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Memorial Sloan Kettering  
Cancer Center

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The Human Oncology and Pathogenesis Program (HOPP) at Memorial Sloan Kettering was founded to address the challenges presented by cancer research in the era of targeted therapies. By bringing together researchers in many disciplines, our goal is to advance scientific knowledge while bridging discoveries made in the laboratory with those made in the clinic.

Targeted therapies constitute a new class of cancer treatments that have been made possible by advances in the understanding of cancer genetics. These treatments may be individualized based on a unique set of molecular targets produced by a patient's tumor. Because they target specific molecular markers, targeted therapies may also reduce side effects and improve a patient's quality of life during treatment.

Successful translation of molecular insights into clinical trials of new therapies requires physicians and scientists with diverse clinical and scientific training to work in close collaboration with disease-management teams. Under the leadership of Charles Sawyers, HOPP has recruited faculty who are co-

appointed to clinical departments and granted dedicated laboratory space. Our members are experts in skin, colon, prostate, breast, lung, and thyroid cancers, as well as sarcoma, melanoma, glioblastoma, and leukemia, and have clinical training in oncology, hematology, radiation oncology, endocrinology, and pathology. HOPP has established an infrastructure for conducting molecular profiling studies of patient tumor samples on a routine basis. This information is guiding the testing of new targeted therapies in clinical trials at Memorial Sloan Kettering.

In 2019, the Department of Medicine announced an exciting initiative to extend the HOPP model and strengthen our translational immune-oncology programs, involving the creation of two new divisions within HOPP: the Molecular Cancer Medicine Service and the Immune-Oncology Service. Current HOPP investigators who focus on tumor-intrinsic oncogenic drivers, targeted therapies, and mechanisms of resistance will be housed in the Molecular Cancer Medicine Service, led by physician-scientist and international leader in leukemia research, Dr. Ross Levine. Dr. Jedd Wolchok, an expert in immunotherapy clinical research, will lead the Immuno-Oncology Service, which will provide an academic home for up to ten lab-based investigators focused on targeted therapy in cancer immunity.

## HOPP Timeline of Discoveries

Over the past decade, HOPP investigators have made major contributions to cancer science.

[View interactive timeline](#)

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