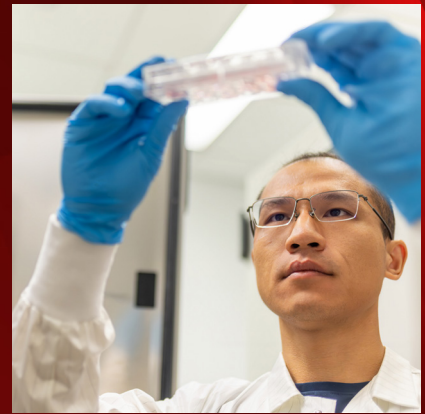


Advancing Together:

A Year in Review

2023 - 2024



RUTGERS HEALTH
Rutgers Cancer Institute





Rutgers Cancer Institute: *Fighting for a Cancer-Free Future*

Rutgers Cancer Institute’s singular mission is fighting cancer through excellence in patient care, groundbreaking clinical trials, and cutting-edge research. As New Jersey’s only National Cancer Institute-designated Comprehensive Cancer Center, Rutgers Cancer Institute together with RWJBarnabas Health provides patients with the most advanced treatment options, including access to clinical trials at facilities located throughout the state. Collaborative discovery is enhanced through a strong partnership with Princeton University, our NCI Consortium Cancer Center partner, which fosters opportunities in translational and population science research. Groundbreaking cancer research is the engine that drives the development of advanced cancer therapies and treatments, ensuring that discoveries translate directly to the best patient care.

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hanks in part to the unwavering support of donors like you, Rutgers Cancer Institute continues to advance our understanding of a disease that impacts so many and achieve new milestones in cancer research, diagnosis, and treatment.

Our internationally recognized scientists and physicians conduct ground-breaking research in areas such as cancer immunology and metabolism, immunotherapy, cancer pharmacology, genomic instability, clinical investigations and precision therapeutics, and clinical research — leading to major advancements in cancer prevention and treatment. We are committed to moving scientific discovery into clinical practice rapidly and efficiently for the communities we serve throughout New Jersey and beyond.

As the state's only National Cancer Institute-designated Comprehensive Cancer Center, together with RWJBarnabas Health, we provide the most advanced treatment options, including clinical trials, close to home. Many of these trials are not offered elsewhere. Through our community outreach and education programs we provide critical information and services to residents throughout the state, ensuring that all individuals receive the cancer care they need when and where they need it — reducing health care disparities.

It will take all of us working together to conquer cancer. Philanthropic support from donors like you has been the key to expanding knowledge and advancing new discoveries, and it is gratifying to share these successes in research and patient care with you. Thank you for being an essential part of our story.

Sincerely,



Steven K. Libutti, MD, FACS
Director, Rutgers Cancer Institute
Vice Chancellor for Cancer Programs,
Rutgers Biomedical and Health Sciences
Senior Vice President, Oncology Services,
RWJBarnabas Health



Philanthropic gifts fuel the fight against cancer. Your support drives the development of innovative cancer prevention strategies, early detection, and effective treatments.

Vision and commitment like yours inspire creative approaches to advance research, strengthen our teams of dedicated clinicians and researchers, and make a profound difference in the lives of patients, their caregivers, and loved ones. Rutgers Cancer Institute can reshape the future of cancer care where the disease is no longer a dreaded diagnosis but a conquerable challenge.

You are invited to take a front-row seat in our journey toward a cancer-free future. The following report will provide you with exclusive insights into our groundbreaking research and cutting-edge clinical trials made possible through your contributions.

With your help, Rutgers Cancer Institute can turn the tide against cancer.

Warm regards,



Loren Savage
Chief Development Officer
Rutgers Cancer Institute



Just the Numbers: 2023

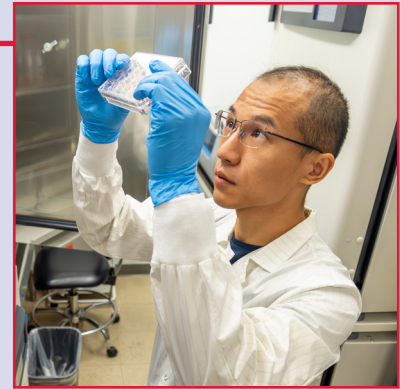
Research

Research Members

303

Research Projects

456



Clinical Trials Opened

Clinical Trials

136

Clinical Accruals

2,585



Clinical Care

Pediatric Patients

3,172

New Patients

11,688

Patient Visits

104,237



A Transformative Investment

As the largest academic health care system in New Jersey, RWJBarnabas Health brings a wealth of resources and expertise to its partnership with Rutgers Cancer Institute. Together, these clinical and research powerhouses are reimagining cancer prevention, diagnosis, and treatment by investing more than \$1 billion across New Jersey to provide state-of-the-art facilities, translational research, sophisticated technologies, and nationally recognized faculty, physicians, and staff.

