochemistry and metabolism. A good command of the English language (spoken and written) is necessary.

**What we offer:** A 2 year post-doctoral fellowship (with the possibility of renewal), financed by the Belgian FNRS. The possibility to join a small lab and participate in high impact projects in a multidisciplinary environment with very good training conditions.

**Interested?** Please send your application to Maria Veiga da Cunha ([maria.veiga@uclouvain.be](mailto:maria.veiga@uclouvain.be)) Your application should include: (1) a CV including previous research experience with a list of publications; (2) a short cover letter (max half-page)

describing your motivation, research interests and expertise; (3) the contact information of two referees.

**Starting date:** To be discussed but as soon as possible from June 2021.

**References :**

<https://www.deduveinstitute.be/metabolite-repair-and-inborn-errors>

[1] **Veiga-da-Cunha M**, Chevalier N, Stephenne X, Defour JP, Paczia N, Ferster A, Achouri Y, Dewulf JP, Linster CL, Bommer GT, Van Schaftingen E. (2019). Failure to eliminate a phosphorylated glucose analog leads to neutropenia in patients with G6PT and G6PC3 deficiency. Proc Natl Acad Sci U S A 116: 1241-1250.

[2] Wortmann SB, Van Hove JLK, Derks TGJ, Chevalier N, Knight V, Koller A, Oussoren E, Mayr JA, van Spronsen FJ, Lagler FB, Gaughan S, Van Schaftingen E, **Veiga-da-Cunha M**. (2020). Treating neutropenia and neutrophil dysfunction in glycogen storage disease IB with an SGLT2-inhibitor. Blood 136: 1033-1043.

[3] Morava E, Schatz UA, Torring PM, Abbott MA, Baumann M, Brasch-Andersen C, Chevalier N, Dunkhase-Heinl U, Fleger M, Haack TB, Nelson S, Potelle S, Radenkovic S, Bommer GT, Van Schaftingen E, **Veiga-da-Cunha M**. (2021) Impaired glucose-1,6-biphosphate production due to bi-allelic PGM2L1 mutations is associated with a neurodevelopmental disorder. Am J Hum Genet. 2021 May 5:S0002-9297(21)00148-8. Online ahead of print.