UNC | LINEBERGER COMPREHENSIVE CANCER CENTER

UNIVERSITY CANCER RESEARCH FUND

2024 Legislative Report

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

Annual Financial Report to the Joint Legislative Education Oversight Committee and the Office of State Budget and Management
Submitted November 1, 2024 in accordance with G.S.116-29.1

Letter from the Chair

It is my honor as chair of the Cancer Research Fund Committee to share this year's legislative report on the University Cancer Research Fund (UCRF), the state's landmark investment in cancer research and care.

In this report, you will learn more about how the UCRF is vital to the work of our world-class researchers and clinicians, who are discovering new ways genetic mutations influence the growth and development of tumors, developing innovative treatments to curb that growth, and working with clinical and public health partners across North Carolina to enhance care delivery for patients and quality of life for survivors. It is a true point of pride to know that faculty from across our university are at the forefront of improving cancer prevention, diagnosis, treatment and outcomes locally, nationally and globally.

This strategic investment in cancer research also has produced economic benefits for our state. UNC Lineberger utilized the UCRF in Fiscal Year 2024 to:

- Recruit and retain 31 outstanding faculty;
- Secure more than $271.7 million in grant funds from external sources;
- Generate a direct and indirect economic impact of $784.2 million; and
- Produce a more than 13-to-1 return on the state's investment.

These impacts would not be possible without the UCRF, which in turn would not have been possible without UNC Lineberger's longtime leader H. Shelton (Shelley) Earp, MD, who stepped down from this role on Sept. 30. It was Shelley who helped shape the vision for the UCRF with the General Assembly 17 years ago, and he steered the growth and development of this incredible resource through his two stints as director (1997–2014 and 2018–2024). We are fortunate that he will remain on the faculty as UNC Lineberger welcomes its new executive director, Robert (Bob) Ferris, MD, PhD, a leading expert in cancer immunotherapy and a head and neck surgical oncologist (and a proud Carolina undergraduate).

UNC School of Medicine recruited Dr. Ferris from the University of Pittsburgh Medical Center, where he was the director of the Hillman Cancer Center. He began Oct. 1 of this year as executive director of UNC Lineberger and the chief of oncology services at UNC Health. Dr. Ferris is also an alumnus — he earned his bachelor's degree in chemistry with honors and distinction from UNC-Chapel Hill. I am excited to work with him and confident that he will lead UNC Lineberger into its next phase of international prominence.

The UCRF is a critical driver of UNC Lineberger's excellence, and we are truly grateful the General Assembly continues to invest in this important resource. On behalf of our researchers, clinicians, nurses, volunteers, and community partners, and on behalf of the patients from all 100 counties whom we serve, thank you for your ongoing support.

Lee H. Roberts
Chancellor
Chair, Cancer Research Fund Committee

Introduction

History

In 2007, prompted by the widespread prevalence of cancer cases in North Carolina and across the world, the N.C. General Assembly made a major forward-looking investment in improving cancer care and research: the University Cancer Research Fund.

Initially funded by a combination of state appropriations and taxes on non-cigarette tobacco products, the UCRF supports cancer care and research at the UNC Lineberger Comprehensive Cancer Center and UNC Health, along with their academic, clinical, research and public health partners across the state. The total 2024 allocation to the UCRF was $59.5 million.

To ensure that this landmark investment is utilized as effectively as possible, the General Assembly also established the Cancer Research Fund Committee to provide ongoing oversight and accountability. The committee's strategic plan targets UCRF resources where they can have maximum impact:

- Strategic research priorities in genetics, novel therapies and cancer outcomes;
- Clinical excellence through selective opportunities that enable UNC Lineberger to continue as a global leader in a rapidly changing field of research; and
- Critical infrastructure such as technology, training, outreach and other core resources.

Two major capital investments funded by the General Assembly complement the state's ongoing support of the UCRF, further enhancing UNC's cancer care and research capacities.

The N.C. Basnight Cancer Hospital was approved by the legislature in 2004 and opened in 2009. As UNC Lineberger's clinical home, the hospital serves patients from all 100 North Carolina counties. The staff at the hospital and its affiliated clinics oversaw more than 238,000 patient visits in FY 2024. In 2010, lawmakers funded a cutting-edge research facility that opened in 2014: Marsico Hall, which houses highly advanced equipment and technology that accelerates research capabilities and facilitates cross-disciplinary collaboration.

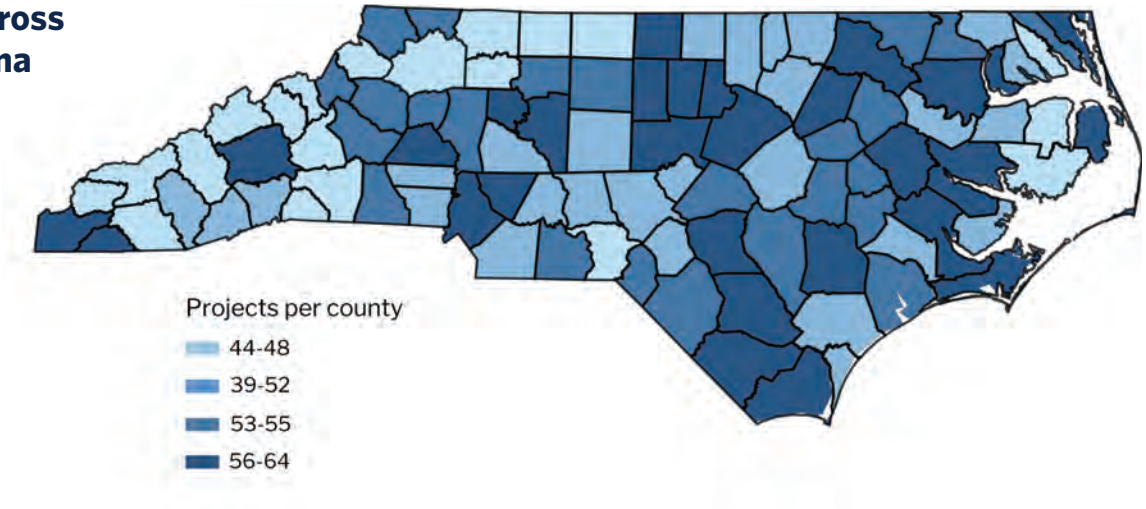
Since 2008, the Cancer Research Fund Committee has published regular reports on activities supported by the UCRF. The committee also submits annual financial reports to the General Assembly that include the UCRF's economic impacts, detailed budget and expenditure accounts, information on external funds leveraged by UCRF support and other performance metrics. As these reports have shown, the UCRF continues to generate significant economic and health benefits for North Carolina, while ensuring that UNC Lineberger remains a global leader in the fight against cancer.

UCRF's impact across all 100 counties

UCRF investments in faculty, staff and program development are deployed across North Carolina to devise better ways to prevent, detect early, treat and measure the impact of cancer on our citizens. The map on the following page provides a snapshot of the reach and breadth of UCRF's impact on North Carolina.

Outreach

Outreach Across North Carolina 2023–2024



A. Cancer Data Resources
- Cancer Information and Population Health Resource (CIPHR)
- Carolina Breast Cancer Study, Phase 3
- Carolina Breast Cancer Study, Phase 4
- Carolina Senior Registry
- Characterizing delays in cancer diagnosis for underserved populations
- Lung cancer screening registry
- Rapid case ascertainment
- UNC Health Registry

B. Understanding Cancer Disparities
- American Indian men and experiences with prostate cancer communication
- Ancestry-related RNA splicing and immune expression in metastatic breast cancer
- Barriers and facilitators in Black participant enrollment in endocrine therapy trial
- Carolina Endometrial Cancer Study
- Carolina Head and Neck Cancer Study, Phase 2 (CHANCE-2)
- Carolina Thyroid Cancer Study
- Centering equity in HBOC genetic testing
- Development of a Hispanic cancer registry in North Carolina
- Disparities in diagnosis of cancer in the ER
- Equity in virtual oncology visits
- GMaP: Geographic Management of Cancer Health Disparities Program
- Gastric and liver cancer disparities among American Indians
- Health equity impacts of EHR data bias
- Impact of race and microbiome on endometrial cancer
- Increasing minority recruitment in multiple myeloma clinical trials
- Integrating biology and access to understand metastatic breast cancer disparities
- Lung cancer disparities among American Indians
- Multilevel drivers of liver cancer disparities
- Racial disparities hot-spotting to improve breast cancer outcomes
- Southeastern Consortium for Lung Cancer Health Equity
- Southern liver health cohort
- Survivin in Black breast cancer patients
- Understanding financial impacts and improving cost literacy among young adult cancer survivors
- Well empowered

C. Cancer Screening
- Breast Cancer Sociodemographic Disparities Study
- Cancer screening research network NC hub
- Carolina Cancer Screening Initiative
- Community-based breast cancer screening and surveillance
- Comorbidity in those undergoing lung cancer screening
- Evaluating lung cancer screening patterns and outcomes
- Remote CRC screening intervention
- SCORE: Scaling Colorectal Cancer Screening through Outreach, Referral, and Engagement
- Shared decision-making, utilization, and outcomes of lung cancer screening

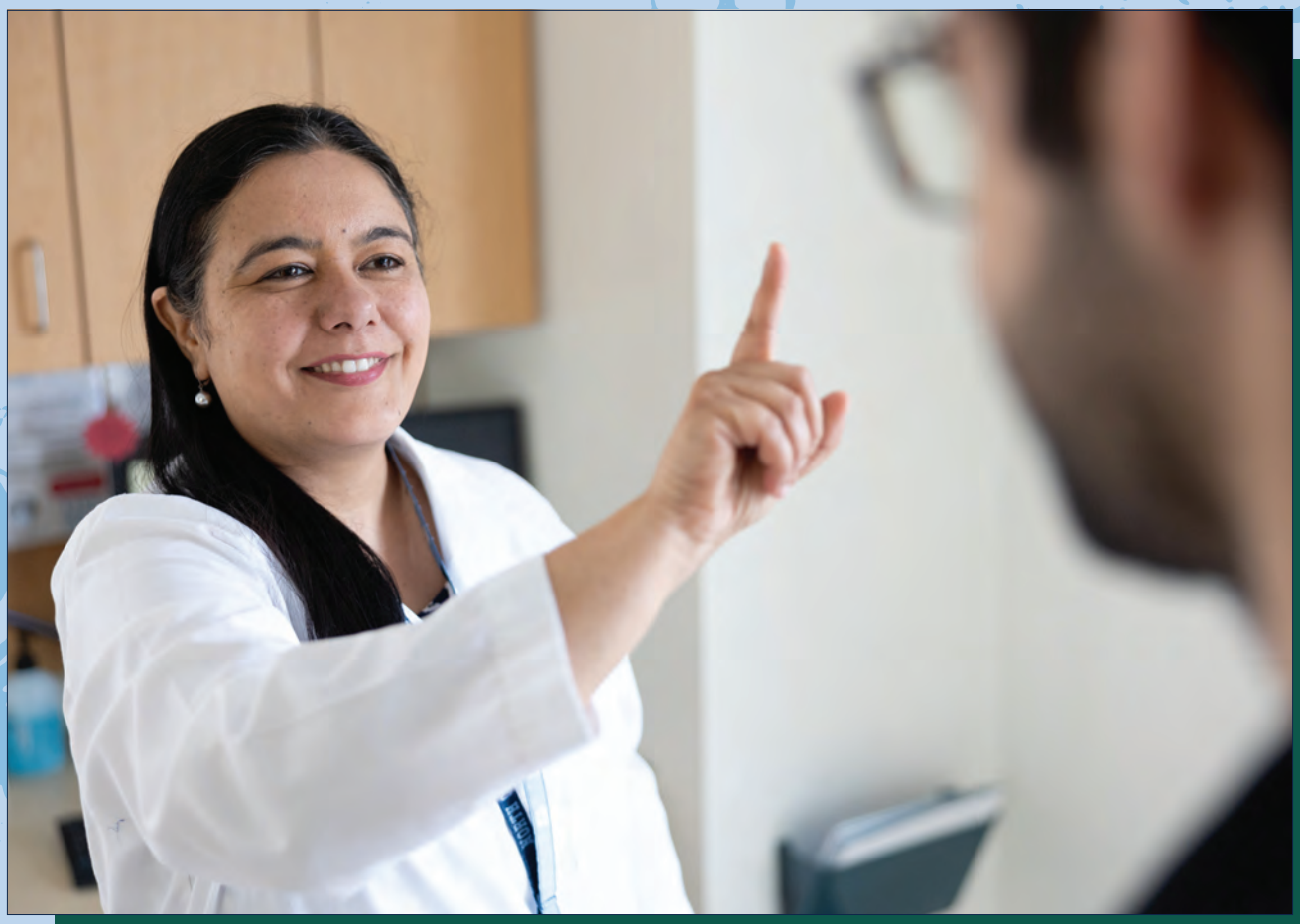
D. Cancer Survivorship
- Cancer survivorship risk models
- Evaluating an end-of-life predictive tool for breast cancer
- Implementing financial navigation and NC communities
- Improving childhood cancer survivorship
- Intervention to increase endocrine therapy adherence
- Mobile health strategies to promote weight management among adolescent and young adult cancer survivors
- Navigator-assisted ecomaps to support to rural cancer caregivers
- Patient-reported measure to identify treatment priorities of patients with advanced blood cancers
- Physical activity intervention with Black colorectal cancer survivors
- Pillsy cap shipping to optimize endocrine therapy adherence
- Social needs of breast and gynecological cancer patients and caregivers
- Survivorship intervention for Black women with breast cancer and caregivers

E. Clinic-based Prevention
- Duke & UNC Tobacco treatment specialist credentialing program
- Maximizing HPV vaccine uptake in young cancer survivors

F. Community-based Prevention/Education
- ASPIRE: Advancing Science & Practice in the Retail Environment
- Educational tools to advance equity in cancer clinical trial participation
- Fort Liberty tobacco control
- Impact of e-cigarette prevention messages on adolescents
- Impact of neighborhood development on physical activity in Latine and Black communities
- Processes of maintaining healthy diet during prostate cancer survivorship
- Quantitative models of cell cycle arrest
- Reducing health disparities through tobacco regulation

F. Improving Treatment Outcomes
- Care gaps and needs in adolescent and young adult cancer survivors
- Funding patient lodging
- Mobile health app to promote participation of Black women in breast cancer clinical trials
- Oncology navigation to enhance equity
- Personalizing kidney cancer communication to support decision-making
- PROmoting CLinicAl Trlal EngageMent for pancreatic cancer
- Quality of life & physical activity in black breast cancer survivors
- Remote monitoring of leukemia and lung cancer patients
- Support during treatment for endometrial cancer
- System for risk differences in patients with lung cancer
- Testing a prognostic calculator in patients with breast cancer
- Treatment decision-making tool for acute myeloid leukemia
- UNC Cancer Network telehealth lectures
- UNC Cancer Network eTumor boards

Economic Impact



Economic Impact

To estimate the UCRF's economic impact for Fiscal Year 2024, UNC Lineberger again hired the nationally respected consulting firm Tripp Umbach. The full report is included in the Appendix.

The Fund's overall economic impact is calculated as the sum of its direct, indirect and induced impacts. Direct impact resulted from two major sources: expenditures from the UCRF itself, and the expenditure of UCRF-attributable research funds awarded to UNC Lineberger by federal, foundation and other sources. The indirect and induced impact was calculated by applying standard multipliers to direct expenditures.

Using standard methodologies, Tripp Umbach estimated that in FY 2024 the UCRF:

- Had an overall economic impact of $784.2 million, including $396.1 million in direct spending and $388.1 million in indirect and induced impact attributable to external grant funding and downstream spending by employees, vendors and contractors.
- Generated $13.18 in economic impact for every UCRF dollar spent.
- Supported 3,756 high-paying research-related jobs, including the direct support of 1,511 jobs and an additional 2,245 jobs through the increased extramural funding and the indirect and induced impacts of those direct jobs and the spending generated within North Carolina.
- Resulted in more than $24.7 million in state and local tax revenues to North Carolina.

Tripp Umbach has performed economic analyses of the UCRF since FY 2013. Earlier economic analyses were conducted, using slightly different methodologies, by SRA International and the UNC Center for Competitive Economies (Frank Hawkins Kenan Institute of Private Enterprise).

Faculty Job Creation and Retention

The UCRF's successes are fueled by UNC Lineberger's world-class faculty. They train future leaders in cancer care; invest in staff, equipment and technology; and earn research funds from other sources both inside and outside our state. Their innovative research yields meaningful scientific and clinical advancements that lead to earlier detection and diagnosis, more effective treatments and better prevention programs. UCRF support has made it possible to recruit or retain 415 outstanding leaders in their fields since the fund was created in 2007.

- Recruitment: The UCRF has enabled UNC Lineberger to recruit 29 faculty this year and 336 since 2007. These renowned cancer experts are delivering high-quality cancer care for patients and cultivating a wide range of research programs in areas that are critical to improving cancer prevention, diagnosis and treatment in North Carolina.
- Retention: The UCRF has supported the retention of 2 faculty this year and 79 since 2007, assuring top-notch talent remains at UNC Lineberger to continue their research and clinical work.

Economic Impact

Extramural Funding Growth

Extramural research funding, particularly competitive federal funding, is a key measure of success in the Cancer Research Fund Committee's strategic plan. The UCRF is keeping UNC Lineberger at the forefront of research nationally and is leveraging significant amounts of extramural research funds. Almost all of these funds come from outside the state, adding significantly to North Carolina's economy.

In FY 2024:

UCRF recipients leveraged $225.0 million in competitive federal research grants. This continued growth in federal grant funding is especially noteworthy as competition for these research dollars has become more intense in recent years.

Total external funding that is directly attributable to the UCRF was $271.7 million in annual total cost dollars. This amount is based on a snapshot of active attributable extramural funding held by faculty in the first quarter of FY 2024, representing one year of funding and showing a significant growth in UCRF-related extramural funding since $5 million in FY 2008. A complete list of the awards is included in the Appendix.

Intellectual Property, Innovation and Entrepreneurship

UCRF-backed innovations and discoveries have helped to create jobs and launch companies whose goal is to convert these research findings into clinical advances. Partnering with UNC's North Carolina Translational and Clinical Sciences Institute (NC TraCS), the UCRF promotes an entrepreneurial mindset and supports specialized staff to maximize the development and licensing of university intellectual property.

Dozens of UNC-affiliated startup companies, nearly all of which are based in North Carolina, have launched or expanded their reach with the help of the UCRF and other sources of support. Collectively, these companies have a workforce of more than 750 in North Carolina alone. Commercialization impacts are in addition to the UCRF's annual operational impacts, realized after years of research and as the discoveries begin to hit the marketplace. Since 2009, UNC Lineberger startup companies have raised more than $300 million in non-dilutive financing from the NIH, angel investors, and venture capitalists.

Research Impact

Research Impact

Guiding Principles

The UCRF is invested in research areas where UNC Lineberger can have meaningful and lasting impact, targeting three specific research priorities:

- **Understanding the Role of Genetics in Cancer Causation and Treatment:** Discovering the genes that predispose families to cancer and predispose cancer patients to poor treatment outcomes. Specifically, investigating various genetic mutations that contribute to treatment failure in certain cancer subtypes.
- **Developing Novel Therapeutics:** Creating innovative therapies that target the specific vulnerabilities of treatment-resistant cancers and finding new ways of delivering treatments that lessen toxic side effects for patients. This research theme relates closely to the genetics research priority, capitalizes on research advances in cancer immunotherapy and generates key findings to be used in clinical applications as quickly as possible.
- **Optimizing NC Cancer Outcomes:** Improving the quality of oncology and survivor care while leveraging population-based datasets that track the occurrence and treatment of cancer across North Carolina, supporting innovative research aimed at improving community prevention and early detection. The ultimate goal is to understand cancer at an unprecedented level in order to design research interventions that holistically address both public health and patient challenges at the practice, health system and community levels.

In addition to the three research priorities, UCRF funds are invested in key infrastructure, shared resources and clinical excellence to best position UNC Lineberger to seize research or clinical opportunities as they arise, providing the top minds in the field with critical resources that keep UNC at the forefront of current and future research. This approach keeps UNC Lineberger nimble, equipped to adapt to a constantly changing field and continue to build leadership and expertise in key clinical and research areas.

For example, the UCRF provides seed funds to recruit top researchers and to acquire and support technology and equipment for use by multiple faculty members. It also funds the development and operation of shared research resources and telehealth networks that give UNC Lineberger's clinician scientists the tools they need to improve patient outcomes and to collaborate with doctors and hospitals across North Carolina.

The UCRF strengthens UNC Lineberger's multidisciplinary excellence in cancer care while supporting a statewide infrastructure that brings leading-edge clinical applications and research into community practices and research institutions across North Carolina.

Fort Liberty partnership leverages collaboration to address public health challenges

In the six years since joining forces to address important public health needs among military families, the Fort Liberty Public Health Partnership is deploying evidence-based public health protocols — especially in cancer prevention — and has grown its vision for the health and well-being of Army families and nearby communities in Cumberland County.

Home to nearly 10% of the Army's active component forces, Fort Liberty in Fayetteville is the largest U.S. Army installation by population and one of the largest installations in the world. More than 65% of soldiers live off-base in eight surrounding counties.

Supported in part by the UCRF, the partnership — which includes the Fort Liberty Department of Public Health, the Cumberland County Department of Public Health, UNC Lineberger Comprehensive Cancer Center and UNC Gillings School of Global Public Health, among others — was formed in 2018 to address public health needs in the Fort Liberty community.

The partnership is uniquely successful because it has implemented structures and systems that effectively leverage the capabilities of all parties in a coordinated

Maureen Sevilla, PA, speaks with a soldier at the Fort Liberty Public Health Clinic.

> Almost 60% of servicemember respondents reported current tobacco or vaping use. This increased to 75%, when looking at respondents that live in the barracks.
>
> *– Lt. Col. Teresa Pearce, MD, MPH*

Research Impact

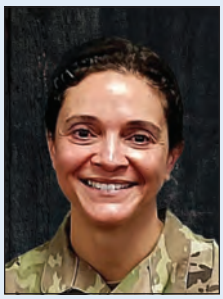
way, said **Jennifer Green, PhD, MPH,** Cumberland County's health director.

Green

"One of the reasons this partnership is so valuable is that it keeps us in a coordinated approach on work that is affiliated with the military," said Green, a military spouse herself. "The team at Fort Liberty does a great job of highlighting the needs on base, and our community health assessments help our department identify needs in our county. Having UNC as an academic partner keeps us tied together, helping with data and research and thinking strategically about bringing in funding. We are driving all of that into something actionable, tangible and meaningful to the public."

The partnership's work focuses largely on cancer prevention, with projects aiming to increase rates of HPV vaccination and cancer screening and to reduce the widespread use of tobacco on base.

A 2021 community health assessment reported high levels of tobacco use on base, finding that more than 25% of the soldiers started using tobacco after they came to Fort Liberty. Annual surveys of the soldiers have since revealed a notable rise in vaping and nicotine pouches, along with a feeling that tobacco use on base is socially acceptable and does not affect job performance.



Pearce

"Almost 60% of service-member respondents reported current tobacco or vaping use. This increased to 75%, when looking at respondents that live in the barracks," said **Lt. Col. Teresa Pearce, MD, MPH,** director of the Fort Liberty Department of Public Health.

Guided by Lt. Col. Pearce, the partnership set the wheels in motion to implement and tailor the evidence-based Tobacco Treatment Specialist training program to meet the needs of the providers and clinical staff on the base.

In 2022, 50 Fort Liberty health care providers underwent virtual Tobacco Treatment Specialist training; last year, 70 providers attended a two-day in-person training program. Now that providers have the information they need to confidently and proactively talk to their patients in the clinic about the harms of tobacco use, the next step is deploying a clinical system to steer patients toward cessation resources to help them quit.

Another cancer control project that has seen initial success is an evidence-based intervention that increased participation in recommended HPV and cervical cancer screenings and HPV vaccination at Fort Liberty's Robinson clinic, the largest clinic on post.

Polaskey

"HPV is the second most commonly diagnosed STI (sexually transmitted infection) for U.S. military members, and it's the primary cause of cervical cancer and precancer," said **Kathryn Polaskey, MPH,** an epidemiologist in the Fort Liberty Department of Public Health. "It also affects readiness. If someone has complications, or needs follow-up care or treatment, they are not deployable."

Typically, the standard of care for outreach to patients who are overdue for a screening is to rely on clinic workers to place phone calls in their spare time. The partnership tested a pilot intervention consisting of four scheduled text reminders with specific messaging in each one. They found only 4

Research Impact

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>
> *– Jennifer Green, PhD, MPH*

of the 32 patients receiving the typical phone calls booked a Pap smear (a 12.5% success rate), but 8 of the 24 patients receiving the text messages scheduled appointments (a 33% success rate).

Another important finding was that 70% of patients had multiple contacts with health care providers, in several specialties, without any notes regarding overdue cancer screening. The partnership plans to develop a training component to ensure providers and clinic staff take every opportunity to remind patients of the health risks of missing screenings.

Lt. Col. Teresa Pearce addresses Fort Liberty health care personnel during a training program on the dangers of using tobacco and nicotine products. Pearce said empowering individuals to support tobacco cessation efforts is a force multiplier.

As they continue to investigate incorporating this text-based protocol as standard operating procedure, the public health partners hope to pilot a similar intervention strategy in other settings such as colon cancer screening for the general population. The partnership will continue to work closely with Fort Liberty's leadership to determine the requirements needed to adopt the intervention throughout the installation's entire health network.

"We really look to our partners for what their public health and cancer prevention needs are and what they want to do, and we provide support to help make it happen," said **Hannah Prentice-Dunn, MPH,** administrative director of UNC Lineberger's Cancer Prevention and Control Program. "It is so powerful to have all these groups from different sectors at the table, working together to make an impact."

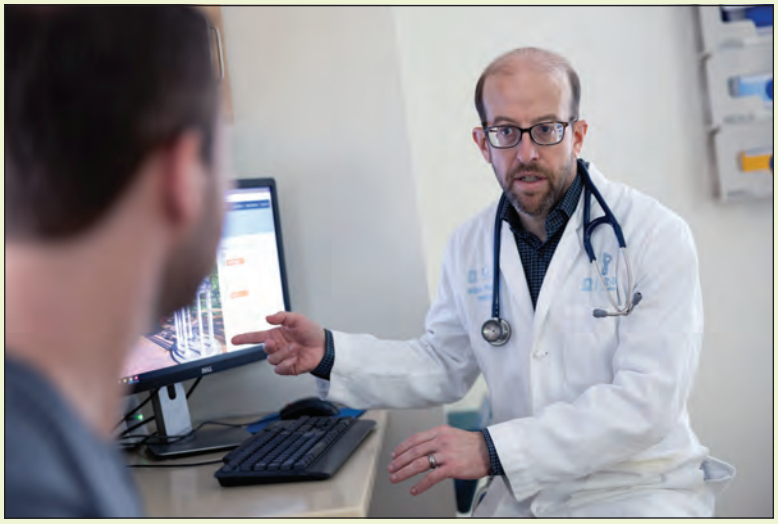
Prentice-Dunn

Research Impact

Centralized navigation leverages real-world data to improve patient care

Receiving a cancer diagnosis is tremendously difficult on its own. Related challenges — such as paying for care, getting to and from appointments, figuring out daily logistics and dealing with the emotional effects of the disease — only add to a patient's worries.

UNC Lineberger clinician researchers and care providers have implemented a groundbreaking new model called a centralized navigation system, which uses real-world data to transform cancer care to help make patients' health care journeys smoother and less stressful. **Bill Wood, MD, MPH,** professor of medicine and a national leader in digital health, is driving this transformation.



Bill Wood, MD, MPH, is leading an initiative that uses real-time health data to help make patients' medical care smoother and less stressful.

"The need for navigation reflects the types of needs that we, as clinicians, see in our patients. We provide high-quality care, but there is so much more we could be doing to support all our patients' needs," Wood said. "Through investigation, research and a rational approach, we can use our findings to improve the delivery of care for all our patients."

UNC Lineberger has long had navigation programs to ensure that cancer patients were able to access appropriate therapies throughout their treatment, often considering factors outside the clinic, such as lack of transportation or a need for financial assistance, that might make it difficult for some patients to get the care they need. Today's version is more holistic and more proactive, with navigators reaching out to patients well before their first appointment to help smooth the path toward treatment.

UNC Lineberger's navigation system is most unique, though, in the way it leverages population-level datasets and informatics tools to create a more personalized treatment and support plan for each individual patient. The vision is to use this evidence-based approach to enable a multidisciplinary team of researchers, clinicians, nurses, staff, and volunteers to provide proactive outreach and support throughout a patient's cancer treatment — and beyond.

The UCRF has helped provide the up-front investments needed to develop many of the tools and infrastructure supporting navigation, but incorporating their everyday use — and the

findings they generate — into health care system operations is a continuous process that needs ongoing support.

Wood's long-standing interest in digital technologies and personalized health coaching led him to develop HealthScore, a clinically integrated health coaching program that supports patients with cancer during and after treatment. He plans to integrate HealthScore into the navigation infrastructure, providing yet another powerful tool in a research-driven system that creates a unified, integrated, standardized yet tailored patient experience — and that ultimately leads to more positive health outcomes for all UNC Health patients.