Key investments include:

- An integrated network of comprehensive cancer research and care, bringing new, state-of-the-art facilities close to home for patients across the region: the Jack and Sheryl Morris Cancer Center, the Melchiorre Cancer Center at Cooperman Barnabas Medical Center, and the Vogel Medical Campus at Tinton Falls.
- The recruitment and retention of world-class clinical and academic leaders to expand their research portfolio and train the next generation of clinicians.
- Expanding clinical research programs at the Duncan and Nancy MacMillan Cancer Immunology and Metabolism Center of Excellence, leading to new cancer therapies.
- Collaborating with the Ludwig Institute for Cancer Research at Princeton University to bolster studies of cancer metabolism, resulting in translation of discoveries into clinical trials and novel therapies.





Saving Lives with ScreenNJ

Cancer is the second leading cause of death in New Jersey. Approximately 57,740 New Jerseyans are projected to be diagnosed with cancer this year, and 15,110 people are expected to die. When detected early, many cancers have a five-year survival rate of more than 90 percent, according to the American Cancer Society. For many cancers, prevention and screening efforts can help reduce risk and improve detection at an early stage when treatments are far more effective. Cancer prevention efforts can include healthy choices such as improving diet, increasing physical activity, and abstaining from tobacco products.

Under the direction of Rutgers Cancer Institute's Cancer Health Equity Center of Excellence, ScreenNJ was established in 2020 in partnership with the New Jersey Department of Health, health systems and federally qualified health centers, primary care clinicians, and community organizations throughout the state. Its mission is to expand cancer screening information and health services, reduce cancer incidence and mortality rates, decrease health disparities, and eliminate barriers. ScreenNJ aims to increase screenings for breast, cervical, colorectal, hereditary, HPV-linked, lung, prostate, and skin cancers to reduce cancer mortality rates.

"ScreenNJ has seen tremendous growth in the past few years since its launch—translating to profound benefits for our communities," says Anita Kinney, PhD, director of ScreenNJ and the Cancer Health Equity Center of Excellence and associate director for Population Science and Community Outreach at Rutgers Cancer Institute. "The frontline battle against cancer begins with outreach and engagement, education, and screenings for all."

Impact and Reach for ScreenNJ

July 2017 – June 2018

LAYING THE GROUNDWORK

- 20 clinical and outreach partners
- 3 counties: Essex, Ocean, Camden

- Community partnerships
- Awareness, prevention, screening, and timely diagnosis/treatment
- Greater statewide reach

July 2018 – 2024

STATEWIDE EXPANSION

- 295 clinical and outreach partners
- 522 sites
- All 21 counties

Statewide Screening Impact for ScreenNJ

July 2018 – June 2024

30,000+

Tobacco Cessation Counseling Sessions

96,000+

Patients Navigated to Screening

7,300+

Cancers and Premalignant Lesions Detected

APPROACHES:

- Education and training
- Technical support
- Clinical services
- Converting clinics to guideline-based care
- Transportation and financial support
- Behavioral economics
- Community grants
- Centralized community navigation

**Partners with: NJ Department of Health, American Cancer Institute, NJ CEED, NJPCA, NJ Regional Health Coalitions, American Lung Association, Rutgers School of Public Health*

Why Diversity Benefits Clinical Trials

Imagine a world where every patient has an equal opportunity to benefit from groundbreaking medical research. The Rutgers Cancer Institute strives to turn this vision into reality with its commitment to diversity in clinical trials.

The institute reviews data regularly to ensure that clinical trials accurately represent the diverse patient population it serves and makes adjustments to improve inclusion. Educating the community is also key, and nurse navigators actively engage with patients to explain the importance and availability of clinical trials. This ongoing dialogue helps ensure patients understand what they can expect when entering such a trial and encourages their participation.

