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FACULTEIT GENEESKUNDE EN FARMACIE

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UITNODIGING

Voor de openbare verdediging van het
doctoraatsproefschrift van

Jeanelle PORTELLI

Woensdag 30 mei 2012

U wordt vriendelijk uitgenodigd op de openbare verdediging van het proefschrift van

Jeanelle PORTELLI

'Hippocampal neuropeptides and their receptors as neurobiological targets in preclinical pharmacological drug development for limbic epilepsy'

Op **woensdag 30 mei 2012** om **17 uur** in auditorium **Brouwer** van de Faculteit Geneeskunde & Farmacie Laarbeeklaan 103, 1090 Brussel

Situering van het proefschrift

Epilepsy is one of the most common serious neurological disorders. Around 50 million persons worldwide have active epilepsy with recurrent seizures and, in spite of the medical advances over the years, 30% of these patients remain drug resistant. The search for new antiepileptic drugs is ongoing, and emphasis is being put in the discovery of compounds that have distinct profiles of activity than the antiepileptic drugs currently on the market. Increasing attention is given towards neuropeptides as potential leads in preventing seizures.

The main findings of this thesis were the elucidation of the anticonvulsant mechanism of action of ghrelin, as well as the identification of the potential role the neuropeptide FF (NPFF) system may play in limbic seizures. These results were achieved using an array of in vivo and in vitro techniques, including the use of transgenic mice knocked out for the ghrelin receptor. The work present in this thesis lays the foundation for further characterization of these neuropeptide systems as potential antiepileptic drug targets.

Curriculum Vitae

Jeanelle Portelli was born on November 3rd 1984 in Toronto, Canada. In 2002 she started her studies in Pharmacy at the University of Malta, where she graduated in 2007. In 2005, benefitting from the EU Erasmus exchange program, she spent four months at the Department of Pharmaceutical Chemistry and Drug Analysis of the Vrije Universiteit Brussel. The VUB Erasmus experience galvanized her interest in neuroscience research. She returned to Belgium in September 2007 and started her PhD research at the same laboratory under the promotorship of Prof Ilse Smolders and Prof Yvette Michotte.

Her PhD work focussed on the role of the neuropeptides ghrelin and NPFF as potential targets for the development of new antiepileptic drugs for persons with refractory epilepsy. For the ghrelin project, she actively collaborated with Janssen Pharmaceutica and in 2011, thanks to an FWO travel grant, she performed electrophysiology experiments at the MRC Centre for Synaptic Plasticity of the University of Bristol, UK. As for the NPFF project, she actively collaborated with the University of Strasbourg, France.

Through her PhD work she has published four publications in international peer-reviewed journals, one book chapter, and currently has two manuscripts in the submitted state. She has presented her work in a number of national and international congresses, and was co-promotor of two Master theses in Pharmaceutical Sciences and Biomedical Sciences.