

VU Research Portal

Neuronal network changes in Alzheimer's disease

van Heusden, Fran Chiara

2023

DOI (link to publisher)
[10.5463/thesis.60](https://doi.org/10.5463/thesis.60)

document version
Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

van Heusden, F. C. (2023). *Neuronal network changes in Alzheimer's disease*. [PhD-Thesis - Research and graduation internal, Vrije Universiteit Amsterdam]. s.n. <https://doi.org/10.5463/thesis.60>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Take down policy

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.

E-mail address:
vuresearchportal.ub@vu.nl

TABLE OF CONTENTS

Chapter 1	General introduction	6
Chapter 2	Early parvalbumin interneuron hyperexcitability in APP/PS1 mice coincides with potassium channel dysregulation	34
Chapter 3	Neurophysiological alterations in mice and humans carrying AD mutations in <i>APP</i> and <i>PSEN1</i> genes	64
Chapter 4	Unraveling impaired nesting behavior in the APP/PS1 mouse model of Alzheimer's disease	112
Chapter 5	Longitudinal assessment of working memory performance in the APP ^{swe} /PSEN1 ^{dE9} mouse model of Alzheimer's disease using an automated figure-8-maze	144
Chapter 6	General discussion	162
	Oscillatory network activity in mouse models of Alzheimer's disease	167
Summary		188
References		192
Acknowledgements		234