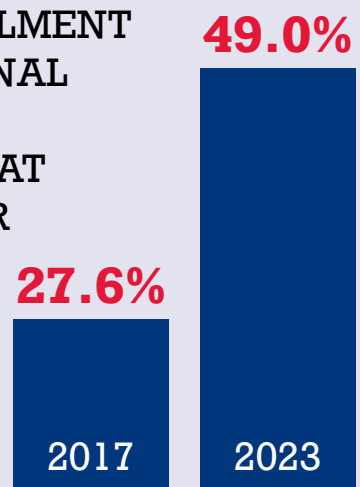
To build strong community relationships, the Community Cancer Action Board stays informed about the institute's activities and provides valuable advice to its scientists. This collaboration helps identify and address potential barriers to minority patient participation. Moreover, trials are scheduled at as many RWJBarnabas Health sites as possible, making them more accessible and convenient for patients.

“These efforts have collectively contributed to the significant increase in minority enrollment in the institute’s clinical trials, furthering its mission to develop more effective treatments and interventions for everyone. Such progress makes a difference and can lead to better health outcomes for patients.”

Mariam F. Eskander,
MD, MPH
Assistant Director,
Clinical Affairs,
Cancer Health Equity
Center of Excellence

MINORITY ENROLLMENT TO INTERVENTIONAL THERAPEUTIC CLINICAL TRIALS AT RUTGERS CANCER INSTITUTE

as percent of enrollment



First Patient Treated with Genetically Modified T-Cells

The Duncan and Nancy MacMillan Cancer Immunology and Metabolism Center of Excellence at Rutgers Cancer Institute is at the forefront of cancer immunology research, and its Good Manufacturing Practice (GMP) facility plays a vital role in clinical trials, ensuring that promising research can quickly move from the lab to patient care.



“Through our specialized GMP facility and research capabilities, we have the potential to transform the lives of patients with cancer,” says Christian S. Hinrichs, MD, chief of Cancer Immunotherapy and co-director of the MacMillan Center.

Rutgers Cancer Institute, together with RWJBarnabas Health, has treated its first patient using genetically modified T-cells manufactured at its GMP facility. A groundbreaking area of oncology research called cell therapy harnesses the immune system to destroy cancer cells. Patients’ T-cells are harvested and genetically engineered to produce receptors that target antigens on the surface of the cancer cells, which effectively kills these cells.

Hinrichs and his team are conducting two studies using genetically engineered T-cells expressing a T-cell receptor (TCR). The first study is a Phase I clinical trial focusing on the KK-LC-1 TCR in cancers of the stomach, breast, lung, and cervix. This trial aims to assess the initial safety of these engineered T-cells in humans. The second study is a Phase II trial targeting E7 TCR produced in HPV-associated cancers. This trial is investigating whether the treatment can effectively shrink or eliminate tumors in these cancers.

...we have the potential to transform the lives of patients with cancer.

- Christian S. Hinrichs

“The GMP facility is the link that connects the discovery of new treatments in laboratories at Rutgers Cancer Institute with the delivery of these treatments directly to patients through RWJBarnabas Health and beyond,” says Steven K. Libutti, MD, FACS, director of Rutgers Cancer Institute. “Each breakthrough in our GMP facility represents a step closer to personalized, effective, and compassionate care for every patient.”

Levy-Longenbaugh Fund Fuels Research on Targeted Cancer Treatment

Philanthropists Lawrence and Linda Levy understand that private funding is essential for advancing new discoveries in cancer research. That's why they have supported the work of Renata Pasqualini, PhD, and Wadih Arap, MD, PhD, for two decades, including the past six years as esteemed professors and division chiefs at Rutgers Cancer Institute, through the Levy-Longenbaugh Fund.



“We are as excited today, as we were decades ago, in Wadih and Renata’s ability to bring light where there was darkness and to create lasting benefit,” the Levys say. “We are honored to be a part of their journey.”

We are as excited today, as we were decades ago, in Wadih and Renata’s ability to bring light, where there was darkness...

- Lawrence and Linda Levy

Most recently, the Levy-Longenbaugh Fund fueled discoveries that led to the establishment of MBrace Therapeutics, a startup cofounded by Pasqualini and Arap and their former colleague Isan Chen, who serves as CEO. “Our goal is to discover and advance novel drugs to offer new treatment options to cancer patients,” Chen says. The company is dedicated to developing ground-breaking cancer treatments leveraging antibody-drug conjugates (ADCs), which precisely deliver medicine to cancer cells. Pasqualini and Arap will continue their academic roles at Rutgers while contributing to MBrace as scientific advisors.

