
HMX Pro - Genetic Testing and Sequencing Technologies

The field of genetic testing is expanding and evolving at an incredible rate, thanks to our growing knowledge of genetic conditions, dropping costs, and higher demand. This rapid expansion has dramatically changed how we diagnose and screen for genetic conditions, who we test, and how informative the results are. Thus, learning about the recent advances in genetic testing and sequencing technologies has important implications for anyone working in health care and related sectors.

Participants will:

- Learn about the commonly used genetic testing platforms and their clinical applications
- See how genetic testing is applied in clinical settings to diagnose and screen for genetic conditions
- Get an inside look at sequencing technologies and emerging genetic tests
- Learn how improved genetic testing can lead to better health care and precision medicine

Topics Covered

Overview of Genetic Testing and Sequencing Technologies

- What is Genetic Testing?
- The Promise of Genetic Testing and Sequencing Technologies

Clinical Genetic Testing

- Overview of Genetic Testing
- Traditional Cytogenetics
- Microarray Diagnostics
- Biochemical Genetic Tests
- Diagnostic Genetic Testing
- Reproductive Genetic Testing
- Predictive Genetic Testing
- Clinical Linkage: Prenatal Genetic Testing

Sequencing Technologies

- Sequencing Approaches
- Polymerase Chain Reaction
- Sanger Sequencing
- Sequencing by Synthesis
- Raw Data Analysis
- Variant Identification and Classification
- Variant Reporting Errors
- Clinical Linkage: Diagnostic Genetic Testing

Emerging Areas in Genetic Testing and Analysis

- Non-coding Variants
- DNA Methylation Testing
- Improving Variant Classification
- Complex Trait Variants
- Determining Risk in Complex Traits
- Long Read Sequencing
- Single Cell Sequencing
- Progress Towards Patient Customized Healthcare
- Clinical Linkage: Variant Classification and the EpiChroma Clinic

Wrap-up

- The Future of Genetic Testing and Sequencing Technologies

The HMX Pro Series offers a new online learning experience designed to get busy professionals up to speed on the latest advances in medicine. Concepts are taught using whiteboard-style videos and animations and reinforced by interactive elements, true-to-life scenarios, and real patient cases to enhance learning.