Van Pelt

"Bill is always thinking about the next best way to do something — he's never stagnant," said **Linnea Van Pelt, BSN, RN, OCN, LMBT,** oncology patient services manager and a leader on the navigation team. "He's always thinking about how we can study a new approach, make sure it's effective, and then translate it back into practice. He's really pushing the frontier."

Wheeler participates in President's Cancer Panel

Stephanie Wheeler, PhD, MPH, the Michael S. O'Malley Distinguished Professor of Health Policy & Management and associate director of UNC Lineberger Community Outreach and Engagement, is one of the key leaders in UNC Lineberger's centralized navigation system. Her research focuses on ways to improve financial navigation, screening navigation and clinical trial navigation.

Wheeler

Last fall, Wheeler participated in the President's Cancer Panel on Reducing Cancer Care Inequities: Leveraging Technology to Enhance Patient Navigation, where she and other experts discussed challenges and opportunities to enhance patient navigation for patients, navigators, and health systems. The President's Cancer Panel, established in 1971 as part of the National Cancer Act, holds fact-finding meetings on select topics, getting input from key stakeholders and presenting its findings and recommendations to the President.

During the panel discussion, Wheeler highlighted the opportunity to navigate into clinical trials, which is not often discussed by care providers, but is critical to improving participation in clinical studies. "In the context of all the different cancers treated in our centers, finding ways to leverage technology to query medical records to identify patients eligible for clinical trials and then connecting them directly through to those trials is a real need," she said.

UNC Lineberger named national research site for cancer screening studies

UNC Lineberger is playing a critical role in an ambitious new nationwide project to identify technologies that can detect cancer early, even before symptoms develop.

Reuland

The National Cancer Institute launched the Cancer Screening Research Network (CSRN) to conduct large, multi-center cancer screening studies with diverse populations in a variety of health care settings. The studies are designed to examine new and emerging technologies, including Multi-Cancer Detection (MCD) tests, that can detect cancers and pre-cancerous lesions before symptoms develop, thereby reducing cancer incidence and cancer-related morbidity and mortality.

Henderson

UNC Lineberger was chosen as one of nine research Accrual, Enrollment and Screening Site (ACCESS) Hubs across the country to participate in the network. The UNC ACCESS Hub, which is led by **Daniel Reuland, MD, MPH, Louise Henderson, PhD, MSPH,** and **Carrie Lee, MD, MPH,** will support the design and conduct of innovative cancer screening studies and clinical trials, develop and analyze complex datasets, and work with clinical partners across the state to ensure a diverse patient representation in the trials.

Lee

"The Cancer Screening Research Network is an exciting new development at the national level to create a platform and infrastructure to test these cancer screening technologies," said Reuland, co-director of UNC Lineberger's Carolina Cancer Screening Initiative and the recently named Robert A. Ingram Distinguished Professor of Medicine. "There's a lot of progress being made at the basic science and translational level with screening technology, but we really need a way to get out and test these in real-world clinical trials at the national level and be sure we include a diverse population so that everyone benefits."

Since UNC Lineberger was chosen as a research site in January 2024, the ACCESS Hub team has been working with NCI and other network partners to write the protocol for the CSRN's first major study, expected to launch in February 2025: The Vanguard Study on Multi-Cancer Detection (MCD).

Cancer screening currently involves imaging tests or other medical procedures. About half of cancer deaths occur in cancers with no current screening test. MCD tests — also known as liquid biopsies — analyze blood and other body fluids for biological substances, including circulating cancer DNA fragments, that could suggest the presence of cancer.

The three-year Vanguard study will enroll a diverse sample of up to 2,000 people at each research hub, for a total of 18,000 nationwide, to

Research Impact

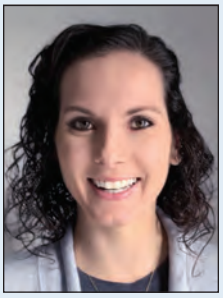
> **We want to develop a better understanding about whether a positive test result is actually associated with a cancer diagnosis, and whether early detection will have a meaningful impact on the individual's prognosis and survival.** – *Lauren Higgins, PhD*

inform the design of a much larger randomized controlled trial to evaluate whether the benefits of using MCD tests to screen for cancer outweigh the harms, and whether they can detect cancer early in a way that reduces deaths.

"MCD tests offer the promise of early detection for many different types of cancer across organ sites simultaneously," said Henderson, professor of radiology and co-director of UNC Lineberger's Carolina Cancer Screening Initiative. "While there is a lot of excitement around MCD tests and their potential to revolutionize how we screen for cancer, the net benefits are unknown."

To get a true sense of what those benefits may be, the Vanguard study will draw from a large and diverse pool of participants to help the research findings be more widely applicable to populations and communities across the U.S. Each of the nine ACCESS Hubs will recruit diverse patient populations through a variety of health care settings in their respective geographic areas.

UNC Lineberger is partnering with clinical sites including Federal Qualified Health Clinics, across the state, said **Lauren Higgins, PhD,** the UNC ACCESS Hub's program manager. This will ensure that their patient pool not only reflects different demographics but also includes a large rural component.



Higgins

"Even though MCDs have this awesome promise because they can detect a lot of cancers at one time, there is little evidence supporting MCDs specifically for early detection," Higgins said. "That's why we're doing this. No study has documented MCDs' impact on cancer-specific mortality or overall mortality."

Lee, professor of medicine and medical director of UNC Lineberger's Clinical Trials Office, said it is vital to generate more scientific evidence about which diagnostic tests are beneficial and improve outcomes, and which are not.

"Sometimes tests can produce results that are not meaningful or actionable, and these results can cause people to have undue anxiety," Lee said. "By conducting scientifically rigorous studies of cancer screening technologies, we want to develop a better understanding about whether a positive test result is actually associated with a cancer diagnosis, and whether early detection will have a meaningful impact on the individual's prognosis and survival."

Research Impact

Nursing fellowships, online courses build future oncology professionals

To help meet a growing demand for oncology professionals, UNC Lineberger is strengthening its partnerships with other UNC System campuses to expand learning and research opportunities for students interested in cancer care.

Leak Bryant

UNC Lineberger continues to expand a nursing fellowship that provides students with rigorous inpatient, outpatient and palliative care training. UNC School of Nursing and the cancer center established the UNC Lineberger-Sylvia Lauterborn and Warren Trent Piver Oncology Nursing Fellowship program in 2016 to offer nursing students the opportunity to work alongside oncology nurses, gaining firsthand experience in cancer care while conducting group research focused on enhancing the delivery of cancer services.

Coombs

The fellowship is co-directed by **Ashley Leak Bryant, PhD, RN, OCN, FAAN,** Frances Hill Fox Distinguished Term Professor and assistant director of cancer research training education coordination at UNC Lineberger, and **Lorinda Coombs, PhD, MSN, FNP-BC, AOCNP,** assistant professor of nursing. It was expanded in 2022 to include students at North Carolina Central University, and in 2025 will welcome nursing students from North Carolina A&T State University.

"The oncology fellowship has been evolving to address the growing shortage of oncology nurses," Leak Bryant said. "It now offers expanded clinical opportunities for students at UNC-Chapel Hill, North Carolina Central University, and our new partner, North Carolina A&T. We also are working in settings beyond Chapel Hill, including at UNC Health Rex and UNC Health Rockingham."

Fellows collaborate closely with oncology nurses, deepening their knowledge of symptom management, clinical trials and best practices in supportive care. They also conduct group research and present their findings to faculty and clinicians at the end of their fellowship term. This year's fellows were Ujala Abdul, Jasmine Inthavong and

Ujala Abdul, Haley Daniels, Jasmine Inthavong and Alexandria Zielinski are the 2024 UNC Lineberger-Sylvia Lauterborn and Warren Trent Piver Oncology Nursing Fellows.

Research Impact

Alexandria Zielinski from UNC-Chapel Hill, and Haley Daniels from NCCU.

During the past nine years, 40 fellows have pursued careers as oncology nurses.

Coombs underscored the fellowship's importance in developing the oncology nursing workforce. "It is critical to have our health care workforce expand to reflect the patients we care for across the state, including in the ambulatory and community health settings, because most cancer care is now delivered in an ambulatory environment," Coombs said.

NCCU, N.C. A&T and UNC Lineberger are also building on an initiative first launched in 2020 to raise student awareness about career and academic opportunities in cancer care and research.

Exploring Cancer: Examining the Role of Biology, Race, Class, and Socioeconomics, is an online course led by **Antonio Baines, PhD,** associate professor of biological and biomedical sciences at NCCU, **Checo J. Rorie, PhD,** professor and chair of biology at N.C. A&T, and **Bernard Weissman, PhD,** professor of pathology and lab medicine and associate co-director of education at UNC Lineberger.

Open to undergraduate students of any major, the course features lectures presented by researchers, physicians, public health experts and other cancer specialists from the three universities and other institutions. They cover a range of topics, including cancer disparities, treatment modalities and career opportunities in cancer care and research.

Baines

Rorie

Weissman

In April, the 37 students who were enrolled in last fall's online course were invited to UNC Lineberger for the Exploring Cancer Spring Event, an opportunity for students, staff and faculty from the three universities to meet in person instead of onscreen.

Students toured facilities, including the CRISPR Screening Facility and the Translational Genomics Lab, and had the opportunity to attend an information fair to learn about graduate programs at UNC, N.C. A&T and NCCU. They also heard presentations from two cancer survivors and a keynote address from UNC Lineberger's Ronny Bell, PhD, MS, associate director of cancer care access and excellence, on fostering diversity and becoming agents of change.

Weissman said the day had special meaning for him. "Just watching the students ask questions on the core facility tours and during the oral presentations reminded me of what it's like be young, inquisitive and enthusiastic for the future. I also thought the end of the event when the students answered the question 'What is the one lesson you learned today?' was amazing. The responses were insightful and emphasized why we held this event."

Research Impact

Investing in nurse scientists to advance care, research and workforce development

Cancer care and research require a collaborative team, and nurses play a vital role in that effort. Although the immediate threat of the COVID-19 pandemic has lessened, its long-term effects have severely impacted the nursing workforce, including educators. In response, the University of North Carolina and the North Carolina General Assembly are working to expand the UNC School of Nursing, increasing both physical capacity and class sizes.

The UCRF is actively supporting efforts to recruit and retain nurse faculty who are advancing cancer research and educating the next generation of oncology nurses, nurse navigators and advanced practice providers. Additionally, UNC Lineberger funds nursing fellowships and UCRF sponsors continuing education for nurses across the state.

As part of these initiatives, UNC Lineberger and the UNC School of Nursing dean have co-recruited and retained eight cancer-focused nursing scientists and educators:

Lorinda Coombs, PhD, CNS, FNP-BC, AOCNP

Cheryl L. Woods Giscombé, PhD, RN, PMHNP-BC, FAAN

Tamryn Gray, PhD, RN, MPH

Rachel Hirschey, PhD, RN

Ashley Leak Bryant, PhD, RN, OCN, FAAN

Matthew LeBlanc, PhD, RN

Lisa Mansfield, PhD, RN

Kea Turner, PhD, MPH, MA

Together, they are shaping the future of cancer care and strengthening North Carolina's health care workforce.

Coombs

Giscombé

Gray

Hirschey

LeBlanc

Leak Bryant

Mansfield

Turner

Research Impact

Gessner charts a path from UNC medical student to UNC physician-scientist

Growing up with a physician father and a mother who was a nurse, going into medicine seemed like a natural career path for **Kathryn (Kate) Hacker Gessner, MD, PhD.**

Gessner

Her path to Chapel Hill and UNC Lineberger? "That was serendipity," she said.

After her junior year at Dartmouth College, Gessner came to Chapel Hill for the summer to live with her older sister, who was in UNC's MD/PhD program at the time, and took a summer research assistant position at UNC Lineberger in the lab of Kimryn Rathmell, MD, PhD, who is now director of the National Cancer Institute.

Gessner's interest in scientific research was sparked by a high school biotechnology course, and by this time, she had become interested in cancer genetics and precision medicine. "I was intrigued by the idea that we could identify alterations in an individual tumor and target those changes with specific therapies," she said.

Her time in Rathmell's lab was such a great experience that she rejoined the lab after graduating from Dartmouth, working as a research technician for a year before entering UNC's MD/PhD program herself. This was followed by a residency in urology and fellowship in urologic oncology, also in Chapel Hill.

"UNC is a hard place to leave because of the unique opportunity to provide both phenomenal patient care and to perform cutting-edge research to advance our understanding of cancer biology," said Gessner, now an assistant professor of urology. "The combination of the phenomenal mentorship and culture of teamwork throughout the clinical and research worlds inspired me to stay. We also have comprehensive resources and core facilities that provide access to the latest technologies. That's critical for successful research, and the UCRF contributes to our ability to have that access."

As a laboratory-based surgeon-scientist, Gessner conducts research on kidney and bladder cancers. She studies how differences within a patient's tumor cells or surrounding cells, such as immune cells, affect doctors' ability to treat those patients. Her goal is to understand molecular differences in tumors and identify therapies that will work effectively for specific patients or tumor types. In the clinic, she takes care of patients with genitourinary cancers.

"My favorite days at work are when I can take care of my patients and also do research in the lab," said Gessner, who, when she's not at work, enjoys gardening and spending time at the park with her family. "On those days, I feel like I'm contributing to both missions and truly advancing cancer care for our patients.

Research Impact

Priority 1: Genetics in Cancer Causation and Treatment

UNC Lineberger researchers detail molecular pathway affecting pancreatic cancer

UNC Lineberger researchers have established the most comprehensive molecular portrait of the workings of KRAS, a key cancer-causing gene or "oncogene," and how its activities impact pancreatic cancer outcomes — findings that could help better inform treatment options for pancreatic cancer.

Der

The third leading cause of all cancer deaths in the United States, pancreatic cancer is highly aggressive. KRAS, one of the most commonly mutated genes in human cancers, is found in more than 90% of pancreatic cancer tumors. UNC Lineberger researchers led by **Channing J. Der, PhD,** the Sarah Graham Kenan Distinguished Professor, have been working to uncover what makes this oncogene so lethal.

"Because less than 40% of pancreatic cancers respond to treatment with KRAS inhibitors, if we can establish molecular markers to predict which patients will respond, we can better provide them with specific treatments, which should improve their outcomes," said Der, a member of the UNC Lineberger Pancreatic Cancer Center of Excellence. "From diagnosis to death, the average pancreatic cancer patient treated with chemotherapy lives 6 to 12 months, so there's a very limited time to offer a treatment which will work."

Der and colleagues contributed to two articles published in the journal Nature in April about a promising drug that is effective against many different KRAS mutations, reporting that an oncogene called MYC can cause resistance to KRAS therapies. Since then, Der and his team have established that MYC is a significant component of how KRAS and a protein called ERK support cancer growth and affect treatment response.

In the most detailed analysis to date, reported this summer in Science, one of the world's leading research journals, Der and his team demonstrated that the molecular pathway most responsible for the cancer-driving functions of KRAS is highly dependent on ERK, a well-known and much-studied protein whose precise role in KRAS function has eluded scientists.

A core finding of his team's two Science papers was that activation of the ERK protein alone is the key driver of resistance to drugs that inhibit KRAS. Taking advantage of improved methods to study cellular signaling, the researchers demonstrated that ERK regulates the expression of a remarkably complex array of thousands of genes and changes the activity of thousands of proteins.

The researchers confirmed that their findings in cancer models could accurately reflect responses in patients treated with ERK and KRAS therapies for their pancreatic, colorectal and lung cancers — potentially advancing work toward more effective treatments.

"We will continue to mine the growing body of scientific knowledge we have developed," Der said, "with the ultimate goal of helping advance the clinical development of newer and better KRAS inhibitors."

Research Impact

How breast tumor cells escape common cancer therapy

Purvis

Spanheimer

An interdisciplinary team of UNC-Chapel Hill researchers led by **Jeremy Purvis, PhD,** professor of genetics, and **Philip Spanheimer, MD,** assistant professor of surgery, have shed new light on how some breast tumor cells avoid the effect of common anti-cancer drugs.

The cell cycle is the series of events that cells go through as they divide and grow. Drugs that inhibit tumor cell cycle, such as palbociclib, have helped treat patients with the estrogen receptor–positive, human epidermal growth factor 2 receptor–negative (ER+/HER2−) breast cancer subtype. Although these drugs often improve patient outcomes, a small subset of tumor cells survive and divide despite the presence of palbociclib.

Because the precise percentage of resistant cells in patient tissue is a strong predictor of clinical outcomes, it is critical to understand the cellular mechanisms underlying the survival of these tumor cells.

In a study published in the Proceedings of the National Academy of Sciences, the UNC team — comprised of researchers from computational medicine, genetics, biostatistics, and surgery — used computational approaches to trace the path of tumor cells through the cell cycle and discovered subtle cell-to-cell differences in core cell cycle regulator proteins. This flexibility, or plasticity, among cell cycle regulators leads to alternate cell cycle "paths" that allow some tumor cells to escape treatment.

"Our work," they wrote in the study, "could lead to improved treatment strategies in ER+/HER2− breast cancer and points to cell cycle plasticity as a potential driver of therapeutic resistance in human tumors."

Further investigation of plasticity and how to eliminate resistant cell cycle paths could lead to improved cancer therapies targeting resistant cells — which, in turn, would likely improve patient outcomes.

Study finds Black patients with metastatic colorectal cancer have distinctly different gene mutations than white patients

In a study of more than 500 people treated with standard therapy for advanced colorectal cancer, UNC Lineberger researchers and colleagues have found that Black patients displayed a distinctly different pattern of gene mutations compared to white patients.

Colorectal cancer is the third most common cancer and the second leading cause of cancer death in the United States. While prior research has shown significant racial and age-related disparities in both cancer incidence and outcomes, this new study underscores the merits of integrating next-generation sequencing into clinical practice to identify critical biomarkers that can influence patient outcomes and inform treatment decisions.

"We sought to identify DNA mutations that were related to overall patient survival — a prognostic biomarker — or were associated with improved survival in one therapy more so than the other — a predictive biomarker," said study author **Naim Rashid, PhD,** associate professor of biostatistics. "We also sought to provide insights into racial differences in molecular features and clinical outcomes in patients with colorectal cancer."

Rashid

In the study, which appeared in the Journal of Clinical Oncology, investigators examined outcomes from a large Phase III randomized clinical trial investigating how different combinations of chemotherapy drugs affected genetic mutations in 548 patients with metastatic colorectal cancer.

The trial showed no advantage from any of the drug combinations, but by performing tumor DNA sequencing of more than 400 genes, the researchers were able to highlight certain mutated genes that were associated with survival and differences in response to therapy. Importantly, some of the mutations were associated with improved overall survival and could serve as predictive and prognostic markers for the disease.

"Black Americans are routinely under-represented in clinical trials, and this case is no exception. However, to our knowledge, this is the first prospective trial to look at gene mutations using state-of-the-art gene sequencing in this population," Rashid said. "We hope that these findings will help many patients and their caregivers in managing their disease and achieving better outcomes."

Priority 2: Developing Novel Therapeutics

UNC scientists find 'key' to potential breast cancer prevention, treatment

Every time a cancer cell divides, it sustains damage to its own DNA molecules. Yet, despite the immune system being on constant lookout for damaged cells, somehow cancers are still able to evade detection by the body's own defenses.

Researchers in the lab of **Gaorav Gupta, MD,** PhD, associate professor of radiation oncology and co-leader of the UNC Lineberger Breast Cancer Research Program, have uncovered a possible reason that cancer can fly under the immune system's radar.

Their findings, which were published in Nature, hinge on enzyme called cyclic GMP-AMP synthase (cGAS), which is well known as a messenger for the immune system. For example, when viruses and DNA-damaged cells are perceived as threats to the body, cGAS calls on the immune system to seek out and eliminate the threat.

In healthy conditions, however, cGAS is "locked up" to prevent excessive inflammation unless absolutely necessary — a discovery first reported in 2020 by a team of researchers including **Robert McGinty, MD, PhD,** associate professor of chemical biology and medicinal chemistry, **Pengda Liu,**

Research Impact

PhD, associate professor of biochemistry and biophysics, and **Qi Zhang, PhD,** professor of biochemistry and biophysics.

The cGAS pathway is inactive because it has a stronger affinity for histones (proteins around which the cells' genetic information is packaged) than to the foreign or aberrant DNA itself, said Gupta, who is also an associate professor of biochemistry and biophysics. "You can think of cGAS as being locked up through its binding to histones, not able to perform its duty to recognize altered DNA unless it is freed by some key."

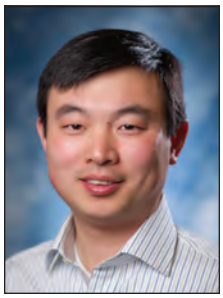
In light of the 2020 study, Gupta reached out to his colleagues to test a new hypothesis: whether a protein being investigated in Gupta's lab, MRE11, could be that key. They indeed found that MRE11, as it engages in recognizing and binding to broken DNA fragments, simultaneously releases cGAS from lockup, restoring the pathway to activate the immune system.

They also found that when MRE11 and cGAS interact with one another, they initiate a specialized form of cell death called necroptosis, which triggers heightened immune activation in a way that effectively suppresses tumor formation. "When MRE11 and cGAS are activated by a damaged precancerous cell, they cooperate to activate an immune-boosting form of cell death to help our bodies eliminate the cells before they develop into a cancer," Gupta said.

Gupta

McGinty

Liu



Zhang

Gupta and colleagues are actively enrolling patients for a clinical trial to examine whether combining radiation therapy, which activates immune system-alerting necroptosis, and standard immunotherapy will provide better treatment for certain types of breast cancer. Findings from this study will help researchers determine whether the cGAS pathway responds to these therapies, or if specific types of therapies may more effectively engage the pathway and result in improved clinical outcomes.

"We're very interested in identifying ways to reactivate this pathway to treat and potentially even prevent cancer development," he said.

Gupta, Spears honored for breast cancer work

UNC Lineberger's **Gaorav Gupta, MD, PhD,** and **Patricia Spears, FASCO,** were among five honorees who were formally recognized at the Susan G. Komen Breast Cancer Research Awards ceremony in December.

Gupta received the Susan G. Komen Rising Star Researcher Award. Gupta is renowned for his seminal research on the interplay between genome integrity pathways and breast cancer initiation, progression and response to therapy. His research is being translated into innovative ways of monitoring treatment,

including the use of non-invasive "liquid biopsy" tests to monitor treatment and to personalize radiotherapy and other cancer treatments.

Spears was presented with the Research Advocacy Champion Award. A national leader in cancer research and patient advocacy, Spears brings her personal experience as a breast cancer survivor of 20-plus years, a recent liver cancer survivor and a laboratory scientist to her advocacy work. She is a scientific research manager and patient advocate at UNC Lineberger, where she also leads the Patient Advocates for Research Council and the UNC Breast SPORE advocates. Her decades-long commitment to research advocacy includes ensuring the patient voice is incorporated in the development of clinical trials, communicating research to the public, and mentoring the next generation of patient advocates.

Spears

Scientists successfully maneuver self-driving robot through living lung tissue

Lung cancer is the leading cause of cancer-related deaths in the United States, but some tumors are difficult for surgeons to reach because they are extremely small and hide deep within lung tissue. UNC-Chapel Hill researchers have been working with scientists in Tennessee and Utah to develop a lung robot that can maneuver the intricate lung landscape and enable doctors to reach — and successfully remove — those hard-to-find tumor cells.

In a new paper, published in Science Robotics, the researchers have reported a new milestone: proving that their robot can autonomously go from "Point A" to "Point B" while avoiding important structures, such as tiny airways and blood vessels, in a living laboratory model.

"This technology allows us to reach targets we can't otherwise reach with a standard or even robotic bronchoscope," said **Jason Akulian, MD, MPH,** co-author on the paper and section chief of interventional pulmonology and pulmonary oncology. "It gives you that extra few centimeters or few millimeters even, which would help immensely with pursuing small targets in the lungs."

Akulian

This ongoing project leverages UNC's highly collaborative and interdisciplinary nature, with a team that includes Akulian, **Ron Alterovitz, PhD,** professor of computer science, and **Yueh Z. Lee, MD, PhD,** professor of radiology, along with colleagues at Vanderbilt University and the University of Utah.

Alterovitz

The robot is built of several separate components, including a needle made from a nickel-titanium alloy that has been laser etched to increase its flexibility, allowing it to steer along curved paths and obstacles and

Lee

move effortlessly through tissue. A mechanical control moves the needle forward and backward. Other attachments, such as catheters, could be used together with the needle to perform procedures such as lung biopsies.

The research team used CT scans of the subject's thoracic cavity and artificial intelligence to create three-dimensional models of the lung, including the airways, blood vessels, and the chosen target, to help the needle "learn" where it needs to go. Once the needle has been positioned for launch, the researchers' AI-driven software uses the 3-D model and instructs the needle to automatically travel from "Point A" to "Point B" while avoiding important structures. The needle can also account for respiratory motion, as the lungs are constantly expanding and contracting in the chest cavity.

"It's akin to a self-driving car, but it navigates through lung tissue, avoiding obstacles like significant blood vessels as it travels to its destination," Alterovitz said. "We plan to continue creating new autonomous medical robots that combine the strengths of robotics and AI to improve medical outcomes for patients facing a variety of health challenges while providing guarantees on patient safety."

Researchers gain insight into why T cells lose energy in solid tumors

T cells are a type of immune cells that hunt down and kill bacteria, viruses, and cancer cells throughout the body. While T-cell therapies have been shown to be especially effective in combating blood cancers, recent research has shown that once T cells infiltrate the environment of a solid tumor, like pancreatic cancer, they lose the energy needed to combat the cancer.

Thaxton

New research by the lab of **Jessica Thaxton, PhD, MsCR,** associate professor of cell biology and physiology and co-leader of the Cancer Cell Biology Program at UNC Lineberger, has made an important discovery: that a metabolic enzyme called Acetyl-CoA Carboxylase (ACC) causes T cells to store fat rather than burning fat for energy. Inhibiting this enzyme could help T cells generate the energy needed to more effectively fight solid tumors.

"Our discovery fills a long-standing gap in knowledge regarding why T cells in solid tumors don't appropriately generate energy," Thaxton said. "We inhibited the expression of ACC in mouse cancer models, and we observed that T cells were able to persist much better in the cancer environment."

The findings and the immunotherapeutic strategies generated by this work were published in Cell Metabolism. This new strategy could be used to make multiple types of T-cell therapies more effective for patients.

In a 2019 study published in Cancer Immunology Research, Thaxton and lab manager Katie Hurst, MPH, used a proteomics screen to identify enzymes associated with the optimal antitumor metabolism of T cells. They found that ACC expression may limit T cells' ability to create their cellular energy, called adenosine triphosphate or ATP.

"Acetyl-CoA carboxylase can drive the balance between storing lipids versus breaking down those lipids and feeding them into energy-producing cycles," Thaxton said. "If ACC is flipped 'on,' cells generally store lipid. If ACC is 'off,' cells tend to use the lipid in their mitochondria to make ATP and enhance T-cell therapeutics."

The latest findings could be useful in enhancing chimeric antigen receptor (CAR) T-cell therapies. This cutting-edge technology takes T cells out of cancer patients, modifies them in the lab to hunt down tumor cells, and then re-infuses the cells to fight the patient's cancer. Researchers are now studying whether it would be possible to flip the ACC metabolic switch directly in patient tumors, negating the need to take out and reinfuse cells back into the body, but first must determine how this could affect other immune cell populations in the body.

Priority 3: Outcomes

Data analytics, simulation models can provide insights to shape research, public policy

UNC Lineberger researchers are on the forefront of leveraging sophisticated computer models and developing other innovative ways to assess the impact of cancer control initiatives, including screening and treatments, to find out which types of interventions have the greatest bearing on outcomes.

Reeder-Hayes

Screening tests can help detect cancer at an early stage, improving the chances that treatment will be more effective and increasing the chance of a person's survival. With a five-year, $1.2 million Team Science grant from the American Cancer Society, **Katie Reeder-Hayes, MD, MSc, MBA,** is leading a team of UNC Lineberger researchers who will develop new methods to measure and map cancer screening across North Carolina. The research is designed to facilitate more widespread screening and early detection of cancer.

Cancer screening in the United States is tracked primarily using telephone surveys, which are expensive, time-consuming and miss many geographic areas. Reeder-Hayes and her team will use data from CIPHR — a robust population dataset created with UCRF support — to create new tools that use insurance claims to more efficiently measure and compare cancer screening use across small geographic areas and people groups.

"The existence of a cancer screening test in itself doesn't save anyone's life," said Reeder-Hayes, professor of medicine and section chief of breast oncology. "Early detection of cancer in people at highest risk, followed by prompt and appropriate treatment, are the steps that actually lead to less expensive, less difficult, and more life-saving cancer treatment. Without detailed information about where and when screening is happening, we're blind as to where the problems are and how to solve them."

Reeder-Hayes and her colleagues will work with community partners to transform the data into useful formats such as data visualizations and simulation models that show the potential effects of increased screening in certain geographic areas, for specific cancers, and for particular patient groups where screening is underused. For example,

Research Impact

Black Americans are often less likely to undergo cancer screening; this disparity contributes to the long-standing disparities in the diagnosis and survival of cancer for Black people.

