## **STELLINGEN**

## behorende bij het proefschrift

## MOLECULAR DIAGNOSTICS FOR INFECTIOUS GASTROENTERITIS

## Moleculaire diagnostiek voor infectieuze gastro-enteritis

- 1. The nucleic acid extraction procedure is a crucial step for obtaining optimal performance when using molecular-based methods for detection of enteropathogens in feces. *This thesis*.
- Although the low positive predictive value of real-time PCR hamper the use of these assays as a stand-alone test for diagnosis of *Clostridium difficile* infection (CDI), the high negative predictive value and speed makes them an excellent choice as a first screening test in a twostep algorithm. *This thesis*.
- 3. Use of molecular screening approaches results in significantly increased detection rates of enteropathogens and a considerable decrease in time to reporting of results. *This thesis.*
- Policies to reduce the costs of hospitalization due to gastroenteritis should be focussed on control measures for prevention of rotavirus infection in both children and adults. This thesis.
- 5. As currently applied culture protocols for detection of fastidious *Campylobacter* species perform poorly, molecular-based methods play an important role in determining the clinical relevance of these bacterial species in diarrheal disease. *This thesis*.
- The increased frequency of norovirus outbreaks late 2012 and being associated with the emergence of the new variant NoV GII.4.2012 Sydney, is caused by changes in the main blockade epitopes allowing escape from existing herd immunity. *Euro Surveill. 2013.* 18:8-9.
- As fecal microbiota transplantation is a safe, effective, low cost treatment for recurrent *Clostridium difficile* infection, this treatment should be widely adopted in clinical practice in the near future. *Cleve Clin J Med.* 2013. 80:101-8.
- As the emerging pathogen *Escherichia albertii* possesses the locus of enterocyte effacement (LEE), many strains have been misidentified as enterohemorrhagic (EHEC) or enteropathogenic (EPEC) *Escherichia coli. Emerg Infect Dis. 2012.* 18:488-92.
- The marked difference in epidemiology, symptomatology, and frequency of complications of current EHEC 0104:H4 infections, supports the suggested naming of "EAHEC disease" and empowers the need for a standard of practice for clinical monitoring. *PLoS One. 2013. 8:e55278.*
- 10. The detection of human-associated genotypes of *Dientamoeba fragilis* in pigs confirms their role as natural hosts and suggests the potential for zoonotic transmission of this parasite. *Emerg Infect Dis.* 2012. **18**:838-41.
- 11. Considering the amount of work involved to complete a PhD, ignorance is truly bliss when commencing one.

Richard Ferdinand de Boer Rotterdam, 24 mei 2013