Stellingen

Behorend bij het proefschrift

DEVELOPMENTS AND CLINICAL APPLICATIONS IN DIAGNOSTIC MOLECULAR MICROBIOLOGY

ONTWIKKELINGEN EN KLINISCHE TOEPASSINGEN IN DE DIAGNOSTISCHE MOLECULAIRE MICROBIOLOGIE

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1. Despite the risk of contamination-associated false-positive results, broad-range 16S rDNA-based detection of bacterial pathogens in normally sterile clinical materials is feasible within any clinical microbiology laboratory. *This thesis.*

2. Although many commercially available (semi-)automated nucleic acid extraction methods are based on the “BOOM” chemistry, this does not result in identical performance characteristics. *This thesis.*

3. Real-time PCR provides increased sensitivity and speed for the detection of gastrointestinal pathogens compared to classical diagnostic approaches. *This thesis.*

4. The diagnosis of shiga-toxin producing *Escherichia coli* (STEC)-associated diarrhea in The Netherlands should be adapted for inclusion of non-O157 STEC, including *stx*<sub>2</sub>-carrying STEC. *This thesis.*

5. Molecular detection of *Giardia lamblia*, *Cryptosporidium hominis*/parvum, *Entamoeba histolytica*, *Dientamoeba fragilis* and *Blastocystis hominis* will provide an effective alternative for, and will likely replace, microscopy based testing in general practice patients without travel history. *This thesis.*


8. The oseltamivir resistant H1N1 influenza strain (A/H1N1/H274Y) that emerged during the 2007/2008 influenza season in several European countries, including The Netherlands, shows that influenza virus can acquire resistance without significantly compromising fitness and transmissibility. [http://www.eurosurveillance.org/edition/v13n05/080131_2.asp](http://www.eurosurveillance.org/edition/v13n05/080131_2.asp) and NIEUWSBRIEF INFLUENZA-SURVEILLANCE 2007/08 **16**:5.

9. The occurrence of an outbreak of Chikungunya virus infection in a country (Italy) with a temperate climate emphasizes that the predicted globalization of human beings and vectors has become a reality. *Lancet* 2007. **370**:1840–1846.

10. The newly discovered “Merkel cell polyomavirus” may represent the first example of a human cancer in which a polyomavirus genome is naturally integrated into cellular DNA, the key event in experimental polyomavirus-induced animal tumors. *Science* 2008. **319**:1049-1050 and *Science* 2008. **319**:1096-1100.

11. Today’s highly absorbing diapers act counter-productive in toilet training.