"The goal of our research is to develop efficient, low-cost methods that policymakers and health workers in any state could use to map cancer screening use across their state, understand where it is lacking, and work with those communities to change that map. Everyone deserves the opportunity to have their cancer caught early, to access the treatments that are right for them, and to be able to say that they are a cancer survivor," Reeder-Hayes said.

Wheeler

Simulations and other systems-science approaches could play a powerful role in assessing the impact of cancer interventions and in generating critical analytic insights that could lead to better and more equitable health policies and delivery of care, **Stephanie Wheeler, PhD, MPH,** and **Ethan Basch, MD, MSc, FASCO,** noted in an editorial.

Basch

Published in JAMA, one of the world's premier journals, the editorial endorsed a study that used simulation models to determine that breast cancer screening and the treatment of breast cancers (ranging from early stage to metastatic disease) were each associated with the reduction of breast cancer mortality between 1975 and 2019 in the United States.

"Systems science approaches like the simulation modeling used in this study can help researchers, policy makers, health care providers and the public better understand to what extent, and in which circumstances, scientific advancements in cancer care delivery have translated to better public health outcomes," Wheeler said. "These methods also can help point to opportunities for future research prioritization and public health investments — insights that are beneficial for funders and researchers interested in supporting the most impactful science possible."

Basch, the chief of oncology and the Richard M. Goldberg Distinguished Professor in Medical Oncology and director of UNC Lineberger's Cancer Outcomes Research Program, said the study is important for several reasons. "First, it demonstrates the true value of investments in clinical research in breast cancer in terms of survival gains. Second, it elucidates where more investments are needed. And third, it highlights why public funding of modeling and other outcomes research is vital to progress in cancer care."

Research Impact

Lineberger members advance lung cancer screening, comprehensive smoking cessation support

Lung cancer screening to detect cancer early plays an important role in improving patient and population-level cancer outcomes. But screening is just one piece of the puzzle: Research has shown that smoking cessation and lung cancer screening each provide benefits for patients, and the combination of both is more effective in reducing mortality than either one alone.

Shoenbill

In an editorial in the Journal of Thoracic Oncology, **Kimberly Shoenbill, MD, PhD, MS,** and **Adam Goldstein, MD, MPH,** called on health professionals to work collaboratively to optimize tobacco cessation treatment in patients who are undergoing lung cancer screening. They outlined several ways to address gaps in the health care system that impede lung cancer screening and tobacco use counseling.

Goldstein

"Given that lung cancer remains the second most diagnosed cancer, the leading cause of cancer death, and that smoking remains the leading cause of lung cancer, established interventions that increase lung cancer screening and assist those eligible for lung cancer screening to quit smoking are essential in efforts to reduce lung cancer morbidity and mortality," they wrote, noting that nearly half of the patients eligible for lung cancer screening are still addicted to tobacco products.

Shoenbill said patients who are eligible for lung cancer screening often experience a high level of addiction, which is associated with elevated health risks and the need for comprehensive cessation treatment, including access to medications designed to decrease nicotine withdrawal symptoms and curb or eliminate the urge to smoke cigarettes.

"These patients have long-term, usually high levels of smoking, making quitting much more difficult," said Shoenbill, assistant professor in family medicine and director of the UNC Tobacco Treatment and Weight Management Programs.

Goldstein, the Elizabeth and Oscar Goodwin Distinguished Professor and director of Tobacco Intervention Programs, said more health care systems need to prioritize identifying patients who smoke and are eligible for lung cancer screening. A systematic approach ensures these patients receive comprehensive treatment and counseling, including providing medications.

"It is time to make new cases of lung cancer — and even deaths from lung cancer — extinct," he said.

Patient-Reported Outcomes Center of Excellence launched

UNC Lineberger launched its Patient-Reported Outcomes Center of Excellence this year, bringing together more than 30 faculty members and staff to conduct research focused on measuring and managing cancer treatment side effects and how to effectively implement of patient-reported outcomes in cancer care.

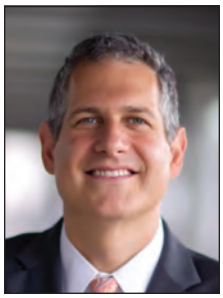
"Patient-reported outcomes are a methodologically robust way of bringing the patient voice into clinical trials, and into clinical care," said member

Lynne Wagner, PhD, the center's director and a professor of health policy and management. "This is a powerful way to understand patients' experiences and provide them with better care and optimize outcomes."

Wagner

The Center of Excellence creates opportunities to convene researchers to discuss their work and opportunities for collaboration, both in research and in clinical implementation.

"People being treated for cancer often experience a range of symptoms that can cause distress and impairment, and even preventable emergency room visits and hospitalization," said **Ethan Basch, MD, MSc, FASCO.** "Improving how patient symptoms are detected and managed is essential to providing high-quality cancer care, but how this can be accomplished has been a vexing issue."



Basch

Previous studies have shown that electronic patient-reported outcome, or ePRO, interventions have improved clinical outcomes, such as health-related quality of life, physical function and even provided a survival benefit. Concerns have been raised, though, about whether integrating ePROs into community oncology practices' electronic medical records would be overly burdensome in terms of staff time and costs.

To address that challenge, the Patient-Centered Outcomes Research Institute (PCORI) — an independent, nonprofit organization authorized by Congress with a mission to fund patient-centered comparative clinical effectiveness research — has awarded Basch a $3 million research grant to support a multi-institutional initiative to implement ePRO in oncology practices across the country.

The project's objectives include assessing the implementation process and the benefits of symptom monitoring with ePROs in real-world oncology practices. The researchers also will also develop standard operating procedures for ePRO implementation — a critical need if the program is to be rolled out more broadly in the future.

The project team includes investigators from UNC Lineberger and five other cancer centers across the country in partnership with the Centers for Medicare & Medicaid Services, American Society of Clinical Oncology, American Cancer Society, US Oncology and four of the largest electronic medical record companies in the country. In addition to providing administrative and scientific leadership, the research and partner organizations will contribute about $30 million of in-kind support for the project.

Multi-institutional study to investigate thyroid cancer cases in North Carolina

UNC Lineberger researchers are leading a multi-institutional study, funded by the state legislature, to investigate thyroid cancer incidence in North Carolina, including an examination of hotspots of papillary thyroid cancer.

The American Cancer Society estimates that more than 44,000 people in the United States will be diagnosed with thyroid cancer in 2024. In North Carolina, 1,055 new cases and 55 deaths from thyroid cancer are projected in 2024. Papillary thyroid cancer is the most common form of thyroid

cancer and is considered the most treatable; known risk factors include radiation exposure and obesity.

The study grew out of concerns about thyroid cancer in several communities in Iredell County, 30 miles north of Charlotte. A 2019 analysis from the North Carolina Department of Health and Human Services found elevated rates of papillary thyroid cancer in Iredell County compared to the state overall.

"The purpose of the Carolina Thyroid Cancer Study is to generate new and more comprehensive insights into the possible causes of the increased rate of papillary thyroid cancer in Iredell County and elsewhere in North Carolina," said the study's lead investigator, **Andrew Olshan, PhD,** associate director of population sciences at UNC Lineberger and Barbara Sorenson Hulka Distinguished Professor of Epidemiology.

Olshan

State Sen. Vickie Sawyer, whose district includes Iredell and Mecklenburg Counties, co-sponsored a bipartisan bill in 2019 calling for the creation of an advisory panel to outline the development of a research program to investigate increased cancer incidence in North Carolina.

The General Assembly appropriated funds for this study through the North Carolina Collaboratory, which was established by the legislature in 2016 to facilitate the dissemination of the policy and research expertise of institutions of higher learning across the state for practical use by state and local government.

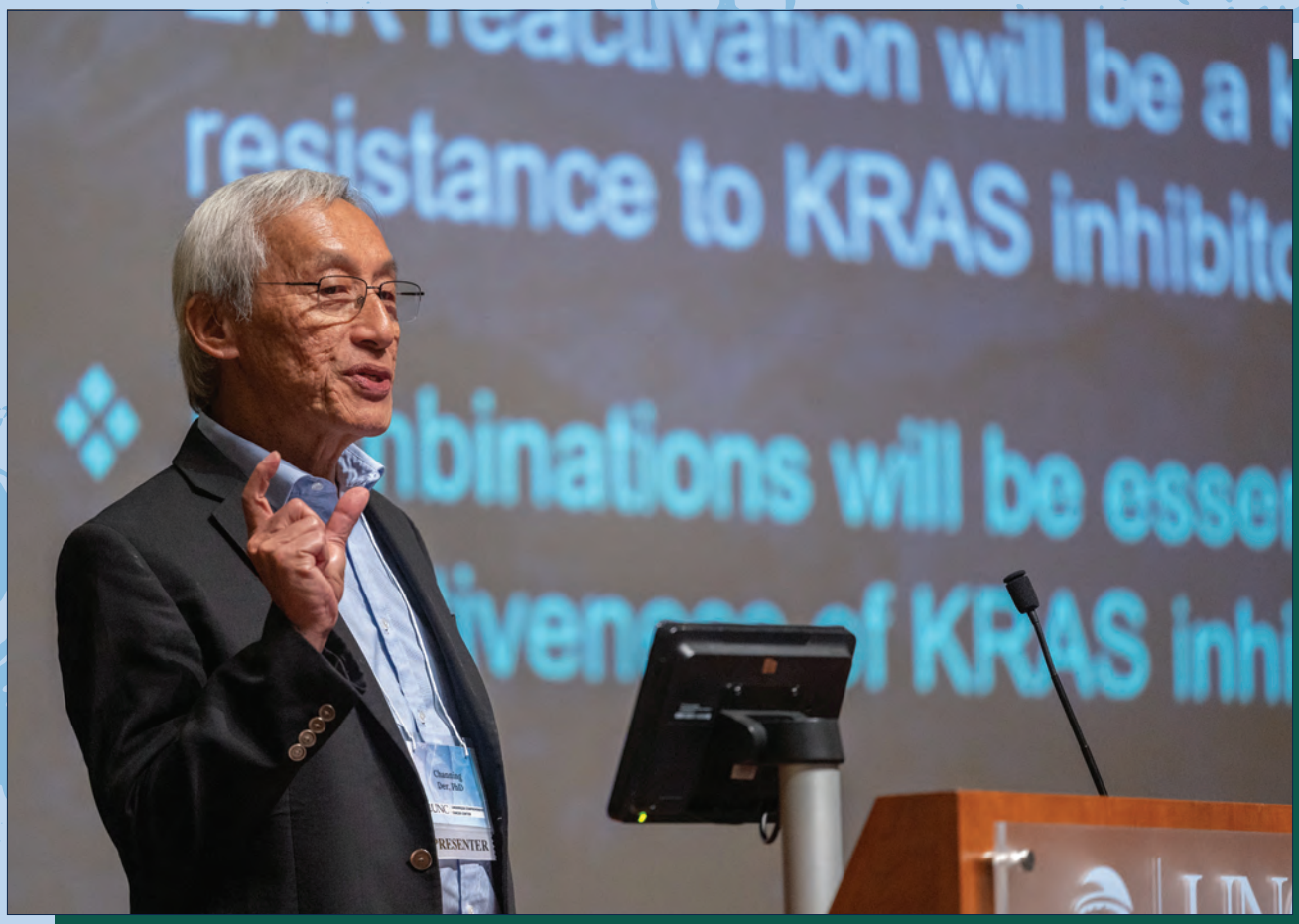
The Carolina Thyroid Cancer Study will examine relationships between thyroid cancer cases statewide and specific environmental exposures and other factors. Using data sources including the N.C. Central Cancer Registry and state databases containing information on environmental and other factors, the project will focus on all new thyroid cancer cases diagnosed in North Carolina from 1995 to 2021.

The study's investigators include **Chris Baggett, PhD,** UNC Lineberger; Kathleen Gray, PhD, UNC Institute for the Environment; Virginia Guidry, PhD, Division of Public Health, North Carolina Department of Health and Human Services; Kate Hoffman, PhD, Duke University; Cari Kitahara, PhD, Radiation Epidemiology Branch, National Cancer Institute; Libby McClure, PhD, UNC Gillings School of Global Public Health; and Brian Reich, PhD, North Carolina State University. They expect to conclude the study by July 2025.

Baggett

"We are very excited that the Carolina Thyroid Cancer Study has launched to improve our understanding of factors that might be linked to thyroid cancer," said Zack Moore, MD, MPH, state epidemiologist at the North Carolina Department of Health and Human Services. "Answering these questions is critically important for many people in our communities who have dealt with thyroid cancer themselves or in loved ones."

Faculty Impact: Research and Science



Faculty Impact

NIH and FDA award $18.6M to UNC Tobacco Center of Regulatory Science

Ribisl

The National Institutes of Health and the United States Food and Drug Administration have awarded UNC and UNC Lineberger's Tobacco Center for Regulatory Science (TCORS) $18.6 million to continue research into tobacco product regulations. The center is led by **Kurt Ribisl, PhD,** program leader of cancer prevention and control at UNC Lineberger and the Jo Anne Earp Distinguished Professor and chair of the Department of Health Behavior at UNC Gillings School of Global Public Health.

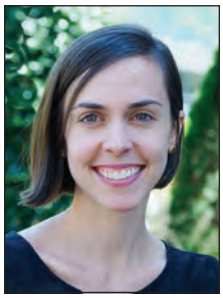
"Tobacco products cause 480,000 premature deaths in the United States each year," Ribisl said. "The results from our UNC research projects will inform current and future FDA regulations that will reduce the amount of death and disability caused by tobacco products."

UNC TCORS was launched at UNC Lineberger in 2013. The multidisciplinary center has four active research projects that seek to understand the impact of regulations and communication campaigns on people who are disadvantaged by tobacco use disparities, including Black, lower socioeconomic status, and lesbian, gay, bisexual and transgender populations, as well as youth and young adults:

Advancing Communication Science to Reduce Disparities in Young Adult Cigar Use: Led by **Adam Goldstein, MD, MPH,** and **Justin Byron, PhD,**

Goldstein

Byron



Hall

Brewer

Mills

Hassmiller Lich

Noar

Kowitt

Golden

assistant professor of family medicine and adjunct assistant professor of health behavior.

Amplifying a Menthol Cigarette Ban's Impact in Priority Populations with a Quit Smoking Campaign: Led by **Marissa Hall, PhD,** assistant professor of health behavior and faculty fellow at the Carolina Population Center, and **Noel Brewer, PhD,** Gillings Distinguished Professor in Public Health.

Modeling the Public Health Impact of a Flavored Cigar Ban: Led by **Sarah Mills, PhD, MPH,** assistant professor of health behavior, and **Kristen Hassmiller Lich, PhD, MPH,** associate professor of health policy and management.

Understanding the Impact of Vaping Preventing Ads on Adolescents and Young Adults: Led by **Seth Noar, PhD,** Howard and McClean Parker Distinguished Professor, and **Sarah Kowitt, PhD, MPH,** assistant professor of family medicine.

The center also is home to a Career Enhancement Core led by Goldstein and **Shelley Golden, PhD,** associate professor, which aims to train 30 graduate students, postdoctoral fellows and early career faculty.

Earp named chair of NCI Board of Scientific Advisors

Earp

Longtime UNC Lineberger Director **Shelley Earp, MD,** who stepped down from his director role Sept. 30, has been appointed chair of the National Cancer Institute Board of Scientific Advisors.

The 24-member board is responsible for advising the NCI director and program leaders on research priorities conducted or supported by the institute. This includes advising on overall spending priorities and working specifically with NCI staff to evaluate potential requests for applications.

Earp was recommended for the position by former NCI Director Monica Bertagnolli, MD, and confirmed by current NCI Director Kim Rathmell, MD, PhD. He has served on the board twice, from 2002-2007 and again starting in 2021. His appointment as chair continues his commitment of service to external organizations and committees, including the NCI, the American Association for Cancer Research, the Association of American Cancer Institutes, the American Cancer Society, and the V Foundation for Cancer Research.

Sharpless appointed to American Cancer Society board

Sharpless

The American Cancer Society named **Norman "Ned" Sharpless, MD,** and three others to its board of directors. Internationally recognized for his research into how normal cells age and undergo malignant conversion, Sharpless, professor of cancer policy and innovation, served as the director of UNC Lineberger from 2014–2017. He is the former director of the National Cancer Institute and former acting commissioner of the U.S. Food and Drug Administration.

"It is an honor to welcome these four new distinguished members to the board of directors, each of whom brings a wealth of knowledge, talent and

skilled leadership that will help us fulfill the mission of the American Cancer Society," said ACS Board Chair Brian Marlow. "We are grateful for their commitment and look forward to working together to improve the lives of cancer patients and their families."

UNC Lineberger faculty named world's most highly cited researchers

Twelve UNC Lineberger Comprehensive Cancer Center members were named to Clarivate's 2023 Highly Cited Researchers™ list, which recognized scientists from 67 countries and regions who published papers that ranked in the top 1% of cited publications in their field between 2012-2022.

Among institutions with the most highly cited researchers, UNC-Chapel Hill, with 41 faculty named to the list, ranked 24th overall. This year's analysis included more than 188,500 cited papers.

UNC Lineberger members named to the 2023 Highly Cited Researchers list included:

- Ralph Baric, PhD
- Noel T. Brewer, PhD
- Gianpietro Dotti, MD
- Katherine A. Hoadley, PhD
- Leaf Huang, PhD
- Charles M. Perou, PhD
- Barry M. Popkin, PhD
- Scott Randell, PhD
- Bryan L. Roth, MD, PhD
- Barbara Savoldo, MD, PhD
- Jenny P.Y. Ting, PhD
- David van Duin, MD, PhD

Social media health intervention wins $3.25 million in NCI funding

Allison Lazard, PhD, associate professor at UNC Hussman School of Journalism and Media, is part of an interdisciplinary team leveraging the power of social media to promote wellness through in-person connection. Lazard and fellow researcher **Barbara Fredrickson, PhD,** the Kenan Distinguished Professor of Psychology & Neuroscience, call their method the "social connectedness intervention," which uses social media to send messages to specific audiences and encourages them to make in-person connections with others.

Lazard

Fredrickson

The duo received a $3.25 million grant from the National Cancer Institute for a randomized controlled trial that could help to encourage young adults with cancer to seek social support resources. The NCI-funded study will focus on reaching people aged 22-39 who have cancer. Because this age group isn't normally on the lookout for symptoms, they are often diagnosed in the later stages of the disease and have a higher mortality rate compared to younger or older patient populations.

"Young adults have fewer support resources because there are fewer people in this age range with cancer," Lazard said. "They're also in what can be a gray area of life, not completely established, without a strong support network. Friends usually cling to them at first and then fall out of touch."

To combat loneliness for these young adults with cancer, Lazard and Fredrickson want to encourage them to seek in-person connections by meeting them where they are: social media. Study participants will engage with a simulated social media platform that resembles the experience of using Instagram or TikTok. Over four weeks they will encounter 12 different optimized messages. Researchers will observe if the messages inspire changes in participants' social behavior that improve well-being.

The calls to action are small, like paying someone a compliment, and can benefit their mental and physical health. "Our suggestions will be more effective if we are able to connect with this group with messages that demonstrate understanding of a shared experience," Lazard said.

UNC Lineberger Comprehensive Cancer Center

UNC Lineberger earns coveted NCI support grant merit extension

The National Cancer Institute has awarded UNC Lineberger a two-year merit extension of its Cancer Center Support Grant (CCSG). This notable honor is only available to cancer centers that earn two consecutive "exceptional" ratings — the highest possible designation — following an NCI CCSG review, which occurs every five years.

UNC Lineberger exceeded the criteria, achieving three consecutive "exceptional" ratings (2010, 2015 and 2020). With the merit extension, UNC Lineberger will undergo its next NCI comprehensive review in 2027.

The CCSG funding, totaling nearly $8 million each year, supports multiple types of cancer research and outreach to communities across North Carolina to enhance prevention, early detection, therapeutic innovation and access to care for patients and families.

"Earning a merit extension is a wonderful and well-deserved honor for our cancer center and the broader university," said **Shelley Earp, MD,** who stepped away from his role as UNC Lineberger's longtime director Sept. 30 but remains on the faculty. "Our mission, to prevent cancer and improve the lives of North Carolinians through high-impact research, compassionate care and service, clearly aligns with the NCI's larger mission. Our faculty's ability to harness the potential and talent at a great public university and its associated health care system is amazing and is responsible for this recognition of excellence."

Infrastructure and Shared Reseources

Infrastructure and Shared Reseources

In addition to supporting the research and clinical work of UNC's world-class cancer experts, the UCRF sustains critical core infrastructure and shared resources that benefit patients and health care providers across the state. Imaging, informatics and other research equipment and technology are essential tools in the push to advance cancer research and care. Virtual tumor boards, telemedicine, partnerships with health care providers, and robust community outreach and engagement efforts have helped UNC Lineberger serve patients and clinical practices in all 100 of North Carolina's counties.

UNC Lineberger Cancer Network educates medical professionals, patients

Part of UNC Lineberger's mission as an academic institution is to provide continuing education to health care professionals across North Carolina. The credits they earn can go toward re-licensure, re-certification and renewal of hospital privileges.

The UNC Lineberger Cancer Network (UNCLCN), supported by the UCRF, reaches physicians, nurses and allied health professionals through live, interactive medical and nursing lectures delivered by UNC faculty. The Network is one of the major sources of continuing education for North Carolina oncology professionals. The lecture series enables practitioners to access timely, evidence-based oncology therapeutic updates from the convenience of their own practice. Between live webinars and self-paced, online courses through the Cancer Network, medical professionals earned more than 6,300 credit hours this year, including:

- 127 American Medical Association Continuing Medical Education credits;
- 4,889 American Nurses Credentialing Center credits;
- 299 American Society of Radiologic Technologist credits;
- 878 Accreditation Council for Pharmacy Education credits; and
- 109 Oncology Data Specialist credits.

Virtual tumor boards connect oncologists

To promote collaboration with oncologists and cancer patients across North Carolina, UNC cancer experts use UCRF-funded infrastructure to regularly hold virtual "tumor boards" — in-depth reviews of a particular patient's case with a team of doctors — and consult in specialties that are not available in rural communities. This year 815 virtual tumor boards, across 22 different disciplines, helped connect community-based medical professionals with UNC oncology experts. The tumor boards also are a source for continuing education.

Infrastructure and Shared Reseources

Telehealth provides real-time consults

UNC Lineberger uses the UCRF-supported telehealth network to connect with health care providers in real time to discuss best practices for patient care and cutting-edge research, and to hold community education events aiming to raise patient awareness of issues related to cancer. This year, UNC Lineberger hosted 38 telehealth live webinars with more than 2,700 participants including nurses, doctors, physician assistants, nurse practitioners, pharmacists, social workers, nutritionists and clinic managers in 45 oncology practices across the state.

To support care providers and caregivers, the UNCLCN assisted with 32 Palliative Care Grand Rounds lectures, which cover topics that impact the practice of palliative medicine, and six Schwartz Rounds, which focus on issues related to the emotional impacts of patient care.

Video library extends UNCLCN's reach across the state

UNCLCN's video library now houses 1,030 oncology videos, including 99 Patient Centered Care webinars, 94 Research to Practice webinars, 37 Advanced Practice Provider webinars, 10 Southeastern American Indian Cancer Health Equity Partnership webinars, 176 Palliative Care Grand Rounds, 233 Didactic Fellows Lectures, 40 Exploring Cancer Lectures, and 60 Introduction to the Pathology of Disease lectures.

- The network's YouTube channel contains more than 270 videos that are readily available not only to health professionals, but also to the public.
- The UNCLCN also provided various levels of planning and support this year for numerous other activities, including but not limited to:
  - Community College Oncology. A series of four webinars and recordings created in coordination with the North Carolina Community College System.
  - Exploring Cancer. A series of 10 lectures and recordings created in coordination with North Carolina Central University (NCCU) and North Carolina Agricultural and Technical State University (N.C. A&T).
  - Support and recording for three Southeastern American Indian Cancer Health Equity Partnership webinars in coordination with Duke Cancer Institute and Wake Forest School of Medicine.
  - The Pathology of Disease. A pathology course with 23 classes taught online to students at N.C. A&T and NCCU.

Infrastructure and Shared Reseources

CIPHR: A data-rich resource for researchers and policymakers

In addition to supporting outreach and education activities through the UNC Lineberger Cancer Network, UCRF funds have been used to build and maintain vital foundational infrastructure for population-based research: the Cancer Information & Population Health Resource (CIPHR), a rich data resource that gives researchers and policymakers a deeper understanding of the various and complicated issues tied to North Carolina cancer outcomes.

CIPHR integrates large sets of data from multiple public and private sources, enabling researchers to analyze real-world information about real-world patients. With information on more than 1 million cancer patients in the state, this unique research tool links data on cancer incidence, mortality and burden in North Carolina to data sources at an individual and aggregate level that describe health care, economic, social, behavioral and environmental patterns. CIPHR is used in several population-based studies aiming to improve our understanding of cancer burdens across the state and to design interventions that help improve access and quality of cancer care.

1,000,000 Cancer cases, 2003–2021

86% Linked to claims data

12 mil Claims data for NC residents between 2003–2021

82 Principal Investigators

127 Projects

163 Manuscripts

Infrastructure and Shared Reseources

Recruitment and Retention

Faculty Recruitment

Cancer Genetics

Iain Carmichael, PhD
Assistant Professor
UNC School of Medicine
Department of Pathology & Laboratory Medicine
Spatial analysis of tumors, statistics, machine learning
University of California, Berkeley

Kathryn Gessner, MD, PhD
Assistant Professor
UNC School of Medicine
Department of Urology
Bladder cancer, genetics and therapy
University of North Carolina at Chapel Hill

Yusha Liu, PhD
Assistant Professor
UNC Gillings School of Global Public Health
Department of Biostatistics
Single-cell RNA sequencing analysis
University of Chicago

Aimin Peng, PhD
Professor
UNC Adams School of Dentistry
DNA damage and repair, oral cancer
University of Nebraska

Mark Woodcock, MD
Assistant Professor
UNC School of Medicine
Department of Medicine
Division of Oncology
Immunogenomics, bioinformatics, sarcoma
University of North Carolina at Chapel Hill

Infrastructure and Shared Reseources

Critical Infrastructure

Benjamin Albright, MD
Assistant Professor
UNC School of Medicine
Department of Obstetrics & Gynecology
Gynecologic malignancies
Duke University School of Medicine

Catherine "Alessa" Colaianni, MD, MPhil
Assistant Professor
UNC School of Medicine
Department of Otolaryngology/Head & Neck Surgery
Head & neck surgery, ethics
Oregon Health & Science University

Stephen Kimani, MD, MSc
Assistant Professor
UNC School of Medicine
Department of Medicine
Division of Oncology
Global oncology, breast cancer
University of Utah/Huntsman Cancer Center

Indriati Hood Pishchany, MD, PhD
Assistant Professor
UNC School of Medicine
Departments of Pediatrics/Pediatrics Infectious Disease, Microbiology & Immunology
Microbial ecology/Microbiome
Boston Children's Hospital/Harvard

Soma Sengupta, MD, PhD, MBA
Professor
UNC School of Medicine
Department of Neurology
Division of Neuro-oncology
Primary and metastatic brain tumors, clinical trials and outcomes
University of Cincinnati

Deborah Stephens, DO
Associate Professor
UNC School of Medicine
Department of Medicine
Division of Hematology
Chronic lymphocytic leukemia, clinical trials
University of Utah/Huntsman Cancer Center

Elisabeth "Lisa" Tracy, MD
Associate Professor
UNC School of Medicine
Department of Surgery
Division of Pediatric Surgery
Cancer surgery, pediatric solid tumors
Duke University School of Medicine

Lacey Williams, MD
Associate Professor
UNC School of Medicine
Department of Medicine
Division of Hematology
Leukemia, clinical trials
Georgetown University

Jean Wright, MD
Professor and Chair
UNC School of Medicine
Department of Radiation Oncology
Radiation therapy, quality control
Johns Hopkins Kimmel Cancer Center

Infrastructure and Shared Reseources

Developing New Treatments

Hokyung Kay Chung, PhD
Assistant Professor
UNC School of Medicine
Department of Cell Biology & Physiology
Systems biology, cancer signaling
Salk Institute for Biological Studies

Uzay Emir, PhD
Associate Professor
UNC School of Medicine
Department of Radiology
MRI and mass spectrometry imaging
Purdue University

Ankit Malik, PhD
Assistant Professor
UNC School of Medicine
Department of Microbiology & Immunology
Innate immunity, tumor microenvironment
University of Chicago

Jeremy Meier, MD, PhD
Assistant Professor
UNC School of Medicine
Department of Medicine
Division of Hematology
Bone marrow transplant, immuno-oncology
University of North Carolina at Chapel Hill

Deepika Sharma, PhD
Assistant Professor
UNC School of Medicine
Department of Microbiology & Immunology
Innate immunity, tumor microenvironment
University of Chicago

Anson Snow, MD
Assistant Professor
UNC School of Medicine
Department of Medicine
Division of Hematology
Cancer vaccines
University of North Carolina at Chapel Hill

Jiawei Zhou, PhD
Assistant Professor
UNC Eshelman School of Pharmacy
Pharmacotherapy and Experimental Therapeutics
Therapy resistance, colon cancer, animal models
Pfizer

Opportunity

Ukrae Rae Cho, PhD
Assistant Professor
UNC School of Medicine
Department of Cell Biology & Physiology
Nuclear regulation
Salk Institute for Biological Studies

Kevin Pruitt, PhD
Assistant Professor
UNC School of Medicine
Department of Pharmacology
Cancer cell signaling; transcriptional control
Texas Tech University

Gregory Wilkerson, DVM, PhD, DACVP
Professor
UNC School of Medicine
Department of Pathology & Laboratory Medicine
Veterinary pathology, comparative medicine
North Carolina State University

Infrastructure and Shared Reseources

Melinda Yates, PhD
Associate Professor
UNC School of Medicine
Department of Pathology & Laboratory Medicine
Cancer cell signaling; transcriptional control
MD Anderson Cancer Center/University of Texas

Optimizing NC Outcomes

Anisha Ganguly, MD, MPH
Assistant Professor
UNC School of Medicine
Department of Medicine
Cancer screening and care in underrepresented populations
University of Texas, Southwestern

Clara Lee, MD, MPP
Professor
UNC School of Medicine
Department of Surgery
Cancer outcomes, reconstructive surgery
Ohio State University

Elizabeth "Libby" McClure, PhD
Assistant Professor
UNC Gillings School of Global Public Health
Department of Epidemiology
Environment and cancer
DataWorks NC

Brent Small, PhD
Professor
UNC School of Nursing
Department of Nursing
Cancer treatment, cognition, survivorship
University of South Florida

Faculty Retention

Developing New Treatments

Yevgeny Brudno, PhD
Associate Professor
UNC Eshelman School of Pharmacy
UNC/NC State Department of Biomedical Engineering
Cellular engineering, cancer therapeutics

Optimizing NC Outcomes

Cheryl Giscombe, PhD, RN
Professor and Associate Dean
School of Nursing
Department of Nursing
Wellness, social determinants of health

Budget and Expenditure Information

Budget and Expenditure Information

When it was initially established in 2007, the UCRF had three sources of revenue: tobacco settlement funds, taxes on other (non-cigarette) tobacco products (OTP) such as snuff, and state appropriations. In the 2013–14 budget, the General Assembly consolidated all tobacco settlement funds into the State's General Fund, eliminating tobacco settlement funds as a source of UCRF support. This year, UCRF received the appropriation from the General Assembly along with OTP tax proceeds. As of July 1, 2024, UCRF will be supported by an annual appropriation from the North Carolina General Assembly.

