

# Perlmutter Cancer Center

An NCI-Designated  
Comprehensive Cancer Center

## Fall 2022 Update

LAURA AND ISAAC PERLMUTTER CANCER CENTER

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Part of NYU Langone Health, #1 in the U.S. for quality and safety.

## Perlmutter Cancer Center: Transforming Cancer Care

Over the past several years, with philanthropic support provided by Laura and Isaac Perlmutter, Perlmutter Cancer Center (PCC) has prioritized the growth of its research programs and a highly multidisciplinary approach to cancer medicine. This has resulted in changes to the practice of cancer care and research initiatives that impact the lives of PCC's patients and beyond.

The faculty at PCC remain focused on transforming cancer care. That has resulted in national recognition and support for our research efforts, including SPORC grants awarded for translational research projects in melanoma and population health related to head and neck and colorectal cancers.

In July of this year, PCC joined the National Cancer Institute (NCI)-Cancer Therapy Evaluation Program (CTEP) Experimental Therapeutics Clinical Trials Network (ETCTN) as part of the Dana-Farber/Harvard Cancer Center (DF/HCC) Lead Academic Organizations (LAOs)—one of just 12 LAOs nationwide.

Another initiative, led by a team of researchers at PCC, resulted in four New York City institutions being awarded a three-year, \$1 million grant from Stand Up To Cancer® to bring technology-enabled treatment monitoring to under-represented patient populations. The team will use an AI-assisted app to monitor the side effects of immunotherapy in non-small cell lung cancer patients.

This report shares highlights of some of our current initiatives, including those focused on population health and the reduction of cancer disparities, as well as two newly published studies that reveal how melanoma metastasizes in the brain and how targeting certain gene proteins altered during metastasis could one day help prevent its spread.



*Benjamin G. Neel, MD, PhD,  
director of the Laura and Isaac  
Perlmutter Cancer Center.*

## Highlighted Achievements

### Robotic Diagnosis and Surgery for Lung Cancer in a Single Day

Experts at NYU Langone Hospital—Brooklyn have pioneered an approach to move from diagnosis to curing an early-stage lung cancer in a single day.

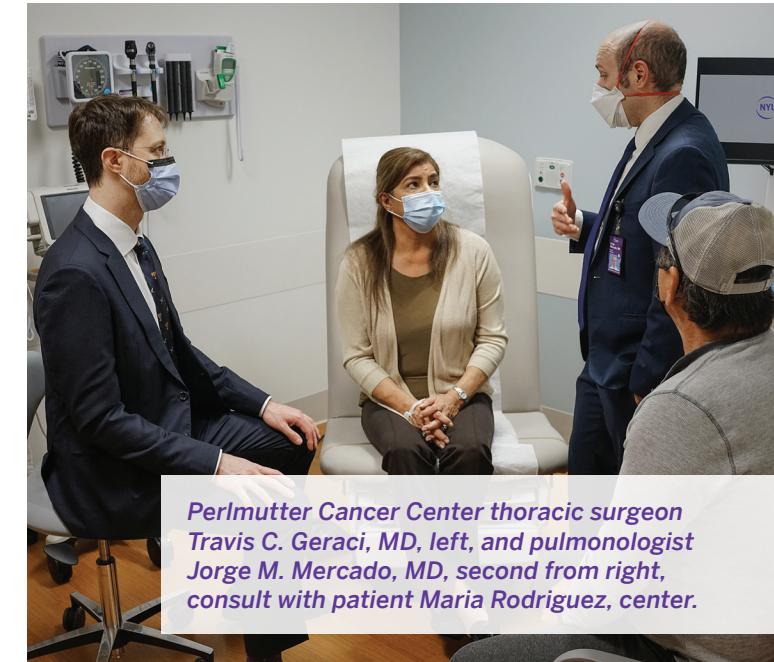
At the behest of her PCP, Maria Rodriguez, 62, received annual lung cancer screening because she was a longtime smoker. In early 2021, her yearly low-dose CT scan revealed a small nodule. Normally, this finding would spur further imaging or a needle biopsy. Instead, Rodriguez, who lives in Brooklyn, skipped these steps thanks to a novel tag-team robotic approach being pioneered by PCC's Lung Cancer Center at NYU Langone Hospital—Brooklyn.

