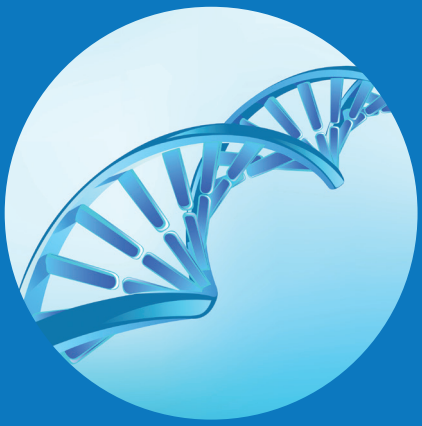
Memorial Sloan Kettering Cancer Center

Molecular Genetic Pathology Fellowship



The Department of Pathology and Laboratory Medicine at Memorial Sloan Kettering Cancer Center offers a 1-year ACGME accredited molecular genetic pathology (MGP) fellowship with 6 positions available annually. All fellows should have completed residency training in anatomic pathology and be certified or eligible for certification by the American Board of Pathology or the Royal College of Physicians and Surgeons of Canada.

The fellowship entails application of molecular diagnostic techniques to the diagnosis of inherited disorders, infectious diseases, and cancer. Fellows will gain exceptional training in cancer-related somatic and germline genetic testing. The volume (over 40,000 cases/year) and variety of molecular testing for somatic and inherited genetic alterations, including non-cancer germline testing and infectious diseases provide ample material for training fellows to become competent in all types of MGP testing. In addition, fellows will gain excellent training in next generation sequencing (NGS) platforms for somatic (solid tumor and hematopathology) and germline testing for patient care. At the present time, the next generation sequencing platform (MSK-IMPACT) for somatic cancer contains 505 genes with complete bioinformatics support with an average volume of 1,000 cases/month. Although this MGP fellowship has pathology as its core program, it also maintains a close relationship with the MSKCC-NYPH medical genetics program.

Number of Positions: 6

Length of Program: 1 Year (July 1 start)

How to Apply:
Online Only
(Deadline Oct 1st)
https://mskcc.embark.com/login/apply?target=pathology

For More Information Visit:
https://www.mskcc.org/departments/pathology-laboratory-medicine/fellowships

https://www.mskcc.org/hcp-education-training/graduate-medical-education

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Scan the QR code for info

Goals and Objectives

- To train pathology fellows to become proficient in the interpretation of molecular diagnostic assays.
- To be capable of directing a molecular diagnostic laboratory.
- To contribute to academic activity within the Laboratory of Diagnostic Molecular Pathology by scholarly publication.
- To master the concepts and practice of new molecular assay development and laboratory administration in the context of an active molecular diagnostic laboratory.
- To help coordinate molecular diagnostic testing with other services in pathology and other clinical departments.

Responsibilities

The trainee is expected to become proficient in understanding the principles of different techniques and types of equipment used in the diagnostic molecular pathology laboratory. To this end, the fellow will be working closely with the technologists to understand the various tests performed in the laboratory.

The fellows rotate through five (5) laboratories including three (3) in the molecular diagnostics service (diagnostic molecular pathology, diagnostic molecular genetics, and clinical cytogenetics).

The fellows also rotate through clinical bioinformatics, where they gain exposure and hands-on experience in bioinformatics analyses and methods pertinent to next generation sequencing assays. Fellows will also rotate with the clinical genetics service at MSKCC and attend lectures with NYPH. In each rotation, the fellow will be responsible for preparation of the cases for sign-out which include checking technical quality and controls, participating in and discussing trouble-shooting with laboratory supervisor or attending, and interpreting results including comparison with previous results and sign-out with attending pathologist. The fellows are also responsible for adequate preparation of cases before analysis (previous results, clinical history, correlation with surgical pathology, cytogenetics, tumor content assessment under attending supervision). They are encouraged to develop research projects in applied molecular diagnostics and help in the set up and validation of new assays, both of which provide opportunities for subsequent publication.

Mark D. Ewalt, MD
Program Director

Tejus Bale, MD, PhD
Associate Program Director