Andreas Ohlin (1972) received his medical degree in 1997 from the Karolinska Institute in Stockholm. After completing his internship at Örebro University Hospital, he was employed at the Department of Pediatrics in 1999, and finished his paediatric training there in 2005. Andreas had his first practical PCR experiences as a medical student in 1996, working with Kerstin Lindblad in Martin Schalling’s group at the Karolinska Institute. He was recruited to Jens Schollin’s research group and the PCR project in 2001 and was registered as a PhD student at Örebro University in 2006 with Professor Jens Schollin as his supervisor. Andreas is currently working as a paediatric specialist at the Örebro University Hospital with a focus on neonatology.

Sepsis in the newborn is a relatively common and severe condition that is complicated to diagnose. This thesis presents four studies all designed to improve this problematic diagnostic situation. The studies describe the clinical signs associated with neonatal sepsis, and present a real-time PCR method that can detect bacterial DNA in blood samples from newborns with suspected sepsis. Furthermore, the fourth study presents a new genotyping method for Staphylococcus epidermidis isolates based on PCR for the repeat regions of four genes that encode for bacterial cell wall anchoring proteins.