In the OR last March, Jorge M. Mercado, MD, associate section chief of pulmonary, critical care, and sleep medicine, inserted a first-of-its-kind robotic scope called the Monarch through Rodriguez's mouth and airways. Using a handheld controller, Dr. Mercado maneuvered the long, flexible camera deep into her lungs. The unprecedented control of the scope's robotic features allowed Dr. Mercado to safely travel farther into the fragile airways, where he identified and biopsied the suspicious mass.

Deepthi Hoskoppal, MD, clinical assistant professor of pathology, evaluated the sample in the OR rather than transporting it to the pathology lab. Within minutes, Dr. Hoskoppal identified the cancerous cells, and Dr. Mercado injected a contrast marker to aid in locating the cancer during surgery.

The team then exchanged the robotic scope for a robotic surgical system. Thoracic surgeon Travis C. Geraci, MD, assistant professor of cardiothoracic surgery, identified the cancerous area and removed a small segment of the lung. Rodriguez was discharged two days later, effectively cured of her stage I malignancy.

"Removing lung cancer as early as possible is critical to prevent it from spreading," says Dr. Mercado of the same-day approach.



*Perlmutter Cancer Center thoracic surgeon  
Travis C. Geraci, MD, left, and pulmonologist  
Jorge M. Mercado, MD, second from right,  
consult with patient Maria Rodriguez, center.*

Robotic diagnostic and surgical procedures are only half the story of PCC's heightened emphasis on treating lung cancer in Brooklyn's underserved communities. In the summer of 2020, the Lung Cancer Center also launched a screening initiative at the Sunset Park Family Health Center at NYU Langone—Second Avenue. The program leverages NYU Langone's electronic health record system to identify patients who should be scanned annually based on their smoking history and additional risk factors, including a family history of lung cancer and asbestos exposure.

The screening program has expanded to other Family Health Centers at NYU Langone in Brooklyn and NYU Langone Levit Medical in Midwood and is coming to practices in Brooklyn, Queens, Manhattan, and Long Island.

### Clarifying the Mechanics of Melanoma Metastasis

A higher proportion of patients with melanoma develop brain metastasis than from any other common cancer, with an estimated 40% to 50% of stage IV melanomas spreading to the brain. Two studies help reveal how melanoma metastasizes in the brain and how epigenetic regulation may aid its spread.



*Eva M. Hernando-Monge, PhD, a professor of pathology and the assistant dean for research integration, with her team.*

A new study led by NYU Langone Health researchers implicates proteins better known for their roles in Parkinson's disease and Alzheimer's disease in promoting melanoma metastasis. The study published in *Cancer Discovery* demonstrated that amyloid beta (A $\beta$ ) produced by melanoma cells is essential for their growth and survival in brain tissue.

"This study reveals an unexpected role for tumor-secreted amyloid beta in promoting the survival of melanoma brain metastases, and also suggests a new way to counter it," says Dr. Hernando-Monge, who led the research team.

Dr. Hernando-Monge hypothesizes that melanoma cells arriving in the brain behave more like neurons and secrete soluble A $\beta$  which may temper a normal immune response and

enlist astrocytes in a non-inflammatory role that promotes growth of melanoma cells.

The team also showed in a proof-of-principle demonstration that anti-A $\beta$  antibodies initially developed for Alzheimer's disease may hold promise in delaying and significantly reducing the growth of brain metastasis in melanoma.

The group is now testing anti-A $\beta$  antibodies alone and in combination with immunotherapy as a potential treatment for brain metastasis.

