

# Molecular Diagnostics in Clinical Practice

Course content provided on demand



Memorial Sloan Kettering  
Cancer Center



## Course Overview

**Molecular diagnostics** is one of the most dynamic and transformative areas in health care. Our ability to properly and successfully utilize this information in routine clinical practice relies on familiarity with the technology, the factors that impact test performance and specific interpretation of results in the context of all available clinicopathologic information.

This on demand course features a comprehensive overview of the current landscape of molecular diagnostics as it applies to the diagnosis, risk assessment, management and monitoring

of patients with solid tumors and hematologic neoplasms. Participants will also learn about current and evolving clinically relevant biomarkers, the importance of proper test utilization, specimen handling and interpretation of results in the context of the clinical and pathologic presentation. Throughout the 6 month period that the course will be available, registrants will have the opportunity to interact with faculty, who are experts in their field, to answer questions, both theoretical and technical.

Registration at: [www.mskcc.org/mskmolpath](http://www.mskcc.org/mskmolpath)

Physicians (MDs, PhDs and DOs)	\$300
Advanced Practice Providers	\$250
Nurses, Techs, and Other Healthcare Providers	\$150
Residents and Fellows	\$75
Industry Professionals	\$435

### Contact

**Sarah B. Virgo**

*Manager, Pathology Communications  
Department of Pathology*

**Memorial Sloan Kettering Cancer Center**

1275 York Avenue, H-504, New York, NY 10065  
T 212.639.5696 F 212.772.8521 P 631.664.7632  
[cooks@mskcc.org](mailto:cooks@mskcc.org)

## Course Director



Maria E.  
Arcila, MD

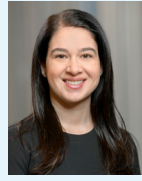
## Organizing Committee



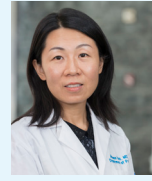
Mark D.  
Ewalt,  
MD



Kseniya  
Petrova-  
Drus,  
MD, PhD



Dara  
Ross,  
MD



JinJuan  
Yao,  
MD, PhD

## Course Faculty

Hikmat Al-Ahmadie, MD

Maria E. Arcila, MD

Tejus Bale, MD, PhD

Ryma Benayed, PhD

Jamal Benhamida, MD

Michael Berger, PhD

Ozge Birsoy, PhD

Laetitia A. Borsu, PhD

A. Rose Brannon, PhD

Jason Chang, MD

Snjezana Dogan, MD

Benjamin Durham, MD

Mark D. Ewalt, MD

Meera Hameed, MD

Caleb Ho, MD

Marc Ladanyi, MD

Natasha Lewis, MD

Ying Liu, MD, PhD

Diana Mandelker, MD, PhD

Amir Momeni-Boroujeni, MD

Khedoudja Nafa, PharmD, PhD

Kseniya Petrova-Drus, MD, PhD

Ryan Ptashkin, MS

Dara Ross, MD

Efsevia Vakiani, MD, PhD

Chad Vanderbilt, MD

Wenbin Xiao, MD, PhD

Soo-Ryum Yang, MD

JinJuan Yao, MD, PhD

Menglei Zhu, MD, PhD

## Faculty Disclosure

It is the policy of MSK to make every effort to ensure balance, independence, objectivity, and scientific rigor in all continuing medical education activities which it sponsors as an ACCME accredited provider. In accordance with ACCME guidelines and standards, all faculty participating in an activity sponsored by MSK are expected to disclose any significant financial interest or other relationship with the manufacturer(s) of any commercial product(s) and/or provider(s) of commercial services which are discussed by the faculty members in an educational presentation. As required by the ACCME, when an unlabeled use of a commercial product or an investigatory use not yet approved for any purpose is discussed during an educational activity, MSK requires the speaker to disclose that the product is not

labeled for the use under discussion or that the product is still investigational.

## AMA Credit Designation Statement

Memorial Sloan Kettering Cancer Center designates this live activity for a maximum of **14.5 AMA PRA Category 1 Credits™**. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

## Outcomes Measurement Survey

Six months after the end of the course an Outcomes Measurement Survey will be sent to all participants to help us determine what positive impacts have been made on participant practice as a result of the course.