This report and its charts reflect anticipated and actual revenue for FY 2024, and the fund balance after considering carryover and expenditures.

FY 2024 Anticipated and Actual Fund Revenue

Anticipated	**Amount***
State Appropriation	$59,500,000
Total	**$59,500,000**
Actual	
State Appropriation	$59,520,000
Actual OTP Tax Receipts	$0
Total	**$59,520,000**

* Rounded to the nearest dollar

FY 2024 Budget and Expenditures

Anticipated Budget	**Amount***
Revenue	$59,500,000
Carryover from FY23	($75,552)
Carryover from unrealized FY18 OTP tax receipts	$0
Total	**$59,424,448**
Actual Budget	
Revenue	$59,520,000
Carryover from FY23	($75,552)
Carryover from unrealized FY18 OTP tax receipts	$0
Total	$59,444,448
Expenditures	**$59,459,324**
Balance	**($14,876)**

* Rounded to the nearest dollar

Budget and Expenditure Information

Restrictions on the Use of UCRF Monies

G.S. 116-29.1 established the UCRF as a special revenue fund and created the Cancer Research Fund Committee to provide accountability and oversight. As the Cancer Research Fund Committee developed the UCRF Strategic Plan, each potential use of UCRF resources was evaluated according to the following questions:

- Will it address North Carolina's needs in terms of the goal of reducing the cancer burden in the state?
- Can we be world class at it? (Does it build on existing strengths, and is there an opportunity to lead?)
- Is there a strong economic model/justification for UCRF investment?

Based on these questions, the Committee developed a clear set of rules to guide how UCRF funds would be best spent. The Committee determined that UCRF funds should focus major resources on a limited set of opportunities to have the greatest impact; fund initiatives where UNC has the opportunity to establish a leadership position; be self-sustaining and provide leverage for additional extramural funding; build fundamental cancer-related research capabilities that benefit UNC research programs; and enhance North Carolina's economy by creating jobs, intellectual property, and startup companies.

To maximize the effectiveness of the state's investment and to ensure wise and responsible use of the funding, the Strategic Plan imposed additional restrictions on the use of these funds, instructing that UCRF funds should not:

- Invest broadly in an effort to make incremental improvements everywhere;
- Provide funding that would limit future flexibility;
- Undermine faculty innovation and competitiveness by eliminating the need for extramural grant funding;
- Substitute for existing university or health system funding or new philanthropy;
- Make expenditures based upon institutional or other needs outside cancer research; or
- Negatively impact other research on campus, for example by appropriating shared research infrastructure or resources.

Budget and Expenditure Information

Expenditures of State Funds related to UCRF

The table below provides an accounting of expenditures of state funding related to the UCRF. Further details regarding these expenditures are included as appendices to this report.

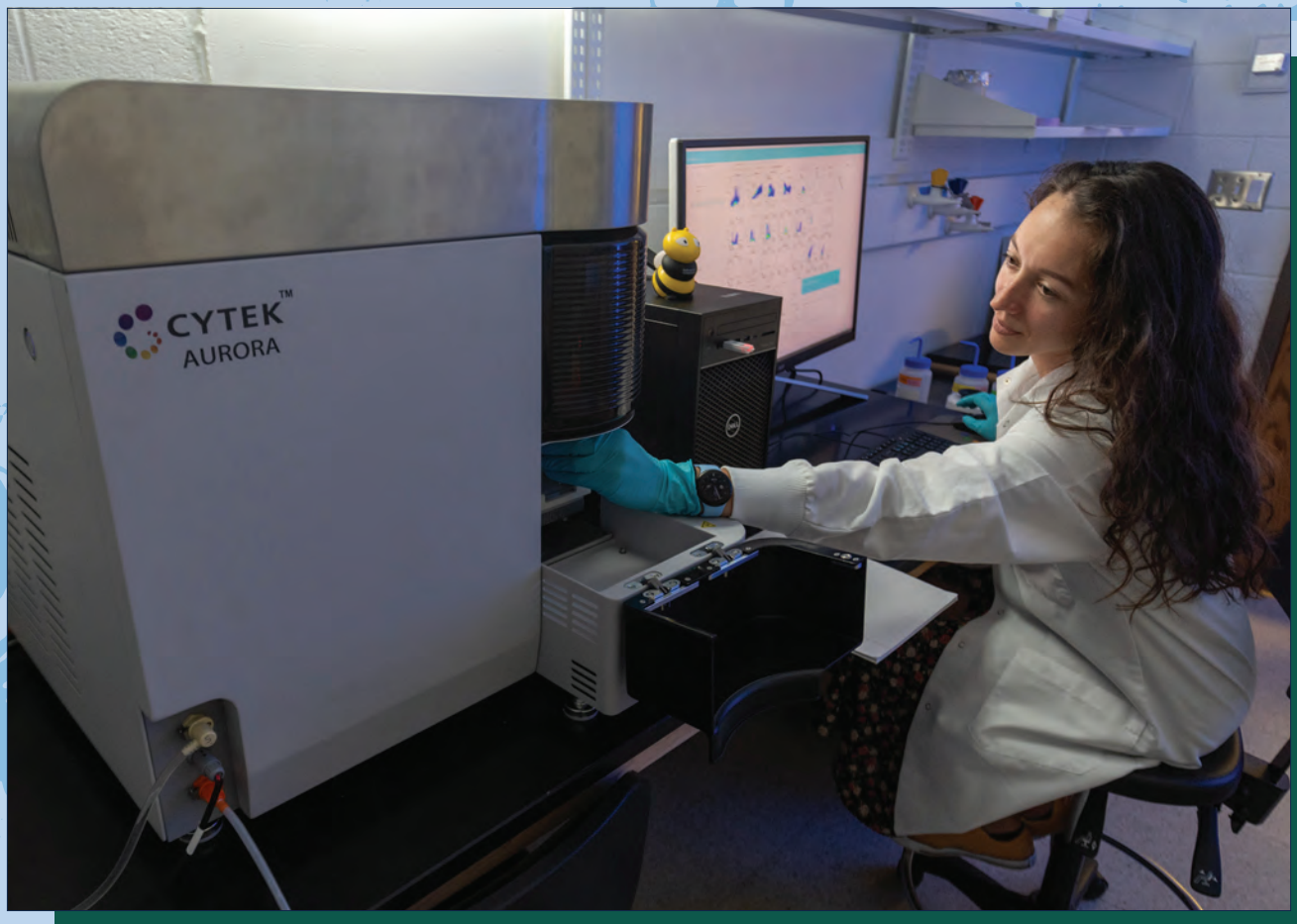
Strategy	Year to Date Actual*
Theme 1: Optimizing NC Cancer Outcomes	$9,788,196
Theme 2: Understanding Genetics in Cancer — Basic approaches & Clinical Applications	$9,391,944
Theme 3: Develop New Cancer Treatments	$9,887,803
Tier 2: Opportunity Fund	$9,223,807
Tier 3: Infrastructure — Clinical Excellence and Outreach	$8,509,077
Infrastructure	$12,658,496
Grand Total	**$59,459,324**

* Rounded to the nearest dollar

Conclusion

The University Cancer Research Fund continues to generate positive and significant impacts for North Carolina. As this report shows, the UCRF creates jobs, generates outside grant funds and tax revenues and sustains vital resources that allow UNC Lineberger to serve patients in all 100 counties while continuing to be a global leader in advancing cancer research and care. By powering the innovative research and clinical work of world-class cancer experts and their partnerships with health care providers and communities across North Carolina, UCRF resources are benefiting patients and families affected by cancer both throughout and beyond our state. On behalf of the clinicians, researchers and providers doing this critical work — and on behalf of the patients, families, and communities they serve — thank you for your continued support of this pioneering investment.

Appendix

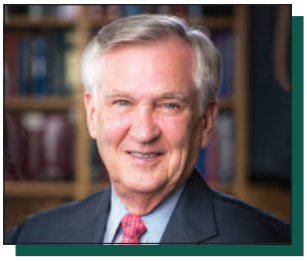


Appendix

CANCER RESEARCH FUND COMMITTEE

The legislatively established Cancer Research Fund Committee oversees the University Cancer Research Fund and is chaired by Lee Roberts, chancellor of the University of North Carolina at Chapel. The seven-member committee, which includes five ex-officio members designated by the legislation, elects two at-large members. The at-large members are to be leaders at nationally prominent cancer programs. Currently, the two are Edward Benz, MD, (president and CEO emeritus, Dana-Farber Cancer Institute) and Gary Gilliland, MD, PhD, (president emeritus, Fred Hutchinson Cancer Center).

Lee H. Roberts
Chair
Chancellor
The University of North Carolina
at Chapel Hill



Edward J. Benz, MD
President and Chief
Executive Officer, Emeritus
Dana-Farber Cancer Institute

A. Wesley Burks MD, MPH
Dean, UNC School of Medicine
Vice Chancellor for Medical
Affairs
CEO, UNC Health Care
The University of North Carolina
at Chapel Hill

H. Shelton Earp, MD
Director
UNC Lineberger
Comprehensive Cancer Center
The University of North Carolina
at Chapel Hill

Gary Gilliland, MD, PhD
President and Director
Emeritus
Fred Hutchinson Cancer Center

Angela Kashuba, BScPhm,
PharmD, DABCP, FCP
Dean
UNC Eshelman School of
Pharmacy
The University of North Carolina
at Chapel Hill

Nancy Messonnier, MD
Dean
UNC Gillings School of Global
Public Health
The University of North Carolina
at Chapel Hill

Appendix

ESTABLISHING LEGISLATION

§ 116-29.1. University Cancer Research Fund (as modified by SL 2013-360)

(a) Fund. – The University Cancer Research Fund is established as a special revenue fund in the Office of the President of The University of North Carolina. Allocations from the fund shall be made in the discretion of the Cancer Research Fund Committee and shall be used only for the purpose of cancer research under UNC Hospitals, the Lineberger Comprehensive Cancer Center, or both.

(b) Effective July 1 of each calendar year, the funds remitted to the University Cancer Research Fund by the Secretary of Revenue from the tax on tobacco products other than cigarettes pursuant to G.S. 105 113.40A is appropriated for this purpose are appropriated for this purpose.

(c) Cancer Research Fund Committee. – The Cancer Research Fund Committee shall consist of five ex officio members and two appointed members. The five ex officio members shall consist of the following: (i) one member shall be the Chancellor of the University of North Carolina at Chapel Hill, (ii) one member shall be the Director of the Lineberger Comprehensive Cancer Center, (iii) one member shall be the Dean of the School of Medicine at The University of North Carolina, (iv) one member shall be the Dean of the School of Pharmacy at The University of North Carolina, and (v) one member shall be the Dean of the School of Public Health at The University of North Carolina. The remaining two members shall be appointed by a majority vote of the standing members of the Committee and shall be selected from persons holding a leadership position in a nationally prominent cancer program. If any of the specified positions cease to exist, then the successor position shall be deemed to be substituted in the place of the former one, and the person holding the successor position shall become an ex officio member of the Committee.

(d) Chair. – The chair shall be the Chancellor of the University of North Carolina at Chapel Hill.

(e) Quorum. – A majority of the members shall constitute a quorum for the transaction of business.

(f) Meetings. – The Committee shall meet at least once in each quarter and may hold special meetings at any time and place at the call of the chair or upon the written request of at least a majority of its members. (2007-323, s. 6.23(b); 2009-451, s. 27A.5(e); 2010-31, s. 9.12.)

(g) Report. – By November 1 of each year, the Cancer Research Fund Committee shall provide to the Joint Legislative Education Oversight Committee and to the Office of State Budget and Management an annual financial report which shall include the following components:

(1) Accounting of expenditures of State funds related to strategic initiatives, development of infrastructure, and ongoing administrative functions.

(2) Accounting of expenditures of extramural funds related to strategic initiatives, development of infrastructure, and ongoing administrative functions.

(3) Measures of impact to the State's economy in the creation of jobs, intellectual property, and start-up companies.

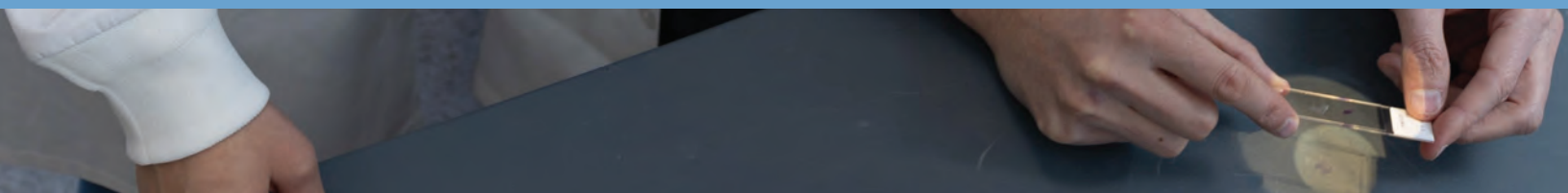
(4) Other performance measures directly related to the investment of State funds.

(5) Accounting of any fund balances retained by the Fund, along with information about any restrictions on the use of these funds.

UNC | LINEBERGER COMPREHENSIVE CANCER CENTER

THE ECONOMIC IMPACT OF UNIVERSITY CANCER RESEARCH FUND

Current economic, employment, government revenue, and generated research funds that assist with the recruiting and retaining of local research talent due to the UCRF at University of North Carolina Lineberger Comprehensive Cancer Center



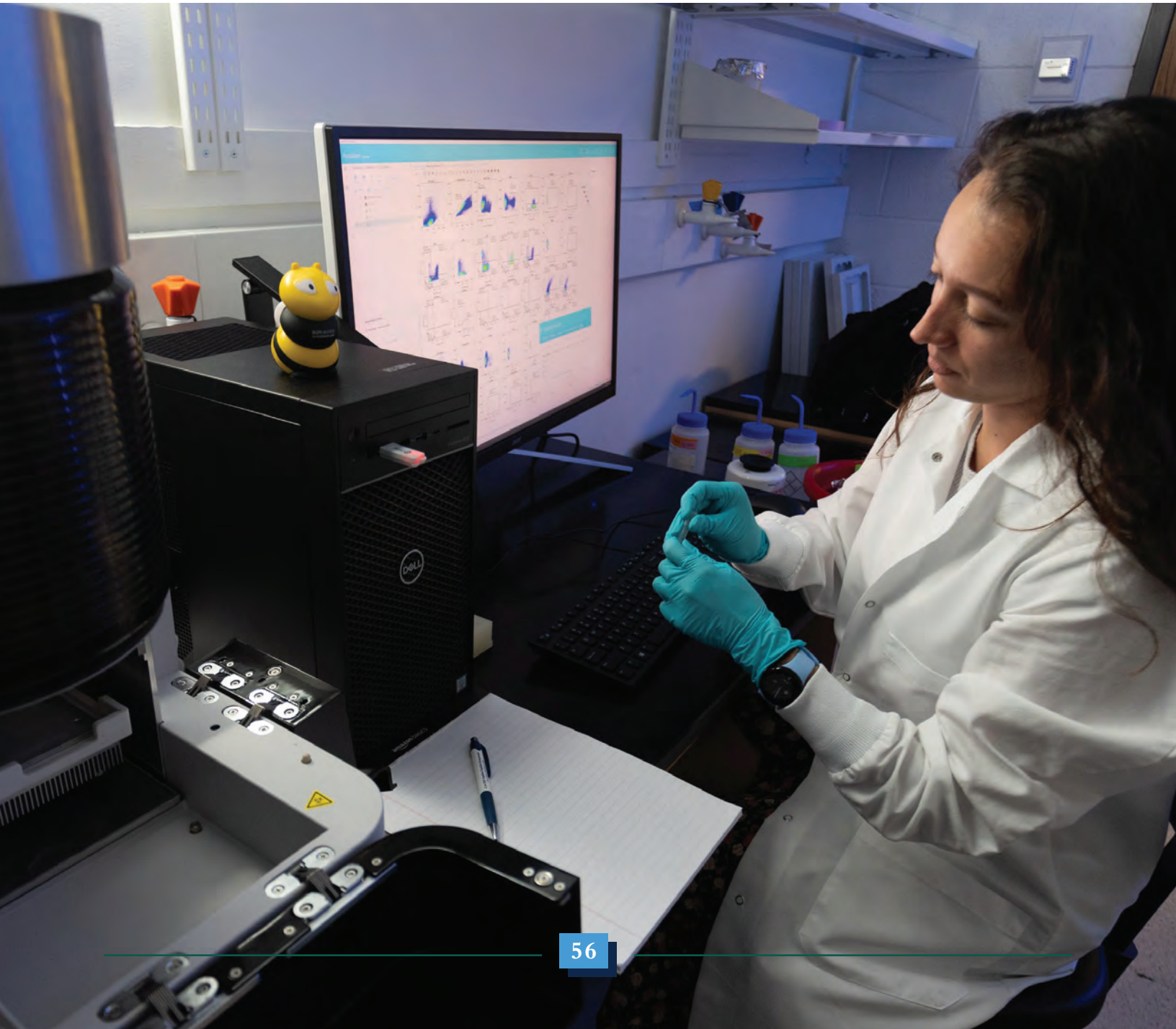
EXECUTIVE SUMMARY

In 2007, North Carolina's state leaders established a fund to boost cancer research through the University of North Carolina Lineberger Comprehensive Cancer Center (UNC Lineberger). The initial investment of $25 million into the University Cancer Research Fund (UCRF) has grown to **$59.5 million** for FY 2024. According to an analysis by Tripp Umbach, this $59.5 million investment generated an impressive economic impact of **$784.2 million** this year alone. This funding has fueled innovative research in cancer detection, treatment, and prevention, positioning UNC Lineberger as one of the nation's leading public comprehensive cancer centers. UNC Lineberger, one of only 57 National Cancer Institute-designated comprehensive cancer centers and the sole public cancer center in North Carolina, serves as a leading hub for groundbreaking cancer research and clinical care.

The center brings together some of the nation's top physicians and scientists to advance cancer prevention, early detection, and treatment. From laboratory research to clinical trials and community outreach, UNC Lineberger faculty are at the forefront of understanding cancer's genetic and environmental causes and developing new approaches to treatment. Investment in the UCRF strengthens North Carolina's commitment to providing top-tier care for its residents, ensuring access to the best cancer treatments available. Few investments hold such promise for improving the future health of the state's population.

The UCRF's success lies in its focus on people and collaboration. The fund invests in talented researchers with innovative ideas and expert clinicians who translate these discoveries into real-world treatments. UNC Chapel Hill and UNC Lineberger foster a culture of collaboration, both within the university and with external partners, to drive research breakthroughs and transform them into effective methods for detecting, treating, and preventing cancer. Beyond its direct contributions to cancer care, the UCRF also delivers significant economic benefits, driving job creation and generating dollars that directly and indirectly boost North Carolina's economy.

This report aims to detail the substantial economic impact of UCRF investments on North Carolina's biomedical sector in the current year, as well as highlight the historical benefits over the past decade. These impacts have been realized annually since the fund's inception. Through expanding the state's economy, creating jobs, generating tax revenue, fostering scientific collaboration, and attracting federal research funding, UCRF dollars have provided invaluable support to North Carolina's growth and innovation in healthcare.



KEY FINDINGS

EXPANDING THE STATE'S ECONOMY

In FY 2024, the UCRF generated a total economic impact of **$784.2 million** in North Carolina. This includes direct spending of more than $396.1 million within the state, much of which came from national grants secured through research activities, totaling $271.7 million. The ripple effect of this in-state spending contributed an additional $388.1 million in economic activity, reflecting the downstream spending by employees, vendors, and contractors involved with the UCRF. These economic benefits extend far beyond the initial investments, driving growth across multiple sectors and enhancing the state's overall economic landscape.

CREATING JOBS

The UCRF has been a critical driver of employment in North Carolina, directly supporting 1,511 jobs in FY 2024. Beyond this, the indirect and induced impacts of those jobs and the spending generated by the UCRF contributed to the creation of an additional 2,245 jobs across the state. In total, the fund supported **3,756 jobs** in FY 2024, spanning sectors such as healthcare, research, construction, and administrative services. The employment opportunities generated by the UCRF have not only strengthened the state's workforce but also fostered professional growth and skill development in North Carolina's biomedical sector.

GENERATING TAX REVENUE

In addition to job creation and economic growth, the UCRF provided significant fiscal benefits to the state. Tripp Umbach estimates that the UCRF generated **$24.7 million** in local and state tax revenue in FY 2024. This tax revenue helps fund essential public services, including education, infrastructure, and healthcare, reinforcing the long-term value of the UCRF's economic contributions to North Carolina.

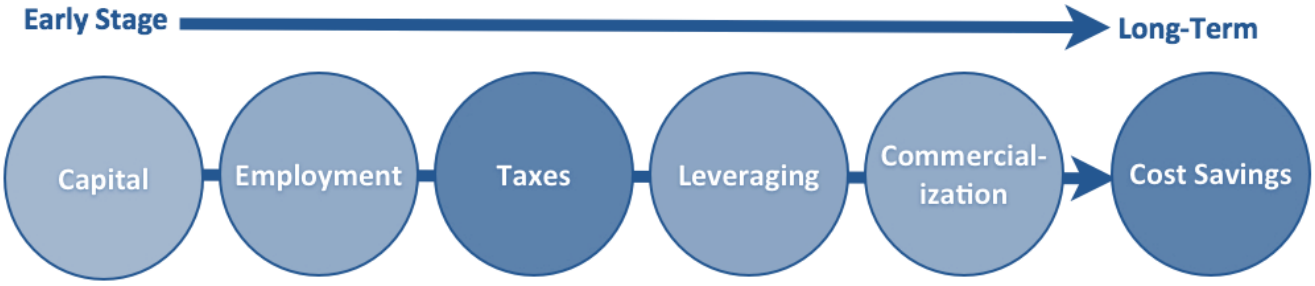
ENCOURAGING SCIENTIFIC COLLABORATION AND LEVERAGING FEDERAL RESEARCH FUNDS

One of the UCRF's most profound impacts has been its ability to foster scientific collaboration and attract competitive federal research funding. By encouraging recipient institutions to work together, the UCRF has enabled researchers to secure highly competitive federal grants. In FY 2024 alone, UCRF recipients leveraged $225.0 million in federal research grants, contributing to more than $271.7 million in external funding. This level of success would not have been possible without the UCRF's foundational support, which has helped elevate UNC Lineberger to the top ranks of cancer research institutions in the nation. The ability to attract federal dollars has not only amplified the fund's research capabilities but also reinforced North Carolina's leadership in biomedical innovation.

IMPACTS OF THE UCRF IN FY 2024

Any discussion of the economic impact of these state funds must be grounded in the understanding that research investments have a wide range of effects on a state's economy, both in the short term and over the long run. In the immediate future, these impacts include capital and non-capital investments, job creation, and the influx of new federal research funding, all of which contribute to expanding North Carolina's economy. In the longer term, these investments enhance the state's ability to compete nationally for additional funding, attract world-class scientists, and drive economic growth through the commercialization of medical research and innovation. This, in turn, leads to new products, services, and employment opportunities. Additionally, innovation in healthcare leads to cost savings for the state by improving outcomes and reducing the overall burden on healthcare systems (see Figure 1).

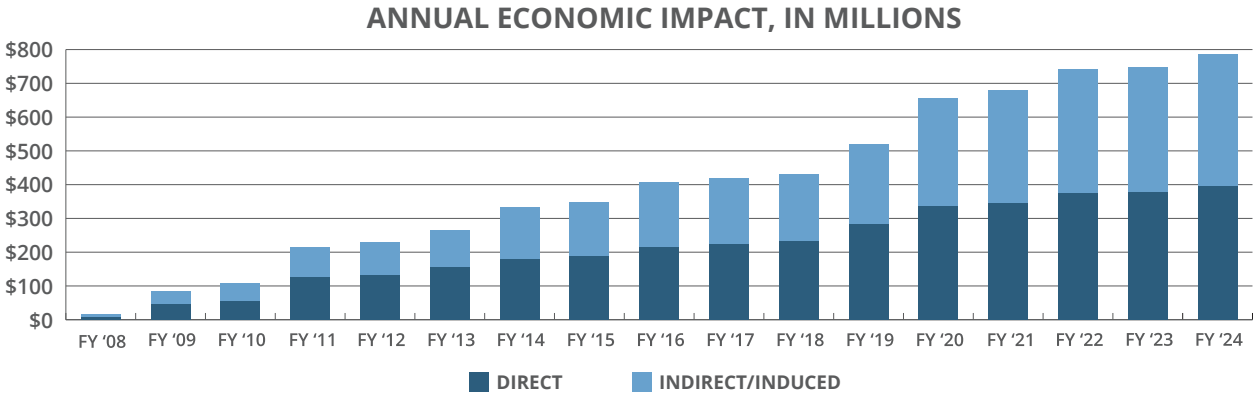
Figure 1: Research Return on Investment Timeline



ECONOMIC IMPACT OF FUNDING

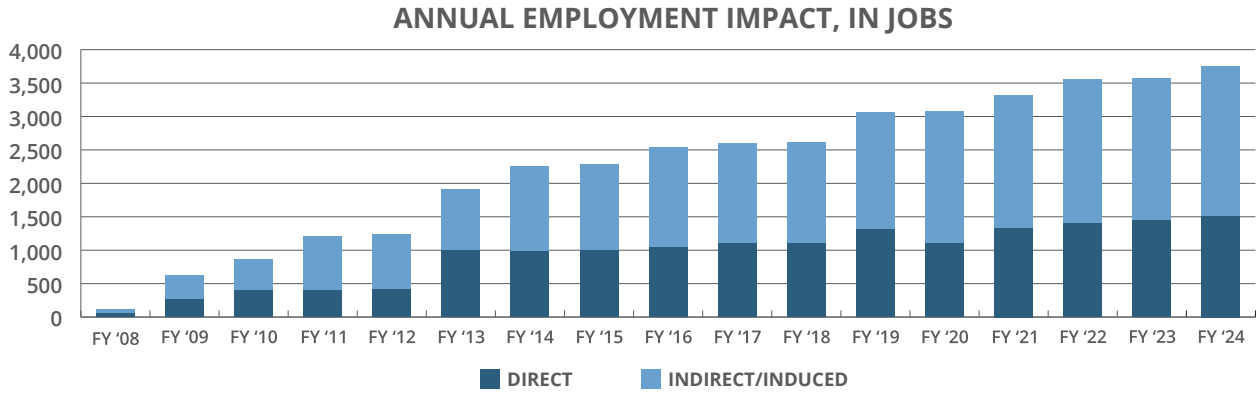
In FY 2024, UCRF investments in research contributed to a **$784.2 million** expansion of North Carolina's economy. Tripp Umbach's economic impact analysis reveals that even in the program's early years (2007-2011), investments in capital and human resources yielded a return of more than three dollars for every dollar invested. By FY 2024, this return has grown substantially, with nearly **$13.18 generated for every dollar invested**. The economic impact of UCRF spending is divided into two categories: direct and indirect/induced impacts.