A second study led by Dr. Hernando-Monge's team and published in *Science Advances* has helped clarify why some melanomas metastasize even after being fully resected.

For years, the lab has hypothesized that epigenetic mechanisms could be drivers of metastasis. Recently, the group identified a protein called plant homeodomain finger protein 8, or PHF8, that is upregulated in metastatic melanoma cells compared to primary cancer cells.

Silencing PHF8 via two separate mechanisms had no effect on cell proliferation, but consistently reduced cell invasion in an in vitro assay. In an in vivo mouse model, silencing PHF8 also yielded a reduction in metastasis.

Since it shares homology with multiple members of the same family, targeting PHF8 with sufficient specificity may be difficult. Even so, techniques such as targeting PHF8 for degradation by linking it to a ubiquitin ligase enzyme or targeting other proteins downstream of its regulatory activity may yet allow the pathway to be targeted therapeutically.

### Accelerating Innovations in Early-Phase Oncology Trials

Over the past 30 years, there has been a considerable effort on the part of researchers to improve the design and accuracy of early-phase oncology trials. One such effort is the National Cancer Institute (NCI)-Cancer Therapy Evaluation Program (CTEP) Experimental Therapeutics Clinical Trials Network (ETCTN), a partnership program to evaluate early-phase trials in high-priority areas of unmet need through collaboration with a dozen Lead Academic Organizations (LAOs).

#### Perlmutter Cancer Center Joins National Collaborative

PCC has officially joined the ETCTN as part of the Dana-Farber/Harvard Cancer Center (DF/HCC) Lead Academic Organizations (LAOs). Janice Mehnert, MD, a professor of medicine and associate director of clinical research, is serving as site principal investigator for the network.

"We anticipate ETCTN-based collaborations will open new avenues to further the development of innovative cancer therapies," Dr. Mehnert says.

#### Testing Novel Agents in Early-Phase Trials

Kristen Spencer, DO, an assistant professor of medicine and director of the Phase I Developmental Therapeutics Program, is conducting early-stage research and supporting the national execution of new oncology trials.

One NCI-Investigational New Drug (IND) agent currently under evaluation is peposertib, a novel, small molecule, selective DNA-PK inhibitor, which showed synergy with radiotherapy and some chemotherapies in preclinical studies. Recent evidence suggests that peposertib could enhance the efficacy of standard therapeutic regimens in selected tumor types.

Dr. Spencer is serving as national PI for CTEP protocol 10276, an NCI-sponsored trial of peposertib in combination with avelumab and hypofractionated radiation therapy in patients with solid tumors and hepatobiliary malignancies.

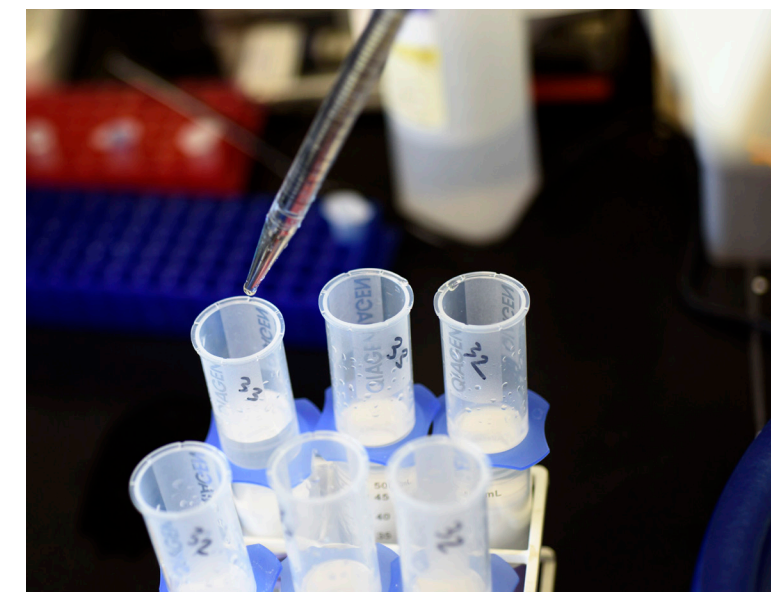
Another IND agent is ASTX727, a unique fixed-dose combination of the hypomethylating agent decitabine. When administered in combination

with immunotherapy, ASTX727 may help stimulate the body's immune system to attack cancer, and interfere with the ability of tumor cells to grow and spread.

