

# CONTENTS

Chapter 1	Introduction	9
Part I	Microbiota	
Chapter 2	Composition and stability of intestinal microbiota of healthy children within a Dutch population	23
Chapter 3	Variability of core microbiota in newly diagnosed treatment-naive paediatric Inflammatory Bowel Disease patients	51
Chapter 4	Characterization of microbiota in children with chronic functional constipation	77
Chapter 5	Composition and diversity of the duodenal mucosa-associated microbiome in children with untreated coeliac disease	95
Chapter 6	Disturbance of microbial core species in new onset Juvenile Idiopathic Arthritis	109
Part II	Application of microbiota profiling in clinical practice	
Chapter 7	Ulcerative gastritis and esophagitis in two children with <i>Sarcina ventriculi</i> infection	123
Chapter 8	Serial microbiota analysis after fecal microbiota transplantation in a child with Down syndrome	133

Part III	Flatography	
Chapter 9	Sniffing out paediatric gastrointestinal diseases: the potential of volatile organic compounds as biomarkers for disease	147
Chapter 10	Faecal gas analysis by electronic nose as novel, non-invasive method for assessment of active and quiescent paediatric inflammatory bowel disease: proof of principle study	167
Chapter 11	Early detection of necrotizing enterocolitis by fecal volatile organic compounds analysis	187
Chapter 12	Detection of sepsis in preterm infants by fecal volatile organic compounds analysis: a proof of principle study	205
Chapter 13	Necrotizing enterocolitis: a clinical review on diagnostic biomarkers and the role of the intestinal microbiota	223
Chapter 14	Summary and general discussion	247
	Nederlandse samenvatting	261
	Dankwoord	269
	About the author	278
	List of publications	279