Direct impacts include institutional spending on capital improvements, goods, and services, as well as expenditures by researchers, staff, subcontractors, and visitors attending conferences and meetings at these institutions. Indirect impacts stem from the income generated by these direct expenditures, which is recirculated through the state's economy as businesses and individuals spend their earnings, creating successive rounds of economic activity. The result is a multiplied economic effect, directly tied to the state's strategic investment in research. The cumulative impacts of the UCRF over the past 16 years are detailed in the chart below.



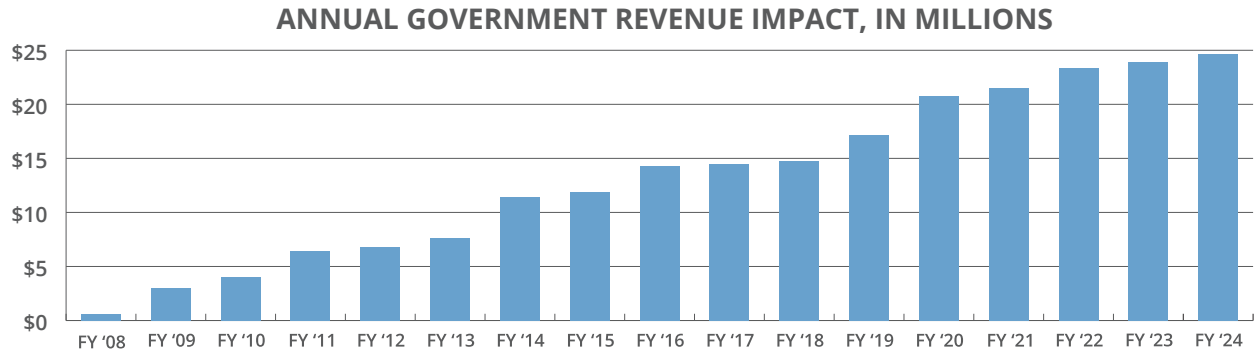
IMPACT OF UCRF DOLLARS ON EMPLOYMENT

Tripp Umbach estimates that in FY 2024, UCRF funding for healthcare research created and sustained **3,756 high-paying research-related jobs** across North Carolina. This includes 1,511 high-paying jobs directly tied to UNC and an additional 2,245 indirect and induced jobs supported throughout the state. The economic growth driven by UCRF allocations has generated increased demand for employment across various sectors of the state's economy. As a result, the employment impact continues to expand, providing North Carolina with a growing number of high-paying, research-driven opportunities.



TAX IMPACTS

Tripp Umbach estimates that FY 2024 UCRF funds generated **$24.7 million** in tax revenue for the state of North Carolina. This revenue is driven by in-state spending from recipient organizations and the expenditures of out-of-state visitors, which significantly contribute to the state's tax base. As early-stage research transitions into commercial applications, the resulting economic activity is expected to further boost tax revenues. Over the past decade, these tax impacts have steadily increased, offering a growing return on the state's investment in research and development.



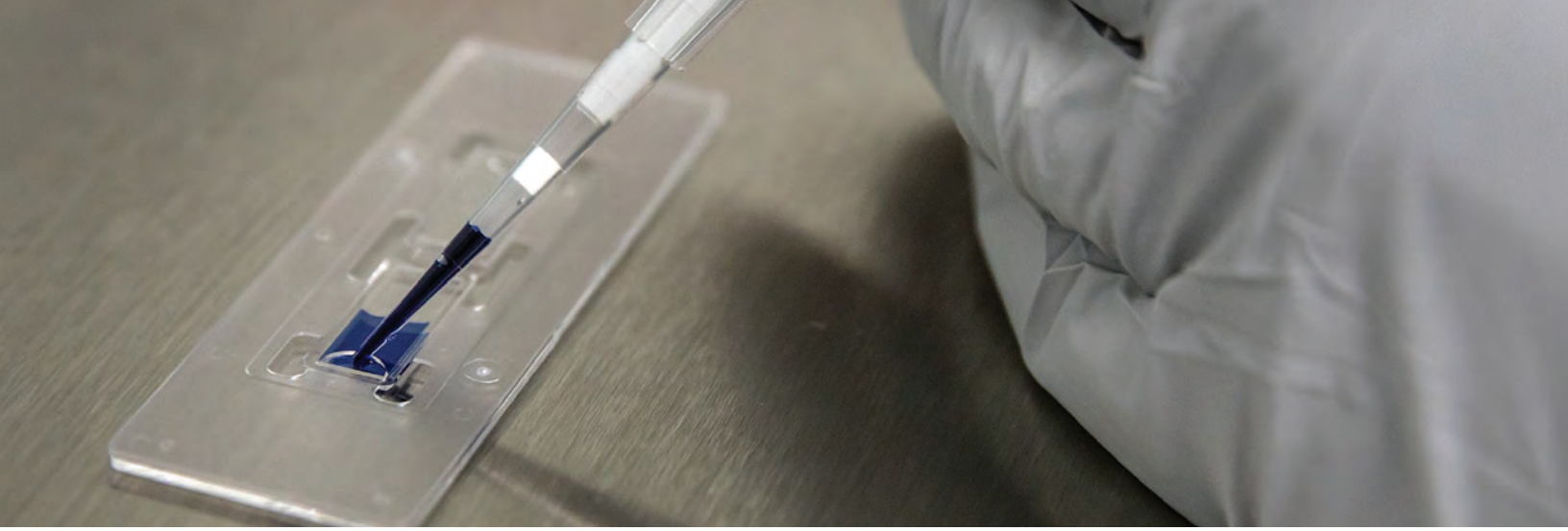
IMPACTS ASSOCIATED WITH LEVERAGED FEDERAL MEDICAL RESEARCH FUNDS

The North Carolina academic medical industry and growing life sciences industry have been measurably enhanced by these state funds. Federal medical research funding helps fuel clinical enterprises. These funds from the state's UCRF have encouraged researchers at the recipient organization to collaborate to apply for and win highly competitive federal grants. These funds have enabled recipients of UCRF dollars to leverage federal research funds amounting to $225.0 million, bringing the total to **$271.7 million** in external funding in 2024 alone.

COMMERCIALIZATION

Additional impacts that will be realized because of the UCRF are the levels of commercialization that occur when clusters of research professionals collaborate on a specialty area of research. Looking at projected commercialization impact in 2032, Tripp Umbach estimates **$785.9 million** at a conservative level of growth scenario to greater than **$1.4 billion** using the aggressive level of growth in additional economic activity within North Carolina. These activities will also create an additional 4,028 (conservative) to 7,409 jobs (aggressive) high-paying jobs. These additional economic and employment impacts will translate into additional state and local tax impact of $26.8 million to $48.1 million.

It is important to note that these commercialization impacts are in addition to the annual operational impacts of the UCRF and that these impacts will continue to grow as the research fund continues to be successful. These impacts are realized after years of research once the breakthroughs or discoveries have been made and the discoveries begin to hit the marketplace. Examples of successful spinoff businesses supported by UNC Lineberger include G1 Therapeutics, GeneCentric, EpiCypher, Epizyme, and Liquidia among many others. Since 2009, UNC Lineberger startup companies have raised more than $300 million in non-dilutive financing from the NIH, angel investors, and venture capitalists.



APPENDIX A: DEFINITION OF TERMS

STUDY YEAR

Fiscal Year 2024

TOTAL IMPACT

The total impact of an organization is a compilation of the direct impact, the indirect impact, and the induced impact generated in the economy as a result of the organization.

DIRECT IMPACT

Direct impact includes all direct effects the organization has on the regional area because of the organizational operations. These items include direct employees, organizational spending, employee spending, and spending by patients and visitors to the organization.

INDIRECT IMPACT

The indirect impact includes the impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money leaks from the local economy, either through imports or by payments to value added. The impacts are calculated by applying direct effects to the Type I Multipliers.

INDUCED IMPACT

The response by an economy to an initial change (direct effect) that occurs through re-spending of income received by a component of value added. IMPLAN's default multiplier recognizes that labor income (employee compensation and proprietor income components of value added) is not leakage to the regional economy. This money is recirculated through the household spending patterns, causing further local economic activity.

MULTIPLIER EFFECT

The multiplier effect is the additional economic impact created as a result of the organization's direct economic impact. Local companies that provide goods and services to an organization increase their purchasing by creating a multiplier.

APPENDIX B: METHODOLOGY

To fully quantify the impact of the funding of UCRF to the operations of UNC Lineberger within the geographical areas throughout this study, Tripp Umbach established a study methodology. It was critically important that the methodology deliver a comprehensive, yet conservative, estimate of the operations' impact, based on information compiled using uniform and consistent techniques. In addition, the study team sought to develop a reproducible methodology, ensuring that subsequent studies could build upon the information and knowledge gained through this effort.

Tripp Umbach determined that the use of the IMPLAN economic impact model software was most appropriate for this analysis. The IMPLAN econometric model operates by estimating the direct impacts, indirect impacts, and induced impacts of specific economic activity. Direct economic impacts are those attributable to the initial economic activity. For example, an operation with 10 full-time employees creates 10 direct jobs. Indirect economic impacts are those economic activities undertaken by vendors and suppliers within the supply chain of the direct activity because of the initial economic activity. For example, suppliers of goods, materials, and services used in the direct activities produce indirect economic impacts. Induced economic impacts result from the spending of wages paid to employees in local industries involved in direct and indirect activities. Tripp Umbach selected the IMPLAN model because of its frequent use in economic impact, in addition to its development independent of local influences.

Tripp Umbach collected employment information concerning the economic activity of UCRF's funding on operations themselves and followed up in person to make certain the data was the most current available.

In this report, the impact was measured using IMPLAN datasets. The IMPLAN data files include information for 546 industries (generally three- or four-digit SIC code breakdown) and more than 20 economic variables. IMPLAN sources its employment data from ES202 employment security data supplemented by county business patterns and REIS data. Employment data used in the analysis includes full-time and part-time positions.

It should be noted that, at the time of performing the UCRF assessment, the most recent IMPLAN data files for the state of North Carolina were for 2022. While the data is not for the current year, it is unlikely that the fundamental economic structure of North Carolina's economic fabric has changed to an extent that would invalidate the analysis. IMPLAN data and accounts closely follow the accounting conventions used in the "Input/Output Study of the U.S. Economy" by the U.S. Bureau of Economic Analysis and the rectangular format recommended by the United Nations.

By deriving the direct and actual employment numbers from IMPLAN for each county, Tripp Umbach was able to conduct input/output modeling to analyze the current impact of the industry in each county. Tripp Umbach supplied additional information as required to supplement the data supplied by UNC Lineberger.

APPENDIX C: TRIPP UMBACH QUALIFICATIONS

Tripp Umbach is the national leader in providing economic impact analysis to leading healthcare organizations and academic health centers. The firm has completed more than 500 economic impact studies over the years for clients such as the Mayo Clinic Rochester, The Cleveland Clinic, University of Florida Shands HealthCare, and the Ohio State University Wexner Medical Center.

Besides completing similar studies for UNC Lineberger over the last 25 years, Tripp Umbach has also completed economic impact studies for cancer centers such as the The Wistar Institute, Ohio State University's James Cancer Hospital and Solove Research Institute, Ohio State University's Comprehensive Cancer Center, Milton S. Hershey Medical Center's Cancer Institute, Mayo Clinic/Allegheny General Hospital Cancer Services planning, UPMC Hillman Cancer Center, University of Pennsylvania projected economic impact of the Cancer Center as a component of the Civic Center project, and University of Florida Shands HealthCare economic impact projections.

Tripp Umbach

Turning Ideas Into Action

FY 2024 Expenditures

FY 2024 Expenditures

Expenditures of State Funds related to UCRF

The table below provides an accounting of expenditures of state funding related to the UCRF. Further details regarding these expenditures are included as appendices to this report.

Strategy	Annual Budget	Year to Date Actual*	Cash Balance*
Theme 1: Optimizing NC Cancer Outcomes	$9,850,000	$9,788,196	$61,804
Theme 2: Understanding Genetics in Cancer — Basic approaches & Clinical Applications	$8,920,000	$9,391,944	($471,944)
Theme 3: Develop New Cancer Treatments	$9,825,000	$9,887,803	($62,803)
Tier 2: Opportunity Fund	$9,500,000	$9,223,807	$276,193
Tier 3: Infrastructure — Clinical Excellence and Outreach	$8,600,000	$8,509,077	$90,923
Infrastructure	$12,825,000	$12,658,496	$166,504
Grand Total	**$59,520,000**	**$59,459,324**	**$60,676**

* Rounded to the nearest dollar

FY 2024 Expenditures

Total Expenses

Expense Category	Year To Date Actual*	Expense to Total Expenditure
Faculty Salaries	$20,467,011	34.4%
EPA Student Salaries	$3,587,508	6.0%
Staff Salaries	$7,953,448	13.4%
Other Staff	$741,809	1.2%
Bonus Salaries	$1,541	0.0%
Benefits	$10,156,262	17.1%
Phy Benefits	$273,889	0.5%
Other Staff Benefits	$243,348	0.4%
Transit Tax	$98,476	0.2%
Consultants/Contracted Services	$1,060,143	1.8%
Employee Education	$20,135	0.0%
Repairs and Maint	$641,514	1.1%
Other Current Services	$4,202,889	7.1%
Supplies, Other	$4,468,296	7.5%
Travel	$803,314	1.4%
Maintenance Contracts	$132,483	0.2%
Advertising	$8,635	0.0%
Meetings & Amenities	$25,386	0.0%
Printing and Binding	$67,593	0.1%
Communication	$166,142	0.3%
Computer Services	$399,904	0.7%
Rental/Lease Facilities	$530,651	0.9%
Equipment	$1,482,894	2.5%
Study Subjects & Exp	$136,423	0.2%
HCS Residents	$396,587	0.7%
Insurance	$26,350	0.0%
Student Support	$1,332,069	2.2%
Legal Fees	$34,625	0.1%
Grand Total	**$59,459,324**	**100.0%**

* Rounded to the nearest dollar

FY 2024 Expenditures

UCRF Funding by Strategy and Expense

Theme 1: Optimizing NC Cancer Outcomes	Year to Date Actual*
Faculty Salaries	$3,572,634
EPA Student Salaries	$354,801
Staff Salaries	$1,924,232
Other Staff	$358,481
Benefits	$1,980,312
Phy Benefits	$10,126
Other Staff Benefits	$56,225
Transit Tax	$18,747
Consultants/Contracted Services	$75,499
Employee Education	$1,166
Repairs and Maint	$861
Other Current Services	$547,064
Supplies, Other	$139,034
Travel	$197,895
Advertising	$371
Meetings & Amenities	$3,250
Printing and Binding	$29,566
Communication	$52,155
Computer Services	$37,744
Rental/Lease Facilities	$46,212
Equipment	$8,697
Study Subjects & Exp	$128,221
Insurance	$43
Student Support	$241,400
Legal Fees	$3,460
Theme 1: Optimizing NC Cancer Outcomes Total	**$9,788,196**

* Rounded to the nearest dollar

FY 2024 Expenditures

Theme 2: Understanding Genetics in Cancer — Basic Approaches & Clinical Applications	Year to Date Actual*
Faculty Salaries	$3,640,322
EPA Student Salaries	$413,322
Staff Salaries	$1,077,024
Other Staff	$36,932
Benefits	$1,766,554
Phy Benefits	$10,420
Other Staff Benefits	$41,246
Transit Tax	$15,509
Consultants/Contracted Services	$27,996
Repairs and Maint	$1,346
Other Current Services	$377,266
Supplies, Other	$1,299,134
Travel	$59,975
Maintenance Contracts	$561
Advertising	$506
Meetings & Amenities	$101
Printing and Binding	$9,977
Communication	$5,263
Computer Services	$160,445
Equipment	$140,707
Insurance	$31
Student Support	$167,486
HCS Residents	$137,705
Rental/Lease Facilities	$2,117
Theme 2: Understanding Genetics in Cancer — Basic Approaches & Clinical Applications Total	**$9,391,944**

* Rounded to the nearest dollar

FY 2024 Expenditures

Theme 3: Developing New Cancer Treatment	Year to Date Actual*
Faculty Salaries	$2,248,500
EPA Student Salaries	$690,868
Staff Salaries	$851,500
Other Staff	$99,720
Bonus Salaries	$1,541
Benefits	$1,228,670
Phy Benefits	$591
Other Staff Benefits	$28,238
Transit Tax	$11,681
Consultants/Contracted Services	$335,951
Employee Education	$500
Repairs and Maint	$141,522
Other Current Services	$1,627,227
Supplies, Other	$1,537,616
Travel	$70,086
Advertising	$334
Meetings & Amenities	$92
Printing and Binding	$9,892
Communication	$30,872
Computer Services	$80,726
Rental/Lease Facilities	$439,512
Equipment	$197,954
Insurance	$2,952
Student Support	$196,105
HCS Residents	$47,622
Legal Fees	$7,530
Theme 3: Developing New Cancer Treatment Total	**$9,887,803**

* Rounded to the nearest dollar

FY 2024 Expenditures

Tier 2: Opportunity Fund	Year to Date Actual*
Faculty Salaries	$1,692,493
EPA Student Salaries	$833,871
Staff Salaries	$1,207,386
Other Staff	$203,096
Benefits	$1,130,668
Phy Benefits	$20,485
Other Staff Benefits	$25,773
Transit Tax	$11,875
Consultants/Contracted Services	$5,656
Employee Education	$1,404
Repairs and Maint	$493,827
Other Current Services	$905,594
Supplies, Other	$1,002,189
Travel	$305,572
Maintenance Contracts	$2,242
Advertising	($587)
Meetings & Amenities	$1,726
Printing and Binding	$12,611
Communication	$12,396
Computer Services	$68,969
Rental/Lease Facilities	$25,350
Equipment	$1,059,713
Study Subjects & Exp	$8,201
Insurance	$23,324
Student Support	$150,103
Legal Fees	$19,870
Tier 2: Opportunity Fund Total	**$9,223,807**

*Rounded to the nearest dollar

FY 2024 Expenditures

Tier 3: Infrastructure — Clinical Excellence and Outreach	Year to Date Actual*
Faculty Salaries	$5,755,816
EPA Student Salaries	$24,658
Staff Salaries	$534,827
Other Staff	$43,580
Benefits	$1,625,391
Phy Benefits	$229,296
Other Staff Benefits	$15,835
Transit Tax	$19,062
Consultants/Contracted Services	$50,795
Employee Education	$8,990
Repairs and Maint	$3,497
Other Current Services	$28,469
Supplies, Other	$34,059
Travel	$3,370
Advertising	$947
Meetings & Amenities	$574
Communication	$3,236
Computer Services	$7,284
Equipment	$9,909
HCS Residents	$109,482
Legal Fees	$0
Tier 3: Infrastructure — Clinical Excellence and Outreach Total	**$8,509,077**

*Rounded to the nearest dollar

FY 2024 Expenditures

Infrastructure	Year to Date Actual*
Faculty Salaries	$3,557,246
EPA Student Salaries	$1,269,988
Staff Salaries	$2,358,479
Benefits	$2,424,667
Phy Benefits	$2,971
Other Staff Benefits	$76,032
Transit Tax	$21,602
Consultants/Contracted Services	$564,246
Employee Education	$8,075
Repairs and Maint	$460
Other Current Services	$717,269
Supplies, Other	$456,264
Travel	$166,415
Maintenance Contracts	$129,680
Advertising	$7,064
Meetings & Amenities	$19,642
Printing and Binding	$5,547
Communication	$62,221
Computer Services	$44,736
Rental/Lease Facilities	$17,460
Equipment	$65,915
HCS Residents	$101,779
Student Support	$576,975
Legal Fees	$3,765
Infrastructure Total	**$12,658,496**
Grand Total	**$59,459,324**

*Rounded to the nearest dollar

Category	Last Name	First Name	Sponsor	Award Number	Begin	End	Title	Total Cost
Recruitment	Abdou	Yara	University of Arizona		1/24/20	11/30/23	Palbo T-DM1: A randomized Phase II Study to evaluate efficacy of T-DM1 with or without Palbociclib in the Treatment of patients with Metastatic HER2 positive Breast Cancer	14,432
Recruitment	Abdou	Yara	Johns Hopkins University	TBCRC047/PO2004587489	5/18/20	12/31/29	TBCRC-047: Innovative Combination Immunotherapy for Metastatic Triple Negative Breast Cancer (TNBC): A Multicenter, ,ulti-Arm Translational Breast Cancer Research Consortium Study (InCITe)	21,688
Recruitment	Abdou	Yara	Carisma Therapeutics, Inc	CT-0508-101	11/18/20	11/30/30	A Phase 1, First in Human Study of Adenovirally Transduced Autologous Macrophages Engineered to Contain an Anti-HER2 Chimeric Antigen Receptor in Subjects with HER2 Overexpressing Solid Tumors	79,784
Recruitment	Abdou	Yara	METAvivor Research and Support, Inc.		11/23/22	11/22/24	Investigating Survivin as a Novel Target for Immunotherapy in Black Women with Breast Cancer	50,000
Recruitment	Abdou	Yara	VCU Medical College of Virginia		10/16/23	1/15/26	PREDICT-RD: Postoperative Molecular Residual Disease by ctDNA Surveillance in Triple Negative Breast Cancer with Residual Disease	240,000
Recruitment	Abdou	Yara	Blueprint Medicines Corporation	BLU-222-1101	3/12/24	3/26/34	A Phase 1/2 Study to Evaluate the Safety, Pharmacokinetics, and Efficacy of BLU-222 as a Single Agent and in Combination Therapy for Patients with Advanced Solid Tumors	45,569
Recruitment	Akulian	Jason	Becton Dickinson and Company		12/4/18	12/3/23	Respiratory Sample Collection and Procurement for BD Research and Development	34,120
Recruitment	Akulian	Jason	NanOlogy, LLC	NANOPAC-2020-01	7/8/21	10/8/24	Phase 2 Trial Evaluating the Safety and Tolerability of Intratumoral Injections of NanoPac® with Standard of Care Therapy in Subjects with Lung Cancer	49,484
Recruitment	Akulian	Jason	Veracyte, Inc.	NIGHTINGALE	10/30/23	10/31/27	Clinical Utility of Management of Patients with CT and LDCT Identified Pulmonary Nodules Using the Percepta Nasal Swab Classifier - with familiarization (NIGHTINGALE)	26,030
Recruitment	Akulian	Jason	Tempus Labs, Inc	TP-CA-002	7/6/23	10/31/28	Tempus NSCLC Surveillance Study: A Longitudinal Circulating Tumor DNA (ctDNA) Biomarker Profiling Study ofPatients with Non-Small Cell Lung Cancer (NSCLC) Using Comprehensive Next-Generation Sequencing(NGS) Assays	30,076
Recruitment	Aleman	Maria	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	5-R01-DK124773-01-05	7/1/20	4/30/25	Iron-Sensitive RNA Regulation During Erythropoiesis	378,446
Recruitment	Alexander	Thomas	NIH National Cancer Institute	5-R21-CA259926-01-	7/1/22	6/30/25	Novel Sequencing Based Diagnostics for Leukemia in Low Resource Settings	181,741
Recruitment	Andermann	Tessa	National Marrow Donor Program	32979	8/1/19	12/31/23	Modulation of CAR-T Cell Therapy Efficacy by the Intestinal Microbiome in Patients with Leukemia and Lymphoma	100,000
Recruitment	Andermann	Tessa	Seres Therapeutics, Inc.	SER-155	7/26/23	8/31/29	A Phase 1b Study to Evaluate Safety, Tolerability, Pharmacokinetics, and Efficacy of SER-155 in Adults Undergoing Hematopoietic Stem Cell Transplantation to Reduce the Risk of Infection and Graft vs. Host Disease	33,997
Recruitment	Andermann	Tessa	NIH National Institute of Allergy and Infectious Diseases	5-K23-AI163365-01-03	9/10/21	8/31/26	Precision Characterization of Antimicrobial Resistance Gene Dynamics in Bloodstream Infection Risk After Hematopoietic Stem Cell Transplantation	202,619
Recruitment	Ainslie	Kristy	NIH National Institute of Allergy and Infectious Diseases	5R01AI167099-02	1/3/23	12/31/27	Mechanistic Evaluation of Mast Cell Agonists Combined with TLR, NOD and STING Agonists	618,197

Category	Last Name	First Name	Sponsor	Award Number	Begin	End	Title	Total Cost
Theme Investment	Anton	Eva	NIH National Institute of Neurological Disorders and Stroke	5-R35-NS116859-05	5/1/20	4/30/28	Defining Mechanisms of Progenitor Balance and Neuronal Connectivity	527,923
Theme Investment	Ariel	Pablo	NIH Office of the Director	1-S10-OD036215-01	4/1/24	3/31/25	Zeiss LSM900 Laser Scanning Confocal Microscope for the University of North Carolina at Chapel Hill	261,741
Investment (Protocol)	Armistead	Paul	Marker Therapeutics, Inc	MRKR-19-401-01	8/9/22	10/28/30	A Phase 2 Study of Donor-Derived Multi-Tumor-Associated Antigen-Specific T Cells (MT-401) Administered to Patients with Acute Myeloid Leukemia (AML) following Hematopoietic Stem Cell Transplantation (ARTEMIS)	49,646
Recruitment	Arthur	Janelle	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	5-R01-DK124617-01-05	6/1/20	5/31/25	Microbiota-Mediated Fibrotic Remodeling in the Inflamed Intestine	328,933
Recruitment	Arthur	Janelle	NIH National Institute of Allergy and Infectious Diseases	5-R21-AI159786-01-02	2/13/21	1/31/24	Novel High-Throughput In Vivo Approach to Define Pathobionts Driving Colitis	194,375
Recruitment	Arthur	Janelle	Wake Forest University Health Sciences	2045-45110-11000001883	6/14/23	5/31/28	Mechanisms of Klebsiella Pneumoniae Gastrointestinal Colonization	14,399
Recruitment	Atkins	Hannah	Pennsylvania State University	UNCCHCA274265	4/1/23	3/31/25	A Co-Infection Model for Papillomavirus Associated Infections and Cancers	10,713
Investment (Training)	Aubé	Jeff	NIH National Institute of General Medical Sciences	5-T32-GM135122-03	7/1/21	6/30/26	UNC Chemical Biology Interface Training Program	270,069
Recruitment	Aubé	Jeff	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI155510-01-03	7/13/21	6/30/25	Discovery of Phospopantetheinyl Transferse Inhibitors Against Mycobacterium tuberculosis	778,372
Retention	Bae-Jump	Victoria	Merck Sharp and Dohme Corp.	56986	1/2/19	12/31/28	Window of Opportunity Pilot Study of Pembrolizumab in High Grade Obesity-Driven Endometrial Cancer	30,222
Retention	Bae-Jump	Victoria	University of Washington	UWSC12682/PO #55965	4/1/21	3/31/25	Social Interventions for Support during Treatment for Endometrial Cancer and Recurrence: SISTER Study	30,800
Retention	Bae-Jump	Victoria	Foundation for Womens Cancer		4/1/24	3/31/25	Intermittent Fasting Versus Tirzepatide In Combination with Paclitaxel Or PD-Inhibitor Treatment As An Innovative Treatment Strategy In A Pre-Clinical Model Of Obesity-Driven Endometrial Cancer	50,000
Retention	Bae-Jump	Victoria	Foundation for Womens Cancer		4/1/24	3/31/25	Impact of Race and the Microbiome on the Progression and Treatment of Endometrial Cancer	50,000
Retention	Bae-Jump	Victoria	NIH National Cancer Institute	1-R21-CA267584-01	8/1/22	7/31/25	Impact of Obesity on Immuno-Oncology Agents in Endometrial Cancer	72,696
Retention	Bae-Jump	Victoria	NIH National Cancer Institute	5-R37-CA226969-06-07	3/14/18	2/28/25	Obesity-Driven Metabolic and Molecular Biomarkers of Metformin Response in Endometrial Cancer	337,922
Recruitment	Baker	Rick	Cornell University	87367-11331	1/1/20	3/31/24	Molecular Regulation of the AP2 Clathrin Adaptor Complex	47,816
Recruitment	Baker	Rick	NIH National Institute of General Medical Sciences	3-R35-GM150960-01S1	9/20/23	7/31/28	Molecular Mechanisms of Endocytic Initiation and Cargo Selection	456,024
Theme Investment	Baric	Ralph	SK bioscience	22-3863	1/3/22	5/30/25	Broadening Protection Against SARS-COV-2 and New Broadly Protective Sarbecovirus Candidate Vaccines	556,811
Theme Investment	Baric	Ralph	Janssen Pharmaceutica NV	C2022016830	10/4/22	6/30/25	Janssen Service Agreeement	54,312
Theme Investment	Baric	Ralph	Moderna Therapeutics	24-0836	5/21/24	5/20/25	University of North Carolina at Chapel Hill-Sponsored Research Agreement	249,396

