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Drug Analysis and Drug Information, Center for Neurosciences
Faculty of Medicine and Pharmacy
Vrije Universiteit Brussel

Prof. Dr. Ilse Smolders, Co-promoter

Department of Pharmaceutical Chemistry
Drug Analysis and Drug Information, Center for Neurosciences
Faculty of Medicine and Pharmacy
Vrije Universiteit Brussel

Prof. Dr. Tom Beckers, Co-promoter

Department of Psychology and Leuven Brain Institute
KU Leuven



PhD in Pharmaceutical Sciences
2019-2020

INVITATION to the Public defence of

Anouk PIERRE

To obtain the academic degree of '**DOCTOR OF PHARMACEUTICAL SCIENCES**'

A scavenger hunt towards a better understanding of the involvement of ghrelin receptor signaling in emotion regulation

Wednesday, 5 february 2020 at 5 p.m.

In Auditorium **Piet Brouwer**

Faculty of Medicine and Pharmacy, Laarbeeklaan 103, 1090 Brussel

How to reach the campus Jette:

<http://www.vub.ac.be/english/infoabout/campuses>

Summary of the dissertation

Post-traumatic stress disorder can develop in people that have experienced or witnessed a shocking or dangerous event. Psychological and pharmacological treatments are available but up to 50 % of patients do not benefit from these interventions or rapidly relapse. This emphasizes the need for novel interventions that are based on a better understanding of contributing risk factors. Interestingly, a potential risk factor for post-traumatic stress disorder is obesity. Obesity increases the risk for mental health problems and there are indications that dysregulation of the ghrelin hormone system not only controls food intake but might also contribute to several symptoms in mental disorders. Stress increases plasma ghrelin levels, which may have a protective role in stress-coping. However, diet-induced obesity induces disrupted ghrelin receptor function or ghrelin resistance, which in turn may have deleterious effects on stress-coping. In this doctoral thesis, we aimed to gain a better understanding of the involvement of ghrelin receptor and changes in its function in emotion regulation. We therefore performed fundamental research in mice.

Curriculum Vitae

Anouk Pierre studied Biomedical Sciences at the Vrije Universiteit Brussel, Faculty of Medicine and Pharmacy. She performed her Master thesis at the department of Pharmaceutical Chemistry, Drug analysis and Drug information (Vrije Universiteit Brussel, Faculty of Medicine and Pharmacy) and also had the opportunity to do a short-term scientific mission (funded by the European Cooperation in Science & Technology) at the Institut des maladies neurodégénératives (Bordeaux, France). In 2015, she obtained her Master's degree (summa cum laude). Between 2015 and 2019, Anouk performed a PhD in pharmaceutical sciences (FWO aspirant) at the department of Pharmaceutical Chemistry, Drug analysis and Drug information (Vrije Universiteit Brussel, Faculty of Medicine and Pharmacy). During this period, Anouk was member of the Doctoral School Council, Animal Welfare Cell and PhD United (Vrije Universiteit Brussel). Currently, she is working as a Research Scientist at UCB (Neurodegeneration group, *in vivo* pharmacology, Braine l'Alleud). Anouk is first author of one published paper entitled « Effects of disrupted ghrelin receptor function on fear processing, anxiety and saccharin preference in mice » (Psychoneuroendocrinology, 2019) and one paper that is currently under minor revision entitled « Effects of ghrelin receptor activation on forebrain dopamine release, conditioned fear and fear extinction in C57BL/6J mice » (Journal of Neurochemistry). In addition, Anouk is co-author of two published papers entitled « Differential Effects of a Full and Biased Ghrelin receptor Agonist in a Mouse Kindling Model » (International Journal of Molecular Sciences, 2019) and « Inhibition of astroglial connexin43 hemichannels with TAT-Gap19 exerts anticonvulsant effects in rodents » (Glia, 2018).