Contents

PART I  BACKGROUND INFORMATION 7
Chapter 1  General introduction 9
Chapter 2  The role of melatonin treatment in chronic kidney disease 29

PART II  DISTURBED CIRCADIAN RHYTHMS 51
Chapter 3  Disturbed peripheral circadian rhythms in hemodialysis patients 53

PART III  TREATMENT STRATEGIES 75
Chapter 4  The effects of kidney transplantation on sleep, melatonin, circadian rhythm and quality of life in kidney transplant recipients and living donors 77
Chapter 5  Long-term effects of melatonin on quality of life and sleep in hemodialysis patients (Melody study): a randomized controlled trial 97
Chapter 6  The effects of day-time light treatment on sleep, sleep propensity, drowsiness, melatonin and depressive symptomatology in hemodialysis patients, a pilot study 119

Chapter 7  Summarizing discussion 139
Chapter 8  List of publications 151
Chapter 9  Nederlandse samenvatting 155
Chapter 10  Begrippenlijst 167
Chapter 11  Dankwoord 173
Chapter 12  Curriculum vitae 181