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Theme Investment	Baric	Ralph	NIH National Institute of Allergy and Infectious Diseases	HHSN272201700036I 75N93022F00001	7/14/17	10/1/25	Animal Models II Umbrella	1,464,324
Theme Investment	Baric	Ralph	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI148260-01-05	3/5/20	2/28/25	Antibody Landscape following Human Norovirus Infection and Vaccination	732,472
Theme Investment	Baric	Ralph	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI110700-06-09	4/20/15	8/31/25	Cell Entry, Cross-Species Transmission and Pathogenesis of Novel Coronavirus from Wuhan	748,081
Theme Investment	Baric	Ralph	Duke University	303000021	9/16/21	8/31/24	Project 2: Design and Testing of Cross-Reactive Pan-Coronavirus Vaccines	650,000
Theme Investment	Baric	Ralph	NIH National Institute of Allergy and Infectious Diseases	1-U19-AI171292-01	5/16/22	4/30/25	Rapidly Emerging Antiviral Drug Development Initiative-AViDD Center (READDI-AC)	5,000,000
Theme Investment	Baric	Ralph	University of Washington	UWSC14095 BPO# 69607	9/2/22	8/31/25	Structure-Based Design of Broadly Protective Coronavirus Vaccines: Core 2 Virology and Viral Evolution Core	609,110
Theme Investment	Baric	Ralph	NIH National Cancer Institute	4-U54-CA260543-02	9/30/20	11/30/24	North Carolina Seronet Center for ExCellence	2,018,073
Theme Investment	Baric	Ralph	NIH National Cancer Institute	3-U54-CA260543-02S1	6/1/23	11/30/24	North Carolina Seronet Center for ExCellence	2,950,055
Theme Investment	Baric	Ralph	Icahn School of Medicine at Mount Sinai	0258-A730-4609	9/18/23	9/17/24	Recovery and Immunologic Comparisons across the group B MerbecovirUses using Antigenic Cartography - (Option 9A Equitable Adjustment (Merbecovirus Cartography) Award)	771,123
Recruitment	Baron	John	Medical University of South Carolina	A21-0071-S002	9/1/20	8/31/24	The Immune Contexture of Colorectal Adenomas and Serrated Polyps	58,592
Retention	Basch	Ethan	Alliance for Clinical Trials in Oncology Foundation	IHS-1511-33392	11/1/16	5/30/24	Electronic Patient Reporting Of Symptoms During Outpatient Cancer Treatment: A U.S. National Randomized Controlled Trial	127,485
Retention	Basch	Ethan	Patient-Centered Outcomes Research Institute	DI-2023C1-31283	3/1/24	2/28/30	Implementation of Symptom Monitoring with Electronic Patient-Reported Outcomes (ePROs) During Cancer Treatment: The OncoPRO Initiative	1,927,922
Retention	Basch	Ethan	NIH National Cancer Institute	3-U01-CA233046-05S1	9/30/18	8/31/24	Analyzing and Interpreting PRO-CTCAE with CTCAE and Other Clinical Data to Characterize Drug Tolerability	349,998
Retention	Basch	Ethan	University of Alabama at Birmingham	000527573-SC001	5/4/21	2/28/26	Evaluating the Implementation and Impact of Navigator-Delivered ePRO Home Symptom Monitoring and Management	108,110
Investment (Training)	Basch	Ethan	NIH National Cancer Institute	2-T32-CA116339-16	7/1/05	7/31/28	Cancer Care Quality Training Program (CCQTP T32)	708,380
Recruitment	Batrakova	Elena	NIH National Institute of Neurological Disorders and Stroke	5-R01-NS112019-01-05	9/1/19	6/30/24	ExtraCellular Vesicles for CNS Delivery of Therapeutic Enzymes to Treat Lysosomal Storage Disorders	595,136
Recruitment	Batrakova	Elena	University of Texas Rio Grande Valley	1R01AI147731-01A1 (01)	7/16/20	6/30/25	A Targeted Anti-HIV Drug Delivery to the GALT	78,647
Innovation Award	Bautch	Victoria	NIH National Heart, Lung, and Blood Institute	5-R35-HL139950-07	1/1/18	12/31/24	Molecular and Cellular Control of AngioGenesis	830,065
Retention	Bear	James	North Carolina State University	PAM-P14-000702-SA02	7/1/18	5/31/24	Multiscale Modeling of Wound Healing	453,262
Retention	Bear	James	NIH National Institute of General Medical Sciences	5-R35-GM130312-01-05	2/1/19	1/31/25	Systematic Analysis of the Actin Cytoskeleton and Directed Cell Migration	581,059
Retention	Bear	James	NIH National Institute of General Medical Sciences	2-R35-GM130312-06	2/1/19	4/30/29	Systematic Analysis of the Actin Cytoskeleton and Directed Cell Migration	588,330

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Theme Investment	Beaven	Anne	Genentech, Inc.		7/18/18	8/1/28	A Phase III, Multicenter, Randomized,Double-Blind, Placebo-Controlled Trial Comparing the Efficacy and Safety of Polatuzumab Vedotin in Combination with Rituximab and CHP (R-CHP) Versus Rituximab and CHOP (R-CHOP) in Previously Untreated Patients with Diffuse Large B-Cell Lymphoma	4,219
Recruitment	Bell	Ronny	Wake Forest University Health Sciences	2221-45618-11000002633	1/1/24	12/31/25	AIMEPCCo: American Indian Men and Experiences with Prostate Cancer Communication	47,412
Recruitment	Bell	Ronny	University of Miami	OS00001332 SPC-003443	8/15/23	6/30/24	Native Alzheimer's Disease Resource Center for Minority Aging Research (NAD-RCMAR)	18,290
Recruitment/ Theme Investment	Berg	Jonathan	NIH National Human Genome Research Institute	3-U24-HG009650-07S1	9/12/17	6/30/26	The Clinical Genome Resource - Advancing Genomic Medicine Through Biocuration and Expert Assessment of Genes and Variants at Scale	5,207,358
Recruitment/ Theme Investment	Berg	Jonathan	NIH National Human Genome Research Institute	3-R01-HG012271-02S1	9/14/22	6/30/27	Age-Based Genomic Screening in Newborns, Infants, and Children: A Novel Paradigm in Public Health Genomics	934,611
Recruitment	Bjurlin	Marc	Janssen Research & Development, LLC	WO# 56021927PCR3011	6/21/19	12/31/27	A Randomized, Double-Blind, Placebo-Controlled, Phase 3 Study of Apalutamide in Subjects with High-Risk, Localized or Locally Advanced Prostate Cancer Who are Candidates for Radical Prostatectomy	15,137
Recruitment	Bowers	Albert	National Science Foundation	CHE-2204094	6/1/22	5/31/25	Controlling Protein Post-Translational Modification by Separating Affinity and Catalysis in Designer Enzymes	165,000
Recruitment	Bowers	Albert	Enanta Pharmaceuticals, Inc.	23-3827	7/1/23	6/30/24	mRNA Display Selections Against Enanta Targets	187,687
Recruitment	Bowers	Albert	Intellectual Ventures	24-3889-24-1420	5/1/24	8/1/26	Investigations Towards Arbitrary Peptide Synthesis (APS) Display	33,386
Recruitment	Bowers	Albert	NIH National Institute of General Medical Sciences	5-R35-GM125005-06-07	9/5/17	8/31/27	Chemoenzymatic Synthesis, Mode of Action and Evolution of Natural Product-Based MacroCycles	389,341
Recruitment	Branca	Rosa	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	5-R01-DK123206-01-02	9/1/20	8/31/24	Enabling Accurate Identification and Quantification of Brown Adipose Tissue Mass by Xenon Enhanced Computed Tomography	372,580
Recruitment	Branca	Rosa	NIH National Institute of Biomedical Imaging and Bioengineering	5-R21-EB031319-01-02	4/1/21	1/31/24	Gas Microbubbles as a Hyperpolarized-Xenon Carrier and as a Contrast Agent for MRI	137,587
Recruitment	Branca	Rosa	University of MassachUsetts Medical School	SUB00000106-UNC/WA0118039	8/15/21	8/14/25	Advancement of CRISPR-Based Adipose Therapeutics for Type 2 Diabetes to Non-human Primates	327,782
Recruitment	Brenner	Alison	Drexel University	T10412	7/1/23	6/30/24	Assessing Equity in Shared Decision Making, Utilization, and Outcomes of Lung Cancer Screening	42,000
Recruitment	Brenner	Alison	NIH National Cancer Institute	1-R01-CA279010-01A1	2/1/24	1/31/29	Expanding Access to Colorectal Cancer Screening Through Community Pharmacies: The PharmFIT Study	666,969
Recruitment	Brewer	Noel	NIH National Institute on Drug Abuse	5-R01-DA048390-01-04	7/1/20	4/30/26	Informing ENDS Policies: Studying the Impact of E-Cigarette Warnings on Behavior	472,092
Recruitment	Brewer	Noel	NIH National Cancer Institute	3-P01-CA250989-03S1	9/23/21	8/31/26	Program Project - Improving Provider Announcement Communication Training (Impact)	2,432,603
Recruitment	Brown	Nicholas	American Heart Association	23IPA1048749	7/1/23	6/30/25	Dissecting MacroMolecular Complexes of Protein Quality Control in the Heart	100,000
Recruitment	Brown	Nicholas	Amgen, Inc.	20231200000	12/12/23	11/30/25	Uncovering New Interactions to a Vast Set of Ubiquitin Ligases	500,710
Recruitment	Brown	Nicholas	NIH National Institute of General Medical Sciences	2-R35-GM128855-06	8/1/18	7/31/28	Spindle Assembly Checkpoint Silencing	454,118

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Recruitment	Brudno	Yevgeny	North Carolina State University	500679	6/1/23	5/31/25	Biomaterial Scaffolds for In Vivo CAR T Cell Manufacture	85,116
Recruitment	Bryant	Ashley Leak	Carevive Systems, Inc.		11/2/21	12/31/23	Real World Treatment Experience of Patients with Acute Myelogenous Leukemia and Lung Cancer Using Remote Symptom Monitoring	45,971
Recruitment	Bryant	Kirsten	Department of Defense	W81XWH2110693	9/1/21	8/31/24	Targeting KRAS-Dysregulated Metabolism for Novel Therapeutic Approaches	219,289
Recruitment	Bryant	Ashley Leak	NIH National Cancer Institute	5-K00-CA253762-03-	5/17/22	4/30/26	Understanding Quality of Life and Physical Activity in Black Breast Cancer Survivors	87,210
Recruitment	Bryant	Kirsten	NIH National Cancer Institute	5-R37-CA251877-01-04	7/1/20	6/30/25	Mechanistic Dissection and Inhibitor Targeting of Autophagy in RAS Driven Cancers	352,097
Recruitment	Bryant	Kirsten	Washington University in Saint Louis	WU-24-0142	4/1/23	3/31/28	Harnessing TNFa Signaling To Improve Therapeutic Response In Pancreatic Cancer	78,988
Investment (GeriOnc)	Busby-Whitehead	Jan	HRSA Bureau of Health Workforce	5-U1Q-HP28734-08-01	7/1/15	6/30/24	Carolina Geriatric Workforce Enhancement Program	116,333
Investment (GeriOnc)	Busby-Whitehead	Jan	American Geriatrics Society		10/1/23	9/30/27	Geriatrics Workforce Enhancement Program (GWEP) Coordinating Center	258,600
Investment (GeriOnc)	Busby-Whitehead	Jan	NIH National Institute on Aging	5-T35-AG038047-14	6/1/20	5/31/25	UNC-CH Summer Research Training in Aging for Medical Students (MSTAR)	112,409
Recruitment	Calabrese	Mauro	NIH National Institute of General Medical Sciences	5-R01-GM136819-01-04	5/1/20	2/28/25	Cooperative Control of Polycomb Repressive Complexes by Long Noncoding RNAs, CpG Island DNA, and RNA-Binding Proteins	386,771
Recruitment	Calabrese	Mauro	National Science Foundation	DBI-2228805	5/1/23	4/30/26	A Computational Approach to Identify Non-Linear Sequence Similarity Between lncRNAs	220,877
Recruitment	Calabrese	Mauro	NIH National Institute of Child Health and Human Development	5-F31-HD111292-02	3/1/23	2/28/26	Fellow: M Murvin Dissecting Mechanisms of Gene Silencing by the lncRNA Kcnq1ot1 in Mouse Trophoblast Stem Cells	42,234
Recruitment	Calabrese	Mauro	NIH National Institute of General Medical Sciences	1-R35-GM153293-01	4/1/24	3/31/29	Mechanisms of Gene Regulation by Long Noncoding RNAs	629,698
Recruitment	Calhoun	Ben	Dana-Farber Cancer Institute	6444400	7/1/23	6/30/26	Endocrine Therapies for Male Breast Cancer	56,920
Recruitment	Cameron	Craig	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI045818-22-24	9/1/19	6/30/26	RNA-Dependent RNA Polymerase	404,270
Recruitment	Cameron	Craig	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI169462-01-03	4/13/22	3/31/27	Enteroviral 2C Protein as a Therapeutic Target	747,931
Recruitment	Cameron	Craig	Leland Stanford Junior University	63054089-242682	5/16/22	4/30/25	Development of Outpatient Antiviral Cocktails Against SARS-CoV-2 and Other Potential Pandemic RNA Viruses	816,375
Recruitment	Cameron	Craig	NIH National Institute of Allergy and Infectious Diseases	5-R37-AI053531-20-21	2/1/23	1/31/28	Picornavirus Genome Replication	534,015
Retention	Campbell	Sharon	NIH National Institute of General Medical Sciences	5-R35-GM134962-01-05	2/1/20	1/31/25	Structure and Mechanism of G-Proteins and Cell Adhesion Proteins in Regulation of Cell Growth and Motility	613,585
Retention	Campbell	Sharon	NIH National Cancer Institute	5-R01-CA281295-01-	3/1/23	2/29/28	KRAS G12C: Kinetic and Redox Characterization of Covalent Inhibition	540,620
Investment (Protocol)	Carey	Lisa	Johns Hopkins University		5/8/14	9/1/28	A Phase 2 Clinical Trial Assessing the Correlation of Early Changes in Standardized Uptake Value (SUV) on Positron Emission Tomography (PET) with Pathological CompleteResponse (pCR) to Pertuzumab and Trastuzumab in Patients with Primary OperableHER2-Positive Breast Cancer	92,887

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Investment (Protocol)	Carey	Lisa	Johns Hopkins University		7/25/14	10/12/24	A Randomized Phase II Study of Preoperative Cisplatin Versus Paclitaxel in Patients with Triple Negative Breast Cancer without Germline BRCA Mutations: Evaluating the Homologous Recombination Deficiency (HRD) Biomarker	7,612
Investment (Protocol)	Carey	Lisa	Johns Hopkins University	AURORA ProTss/PO#2004 385063	7/29/19	3/27/25	(TBCRC ProTSS) AURORA US: Prospective Biospeciment in Repository in Metastatic Breast Cancer Tissue Source Site	47,145
Investment (Protocol)	Carey	Lisa	Johns Hopkins University	TBCRC052/PO 2005234900	8/6/21	12/31/23	TBCRC-052: MARGetuximab or Trastuzumab (MARGOT): A Phase II Study Comparing Neoadjuvant Paclitaxel/Margetuximab/Pertuzumab to Paclitaxel/Trastuzumab/Pertuzumab in Patients with Stage II-III HER2-Positive Breast Cancer	10,716
Investment (Protocol)	Carey	Lisa	AstraZeneca AB	D967JC00002	3/3/22	5/13/32	D967JC00002 - A Phase 1b Multicentre, Open-label, Modular, Dose-Finding and Dose-Expansion Study to Explore the Safety, Tolerability, Pharmacokinetics and Anti-Tumour Activity of Trastuzumab Deruxtecan (T-DXd) in Combination with Other Anti-Cancer Agents in Patients with Metastatic HER2-Low Breast Cancer (DESTINY-Breast08)	16,698
Investment (Protocol)	Carey	Lisa	Dana-Farber Mass General Brigham Cancer Care Inc.	20-153	5/18/22	9/30/31	DF-HCC-20-153: Randomized Phase II Study of Sacituzumab Govitecan with or without Pembrolizumab in Hormone Receptor-Positive (HR+) / HER2-Metastatic Breast Cancer (MBC)	53,193
Investment (Protocol)	Carey	Lisa	METAvivor Research and Support, Inc.		11/1/22	10/31/24	HARMONY: Harnessing the Analysis of RNA Expression and Molecular Subtype to Optimize Novel Therapy for Metastatic Breast Cancer	125,000
Investment (Protocol)	Carey	Lisa	Breast Cancer Research Foundation	BCRF-22-023	10/1/22	9/30/23	Clinical Implications of Metastatic Subtype, Microenvironment, and Organ of Involvement	112,500
Investment (Protocol)	Carey	Lisa	Lilly USA LLC	J2J-OX-JZLC	5/10/23	5/29/33	EMBER-3 (J2J-OX-JZLC): A Phase 3, Randomized, Open-Label Study of Imlunestrant, Investigators Choice of Endocrine Therapy, and Imlunestrant plus Abemaciclib in Patients with Estrogen Receptor Positive, HER2 Negative Locally Advanced or Metastatic Breast Cancer Previously Treated with Endocrine Therapy	88,935
Investment (Protocol)	Carey	Lisa	Susan G Komen for the Cure	SAB232144	10/9/23	10/8/26	Understanding Antibody-Drug Conjugate (ADC) Sensitivity and Resistance in Breast Cancer	200,000
Investment (Protocol)	Carey	Lisa	Dana-Farber Mass General Brigham Cancer Care Inc.	20-347	8/8/23	8/8/33	DF-HCC-20-347-ADEPT: A Single Arm Phase II Study of ADjuvant Endocrine Therapy, Subcutaneous Pertuzumab, and Trastuzumab Fixed-Dose Combination for Patients with Anatomic Stage I Hormone Receptor-Positive, HER2-Positive Breast Cancer (ADEPT)	34,410
Investment (Protocol)	Carey	Lisa	Breast Cancer Research Foundation	BCRF-23-023	10/1/23	9/30/24	Clinical Implications of Metastatic Subtype, Microenvironment, and Organ of Involvement	225,000
Investment (Protocol)	Carey	Lisa	NIH National Cancer Institute	5-R01-CA229409-01-	6/1/19	5/31/25	Optimizing HER2-Targeting Ising RNA- and DNA-Based Predictive Algorithms	545,651
Investment (Protocol)	Carey	Lisa	NIH National Cancer Institute	5-UG1-CA233373-06	5/1/19	2/28/25	UNC Lead Academic Participating Site	454,681
Innovation Award	Caron	Kathleen	American Heart Association	23POST1022945	1/1/23	12/31/24	Elucidating the Functions of Atypical Chemokine Receptor 3 Signaling in Ischemic Heart Injury-Induced Lymphangiogenic Response	70,279
Innovation Award	Caron	Kathleen	American Heart Association	24POST1188946	7/1/24	6/30/26	Role of ACKR3 in Postpartum Cardiomyopathy	144,580

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Innovation Award	Caron	Kathleen	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	5-R01-DK119145-01-05	4/1/19	1/31/25	GPCR-Mediated Pathways for Regulation of Intestinal Lymphatic Function	517,480
Innovation Award	Caron	Kathleen	NIH National Heart, Lung, and Blood Institute	3-R01-HL129086-08S1	4/1/16	6/30/25	Cardiac Lymphatics in Development and Repair	835,557
Investment (Training)	Caron	Kathleen	NIH National Institute of General Medical Sciences	5-T32-GM133364-04	7/1/20	6/30/25	Training Program in Cellular Systems and Integrative Physiology	210,146
Innovation Award	Caron	Kathleen	NIH National Heart, Lung, and Blood Institute	5-F31-HL163885-02	9/1/22	8/31/25	Elucidating the GPCR Protein Networks that Drive Lymphatic Growth	41,701
Innovation Award	Caron	Kathleen	NIH National Institute of Child Health and Human Development	5-R01-HD060860-11-12	4/1/09	1/31/28	Adrenomedullin Signaling at the Maternal-Fetal Interface	414,865
Recruitment	Casey	Dana	Johns Hopkins University	TBCRC053-N/PO 2005626634	6/30/22	5/25/32	TBCRC053-N: A Randomized Study of Preoperative Chemotherapy, Pembrolizumab and No, Low or High Dose Radiation in Node-Positive, HER2-Negative Breast Cancer	858
Recruitment	Casey	Dana	Johns Hopkins University	TBCRC053-B/PO 2005623082	8/7/22	5/25/32	TBCRC053-B: A Randomized Study of Preoperative Chemotherapy, Pembrolizumab and No, Low or High Dose RADiation in Node-Positive, HER2-Negative Breast Cancer	25,895
Recruitment	Casey	Dana	Johns Hopkins University	TBCRC053-M-60030	6/30/22	5/25/32	TBCRC053-M-60030: A Randomized Study of Preoperative Chemotherapy, Pembrolizumab and No, Low or High Dose RADiation in Node-Positive, HER2-Negative	114,705
Recruitment	Casey	Dana	Johns Hopkins University	TBCRC053-M-59105/PO 2005665856	8/7/22	5/25/32	TBCRC053-M-59105: A Randomized Study of Preoperative Chemotherapy, Pembrolizumab and No, Low or High Dose RADiation in Node-Positive, HER2-Negative	60,628
Recruitment	Charlot	Marjory	Conquer Cancer Foundation		7/1/21	12/31/24	A User-Centered Mobile Health App to Promote Participation of Black Women in Breast Cancer Clinical Trials	150,000
Recruitment	Charlot	Marjory	V Foundation for Cancer Research	DM2024-003	4/15/24	4/15/25	Tailoring Clinical Trial Navigation to Increase Enrollment of Black Patients with Gynecologic and Genitourinary Cancers in Clinical Trials	50,000
Theme Investment (HTSF)	Conlon	Frank	NIH National Heart, Lung, and Blood Institute	5-R01-HL165785-01-02	9/15/22	7/31/26	Function and Regulation of Chromatin Remodeling Complexes	586,180
Retention	Cook	Jean	NIH National Institute of General Medical Sciences	5-R25-GM055336-20-24	9/30/96	2/28/25	UNC Initiative for Maximizing Student Development	593,547
Retention	Cook	Jean	NIH National Institute of General Medical Sciences	5-R35-GM141833-01-04	7/1/21	6/30/26	Cell Cycle Dynamics that Ensure Genome Maintenance	575,320
Retention	Cook	Jean	NIH National Cancer Institute	5-F31-CA268866-02	8/1/22	2/28/25	The Mechanism and Consequences of MCM Degradation Induced by CDK4/6 Inhibition	34,563
Investment (Training)	Cook	Jean	NIH National Institute of General Medical Sciences	1-T32-GM152779-01	2/1/24	1/31/29	UNC Initiative for Maximizing Student Development	619,206
Recruitment	Coombs	Lorinda	AcademyHealth	350-04-10847	11/15/23	11/14/24	Characterizing Delays in Cancer Diagnosis for Underserved Populations in North Carolina	230,722
Recruitment	Corcoran	David	H Lee Moffitt Cancer and Research Institute	11-22224-99-01-G1	12/2/22	11/30/23	Role of CRTC1-MAML2 in Salivary Mucoepidermoid Carcinoma Pathobiology	12,867

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Theme Investment (HTS)	Crowley	James	Karolinska Institute	ZZC8ANALMQ C850803103	4/1/20	3/31/24	CNV Mouse Models and RNA Splicing	52,322
Investment (HTS)	Crowley	James	NIH National Institute of Mental Health	5-R01-MH124675-01-04	12/15/20	10/31/25	2/2 Rare Genetic Variation and Risk for Obsessive Compulsive Disorder	174,938
Investment (HTS)	Crowley	James	NIH National Institute of Mental Health	5-U01-MH125050-04	9/1/21	6/30/26	1/2 Trans-ancestry Genomic Analysis of Obsessive-Compulsive Disorder	362,266
Investment (HTS)	Crowley	James	NIH National Institute of Mental Health	1-R13-MH133380-01A1	6/1/24	5/31/25	Annual Latin American Congress on OCD	20,000
Retention	Damania	Blossom	Leukemia and Lymphoma Society	5653-24	7/1/23	6/30/26	Elucidating the Role of FAM72A in EBV-Driven B Cell LymphomaGenesis	210,000
Retention	Damania	Blossom	American Cancer Society	PF-23-1031420-01-CDP	7/1/23	6/30/25	Inhibition of NEK2 as a Novel Therapy for Viral Lymphomas	147,500
Retention	Damania	Blossom	NIH National Cancer Institute	3-R01-CA096500-20S1	7/15/02	7/31/24	Role of KSHV Viral Proteins in Signaling and Pathogenesis	72,294
Retention	Damania	Blossom	NIH National Cancer Institute	3-U54-CA254564-04S1	8/13/20	7/31/25	Innovations for Screening and Prognosis in HIV+ Cancers Including Kaposi Sarcoma, Cervical Cancer, and Lymphoma in Malawi and South Africa	1,269,311
Retention	Damania	Blossom	NIH National Cancer Institute	5-P01-CA019014-42-	5/1/97	6/30/27	Viral Oncogenesis, Latency and Replication	1,936,921
Theme Investment	Dangl	Jeff	Brookhaven Science Associates, LLC	436421	11/17/23	9/30/26	Unlocking the Molecular Basis of Plant-Pathogen Interactions to Create Resilient Bioenergy Crops	675,000
Theme Investment (HTSF)	Darville	Lee Antoinette	NIH National Institute of Allergy and Infectious Diseases	5-U19-AI144181-05	5/1/23	4/30/25	University of North Carolina-Chlamydia Vaccine Initiative	855,015
Investment (Genomics)	Davis	Ian	V Foundation for Cancer Research	T2020-003	11/1/20	11/1/24	Combining Cellular and EpiGenetic Therapies to Treat Pediatric Solid Tumors	150,000
Investment (Genomics)	Davis	Ian	National Pediatric Cancer	22-3605	4/1/22	6/30/25	Enhancing Immunotherapy for Pediatric Solid Tumors through EpiGenetic Modulation	33,333
Investment (Genomics)	Davis	Ian	V Foundation for Cancer Research	AST2023-003	3/1/23	3/1/28	Novel Mechanisms to Improve CAR-T Cell Therapy for Pediatric Solid Tumors	200,000
Investment (Genomics)	Davis	Ian	Duke University	302000280	5/1/19	4/30/24	Unified Program for Therapeutics in Children (UPTiC)	204,421
Investment (Genomics)	Davis	Ian	NIH National Cancer Institute	5-R01-CA276663-01-	1/1/23	12/31/27	Developmental Control of Chromatin States in Cancer	414,512
Retention	Dayton	Paul	NIH National Cancer Institute	3-R01-CA189479-07S1	9/4/14	8/31/26	Academic-IndusTrial Partnership for Translation of Acoustic Angiography	594,310
Retention	Dayton	Paul	NIH National Cancer Institute	5-R01-CA232148-01-06	6/1/18	5/31/25	Treating Tumoral Hypoxia via Ultrasound-Guided Oxygen Release for Improving Radiation Therapy	257,284
Retention	Dayton	Paul	SonoVol, Inc.	PA-20-260	7/28/22	7/27/24	SBIR: A Turnkey Research Platform to Accelerate Clinical Translation of Targeted Immunomodulation-enhanced Therapies	55,000
Retention	Dayton	Paul	Vanderbilt University Medical Center	VUMC110935	2/1/23	12/31/27	Next Generation Transcranial Ultrasound Brain Therapies using Phase Change Nanoemulsions	195,565
Retention	Dayton	Paul	North Carolina State University	500768	6/15/23	5/31/28	Quantitative Assessment of AngioGenesis Using Ultrasound Multiple Scattering	504,366
Retention	Dayton	Paul	NIH National Cancer Institute	1-R21-CA286897-01	1/1/24	12/31/25	Novel Approaches to Enrich CAR-T Cell Therapy in Brain Tumors Using Focused Ultrasound	526,275
Retention	Dayton	Paul	California Institute of Technology	S633472	1/1/24	12/31/27	Biogenic Gas Nanostructures as Molecular Imaging Reporters for Ultrasound	150,850
Retention	Dees	Claire	Meryx, Inc.		7/19/18	7/31/28	A Phase I Dose Escalation Study of the Safety, Pharmacokinetics and Pharmacodynamics of MRX-2843 in Adult Subjects with Relapsed/Refractory Advanced and/or Metastatic Solid Tumors	36,139
Retention	Dees	Claire	Johns Hopkins University	2003922735	8/9/18	8/3/28	A Phase II Trial of Atezolizumab (anti-PDL1) with Carboplatin in Patients with Metastatic Triple Negative Breast Cancer	166,673

