Contents

Chapter 1 General introduction 7

Chapter 2 Cerebral microdialysis of Interleukin (IL)-1β and IL-6: extraction efficiency and production in the acute phase after severe traumatic brain injury in rats
Acta Neurochir 2008(150)1277-84 15

Chapter 3 Increased cerebral (R)-[11C]PK11195 uptake and glutamate release in a rat model of traumatic brain injury: a longitudinal pilot study
Journal of Neuroinflammation 2011(8)67 31

Chapter 4 Reference tissue models and blood-brain barrier disruption: lessons from (R)-[11C]PK11195 in traumatic brain injury
J Nucl Med 2009 (50)1975-9 47

Chapter 5 Widespread and prolonged increase in (R)-[11C]PK11195 binding after traumatic brain injury
J Nucl Med 2011 (52)1235-9 57

Chapter 6 Long-term increased (R)-[11C]PK11195 binding in perilesional traumatic brain injury zones
Submitted 69

Chapter 7 General discussion 81

Chapter 8 Summary 91

Chapter 9 Samenvatting 97

Appendices
List of abbreviations 102
Bibliography 104
Dankwoord 106
Curriculum Vitae 110
References 111