MBrace Therapeutics builds on the pioneering research by Pasqualini and Arap, which identified specific targets and developed antibodies that bind to these targets. Their proprietary screening system, SPARTA (Selection of Phage-Displayed Accessible Recombinant Targeted Antibodies), generates antibodies formulated as ADCs, allowing targeted treatment with minimal impact on healthy cells.

MBrace is enrolling patients with advanced metastatic solid tumors in Phase 1 clinical trials. Rutgers Cancer Institute is among several sites hosting these promising studies.

Renata Pasqualini, Wadih Arap, and their team state “With deepest gratitude, we extend our heartfelt thanks for the unwavering support from Larry and Linda Levy and their long-term commitment to philanthropic research funding. Their generosity fuels innovation, fosters breakthroughs, and transforms lives, enabling us to make significant strides toward a brighter future for all. Thank you for believing in our mission and empowering us to achieve our goals.”

Philanthropic Support Advances Pancreatic Cancer Research

Pancreatic ductal adenocarcinoma (PDAC), the most common form of pancreatic cancer, is a highly aggressive and lethal malignancy that is the third leading cause of cancer deaths. One of the reasons for the high mortality rate is its remarkable resistance to many forms of therapy including immune checkpoint therapy agents, which have shown impressive results in other types of cancer.

Prateek Gulhati, MD, PhD, physician-scientist in the Gastrointestinal Oncology Program at Rutgers Cancer Institute and an assistant professor of medicine at Rutgers Robert Wood Johnson Medical School is the lead author of the work published in *Nature Cancer*, which aimed to understand why pancreatic tumors resist different immunotherapy treatments and helped increase survival rates and boosted the immune system's ability to fight pancreatic cancer using human pancreatic cancer biospecimens and mouse models of pancreatic cancer. By identifying these combinations, this study suggests that pancreatic cancer, previously thought to be resistant to immunotherapy, might respond well to the right combination of treatments, giving hope that this deadly cancer can be treated more effectively in the future.

"Thanks to philanthropic funds, we are able to build on the published work and continue our research in reducing resistance to immunotherapy in pancreatic cancer and uncover a novel immunotherapy combination," says Gulhati. The lab's research is currently focused on understanding the role of a type of cell called fibroblasts in promoting pancreatic cancer growth and therapeutic resistance.



Rutgers Cancer Institute is conducting two clinical trials for patients undergoing pancreatic cancer treatment. Both trials are evaluating the use of a new technology called circulating tumor DNA and its utility when used before and after surgery to detect pancreatic cancer.

"We are pleased to support Dr. Gulhati's lab in its efforts to identify more effective treatment options for pancreatic cancer."

It has been our mission to sponsor promising investigators to help further the ground-breaking research at Rutgers Cancer Institute, and we are honored that our contributions continue to make a difference in the lives of cancer patients."

Ann Lerner,
a representative from
the Cultural & Charitable
Club of Somerset Run



Jack and Sheryl Morris Cancer Center at Rutgers Cancer Institute Opening Soon

The state's first freestanding hospital devoted solely to the care of patients with cancer is expected to open its doors in 2025. Located across from the Rutgers Cancer Institute in New Brunswick, the Jack and Sheryl Morris Cancer Center will enhance the patient experience and significantly advance cancer research, broadening accessibility to top-notch cancer care services offered by Rutgers Cancer Institute and RWJBarnabas Health.

The center, named in recognition of Jack Morris, who has been a generous champion of cancer care in New Brunswick, and his wife, Sheryl, will offer advanced oncology services under one roof. The 12-story, 520,000 square-foot center also will house state-of-the-art research laboratories. These laboratories will be connected by a walking bridge to the research labs at Rutgers Cancer Institute, facilitating seamless collaborations between the two buildings.

As an NCI-designated Comprehensive Cancer Center, Rutgers Cancer Institute upholds research as its core pillar. The ability to translate scientific findings—literally—from 'bench to bedside' and back to the laboratory will provide physician-scientists with more immediate feedback on clinical trials.

Outpatient Care

- 86 infusion bays
- 84 exam rooms
- Four linear accelerators; other advanced radiation oncology
- Core and clinical laboratories
- Diagnostic radiation equipment (e.g. CT, MRI, PET, mammography)
- Outpatient Urgent Care
- Pharmacy



Inpatient Care

- 96 private room inpatient beds on three floors
- Dedicated floor for nine surgical and two procedure rooms
- Central sterile processing area
- Inpatient support spaces



Research

- 10 wet lab facilities and equipment to support 10 research teams
- Office of Human Research Services
- Faculty offices





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