Category	Last Name	First Name	Sponsor	Award Number	Begin	End	Title	Total Cost
Retention	Dees	Claire	Boehringer Ingelheim Pharmaceuticals, Inc.		11/19/18	11/18/28	An Open Label, Phase 1b, Dose-escalation Study Evaluating the Safety and Tolerability of Xentuzumab and Abemaciclib in Patients with Locally Advanced or Metastatic Solid Tumours and in Combination with Endocrine Therapy in Patients with Locally Advanced or Metastatic Hormone receptor-Positive, HER2-, Breast Cancer, Followed by Expansion Cohorts	87,707
Retention	Dees	Claire	Johns Hopkins University		8/23/19	8/22/29	(TBCRC045) AVIATOR: A Randomized, Phase II Study Comparing Trastuzumab and Vinorelbine in Combination with Avelumab or Avelumab and Utomilumab (41BB/CD137 Agonist), in Patients with HER2-Positive Metastatic Breast Cancer Who Have Progressed on Prior Trastuzumab and Pertuzumab	78,309
Retention	Dees	Claire	Astellas Pharma Global Development, Inc.		1/7/20	1/31/30	A Phase 1, Open-Label Study of ASP9801, an Oncolytic Virus, Administered by Intratumoral Injection in Patients with Advanced/Metastatic Solid Tumors	10,224
Retention	Dees	Claire	Johns Hopkins University	2004353955	9/25/20	3/29/30	TBCRC-050: A Phase 1b/2 Study of the PARP Inhibitor Niraparib in Combination with Trastuzumab in Patients with Metastatic HER2+ Breast Cancer	89,069
Retention	Dees	Claire	Ohio State University	SPC-1000012759/GR134326	3/1/23	2/29/24	OSU ETCTN Supplement to Add UNC	188,641
Recruitment	Denby-Brinson	Ramona	Duke Endowment	2131-SP	5/2/23	4/30/28	Children with Disabilities: Increasing Kinship Caregivers' Capacity and Improving Child Outcomes	339,600
Investment (Proteomics)	Der	Channing	Revolution Medicines, Inc.	22-4651	6/21/22	6/20/24	Evaluation of KRAS Inhibitors in Pancreatic Cancer	111,105
Investment (Proteomics)	Der	Channing	American Cancer Society	PF-22-066-01	7/1/22	6/30/25	Targeting Mitochondrial Function as a Therapeutic Strategy for Pancreatic Cancer	70,167
Investment (Proteomics)	Der	Channing	Pancreatic Cancer Action Network	22-WG-DERB	7/1/22	6/30/24	Determination of Novel RAF/MEK and/or FAK Inhibitor Combinations in KRAS-Mutant	170,000
Investment (Proteomics)	Der	Channing	American Cancer Society	PF-23-1072348-01-CDP	1/1/24	12/31/26	Overcoming Resistance to KRASG12D Inhibitors in KRASG12D Mutant Pancreatic Cancer	217,500
Investment (Proteomics)	Der	Channing	NIH National Cancer Institute	5-R35-CA232113-06	9/1/18	8/31/25	Targeting Undruggable RAS for Cancer Treatment	902,485
Investment (Proteomics)	Der	Channing	NIH National Cancer Institute	5-F31-CA275260-02	8/1/22	3/1/24	Fellow: A Edwards Mechanisms of YAP1-Driven Resistance to KRAS-G12C Inhibition	38,784
Investment (Training)	Der	Channing	NIH National Cancer Institute	2-T32-CA071341-26	9/30/96	6/30/28	Cancer Cell Biology Training Program	944,160
Investment (Proteomics)	Der	Channing	NIH National Cancer Institute	1-K99-CA276700-01A1	7/1/23	6/30/25	Mechanistic Basis for ERK in Driving KRAS-Dependent Pancreatic Cancer	111,438
Investment (Training)	Deshmukh	Mohanish	NIH National Institute of General Medical Sciences	3-T32-GM008719-25S2	7/1/99	6/30/24	Medical Scientist Training Program	174,162
Investment (Training)	Deshmukh	Mohanish	NIH National Institute of Neurological Disorders and Stroke	1-RF1-NS117113-01A1	2/1/21	1/31/24	Unexpected Function of Inflammasomes in Axon Pruning: Focus on NLRP1	545,973
Investment (Training)	Deshmukh	Mohanish	NIH National Institute of Neurological Disorders and Stroke	5-R01-NS122399-01-04	6/3/21	3/31/26	Spatial Restriction of Apoptotic Machinery During Neuronal Apoptosis and Pruning	371,456
Investment (Training)	Deshmukh	Mohanish	NIH National Institute on Aging	5-R01-AG082140-01-	4/1/23	12/31/27	miR-29: A Brain Homeostatis Molecule for Alzheimer's Disease Prevention	622,753
Retention	Dittmer	Dirk	NIH National Cancer Institute	5-R01-CA228172-01-	6/1/18	5/31/24	Impact of HIV on the Tumor Microenvironment	387,192

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Retention	Dittmer	Dirk	NIH National Cancer Institute	5-R01-CA239583-01-	5/1/19	4/30/25	Mechanisms of KSHV Transmission	583,738
Retention	Dittmer	Dirk	NIH National Institute of Dental and Craniofacial Research	5-R01-DE018304-11-15	5/15/07	4/30/25	ART Modulation of Viral Pathogenesis	369,313
Retention	Dittmer	Dirk	NIH National Cancer Institute	5-R01-CA250080-01-	3/1/20	2/28/25	PQ6: Transgenic Mouse Model for Kaposi Sarcoma	492,087
Retention	Dittmer	Dirk	EMMES Corporation	13992	9/1/20	8/31/25	AIDS Malignancy Consortium (AMC)	177,806
Retention	Dittmer	Dirk	NIH National Cancer Institute	5-R01-CA163217-11-	9/1/11	6/30/27	Targeted Therapies for HIV-Associated Kaposi Sarcoma and Lymphoma	400,103
Recruitment	Dittus	Christopher	Seattle Genetics, Inc		10/18/17	1/1/27	Brentuximab Vedotin with Cyclophosphamide, Doxorubicin, Etoposide, and Prednisone (BV-CHEP) for the Treatment of Adult T-Cell Leukemia/Lymphoma: A Phase II Trial of the Rare Lymphoma Working Group	4,905
Recruitment	Dittus	Christopher	Atrium Health		9/28/20	9/28/30	LCI-HEM-PCNSL-RMPV-001- A Phase 1B Trial of Nivolumab Consolidation Following Completion of High Dose Methotrexate Containing Induction Chemotherapy in Older (Greater Than or Equal to 65 years) Patients with Previously Untreated Primary CNS Lymphoma	24,800
Recruitment	Dittus	Christopher	Genentech, Inc.	LCCC 2033/ML42101	8/5/22	9/30/32	A Phase II Trial Evaluating the Efficacy of Polatuzumab Vedotin with Rituximab, Gemcitabine, Dexamethasone, and Cisplatin (PV-RGDP) Chemotherapy for Relapsed or Refractory DiffUse Large B-Cell Lymphoma	57,794
Investment (Training)	Doerschuk	Claire	NIH National Heart, Lung, and Blood Institute	1-T32-HL166141-01A1	7/1/23	6/30/28	UNC Research Training Program in Respiratory Diseases and Critical Care	526,943
Investment (Chair Package)	Dohlman	Henrik	NIH National Institute of General Medical Sciences	5-R35-GM118105-06-09	5/1/21	4/30/26	Negative and Positive Feedback in Cell Signaling	593,207
Recruitment	Dominguez	Daniel	NIH National Institute of General Medical Sciences	5-R35-GM142864-01-03	8/1/21	7/31/26	Protein Disorder as a Mechanism of RNA Binding and Regulation	388,750
Recruitment	Dominguez	Daniel	Yale University	CON-80004061 (GR1181	9/21/22	8/31/27	RNA Splicing Defects as Oncogenic Events and Targets in Pancreatic Cancer	45,000
Recruitment	Dotti	Gianpietro	Leukemia and Lymphoma Society	6625-21	7/1/21	6/30/24	Targeting Cathepsin G in Acute Myeloid Leukemia	200,000
Recruitment	Dotti	Gianpietro	NIH National Cancer Institute	5-R01-CA243543-01-	9/1/19	8/31/24	Cellular Immunotherapy of Ovarian Cancer	387,206
Recruitment	Dotti	Gianpietro	University of California at Los Angeles	0125 G XA917	7/1/19	6/30/24	Platelets-Mediated Delivery of Checkpoint Inhibitors for Post-Surgical Cancer Immunotherapy	39,999
Recruitment	Dotti	Gianpietro	NIH National Cancer Institute	5-R01-CA247436-01-	1/1/21	12/31/25	Tuning CAR-T Cell Functions	472,143
Recruitment	Dotti	Gianpietro	NIH National Cancer Institute	5-R01-CA256898-01-	2/1/21	1/31/27	Targeting B7-H3 in Ovarian Cancer	556,817
Recruitment	Dowen	Jill	NIH National Institute of General Medical Sciences	3-R35-GM152103-01S1	1/1/24	12/31/28	The Role of Genome Folding in Regulating Gene Expression and Chromatin State	520,255
Recruitment	Dowen	Rob	NIH National Institute of General Medical Sciences	5-R35-GM137985-01-05	7/1/20	5/31/25	Regulation of Lipid Homeostatis by Proliferative Signaling Pathways	381,535
Recruitment	Dowen	Rob	NIH National Center for Complementary and Integrative Health	1-F31-AT012138-01A1	8/1/23	7/31/25	Fellow: R Dumez Elucidating the Host Metabolic Response to Consumption of Kombucha-Associated Microorganisms	38,784

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Investment Protocol	Downs-Canner	Stephanie	Johns Hopkins University	TBCRC042/PO#2004261049	6/26/19	6/25/29	(TBCRC042) A Randomized Phase II Window-of-opportunity Trial of Ruxolitinib in Patients with High Risk and Premalignant Breast Conditions	45,068
Theme Investment	Earp	Shelley	Breast Cancer Research Foundation	BCRF-23-041	10/1/23	9/30/24	Receptor Tyrosine Kinases and Breast Cancer Progression	225,000
Theme Investment	Earp	Shelley	NIH National Cancer Institute	5-P30-CA016086-45-	6/1/97	11/30/25	Cancer Center Support Grant	8,038,212
Theme Investment	Earp	Shelley	NIH National Cancer Institute	5-R01-CA270792-01-	12/1/22	11/30/27	Divergent Roles of MerTK, Tyro3, and Axl in Pancreatic Cancer and Metastasis	510,409
Recruitment	Elmore	Shekinah	Bristol-Myers Squibb Foundation		10/14/22	11/15/23	Extended HARMONY: Adapting the Harnessing Analysis RNA Expression and Molecular Subtype to Optimize Novel Therapy MBCA Trial to the UNC Project Malawi Breast Cancer Cohort	120,000
Recruitment	Elmore	Shekinah	American Society of Clinical Oncology		7/1/23	6/30/26	Adapting and Implementing a TeleHealth-enhanced Navigator Program to Improve Breast Cancer Care Adherence and Clinical Outcomes in Malawi	66,667
Recruitment	Elston	Timothy	NIH National Institute of General Medical Sciences	2-R35-GM127145-06	7/1/18	6/30/28	Mathematical Modeling of Cellular Signaling Systems	467,252
Recruitment	Elston Lafata	Jennifer	The Genentech Foundation	G-89311	1/1/21	12/31/23	How to Pursue Equity in Oncology Virtual Visits	374,997
Recruitment	Elston Lafata	Jennifer	Agency for Healthcare Research and Quality	5-R01-HS028455-01-03	9/1/21	8/31/24	Development of a Shared Decision Making Support (SDM-S) Measure for Use with Team-Based Care	500,000
Recruitment	Elston Lafata	Jennifer	American Cancer Society	84266	7/1/22	12/31/24	Implementing Navigation Decision Support to Enhance Oncology Care Equity	150,000
Recruitment	Emanuele	Michael	American Cancer Society	RSG-18-220-01-TBG	1/1/19	12/31/23	Ubiquitin Ligases in Breast Cancer Proliferation and Therapeutic Resistance	198,000
Recruitment	Emanuele	Michael	University of California at Irvine	2023-2008 49476	7/1/23	6/30/24	Harnessing the Ubiquitin System as a Therapeutic Approach in SCLC	50,000
Investment (Training)	Emanuele	Michael	NIH National Institute of General Medical Sciences	5-T32-GM135095-04	7/1/20	6/30/25	Pharmacological Sciences Training Program	530,535
Recruitment	Emanuele	Michael	NIH National Institute of General Medical Sciences	1-R35-GM153250-01	4/1/24	3/31/29	Proteostasis Signaling in Cell Cycle Control	581,533
Recruitment	Engel	Larry	NIH National Institute of Environmental Health Sciences	5-R01-ES031127-02-04	8/1/20	5/31/24	Neurological Effects of Environmental Styrene and BTEX Exposure in a Gulf of Mexico Cohort	434,040
Recruitment	Engel	Larry	NIH National Institute of Environmental Health Sciences	22-5752/2479801	7/1/22	6/30/24	IPA for Lawrence Engel to the NIEHS	69,682
Recruitment	Enyioha	Chineme	NIH National Institute on Drug Abuse	5-K23-DA057416-01-02	9/30/22	8/31/27	Development of a Prototype for a Mobile Health Intervention for Smoking Cessation with Features Culturally Adapted for African American Smokers	201,315
Theme Investment (HTSF)	Falk	Ronald	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	5-R01-DK125350-01-05	7/1/20	5/31/25	Pathobiology of ANCA Glomerulonephritis: Targeting Adapt	653,602
Recruitment	Fenton	Owen	BASF Corporation	89261635	5/1/23	7/31/24	Lipid Formulations for Delivery to Plant Soil	10,000
Recruitment	Fenton	Owen	NIH National Institute of Biomedical Imaging and Bioengineering	1-R21-EB034942-01	8/1/23	7/31/26	Optimization of Tannic Acid Lipid Nanoparticles for a Therapeutic mRNA Vaccine Against Melanoma	452,990

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Recruitment	Flick	Matthew	Canadian Institutes of Health Research	202110MFE-472665-FPP-229993	4/1/22	3/31/24	The Protective Role of Plasminogen Deficiency in Non-alcoholic Fatty Liver Disease and Glucose Dysmetabolism	50,000
Recruitment	Flick	Matthew	Canadian Institutes of Health Research	510504	6/1/24	5/31/27	Dissecting the Fibrin(ogen)-Platelet Forces Driving Arterial and Venous Thrombosis	150,000
Recruitment	Flick	Matthew	NIH National Heart, Lung, and Blood Institute	5-U01-HL143403-05	8/1/18	7/31/24	Targeting the Plasminogen Activation System to Limit Pancreatic Cancer Progression and Associated Thrombosis	834,158
Recruitment	Flick	Matthew	NIH National Heart, Lung, and Blood Institute	5-R01-HL160046-01-03	9/1/21	7/31/25	Mechanisms Linking the Plasminogen/Fibrinogen Axis to the Pathogenesis of COVID-19	542,806
Recruitment	Flick	Matthew	Purdue University	11001337-027	9/1/22	1/16/24	Reprogramming to PDAC Stroma by Targeting Coagulation in the Tumor Microenvironment	264,350
Recruitment	Flick	Matthew	Michigan State University	RC115226UNC	5/11/23	2/28/27	Novel Proteolytic Mechanisms Driving Pathologic Hepatic Congestion in Drug-Induced Hepatotoxicity	130,485
Recruitment	Flick	Matthew	NIH National Heart, Lung, and Blood Institute	1-R13-HL172571-01	1/1/24	12/31/24	11th Symposium on Hemostasis at University of North Carolina at Chapel Hill	30,000
Recruitment	Flick	Matthew	NIH National Heart, Lung, and Blood Institute	1-R01-HL168009-01A1	2/15/25	1/31/28	Novel Mechanisms to Limit Thrombosis by Decreasing Fibrinogen or Suppressing Fibrin Matrix Formation	734,117
Recruitment	Flick	Matthew	University of Virginia	GR103680 SUB00001091	3/1/24	6/30/25	Novel Mechanism Underlying Fibrinogen BioGenesis in the Endoplasmic Reticulum	26,374
Recruitment	Frerichs	Leah	Robert Wood Johnson Foundation	79640	4/15/22	4/14/25	Assessing and Promoting Equity in Mental Health Systems of Care for Adolescent Youth in a Rural Community in North Carolina	120,337
Recruitment	Frerichs	Leah	William T Grant Foundation	203876	6/1/24	5/31/28	Improving the Use of Research Evidence to Reduce Child and Youth Opioid-Related Trauma: Developing and Testing a Reflective Decision Analysis Tool	241,342
Recruitment	Frerichs	Leah	Duke University	A034101	8/19/20	6/30/24	Parks & Pediatrics Fit Together: Translating Knowledge into Action for Child Obesity Treatment in Partnership with Parks and Recreation	28,114
Recruitment	Frerichs	Leah	Avera Health	R01DA050696-S2UNC	10/1/20	5/31/24	Community Based System Dynamics Models of Alcohol and Substance Exposed Pregnancy in Northern Plains American Indian Women	10,545
Recruitment	Frerichs	Leah	NIH National Cancer Institute	1-R01-CA273331-01A1	8/1/23	7/31/28	Evaluating a Remotely Delivered, Digital Health CRC Screening Intervention Among Racially Diverse Patients of a Community Health Center	650,993
Recruitment	Frerichs	Leah	Avera Health	U54HD113179-1001	8/17/23	7/31/24	Maternal American-Indian Rural Community Health (M.A.R.C.H.)	81,191
Retention	Fry	Rebecca	Burroughs Wellcome Fund	1334388	5/15/24	5/31/25	Promoting Environmental Justice and Health Equity in Perinatal Health Research	60,000
Retention	Fry	Rebecca	NIH National Institute of Environmental Health Sciences	5-P42-ES031007-05	2/20/20	1/31/25	The UNC Chapel Hill Superfund Research Program (UNC-SRP)	2,188,663
Investment (Training)	Fry	Rebecca	NIH National Institute of Environmental Health Sciences	5-T32-ES007018-47	7/1/77	6/30/27	Biostatistics for Research in Environmental Health	1,544,554
Retention	Fry	Rebecca	National Science Foundation	TI-2415783	4/1/24	4/30/25	ENVIROSCAN: A Web Tool for Multi-Dimensional Data Integration and Population Health Prediction	50,000
Recruitment	Frye	Stephen	Pharmaceutical Research and Manufacturers of America Foundation	23-2371	1/1/23	12/31/24	Multimodal Approaches for the Development of SETDB1-Targeting Cancer Treatment	60,000
Recruitment	Frye	Stephen	NIH National Institute of General Medical Sciences	5-R35-GM139514-01-04	4/1/21	1/31/26	Probing Allostery in Methyl-Lysine Reader Domains	425,839

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Recruitment	Furey	Terry	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	1-R01-DK138462-01	3/1/24	2/29/28	Multi-omic Characterization of Genetic Variants in IBD Risk Loci	459,943
Recruitment	Furey	Terry	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	1-F31-DK137574-01A1	3/1/24	2/28/26	Fellow: Nishiyama Using Molecular Quantitative Trait Loci Mapping Approaches to Determine Candidate Gene Regulatory Mechanisms of Functional Variants Within Inflammatory Bowel Disease GWAS loci	42,574
Retention	Gallagher	Kristalyn	University of Pittsburgh Medical Center		3/1/16	12/31/23	A Trial of Endocrine Response in Women with Invasive Lobular Breast Cancer	5,925
Retention	Gallagher	Kristalyn	Alliance Foundation Trials, LLC		4/17/18	6/23/25	Comparison Of Operative To Monitoring and Endocrine Therapy (COMET) Trial For Low Risk DCIS: A Phase III Prospective Randomized Trial	4,350
Retention	Gallagher	Kristalyn	Johns Hopkins University	TBCRC 2023	7/1/23	6/30/24	TBCRC 2023 - Infrastructure Support Task Order	70,000
Recruitment	Gilkey	Melissa	University of Alabama at Birmingham	000526841-SC002	9/18/20	8/31/24	Provider-Focused Multi-Component Intervention for Maximizing HPV Vaccine Uptake in Young Cancer Survivors receiving Follow-Up Care in Pediatric Oncology Practices	25,830
Recruitment	Gilkey	Melissa	NIH National Institute on Alcohol Abuse and Alcoholism	5-R34-AA028856-01-03	9/25/21	8/31/25	Developing a Brief Intervention for Parental Alcohol Socialization to be Delivered by Pediatric Providers: A Feasibility Study	223,531
Recruitment	Gilkey	Melissa	Kaiser Foundation Research Institute	RNG211477-UNC-03	7/15/21	6/30/26	Effectiveness and Mechanisms of Multilevel Implementation Strategies to Improve Provider Recommendation and Advance HPV Vaccination: A Cluster Randomized Trial	10,999
Innovation Award	Goldstein	Bob	American Association for the Advancement of Science		11/15/23	11/14/24	Understanding How Cells Coordinate Cell Shape Changes in Space and Time	60,000
Innovation Award	Goldstein	Bob	American Cancer Society	PF-23-1152831-01-CCB	1/1/24	12/31/26	Understanding How Developmental Patterning Coordinates Cell Shape Changes	108,750
Innovation Award	Goldstein	Bob	NIH National Institute of General Medical Sciences	5-R35-GM134838-01-05	1/1/20	4/30/24	C. elegans Gastrulation: A Model for Understanding Apical Constriction Mechanisms	339,642
Innovation Award	Goldstein	Bob	NIH National Institute of General Medical Sciences	2-R35-GM134838-06	1/1/20	12/31/28	C. elegans Gastrulation: A Model for Understanding Apical Constriction Mechanisms	306,628
Investment (Proteomics)	Graves	Lee	American Society for Pharmacology and Experimental Therapeutics		1/2/23	12/31/25	Summer Undergraduate Research Fellowships (SURF)	13,500
Investment (Proteomics)	Graves	Lee	Yale University		7/1/23	6/30/24	Leveraging Mitochondrial Stress To Increase Immune Reactivity of Head and Neck Carcinomas	50,000
Investment (Proteomics)	Graves	Lee	NIH National Institute of General Medical Sciences	5-R01-GM138520-01-04	9/15/20	6/30/25	Elucidating the Mechanism of Action of Novel ClpP Activators in Activation of the Mitochondrial Unfolded Protein Response	314,448
Investment (Proteomics)	Graves	Lee	Duke University	303001421	8/1/22	8/31/24	Elucidating the In Vivo Interactome of the Fusion Oncoprotein PAX-FOXO1	38,875
Recruitment	Greenberg	Caprice	Agency for Healthcare Research and Quality	7-R01-HS025989-06	9/1/18	6/30/25	Video-Based Collaborative Learning to Improve Ventral Hernia Repair	302,410
Recruitment	Grover	Natalie	Loxo Oncology, Inc.		3/29/19	3/29/29	A Phase 1/2 Study of Oral LOXO-305 in Patients with Previously Treated Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma (CLL/SLL) or Non-Hodgkin's Lymphoma (NHL)	161,746

Category	Last Name	First Name	Sponsor	Award Number	Begin	End	Title	Total Cost
Recruitment	Grover	Natalie	CelGene Corporation	JCAR017-EAP-001	1/15/21	12/22/30	Expanded Access Protocol (EAP) for Patients Receiving LisocabtaGene Maraleucel that is Nonconforming for Commercial Release	9,796
Recruitment	Grover	Natalie	Kite Pharma, Inc.	NN9838-7832	11/30/23	7/5/34	Expanded Access Study for the Treatment of Patients with Commercially Out-of-Specification Brexucabtagene Autoleuce	49,210
Recruitment	Grover	Natalie	American Society of Hematology		7/1/24	6/30/26	CD30 Directed CAR-T Cells Co-Expressing CCR4 in Relapsed/Refractory Hodgkin Lymphoma	150,000
Retention	Gupta	Gaorav	Merck Sharp Dohme LLC	60963	7/6/22	7/5/24	Correlative Biomarker Analysis of P-RAD: A Randomized Study of Preoperative Pembrolizumab and No, Low or High Dose Radiation in Node-Positive, Triple Negative Breast Cancer	499,856
Retention	Gupta	Gaorav	Fox Chase Cancer Center	1515400 Year 03	8/1/22	7/31/24	Dissecting the Role of the BRCA1-PALB2 Complex in DNA Repair	48,768
Retention	Gupta	Gaorav	Department of Defense	HT9425231096 1 0011956625	9/1/23	8/31/27	Spatial Reprogramming of Tumor Immune Microenvironments by Preoperative Radiotherapy and Immune Checkpoint Inhibition in HER2-negative Breast Cancer	1,125,991
Retention	Gupta	Gaorav	NIH National Cancer Institute	4-R37-CA227837-06	12/1/18	11/30/25	Mre 11-Dependent DNA Damage Responses in Breast Cancer Pathogenesis	400,986
Retention	Gupta	Gaorav	NIH National Cancer Institute	7-R01-CA274254-02	7/3/23	3/31/29	Defining Optimal Radiotherapy Dose and Fractionation in Combination with Preoperative Immuno-Chemotherapy in Early-Stage Triple Negative Breast Cancer	710,926
Recruitment	Gupton	Stephanie	Howard Hughes Medical Institute	GT15781	9/1/22	8/31/25	Kimberly Lukasik Fellowhip Application	106,000
Recruitment	Gupton	Stephanie	American Heart Association	24PRE1188305	1/1/24	12/31/25	Studying the Role of Brain Enriched E3 Ubiquitin Ligase Tripartite Motif-Containing Protein 9 in Alzheimer's Disease	67,388
Recruitment	Gupton	Stephanie	NIH National Institute of General Medical Sciences	5-R35-GM135160-01-05	12/1/19	11/30/24	Coordinated Cytoskeletal Dynamics and Membrane Remodeling in Cellular Shape Change	410,714
Recruitment	Gupton	Stephanie	NIH National Institute of Neurological Disorders and Stroke	5-R01-NS112326-01-05	8/1/19	4/30/25	Exocytosis Fuels Plasma Membrane Expansion in Developing Neurons	384,007
Recruitment	Gupton	Stephanie	NIH National Institute on Aging	1-R21-AG077827-01	5/15/22	4/30/25	Exploring the Brain Enriched E3 Ubiquitin Ligase TRIM9 in Alzheimer's Disease	142,542
Recruitment	Gupton	Stephanie	NIH National Institute of Neurological Disorders and Stroke	5-R21-NS132364-01-02	4/15/23	3/31/25	Netrin Glycosylation Influences Chemotaxis and Haptotaxis	233,250
Retention	Hahn	Klaus	Duke University	383002051	12/1/23	11/30/24	Revealing the Hidden Topologies of the Human Kinome	333,333
Retention	Hahn	Klaus	University of Texas Southwestern Medical Center	GMO 210601 PO 0000002343	5/1/21	4/30/26	Integrated Visualization, Control, and Analysis of GEF - GTPase Networks in Living Cells	256,574
Retention	Hahn	Klaus	NIH National Institute of General Medical Sciences	5-R35-GM122596-06-08	4/1/17	3/31/27	Dissecting Signaling In Vivo via Precise Control and Visualization of Protein Activity	729,243
Retention	Hahn	Klaus	University of Texas Southwestern Medical Center	PO 0000002859A GMO 231206	9/17/22	6/30/27	UTSW-UNC Center for Cell Signaling Analysis	332,184
Recruitment	Hall	Marissa	Duke University	383000928	6/1/24	12/1/24	Centering Equity in FDA Regulation: Front-of-Package Food Label Effects in Latino and Limited English Proficiency Populations	74,550
Recruitment	Hall	Marissa	NIH National Institute of Child Health and Human Development	5-F31-HD108962-03	4/1/22	3/31/25	Fellow: A Richter Examining Marketing and Parents' Perceptions of Toddler Milk	73,738

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Recruitment	Hall	Marissa	NIH National Institute on Alcohol Abuse and Alcoholism	1-R01-AA030548-01	7/20/23	6/30/28	Informing Alcohol Policy: The Impact of Evidence-Based Alcohol Warnings on Consumption	582,475
Recruitment	Hall	Marissa	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	1-R01-DK135743-01A1	4/4/24	1/31/29	Evaluating the Impact of Sugar Warnings on Beverage Purchases in Hispanic Populations	674,265
Recruitment	Han	Zongchao	BrightFocus Foundation	M2022001F	7/1/22	8/31/24	Nanoceria-Coated Melanin Nanoparticle as a Novel Antioxidant for Age-Related Macular Degeneration	100,000
Innovation Award	Hanson	Laura	Massachusetts General Hospital	PLC-1609-35995	1/1/18	12/31/24	Comparative Effectiveness of Early Integrated TeleHealth Versus In-Person Palliative Care for Patients with Advanced Lung Cancer	34,160
Innovation Award	Hanson	Laura	Brown University	1376	9/1/19	6/30/24	Health Care Systems Research Collaboratory	310,022
Innovation Award	Hanson	Laura	University of Pennsylvania	587747	10/1/21	9/30/24	Systematic Identification of NH Residents with 6-Month Mortality Risk for Hospice Informational Referral	43,963
Innovation Award	Hanson	Laura	University of Pittsburgh	AWD00008316 (139521-1)	9/30/23	5/31/28	Improving Primary Care Clinicians' Advance Care Planning for Alzheimer's Disease and Related Dementias	1,688,967
Recruitment	Hathaway	Nate	Georgia Institute of Technology	AWD-002151-G1	3/1/21	2/28/26	Reposition and Optimization of Deferiprone for Breast Cancer Therapy	47,523
Recruitment	Hathaway	Nate	Epigenos Bioscience, Inc.	21-0831	9/16/21	9/15/23	STTR: Site-Specific Epigenetic Activation of TP53 to Improve Cancer Therapy	105,018
Recruitment	Hathaway	Nate	University of Missouri Curators	C00081671-1	12/1/22	11/30/24	Computational and Experimental Insights into the Structure and Dynamics of Heterochromatin	144,361
Recruitment	Hathaway	Nate	NIH National Institute of General Medical Sciences	5-R35-GM148365-01-02	6/1/23	5/31/28	Illumination of Chromatin Regulation via Chemical Controlled Proximity	440,289
Theme Investment (CC)	Heise	Mark	Moderna Therapeutics	54633	3/7/23	9/6/24	Moderna Scientific Research Agreement: Development of Improved Models for Studying Vaccine Safety and Immunogenicity in the Collaborative Cross	163,956
Theme Investment (CC)	Heise	Mark	University of Alabama at Birmingham	000520254-SC006	3/7/19	2/29/24	Antiviral Drug Discovery and Development Center	258,130
Theme Investment (CC)	Heise	Mark	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI157253-01-04	9/25/20	8/31/25	Genetic Analysis of COVID-19 Susceptibility and Resistance Determinants in the Collaborative Cross	766,144
Theme Investment (CC)	Heise	Mark	Oregon Health and Science University	COA#4 1022269_UNC	11/1/22	10/31/27	Development of a Novel 2-Pyrimidone (SRI-42718) as a Potent Inhibitor of Chikungya Virus Infection and Disease	162,281
Investment (Training)	Heise	Mark	NIH National Institute of Allergy and Infectious Diseases	2-T32-AI007419-31	9/1/93	8/31/28	Molecular Biology of Viral Diseases Predoctoral Training Grant	190,674
Retention	Henderson	Louise	Virginia Commonwealth University	RGM118127B	2/1/22	1/31/25	South Eastern Consortium for Lung Cancer Health Equity	250,000
Retention	Henderson	Louise	NIH National Cancer Institute	5-R01-CA251686-01-04	7/15/20	6/30/25	Comorbidity and Functional Status in a Population Undergoing Lung Cancer Screening	403,840
Retention	Henderson	Louise	University of Washington	UWSC12808 BPO56485	6/1/21	5/31/26	Disparities in Breast Cancer Diagnostic Pathways and Outcomes According to Socioeconomic Characteristics	47,019
Retention	Henderson	Louise	University of Washington	UWSC13867 PO 67471	7/1/22	6/30/27	Population-Based Evaluation of Artificial Intelligence for Mammography Prior to Widespread Clinical Translation	44,815
Retention	Henderson	Louise	University of California at Davis	A22-1534-S008	9/16/22	8/31/27	Advancing Equitable Risk-Based Breast Cancer Screening and Surveillance in Community Practice	237,081