#### Advancing Biomarker Discovery

In addition to supporting early-stage clinical trials, the ETCTN also provides support and infrastructure to investigators to conduct studies that incorporate biomarker development and molecular characterization of biospecimens.

Dr. Spencer anticipates the ETCTN partnership will streamline processes required for coordinated biomarker analyses. By adopting shared best practices from member LAOs, Perlmutter Cancer Center will remain at the forefront of biomarker discovery and evaluation.



# Population Health and Cancer Disparities

## Perlmutter Cancer Center

### Working to Eliminate Barriers to Cancer Care in New York City's Most Vulnerable Neighborhoods

PCC has broadened its work in population health and cancer disparities—expanding efforts across the NYU Langone Health system, serving New York City's most vulnerable neighborhoods, and sharing best practices widely.



#### Improving Access in Brooklyn

One such initiative is Stamp Out Cancer Brooklyn (SOCB). Responding to community partners' concerns about healthcare access, SOCB launched a community health worker (CHW) program with four bilingual CHWs who speak a combined 10 languages common to our underserved Brooklyn communities. These professionals are supporting a whole-person approach to cancer screening navigation and care access.

In fall 2021, SOCB reached two additional milestones: First, SOCB launched a large-scale community cancer-needs assessment in October 2021 to better understand the cancer-related challenges and needs of diverse communities across the PCC catchment area, which will guide research and support cross-New York City cancer center collaborations.

Second, the CDC awarded funds to SOCB through NYC CONNECT, a multi-sector and multi-institutional effort to reduce inequities in cancer screening outcomes through community-based interventions on social determinants of health. Through this initiative,

SOCB will seek to improve cancer screening outcomes by strengthening food and healthcare environments and reducing barriers to care.

#### Addressing Women's Needs

Another initiative is the Beatrice W. Welters Breast Health Outreach and Navigation Program. From technology integration to research findings, the program continues to advance breast cancer screening in the community and disseminate best practices in the field.

The Welters Program's PCC patient navigation template allows navigators to communicate seamlessly with each patient's medical care team and document activities such as how the team addresses a patient's social determinants of health and also track each patient's progress across the care continuum. This integration will strengthen the program's care coordination and more effectively assess navigators' impact and patient outcomes.

#### Assessing Potential Barriers to Care

On the research front, Kathie-Anne Joseph, MD, MPH, and other researchers submitted a manuscript to the *Annals of Surgical Oncology*, which found that, despite concerns over increasing disparities in genetic counseling caused by telemedicine, Bellevue Hospital patients' survey responses indicated a successful transition to telemedicine-based genetic counseling during the COVID-19 pandemic. Data showed improved participation and high satisfaction, suggesting that telemedicine may provide an effective method to facilitate access to genetic counseling for minority groups in the future.



## Perlmutter Cancer Center

Perlmutter Cancer Center comprises **59** centers, programs, and services across **36** sites throughout New York City and Long Island.  
**833-698-5722**

#### MANHATTAN

1. Perlmutter Cancer Center—34th Street
  - Doctor's Office
  - Infusion Location
  - Radiation Oncology
2. Perlmutter Cancer Center Radiology—34th Street
  - Imaging Services
3. Perlmutter Cancer Center—38th Street
  - Doctor's Office
  - Infusion Location
4. Perlmutter Cancer Center—Energy Building
  - Doctor's Office
  - Radiation Oncology
5. Transplantation and Cellular Therapy Center—610 Second Avenue
  - Doctor's Office
  - Infusion Location
6. Laura Perlmutter Center for Women's Imaging
  - Doctor's Office
  - Imaging Services
7. NYCyberKnife at Perlmutter Cancer Center—Manhattan
  - Doctor's Office
  - Radiation Oncology
8. Smilow Comprehensive Prostate Cancer Center
  - Doctor's Office

