Molecular Diagnostics in Clinical Practice

October 4-5, 2019

MSKCC Zuckerman Research Center 417 East 68th Street, New York, NY



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 course will feature a comprehensive overview of the current landscape of molecular diagnostics as it applies to the diagnosis and management of solid tumors and hematologic malignancies. Beginning with a review of key basic and advanced methods of testing, our faculty will illustrate the importance of proper test utilization, specimen handling and outline pre- and post-analytical factors and their impact on test results and patient care. Advantages and disadvantages of different methodologies are also covered. Through a case-based approach, participants will learn about current and evolving clinically relevant biomarkers utilized in clinical practice and clinical trials in the diagnosis, risk assessment, management and monitoring of patients with solid and hematologic neoplasms.

Registration

Admission free for MSK staff	Early*	General
MDs, PhDs and DOs	\$350	\$450
Fellows, Residents, and RNs	\$125	\$225

*Early registration deadline is September 16, 2019

Registration fee includes an electronic syllabus and other related hand-out materials, continental breakfast, lunch, and refreshment breaks. Special meals are available upon request, including vegetarian, kosher, or gluten-free. Please let us know if we can assist you with special dietary needs.

To register, go to: www.mskcc.org/mskmolpath

Contact

Sarah B. Virgo

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Educational Objectives

- Provide up-to-date information on basic and advanced molecular diagnostic methods
- Provide up-to-date 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
- Provide an overview on how to select a testing method based on the sample and the clinical scenario
- Provide a basic review on how to interpret molecular reports and where to obtain additional information

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

The course will run for two days and will consist of a series of presentations with some multidisciplinary sessions regarding molecular diagnostics in clinical practice.

Evaluation

A course evaluation survey sent out electronically will provide attendees with the opportunity to review the sessions and the speakers and to identify future educational needs.

Accreditation Statement

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

Memorial Sloan Kettering Cancer Center

Department of Pathology 1275 York Avenue, H-504

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Course Director



Maria E. Arcila MD Laboratory Director, Diagnostic Molecular Pathology Laboratory

Organizing Committee





Petrova-Drus, MD, PhD



JinJuan Yao, MD, PhD

Course Faculty

Tejus Bale, MD, PhD Jamal Benhamida, MD Snjezana Dogan, MD

Hikmat Al-Ahmadie, MD Jason Chang, MD Sarah Chiang, MD

Benjamin Durham, MD Andres Quesada, MD Meera Hameed, MD Marc Ladanyi, MD

Chad Vanderbilt, MD Dana Tsui, PhD Wenbin Xiao, MD, PhD Efsevia Vakiani, MD, PhD Ahmet Zehir, PhD

Faculty Disclosure

1:15-1:45 pm

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 14.25 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.

Advanced Case Studies: Solid Tumor

Jamal Benhamida, MD

Course Schedule

Friday, October 4

8:00-9:00 am **Registration and Continental Breakfast**

Introduction to Molecular Methods Session Chairs: Maria Arcila, MD and Ahmet Zehir, PhD

9:00-9:30 am Clinical Cancer Genomics: A New Pillar in the Management of the Cancer Patient

Marc Ladanyi, MD Non-NGS Methods

9:30-10:00 am Maria Arcila, MD

10:00-10:30 am **Next Generation Sequencing** Maria Arcila. MD

10:30-10:45 am **Break**

10:45-11:15 am **Cell-Free DNA Assessment** Dana Tsui, PhD

11:15-11:45 am The Role of Bioinformatics

Ahmet Zehir, PhD

11:45-12:00 pm The Molecular Pathology Report

Chad Vanderbilt, MD

12:00-1:00 pm Lunch Break

Applications of Molecular Testing to Solid Tumors Session Chairs: Dara Ross, MD and Snjezana Dogan, MD

1:00-1:30 pm **Lung Cancer** Jason Chang, MD 1:30-2:00 pm **Gastrointestinal Malignancies** Efsevia Vakiani, MD, PhD

2:00-2:30 pm **Breast Cancer**

Dara Ross, MD

2:30-3:00 pm **Central Nervous System Neoplasms** Tejus Bale, MD, PhD

3:00-3:15 pm **Panel Questions**

3:15-3:30 pm **Break**

3:30-4:00 pm **Head and Neck Tumors** Snjezana Dogan, MD

4:00-4:30 pm **Soft Tissue and Bone Malignancies** Meera Hameed, MD

4:30-5:00 pm **Gynecologic Tumors** Sarah Chiang, MD

5:00-5:30 pm **Urologic Malignancies** Hikmat Al-Ahmadie, MD

5:30-5:45 pm **Panel Questions**

5:45-7:00 pm **Networking Cocktail Reception**

Participants are invited to join the course director and faculty for a cocktail reception

Saturday, October 5

8:00 - 8:30 am **Continental Breakfast**

Applications of Molecular Testing to Hematologic Malignancies Session Chairs: Caleb Ho, MD and Kseniya Petrova-Drus, MD, PhD

Acute Myeloid Malignancies 8:30 - 9:00 am Wenbin Xiao, MD, PhD

9:00-9:30 am	Acute Lymphoid Leukemias and Leukemias	2:45-3:00 pm	Handling Potential Sample Swaps
	of Ambiguous Lineage		and Sample Contamination
	Kseniya Petrova-Drus, MD, PhD		Maria Arcila, MD

9:30-10:15 am **Chronic Myeloid Neoplasms** 3:00-3:15 pm Break Maria Arcila, MD

Advanced Case Studies: Pitfalls and Important Considerations 10:15-10:30 am **Break** When Using Molecular Methods 10:30-11:00 am **Mature B-Cell Lymphomas**

11:00–11:30 am Mature T-Cell Lymphomas Andres Quesada, MD	3:30-3:45 pm	Advanced Case Studies: Solid Tumor Efsevia Vakiani, MD, PhD
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3:15-3:30 pm

11:30-12:00 pm Histiocytic/Dendritic and Mast Cell Neoplasms 3:45-4:00 pm **Advanced Case Studies: Solid Tumor** Benjamin Durham, MD JinJuan Yao, MD, PhD

Panel Questions 12:00-12:15 pm 4:00-4:15 pm **Advanced Case Studies: Solid Tumor** Jamal Benhamida, MD 12:15-1:15 pm **Lunch Break**

4:15-4:30 pm **Advanced Case Studies: Advanced Topics in Molecular Testing Hematologic Malignancies** Session Chairs: JinJuan Yao, MD, PhD and Chad Vanderbilt, MD

Caleb Ho, MD **Clonality Testing for Characterization and** 4:30-4:45 pm **Advanced Case Studies:**

Monitoring of Lymphoid Neoplasms Hematologic Malignancies Caleb Ho, MD Kseniya Petrova-Drus, MD, PhD

1:45-2:15 pm **High Sensitivity and Minimal Residual** 4:45-5:00 pm **Advanced Case Studies: Disease Assessment**

Hematologic Malignancies Maria Arcila, MD Andres Quesada, MD

2:15-2:30 pm **Handling Scant Material** 5:00-5:15 pm **Closing Remarks** Jason Chang, MD

2:30-2:45 pm **Handling Unexpected Molecular Results**

Chad Vanderbilt, MD

Caleb Ho, MD