Contents

Chapter 1  General introduction and outline of the thesis 9

Chapter 2  Validated sandwich ELISA for the quantification of tissue Transglutaminase in tissue homogenates and cell lysates of multiple species
Journal of Immunological Methods (2008); 332(1-2):142-50 33

Chapter 3  Local tissue Transglutaminase activity directs experimental Multiple Sclerosis pathology
Submitted for publication 45

Chapter 4  Appearance of tissue Transglutaminase in astrocytes in Multiple Sclerosis lesions: a role in cell adhesion and migration?
Brain Pathology (2010), in press 67

Chapter 5  Astrocyte-derived tissue Transglutaminase interacts with fibronectin: a role in glia adhesion and migration?
Manuscript in preparation 85

Chapter 6  Tissue Transglutaminase activity is involved in the differentiation of oligodendrocyte precursor cells into myelin-forming oligodendrocytes during CNS (re)myelination
Submitted for publication 105

Chapter 7  Summarizing discussion 125

8  References 139

9  Samenvatting 155

10  List of publications & Curriculum vitae 161

11  Dankwoord 165