

VU Research Portal

Deciphering Neuropathological Heterogeneity in Alzheimer's Disease: Beyond Plaques and Tangles

Boon, Baayla Dimitri Catharina

2022

document version

Publisher's PDF, also known as Version of record

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

citation for published version (APA)

Boon, B. D. C. (2022). *Deciphering Neuropathological Heterogeneity in Alzheimer's Disease: Beyond Plaques and Tangles*. Ridderprint BV.

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

Contents

Section 1	General introduction	9
Chapter 1	Introduction	11
Section 2	Heterogeneity in Alzheimer's disease pathology: distribution of neuroinflammation in (a)typical AD phenotypes	29
Chapter 2	Neuroinflammation is increased in the parietal cortex of atypical Alzheimer's disease	31
Chapter 3	A distinct distribution of neuroinflammation, indicating a specific role for reactive astrocytes in clinical atypical Alzheimer's disease	65
Section 3	Heterogeneity in Alzheimer's disease pathology: Aβ deposit diversity	93
Chapter 4	The coarse-grained plaque: a divergent A β plaque-type in early-onset Alzheimer's disease	95
Chapter 5	Label-free vibrational imaging of different A β plaque types in Alzheimer's disease reveals sequential events in plaque development	153
Chapter 6	Multimodal, label-free fluorescence and Raman imaging of amyloid deposits in snap-frozen Alzheimer's disease human brain tissue	191
Section 4	Translating pathology to the memory clinic via imaging	243
Chapter 7	Amyloid- β PET and CSF in an autopsy confirmed cohort	245
Chapter 8	Amyloid- β , pTau and reactive microglia load are correlates of MRI cortical atrophy in Alzheimer's disease	
Chapter 9	Can post mortem MRI be used as a proxy for in vivo? A case study	269
Section 5	Closing remarks	297
Chapter 10	Summary	321
Chapter 11	General discussion	335
Chapter 12	Dutch summary (Nederlandstalige samenvatting)	351
Addendum	List of publications	364
	Alzheimer Center hall of fame	367
	Acknowledgments (dankwoord)	372
	About the author	383