

Stellingen

Behorend bij het proefschrift

DEVELOPMENTS AND CLINICAL APPLICATIONS IN DIAGNOSTIC MOLECULAR MICROBIOLOGY

**ONTWIKKELINGEN EN KLINISCHE TOEPASSINGEN IN DE
DIAGNOSTISCHE MOLECULAIRE MICROBIOLOGIE**

Tim Schuurman

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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_{2F}* 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*.
6. The emergence of a new "zoonotic" source of methicillin-resistant *Staphylococcus aureus* (MRSA) could have a severe impact on the epidemiology and control of community acquired MRSA, especially in countries currently using a search-and-destroy policy. *Clin. Microbiol. Infect.* 2008. **14**:29-34.
7. The association of human bocavirus and gastrointestinal disease is intriguing, but requires further study to define bocavirus as a genuine enteric pathogen. *Emerg. Infect. Dis.* 2007. **13**:1620 and *J. Clin. Virol.* 2008. **41**:29-33.
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 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.