



University of Groningen

The two sides of the coin of psychosocial stress: evaluation by positron emission tomography

Kopschina Feltes, Paula

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version Publisher's PDF, also known as Version of record

Publication date: 2018

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA): Kopschina Feltes, P. (2018). The two sides of the coin of psychosocial stress: evaluation by positron emission tomography [Groningen]: University of Groningen

Copyright Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): http://www.rug.nl/research/portal. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

The two sides of the coin of psychosocial stress: evaluation by positron emission tomography

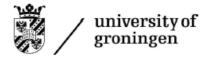
Paula Kopschina Feltes

The research reported in this thesis was carried out within the Department of Nuclear Medicine and Molecular Imaging of the University Medical Center Groningen, in collaboration with the Biomedical Gerontology Graduate School at the Pontifical Catholic University of Rio Grande do Sul.

The reported research contained in this thesis was financially supported by a scholarship from the Graduate School of Medical Sciences (Abel Tasman Talent Program) of the University Medical Center Groningen and from Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), Brazil.

Printing of this thesis was financially supported by the University Medical Center Groningen, and the research school of Behavioral and Cognitive Neurosciences (BCN).

Cover design and layout: Paula Kopschina Feltes Image artist: Christos Georghiou Printing: Ridderprint BV, The Netherlands ISBN: 978-94-034-0791-3 (Hard copy) ISBN: 978-94-034-0790-6 (electronic version) Dissertation of University of Groningen, Groningen, The Netherlands Dissertation of Pontifical Catholic University of Rio Grande do Sul, Rio Grande do Sul, Brazil Copyright © 2018 Paula Kopschina Feltes





The two sides of the coin of psychosocial stress: evaluation by positron emission tomography

PhD thesis

to obtain the degree of PhD of the University of Groningen on the authority of the Rector Magnificus Prof. E. Sterken and in accordance with the decision by the College of Deans.

and

to obtain the degree of Doctor of Biomedical Gerontology of the Pontifical Catholic University of Rio Grande do Sul on the authority of the Rector Magnificus Prof. Evilásio Teixeira and in the accordance with the decision by the College of Deans.

Double PhD degree

This thesis will be defended in public on

Wednesday 11 July 2018 at 16:15 hours

by

Paula Kopschina Feltes

born on 8 February of 1989 in Itajaí, Brazil

Supervisors

Prof. R.A.J.O Dierckx

Co-supervisors

Dr. E.F.J. de Vries

Dr. J. Doorduin

Dr. C.M. Moriguchi-Jeckel

Assessment Committee

Prof. R. A. Schoevers

Prof. B. J. L. Eggen

Prof. M.E. Bauer

Paranymphs

Dr. Anniek K.D. Visser

Dr. Luis Eduardo Juárez-Orozco

Table of Contents

Chapter 1	-	General introduction
Chapter 2	-	Anti-inflammatory treatment for major depressive disorder: implications
		for patients with an elevated immune profile and non-responders to
		standard antidepressant therapy 32
Chapter 3	-	Repeated social defeat induces transient glial activation and brain
		hypometabolism: a PET imaging study70
Chapter 4	-	Pharmacokinetic analysis of 11C-PBR28 in the rat model of herpes
		encephalitis (HSE): comparison with (R)-11C-PK11195 100
Chapter 5	-	Glial, metabolic and behavioral response to recurrent psychosocial stress:
		PET imaging in stress-sensitized and stress-naïve aged rats 124
Chapter 6	-	High dopaminergic D2 receptor availability as assessed by 11C-raclopride PET
		is associated with appetitive aggression in Long Evans rats
Chapter 7	-	Discussion and future perspectives
Chapter 8	-	Summary
Chapter 9	-	Nederlandse Samenvatting
Chapter 10) -	Acknowledgments