#### BROOKLYN

9. Perlmutter Cancer Center at NYU Langone Brooklyn—4th Avenue Oncology
  - Doctor's Office
10. Perlmutter Cancer Center at NYU Langone Hematology Oncology Associates—Brooklyn
  - Doctor's Office
11. Perlmutter Cancer Center—Sunset Park
  - Doctor's Office
  - Infusion Location
  - Radiation Oncology
12. Perlmutter Cancer Center—Midwood
  - Infusion Location

#### QUEENS

13. Perlmutter Cancer Center at NYU Langone Ambulatory Care Rego Park
  - Doctor's Office
14. Perlmutter Cancer Center at NYU Langone Arena Oncology—Howard Beach
  - Doctor's Office
15. Perlmutter Cancer Center—Rego Park
  - Infusion Location
  - Imaging Services

#### LONG ISLAND

16. Perlmutter Cancer Center at NYU Langone Hospital—Long Island
  - Doctor's Office
17. Perlmutter Cancer Center at NYU Langone Hematology Oncology Associates—Mineola
  - Doctor's Office
18. Perlmutter Cancer Center at NYU Langone Long Island Surgical Oncology Associates
  - Doctor's Office
19. Perlmutter Cancer Center—Mineola
  - Infusion Location
20. Perlmutter Cancer Center Breast Imaging at NYU Langone—Mineola
  - Imaging Services
21. Perlmutter Cancer Center at NYU Langone Gynecologic Oncology Associates—Mineola
  - Doctor's Office
22. Perlmutter Cancer Center at NYU Langone Long Island Breast Surgery Associates—173 Mineola Boulevard
  - Doctor's Office

23. Perlmutter Cancer Center at NYU Langone Long Island Breast Surgery Associates—243 Willis Avenue
  - Doctor's Office
24. Perlmutter Cancer Center Radiation Oncology at NYU Langone—Mineola, 259 First Street
  - Doctor's Office
  - Radiation Oncology
25. Perlmutter Cancer Center at NYU Langone Hospital—Long Island CyberKnife Center
  - Radiation Oncology
26. Perlmutter Cancer Center Radiation Oncology at NYU Langone—Mineola, 264 Old Country Rd.
  - Doctor's Office
  - Radiation Oncology
27. Perlmutter Cancer Center at NYU Langone Arena Oncology
  - Doctor's Office
28. Perlmutter Cancer Center at NYU Langone Lake Success Hematology Oncology
  - Doctor's Office
29. Perlmutter Cancer Center at NYU Langone Long Island Hematology & Oncology
  - Doctor's Office
30. Perlmutter Cancer Center at NYU Langone North Shore Hematology Oncology
  - Doctor's Office
31. Perlmutter Cancer Center—Lake Success
  - Infusion Location
32. Perlmutter Cancer Center at NYU Langone Arena Oncology—Riverhead
  - Doctor's Office
33. Perlmutter Cancer Center at NYU Langone Huntington Medical Group
  - Doctor's Office
34. Perlmutter Cancer Center—Huntington
  - Infusion Location
35. Perlmutter Cancer Center at NYU Langone Gynecologic Oncology Associates—Valley Stream
  - Doctor's Office
36. Perlmutter Cancer Center Radiation Oncology at NYU Langone—Patchogue
  - Doctor's Office
  - Radiation Oncology

# Perlmutter Cancer Center

An NCI-Designated  
Comprehensive Cancer Center



**Top 20**  
cancer hospital  
in the U.S.

**200+**

active therapeutic  
clinical trials

**59**

centers, programs,  
and services across

**36**

sites throughout  
New York City and Long Island

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