

BASIC MOLECULAR BIOLOGY MODULE 4: PCR AND REAL-TIME PCR

AN ONLINE LEARNING COURSE
AVAILABLE ON WWW.CDC.TRAIN.ORG

Sponsored by the
Division of Laboratory Systems,
Center for Surveillance, Epidemiology and Laboratory Services,
Centers for Disease Control and Prevention



DESCRIPTION

Molecular techniques have been widely used in clinical diagnosis, e.g., diagnosing disease, predicting disease course, and identifying infectious agents. This basic Molecular Biology course series will introduce the scientific background for molecular diagnosis, the principles of laboratory settings, and common methods.

This basic-level eLearning course, Module 4, provides information on the principle of PCR and real-time PCR. Topics covered include PCR steps, PCR product analysis, real-time PCR characteristics, real-time PCR quantification, and roles of PCR controls.

AUDIENCE

This online course is designed for public health and clinical laboratory staff, and persons interested in PCR and real-time PCR techniques.

SPECIAL NEEDS

Course content is closed captioned, where applicable, and optimized for a screen reader.

FREE REGISTRATION

- Locate the course online at www.cdc.gov/labtraining
- Follow the link to register for the course in TRAIN
- If you have difficulty with the online registration process, please email labtraining@cdc.gov



OBJECTIVES

At the conclusion of this course, the participant will be able to:

- Explain the basic steps involved in PCR
- Identify the components of PCR, reverse transcription PCR, and PCR product analysis
- Recognize the characteristics of real-time PCR
- Identify the techniques used to detect products in real-time PCR
- Differentiate the nucleic acid quantification processes used in real-time PCR
- Explain the roles of PCR controls

CONTINUING EDUCATION

The Centers for Disease Control and Prevention, Division of Laboratory Systems is approved as a provider of continuing education programs in the clinical laboratory sciences by the ASCLS P.A.C.E.® Program. This course is approved for 1.0 contact hours. P.A.C.E.® course number: 288-004-19

For a complete list of courses, visit www.cdc.gov/labtraining.