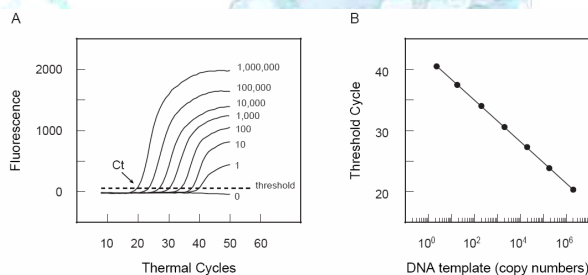


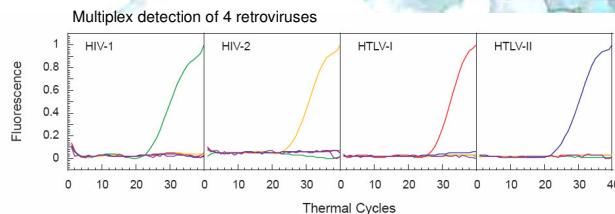
Design & Development of multiplex Real-Time PCR assays

The last 10 years have seen several innovative technologies emerging for performing homogenous genetic analysis. Using thermal cyclers with the capacity to monitor fluorescence, amplification can be followed in real-time, enabling the establishment of fully automated molecular diagnostic assays.

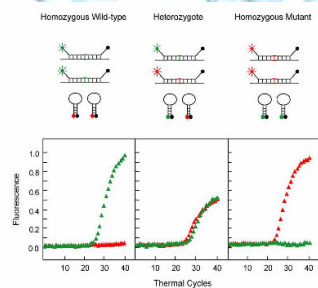
- Quantification of nucleic acids can be achieved by measuring the increase in fluorescence during the exponential phase of PCR. The point at which the fluorescence rises significantly above background is called the threshold cycle (Ct) (A). There is an inverse linear relationship between the log of the starting amount of template and the corresponding Ct-value during real-time PCR (B).



- Multiplex detection of different target in one assay enables the development of cost effective diagnostic assays



- SNP-detecting probes (e.g. molecular beacons) enable automatic screening of different genotypes



In close collaboration with NYtor (www.nytor.nl), HAN BioCentre (www.hanbiocentre.nl) offers the design, development and validation of multiplex real-time PCR assays to study e.g. gene expression, genotyping and detection of pathogens.