CONTENTS

LIST OF ABBREVIATIONS

CHAPTER 1: General Introduction

CHAPTER 2: Histopathologic correlate of a specific MRI feature in white matter disorders
2.1 Histopathologic correlates of radial stripes on MR images in lysosomal storage disorders

CHAPTER 3: Quantitative MRI in white matter disorders with known pathology
3.1 Childhood white matter disorders: quantitative MR imaging and spectroscopy
   (Radiology. 2006 Nov;241(2):510-7)
3.2 Correlating quantitative MR imaging with histopathology in X-linked adrenoleukodystrophy
   (Am J Neuroradiol. 2011 Mar; scheduled for publication)

CHAPTER 4: Quantitative MRI in white matter disorders with unknown pathology
4.1 Unravelling pathology in juvenile Alexander disease: serial quantitative MR imaging and spectroscopy of white matter
   (Neuroradiology. 2009 Oct;51(10):669-75)
4.2 Quantitative MR imaging and spectroscopy in congenital cytomegalovirus infection and periventricular leukomalacia suggests a comparable neuropathologic substrate of the white matter lesions
4.3 A new leukencephalopathy with brainstem and spinal cord involvement and high lactate

CHAPTER 5: Summary, general discussion, and future perspectives

CHAPTER 6: Summary in Dutch

BIOGRAPHY AND LIST OF PUBLICATIONS

ACKNOWLEDGEMENTS