

International practical PCR courses in Life Sciences 2012

Who should attend?

These courses are particularly intended for (post)bachelor students and laboratory personnel, who want to improve their knowledge and experience in PCR.

Principles, parameters and applications of PCR

Date: February 28 2012, (code 2545)
Course Leader: Dr. Martie C.M. Verschuren, Avans Hogeschool.

Aim: This short course aims at training the participant in the basic principles and applications of the Polymerase Chain Reaction (PCR) and real-time PCR. The program consists of a series lectures and experiments covering all basic PCR topics like efficiency, fidelity and specificity of the PCR reaction.

Topics

Theory:

Principles of DNA amplification technologies; The biochemical and physical aspects of the PCR; Principles, parameters, and design of (real-time) PCR primers; Principles and parameters of detection of PCR products; Principles of Real-time PCR; detection formats, assay formats; PCR contamination prevention

Practicals:

Determination of the sensitivity and template dependency of the PCR; Real-time PCR dilution series and melting curve analysis;

Avans Hogeschool organises this one-day course on PCR and the basic principles and formats of real-time PCR as a basic introductory course for the advanced course on quantitative PCR techniques.

Real-Time PCR in molecular diagnostics

(3 days course)

Date: 29 February - 2 March 2012 (code: 2548)
Course leader: Dr. O. Bakker, **Qpcr&A**, NL

Aim: Real time Polymerase Chain Reaction is becoming more and more important in almost all laboratories. Especially in diagnostic laboratories real time PCR is a new, and promising, technique to identify bacteria, viruses and genetic alterations in human cells. The aim of this international short-course is to give the participants an in-depth view in the theoretical and practical knowledge of real time PCR techniques in molecular diagnostics. State-of-the-art experts in the field of real time PCR techniques from several diagnostic laboratories will provide theoretical and practical expertise.

Topics:

Pre-qPCR: Sample preparation and RNA isolation of complex tissues for qPCR, including MagnaLyser and Polytron
qPCR: Quantitative PCR techniques, including detection with SybrGreen and different probe formats, i.e. probelibrary
Post-qPCR: Housekeeping genes, Normalisation, and data analysis, including Assumption free analysis of PCR efficiency (LinReg), genorm, qBASE, probefinder software.

Basic knowledge of molecular biology in general and (real-time) PCR is a prerequisite for attending this course on quantitative PCR techniques.

Course Location

All courses will be held at the Academy of Life Science, Avans Hogeschool, Breda, The Netherlands and will be given in English.

For more information and registration, please visit our website:

<http://www.alsavans.nl>

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