## Educational Objectives

- Describe basic and advanced molecular diagnostic methods used in clinical laboratories
- Discuss information on advantages, pitfalls and factors that impact results of molecular testing
- Provide up-to-date information on classification and stratification of patients with solid tumors and hematologic malignancies based on current and evolving molecular biomarkers
- Offer an overview on how to select a testing method based on the sample and the clinical scenario

## Intended Audience

Clinicians, pathologists, medical trainees and other health care professionals who have an interest in this subject matter and utilize molecular diagnostic tests for diagnosis and management of their patients.

## Course Design

This course was created exclusively for on demand viewing. With short, high-yield overviews of molecular testing methods and applications to major solid tumor and hematologic malignancies, Molecular Diagnostics in Clinical Practice – On Demand gives you the flexibility to learn at your own pace, from your own place.

Purchase of this program includes access to videos of 30 sessions and PDFs of speaker presentations.

## Evaluation

Upon completion of your participation, an evaluation will be available for you to submit feedback on the program and claim CME credit.

Registration and instructions on accessing the material are available at [mskcc.org/mskmlpath](http://mskcc.org/mskmlpath).

## Accreditation Statement

Memorial Sloan Kettering Cancer Center is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

# Molecular Diagnostics in Clinical Practice Course Content

BASIC METHODS		
<p><b>Introduction</b> <i>Marc Ladanyi, MD</i></p> <p><b>Basic Review of Molecular Methods</b> <i>Maria E. Arcila, MD</i></p>	<p><b>RNA Based Methods Including Fusion Detection and Expression Analysis</b> <i>Ryma Benayed, PhD</i></p> <p><b>cfDNA Analysis in the Peripheral Blood</b> <i>A. Rose Brannon, PhD</i></p>	<p><b>cfDNA Analysis in Body Fluids</b> <i>Soo-Ryum Yang, MD</i></p> <p><b>Germline Testing in Cancer Patients</b> <i>Diana Mandelker, MD, PhD</i></p> <p><b>Quality Assurance and Quality Control in Molecular Diagnostics</b> <i>JinJuan Yao, MD, PhD</i></p>

SOLID TUMORS		
<p><b>Gastrointestinal Malignancies</b> <i>Efsevia Vakiani, MD, PhD</i></p> <p><b>Breast Tumors</b> <i>Dara Ross, MD</i></p> <p><b>Lung Tumors</b> <i>Jason Chang, MD</i></p>	<p><b>Central Nervous System Neoplasms</b> <i>Tejus Bale, MD, PhD</i></p> <p><b>Head and Neck Tumors</b> <i>Snjezana Dogan, MD</i></p> <p><b>Soft Tissue and Bone Malignancies</b> <i>Meera Hameed, MD</i></p>	<p><b>Urologic Malignancies</b> <i>Hikmat Al-Ahmadie, MD</i></p> <p><b>Gynecologic Tumors</b> <i>Amir Momeni-Boroujeni, MD</i></p>

HEMATOLOGIC MALIGNANCIES		
<p><b>Acute Myeloid Malignancies</b> <i>Wenbin Xiao, MD, PhD</i></p> <p><b>Acute Lymphoid Leukemias and Leukemias of Ambiguous Lineage</b> <i>Kseniya Petrova-Drus, MD, PhD</i></p>	<p><b>Chronic Myeloid Neoplasms</b> <i>Ying Liu, MD, PhD</i></p> <p><b>Mature B-Cell Lymphomas</b> <i>Menglei Zhu, MD, PhD</i></p> <p><b>Mature T-Cell Lymphomas</b> <i>Natasha Lewis, MD</i></p>	<p><b>Histiocytic/Dendritic and Mast Cell Neoplasms</b> <i>Benjamin Durham, MD</i></p> <p><b>Hematologic Malignancies Associated with Germline Alterations</b> <i>Ozge Birsoy, PhD</i></p>

ADVANCED TOPICS		
<p><b>Clonality Testing for Characterization and Monitoring of Lymphoid Neoplasms</b> <i>Caleb Ho, MD</i></p> <p><b>High-Sensitivity Methods and Minimal Residual Disease Assessment</b> <i>Mark D. Ewalt, MD</i></p> <p><b>Mutation Signatures</b> <i>Michael Berger, PhD</i></p>	<p><b>Genome-Wide Methylation Profiling: Techniques and Applications</b> <i>Jamal Benhamida, MD</i></p> <p><b>Microbiome from Large Panel NGS Assays</b> <i>Chad Vanderbilt, MD</i></p>	<p><b>Clonal Hematopoiesis</b> <i>Ryan Ptashkin, MS</i></p> <p><b>Cancer of Unknown Origin</b> <i>Maria E. Arcila, MD</i></p>