# TABLE OF CONTENTS

Chapter 1  General introduction, aims and outline of the thesis  1

**PART I  HOST IMMUNE RESPONSE TO TUBERCULOUS MENINGITIS AND THE ROLE OF VITAMIN D**

Chapter 2  Host immune response to tuberculous meningitis  13
Chapter 3  Seasonal variation in the incidence rate of tuberculous meningitis is associated with sunshine hours  33
Chapter 4  The role of vitamin D and cathelicidin LL-37 in the pathophysiology of tuberculous meningitis  43
Chapter 5  Vitamin D deficiency in native Dutch and first- and second-generation non-Western immigrants  59

**PART II  EARLY DIAGNOSIS IN CHILDHOOD TUBERCULOUS MENINGITIS AND CLINICAL OUTCOME**

Chapter 6  Lipoarabinomannan enzyme-linked immunosorbent assay for early diagnosis of childhood tuberculous meningitis  75
Chapter 7  Improved diagnosis of childhood tuberculous meningitis using more than one nucleic acid amplification test  89
Chapter 8  The impact of drug resistance on clinical outcome in children with tuberculous meningitis  103

**PART III  GENERAL DISCUSSION AND SUMMARY**

Chapter 9  General discussion with overview of the studies and future perspectives  125
Chapter 10  Summary & Nederlandse samenvatting  139

Addendum  Authors and Affiliations  151
Curriculum Vitae  155
List of Publications  157
Abbreviations  159