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Retention	Henderson	Louise	NIH National Cancer Institute	2-R01-CA212014-06	9/20/17	5/31/28	Evaluating Lung Cancer Screening Patterns and Outcomes in Diverse Populations and Settings	546,105
Recruitment	Hingtgen	Shawn	Kids Beating Cancer	23-1303	12/1/22	11/30/24	Stem Cell-Delivered Particles for Hyperthermia Therapy to Treat Glioblastoma	63,100
Recruitment	Hingtgen	Shawn	Duke University	383001595	8/1/23	7/31/24	Living Patient Avatars for Tumor Microenvironment Discovery	50,102
Recruitment	Hingtgen	Shawn	NIH National Center for Advancing Translational Sciences	5-U01-TR003715-03	7/1/21	4/30/25	A Consortium Effort to Translate Therapies for Neurological Diseases via an ex vivo Organotypic Platform	1,135,383
Recruitment	Hingtgen	Shawn	NIH National Cancer Institute	5-R01-CA269974-01-03	2/1/22	1/31/27	Harnessing Continuous Liquid Interface 3D Printing to Improve Tumor-homing Stem Cell Therapy for Post-Surgical Brain Cancer	409,786
Recruitment	Hingtgen	Shawn	NIH National Institute of Neurological Disorders and Stroke	1-F31-NS134198-01	9/1/23	8/31/25	Fellow: L Kass Novel Bioprinted Neural Stem Cell-Embedded Hydrogel Matrices for Enhanced Treatment of Glioblastoma	39,212
Recruitment	Hingtgen	Shawn	North Carolina State University	500809	9/19/23	8/31/28	Bioinstructive Scaffolds for Potent and Affordable CAR-T Cell Therapy Against Brain Tumors	1,552,125
Recruitment	Hirschey	Rachel	NIH National Institute on Minority Health and Health Disparities	5-K23-MD015719-01-04	5/3/21	1/31/26	Physical Activity Intervention Co-Created and Pilot Tested with African American Colorectal Cancer Survivors	158,882
Recruitment	Hirschey	Rachel	NIH National Institute of Nursing Research	1-F31-NR021241-01	5/1/24	1/31/26	Fellow: X Jingle The Processes Through Which Prostate Cancer Survivors and their Partners Adopt and Maintain a Healthy Diet During Prostate Cancer Survivorship	48,279
Recruitment	Hoadley	Katherine	Johns Hopkins University	AURORA ProCDCC UNC/ 2044261072	1/1/19	6/30/24	AURORA US: Prospective Biospecimen Repository in Metastatic Breast Cancer	135,972
Recruitment	Hoadley	Katherine	Scimentis, LLC	SMS0002267B	5/9/22	9/30/24	Bioinformatics and Computational Biology Subject Matter Expertise in Support of Human Research Program Space Radiation Element	340,000
Recruitment	Hoadley	Katherine	Duke University	383000605	6/8/22	6/7/25	Ancestry-Related RNA Splicing and Immune Expression in Metastatic Breast Cancer	53,605
Recruitment	Hoadley	Katherine	NIH National Cancer Institute	5-U24-CA264021-03	9/1/21	8/31/26	Specialized RNA Analysis Center for Integrative Genomic Analyses	283,797
Recruitment	Hood-Pishchany	Indriati	Boston Children's Hospital	GENFD0002514324	10/1/23	6/30/24	Vaginal Microbiome Preclinical Testbed for WEED, SEED, FEED, RECEDE	84,255
Recruitment	Howard	Valerie	HRSA Bureau of Health Workforce	4-E4C-HP46342-02	7/1/22	6/30/24	Nursing Student Loan Program (NSL) - Baccalaureate Degree	97,067
Recruitment	Howard	Valerie	American Association of Retired Persons Andrus		7/1/24	6/30/25	Promoting Healthy Work Environments and Confronting Workplace Violence Through Simulation Training	25,000
Recruitment	Hucks	George	Department of Defense	W81XWH2010889	9/15/20	9/14/24	Phase I Study of Autologous Activated T-Cells Transduced with a 3rd Generation GD2 Chimeric Antigen Receptor, Co-Expression of IL-15 and iCaspase9 Safety Switch	199,785
Recruitment	Hursting	Stephen	Breast Cancer Research Foundation	BCRF-23-073	10/1/23	9/30/24	PreClinical Investigations into Next Generation Incretin Therapy for Breaking the Obesity-Breast Cancer Link	225,000
Recruitment	Hursting	Stephen	Purdue University	11000823-020	2/1/19	1/31/25	Obesity, Metabolism and Breast Cancer Metastasis	154,295
Recruitment	Hursting	Stephen	University of Utah	10058539-01-UNC U000472057	9/23/21	8/30/26	Adipose Tissue-Colorectal Tumor Cross-Talk: New Targets for Breaking the Obesity-Cancer Link	35,266
Recruitment	Hursting	Stephen	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	5P30DK056350-24	9/30/99	3/31/26	Animal Metabolism Phenotyping Core	143,950

Category	Last Name	First Name	Sponsor	Award Number	Begin	End	Title	Total Cost
Recruitment	Hursting	Stephen	Purdue University	11001401-029	12/28/22	11/30/27	Impact of Hypoxia on Lipid Metabolism in Obesity-Driven Breast Cancer Progression	153,263
Recruitment	Hursting	Stephen	NIH National Cancer Institute	1-F31-CA275336-01A1	9/1/23	8/31/25	Fellow: E Devericks Evaluating the Impact of Obesity-Associated Fatty Acid Metabolic Dysregulation on Breast Cancer Sensitivity to Ferroptosis	34,708
Retention	Ibrahim	Joseph	Amgen, Inc.	PO#7300407863	7/31/08	12/31/24	Supported Research Agreement	249,944
Retention	Ibrahim	Joseph	Merck Sharp Dohme LLC	209047	1/1/23	12/31/24	Biostatistics Collaboration with Merck BARDS	150,000
Investment (Training)	Ibrahim	Joseph	NIH National Cancer Institute	5-T32-CA106209-18	5/1/04	7/31/26	Biostatistics for Research in Genomics and Cancer	229,665
Recruitment	Ivory	Joannie	VCU Medical College of Virginia		10/16/23	1/15/26	Stakeholder Perspectives of Site Level Barriers and Facilitators in Black Participant Enrollment in a Multi-Site Randomized Clinical Trial of Endocrine Therapy Adherence Support	240,000
Theme Investment (CC)	Jackson	Klarissa	NIH National Institute of General Medical Sciences	5-R35-GM143044-01-03	7/1/21	6/30/26	Interindividual Variability in Drug Metabolism in Ethnically Diverse Populations	381,608
Theme Investment	James	Lindsey	Pinnacle Hill, LLC	WORKPLAN 1 20-2353	12/5/19	8/31/23	Development of NSD2-Targeted Therapeutics	424,465
Theme Investment	James	Lindsey	NIH National Cancer Institute	5-R01-CA242305-01-05	8/23/19	7/31/25	Discovery of First-In-Class NSD2 Degraders for Cancer Therapy	327,284
Theme Investment	James	Lindsey	NIH National Institute on Drug Abuse	5-R33-DA047023-04-05	8/15/18	5/31/25	Polycomb Repressive Complexes as Key Regulators of HIV Latency and Targets for Latency Reversal	878,498
Investment (Protocol)	Jamieson	Katarzyna	AbbVie, Inc.	M19-063	5/25/21	12/1/31	A Randomized, Open Label Phase 3 Study Evaluating Safety and Efficacy of Venetoclax in Combination with Azacitidine after Allogeneic Stem Cell Transplantation in Subjects with Acute MyeloidLeukemia (AML) (VIALE-T)	71,693
Investment (Protocol)	Jamieson	Katarzyna	National Marrow Donor Program	ACCESS	8/17/21	12/31/27	ACCESS: A Multi-Center, Phase II Trial of HLA-Mismatched Unrelated Donor Hematopoietic Cell Transplantation with Post-Transplantation Cyclophosphamide for Patients with Hematologic Malignancies	13,000
Investment (Protocol)	Jamieson	Katarzyna	Equillium, Inc.	EQ-100-02 - EQUATOR	12/20/22	7/14/27	A Phase 3, Randomized, Double-Blind, Placebo Controlled Multicenter Study of Itolizumab in Combination with Corticosteroids for the Initial Treatment of Acute Graft Versus Host Disease	26,579
Investment (Proteomics)	Johnson	Gary	University of Alabama at Birmingham	000531784-SC002	1/12/22	12/31/26	Credentialing Next-Generation Human Glioma Models for Precision Therapeutics	47,007
Investment (Proteomics)	Johnson	Gary	University of Miami	SPC-003225 OS00001274	6/1/23	5/31/24	Elucidating the Understudied Kinase PNCK as a Prospective Drug Target in Renal Cell Carcinoma	10,734
Theme Investment (HTS)	Jones	Corbin	NIH National Cancer Institute	75N91019D00033	8/31/19	8/30/24	Genome Characterization Center for RNA-Seq Services	503,055
Theme Investment (HTS)	Jones	Corbin	National Science Foundation	IOS-2034929	6/15/21	5/31/25	Collaborative Research: Rules for Dynamic-Light Environmental Sculpting of Genomes	303,152
Theme Investment (HTS)	Jones	Corbin	NIH National Cancer Institute	75N91019D00033/ 75N91021F000	9/8/21	9/7/26	Comprehensive total RNA, mRNA, and miRNA Sequencing for OCCPR	184,092
Theme Investment (HTS)	Jones	Corbin	Duke University	303-000857	6/15/22	4/30/25	Social Experience Dependent Modification of Gene Regulation and Circuit Function	38,005
Theme Investment (HTS)	Jones	Corbin	National Science Foundation	IOS-2243536	3/1/23	2/28/27	Collaborative Research: Ideas Lab: The Role of ExtraCellular RNA in InterCellular and Interkingdom Communication	231,247

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Recruitment	Joseph	Sarah	NIH National Institute of Mental Health	5-R01-MH118990-01-05	9/16/19	7/31/25	Development and Use of Novel SHIVs Bearing Clinically Relevant HIV-1 Envs for Examining HIV Persistence and Eradication in the CNS of Nonhuman Primates	629,961
Recruitment	Joseph	Sarah	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI176596-01-02	3/2/23	2/29/28	Identifying Roadblocks to Antigen Expression and Enhancing Killing of HIV-Infected Cells that Are Refractory to Clearance	1,167,948
Recruitment	Kabanov	Alexander	Flag Bio, Inc.		11/1/22	6/30/24	mRNA Immunoadjuvants for mRNA Vaccines	50,000
Recruitment	Kabanov	Alexander	St Baldricks Foundation	1052982	7/1/23	6/30/25	Naturally Targeted Exosomal TLR7/8 Agonist for Immunotherapy of Medulloblastoma	100,000
Recruitment	Kabanov	Alexander	Emervax, Inc.	A24-0634-R23-5143	10/31/23	4/30/25	Safe and Effective Circular RNA Vaccines for Emerging Viruses	567,366
Investment (Training)	Kabanov	Alexander	NIH National Cancer Institute	5-T32-CA196589-09	7/1/15	6/30/25	Carolina Cancer Nanotechnology Training Program (C-CNTP)	388,592
Recruitment	Kabanov	Alexander	NIH National Cancer Institute	5-R01-CA264488-01-	8/1/21	7/31/25	Toward Translation of Nanoformulated Paclitaxel-Platinum Combination	496,337
Recruitment	Kabanov	Alexander	NIH National Institute of Neurological Disorders and Stroke	5-K99-NS128716-02	9/1/22	8/31/24	Fibrin-CAR-T Cells Therapies to Enhance Efficacy in Glioblastoma Treatments	231,006
Recruitment	Kabanov	Alexander	NIH National Cancer Institute	5-F99-CA274702-02	8/1/22	7/31/24	Fellow: J Ramsey Drug Retention and Tumor Distribution of Polymeric Micelles for Cancer Therapy	78,428
Recruitment	Kabanov	Alexander	NIH National Institute of Neurological Disorders and Stroke	1-R21-NS135362-01	9/20/23	8/31/25	Naturally Targeted Exosomal TLR7/8 Agonist for Immunotherapy of Medulloblastoma	427,625
Theme Investment (HTSF)	Kash	Thomas	NIH National Institute on Alcohol Abuse	5-P60-AA011605-27	12/1/23	11/30/24	Molecular and Circuit Pathogenesis of Alcohol Use Disord	256,808
Theme Investment (CC)	Kelada	Samir	Genentech, Inc.		12/9/22	12/8/24	Research Collaboration Agreement with Genentech, Inc.	75,000
Theme Investment (CC)	Kelada	Samir	NIH National Institute of Environmental Health Sciences	5-R01-ES034260-01-03	4/18/22	2/28/27	Regulatory Genomics of Ozone Air Pollution Response In Vitro and In Vivo	639,545
Recruitment	Kent	Erin	Duke Endowment	6997-SP	7/1/21	6/30/24	Rural eSNAP: Navigator-Assisted Ecomaps to Support Cancer Caregivers	196,667
Recruitment	Kent	Erin	Duke University	383000607	11/1/22	4/30/24	Informing Public Policy Support for Family Caregivers Based on Typologies of Need	7,356
Retention	Key	Nigel	BioMarin Pharmaceutical, Inc.		11/8/17	6/30/24	270-301 A Phase 3 Open-Label, Single-Arm Study To Evaluate The Efficacy and Safety of BMN 270, an Adeno-Associated Virus Vector-Mediated Gene Transfer of Human Factor VIII in Hemophilia A Patients with Residual FVIII Levels ? 1 IU/dL Receiving Prophylactic FVIII Infusions	23,989
Retention	Key	Nigel	uniQure Biopharma B.V		9/11/18	10/2/25	Phase III, Open-label, Single-Dose, Multi-Center Multinational Trial Investigating a Serotype 5 Adeno-associated VIral Vector Containing the Padua Variant of a Codon-optimized Human Factor IX Gene (AAV5-hFIXco-Padua, AMT-061) Administered to Adult Subjects with Severe or Moderately Severe Hemophilia B	22,374
Retention	Key	Nigel	American Thrombosis and Hemostasis Network	HTC 262	9/1/22	8/31/25	ATHN Data Quality Counts (DQC) Program - Round 14	6,000
Retention	Key	Nigel	Hemophilia of Georgia		6/1/22	5/31/27	Regional Hemophilia Network	85,000

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Investment (Training)	Key	Nigel	NIH National Heart, Lung, and Blood Institute	5-T32-HL007149-47	7/1/22	6/30/27	Research Training in Hematology at UNC Chapel Hill, Reissue of PA-18-403 for due dates on or after May 25, 2020	458,105
Retention	Key	Nigel	NIH National Heart, Lung, and Blood Institute	1-R01-HL171501-01	2/15/24	1/31/28	Mechanisms of Venous Thrombosis and Renal Dysfunction in Sickle Trait	720,846
Retention	Khairat	Saif	NIH National Library of Medicine	5-R01-LM013606-01-04	5/3/21	1/31/25	Improving Providers' Decision-Making and Reducing Information Overload Using Information Visualization in Electronic Health Records	331,648
Retention	Khairat	Saif	NIH National Center for Advancing Translational Sciences	5-RC2-TR004380-01-02	8/1/23	4/30/28	Center for Virtual Care Value and Equity (ViVE)	752,840
Theme Investment (HTSF)	Kim	Boa	NIH National Heart, Lung, and Blood Institute	7-R56-HL162660-02	6/1/23	8/31/24	Understanding the Contribution of Endothelial Lipid Drop	335,603
Retention	Kim	William	Merck Sharp Dohme LLC		9/19/16	9/30/24	Prediction or Response and Rapid Development of Pembrolizumab-Based Combination in Genetically Engineered Mouse Models of Melanoma and Breast Cancer	62,323
Retention	Kim	William	Vanderbilt University Medical Center	VUMC108453	9/2/22	9/1/25	Academy of Kidney Cancer Investigators Dean Award	43,176
Retention	Kim	William	American Society of Clinical Oncology		7/1/23	12/31/24	Geospatial Transcriptomic Characterization of Urothelial Carcinoma In Situ (CIS) to Decipher Cancer Biology and Enhance Therapy	50,000
Retention	Kim	William	Bladder Cancer Advocacy Network		7/1/23	6/30/25	Dissecting the Impact of E-Cadherin Loss on Immune Microenvironment and Response to Immune Checkpoint Blockade in Plasmacytoid Urothelial Carcinoma	75,000
Retention	Kim	William	Bladder Cancer Advocacy Network		7/10/23	7/9/24	Exploring FGFR3 Inhibition as a Senseitizing Agent to Nectin-4 ADC Therapy in Urothelial Carcinoma	75,000
Retention	Kim	Hong Jin	North Carolina State University	PAM-P23-000090-SA01	4/1/23	3/31/28	Enteric Glia is a New Biological Target to Block Drug Resistance in Colon Cancer	12,874
Retention	Kim	William	NIH National Cancer Institute	5-K12-CA120780-15	9/17/07	6/30/24	UNC Oncology Clinical/Translational Research Training Program (OCT-RTP)	595,127
Retention	Kim	William	NIH National Cancer Institute	3-R01-CA241810-05S1	8/1/20	4/30/25	Chemotherapy and the Bladder Cancer Immune Microenvironment	695,661
Retention	Kim	William	Thomas Jefferson University	080-04000-X18601	9/30/21	9/29/24	Analyzing the Therapeutic Impact of di-ABZI on PBRM1-Deficient ccRCC Tumors di-ABZI on PBRM1-Deficient Tumors	99,927
Retention	Kim	William	NIH National Cancer Institute	1-R01-CA290597-01	3/12/24	2/28/29	Triggering Aberrant RNA Processing for RCC Therapy	618,057
Theme Investment	Kulis	Michael	DOD DA Army Medical Research Acquisition	W81XWH-22-1-0066	2/1/21	1/31/25	mRNA Vaccine for Peanut Allergy	67,383
Theme Investment	Kulis	Michael	Department of Defense	W81XWH2110315	9/30/21	9/29/24	Exploiting Inhibitory Siglecs to Combat Food Allergies	273,388
Theme Investment	Kulis	Michael	Duke University		9/1/22	8/31/27	Exploiting Inhibitory Siglecs to Combat Food Allergies	199,567
Investment (Bios/HTS)	Kosorok	Michael	Genentech, Inc.	24-1561	10/1/20	8/31/24	Applying Novel Statistical Approaches to Develop a Decision Famework for Hybrid Randomized Controlled Trial Designs Which Combine Internal Control Arms with Patients' Data from Real-World Data Source	136,332
Investment (Bios/HTS)	Kosorok	Michael	National Science Foundation	DMS-2210659	8/15/22	7/31/25	Collaborative Research: Semiparametric and Reinforcement Learning for Precision Medicine	86,667
Investment (Bios/HTS)	Kosorok	Michael	NIH National Institute of Mental Health	1-K99-MH133985-01	6/5/23	5/31/25	What works, for Whom? Applying Novel Precision Medicine Methods to People with Mental Illness in the Justice System	49,948
Investment (Bios/HTS)	Kosorok	Michael	Washington University in Saint Louis	WU-24-0412 PO# ST00019879	1/1/24	7/31/24	Adaptive Strategies for Preventing and Treating Lapses of Retention in HIV Care for Adolescents (A4A)	38,875

Category	Last Name	First Name	Sponsor	Award Number	Begin	End	Title	Total Cost
Investment (Protocol)	Kuzmiak	Cherie	ECOG-ACRIN Cancer Research Group	EA1151	10/20/17	10/19/24	ECOG-ACRIN LAPS: Protocol EA1151, Tomosynthesis Mammographic Imaging Screening Trial (TMIST)	450,765
Investment (Protocol)	Kuzmiak	Cherie	NIH National Institute of Environmental Health Sciences	75N96023P00168 6675035	8/1/23	7/30/25	Fenton Breast Analysis Imaging Study	30,157
Retention	Laederach	Alain	NIH National Institute of General Medical Sciences	5-R35-GM140844-01-04	6/1/21	5/31/26	Variant Induced RNA Structure Change in Human Genetic Disease	416,440
Retention	Laederach	Alain	Brigham and Womens Hospital	125948	8/20/21	5/31/25	Using Integrative Genomics To Identify and Characterize Emphysema-Associated eQTL	98,952
Retention	Laederach	Alain	National Science Foundation	DMS-2151859	5/1/22	4/30/26	Collaborative Research: Unraveling Structural and Mechanistic Aspects of RNA Viral Frameshifting Elements by Graph Theory and Molecular Modeling	46,130
Retention	Laederach	Alain	NIH National Heart, Lung, and Blood Institute	2-R01-HL111527-10	1/1/12	8/31/27	Non-Coding RNA Structure Change in Chronic Obstructive Pulmonary Disease	702,750
Retention	Laederach	Alain	New York University	F2499-01	3/1/24	2/28/27	MFB: RNA Modifications of Frameshifting Stimulators: Cellular Platforms to Engineer Gene Expression by Computational Mutation Predictions and Functional Experiments	146,195
Recruitment	Lai	Sam	NIH National Institute of Child Health and Human Development	5-R01-HD101562-01-04	4/1/20	3/31/25	Engineering Bispecific Antibodies for Non-Hormonal Contraception	493,843
Recruitment	Lai	Sam	Oak Crest Institute of Science	UNC20-315	5/5/20	2/28/25	Next Generation Multipurpose Prevention Technology: An Intravaginal Ring for HIV Prevention and Nonhormonal Contraception	160,000
Recruitment	Lai	Sam	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI165853-01-02	9/19/22	7/31/27	Engineered Muco-Trapping Antibodies for Inhaled Therapy of Parainfluenza and Human Metapneumovirus Infections	688,330
Recruitment	Lai	Sam	NIH National Cancer Institute	5-R21-CA273983-01-02	4/1/23	3/31/25	Engineering Siglec15-Targeted Bispecific Antibodies that Modulate the Tumor Microenvironment and Enhances T-Cell Immunotherapy	169,563
Recruitment	Lai	Sam	Benaroya Research Institute	FY24ITN622	2/1/23	1/31/25	Measurement of Anti-PEG Antibodies in COVID-19-004 Clinical Trial	386,130
Recruitment	Lai	Sam	NIH National Institute of Allergy and Infectious Diseases	1-R21-AI180822-01	1/19/24	11/30/25	Engineering a Vaccine that Generates Antibodies with Flly Tunable Variable Domain and Immunoglobulin Isotype Specificity Based on In Vivo Transduction of Circulating B-Cells	209,925
Innovation Award	Lawrence	David	NIH National Heart, Lung, and Blood Institute	5-R01-HL153744-01-04	5/1/21	4/30/25	Design and Application of Photoresponsive Modules in Circulating Erythrocytes	687,920
Recruitment	Lazear	Helen	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI139512-01-05	1/1/19	12/31/24	The Role of Interferon Lambda Signaling in Flavivirus Transmission and Pathogenesis at the Maternal-Fetal Interface	388,750
Recruitment	Lazear	Helen	Burroughs Wellcome Fund	1021339	7/1/21	7/1/26	Host Range Determinants of Emerging Flaviviruses	100,000
Recruitment	Lazear	Helen	NIH National Institute of Allergy and Infectious Diseases	5-F31-AI167502-02	9/1/22	8/31/25	Fellow: D Philip Temporal Functions of Interferon Lambda Signaling During Acute and Recurrent Herpes Simplex Virus Type 1 Skin Infection	73,468
Recruitment	Lazear	Helen	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI170625-01-02	8/5/22	7/31/26	Host Factors Controlling Neuroinvasive Flavivirus Pathogenesis	388,750
Recruitment	Lazear	Helen	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI175708-01-02	3/13/23	2/29/28	Antiviral and Immunomodulatory Effects of Interferon Lambda in the Skin	594,722

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Investment (Protocol)	Lee	Carrie	V Foundation for Cancer Research	DM2023-003	4/1/23	4/1/25	Use of Multimedia Educational Tools to Advance Equity in Cancer Clinical Trial Participation	25,000
Recruitment	Lee	Yueh	NIH National Institute of Biomedical Imaging and Bioengineering	5-R01-EB028283-01-04	9/15/19	2/28/25	Stationary Digital Tomosynthesis for Transbronchial Biopsy Guidance	711,589
Retention	Leeman	Jennifer	Johns Hopkins University	2005771180	4/10/22	5/31/24	A Safer Assisted Living: Creating a Toolkit for Person and Family Engagement	33,057
Recruitment	Legant	Wesley	Arnold and Mabel Beckman Foundation	19-2609	9/1/19	8/31/24	Intelligent Microscopes to Observe and Interact with Dynamic Biological Specimens	120,000
Recruitment	Legant	Wesley	David and Lucile Packard Foundation	2019-69652	10/15/19	10/14/24	AI-Enhanced Microscopy	175,000
Recruitment	Legant	Wesley	Silicon Valley Community Foundation	2023-321164	3/1/23	8/31/25	Molecules in Context with 4Pi Lattice Light Sheet Nanoscopy	627,554
Recruitment	Legant	Wesley	NIH National Institute of General Medical Sciences	1-DP2-GM136653-01	9/30/19	5/31/24	Connecting the Dots Between Single Molecule Dynamics and Cell Differentiation	457,902
Recruitment	Lemon	Stanley	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI150095-01-05	12/12/19	11/30/24	Critical Lipid Species in the Hepatovirus Life Cycle	518,380
Recruitment	Li	Zibo	NIH National Institute of Biomedical Imaging and Bioengineering	5-R01-EB029451-01-04	5/1/20	1/31/25	Novel Catalytic Methods for Efficient Radiolabeling of Un-Activated Arene Compounds	458,297
Recruitment	Li	Zibo	NIH National Cancer Institute	5-R01-CA247769-01-	7/15/20	6/30/25	The Development of Novel Radiation-Sensitizer Based on Ultra-Small Carbon Dots	978,636
Recruitment	Li	Zibo	University of Georgia Board of Regents	SUB00002554	6/1/21	5/31/25	Development of a Novel Biodegradable Inorganic Nanoparticle Therapeutic for Cancer	488,124
Recruitment	Li	Zibo	AccuNovo Biotechnologies Inc	22-0986	4/5/22	3/31/24	SBIR: Theranostic NTSR1-Targeting Agents for Complementary Management of PSMA-negative Prostate Cancer	50,000
Recruitment	Li	Zibo	Athna Biotech, Inc.		5/5/22	4/30/24	SBIR: Development of a Salt-Based Nanomedicine for Non-Muscle Invasive Bladder Cancer	104,000
Recruitment	Li	Zibo	NIH National Cancer Institute	1-R01-CA287184-01	12/5/23	11/30/27	Development of an Efficient 18F Labeling Technology Based on Tetrazine Trans-Cyclooctene Ligation	643,360
Recruitment	Lichtman	Eben	Sanofi US Services, Inc.	TED16132	1/15/21	2/14/31	An Open-Label, First-In-Human, Single Agent, Dose Escalation and Expansion Study for the Evaluation of Safety, Pharmacokinetics, Pharmacodynamics and Antitumor Activity of SAR442085 in Patients with Relapsed or Refractory Multiple Myeloma (RRMM)	6,860
Recruitment	Lichtman	Eben	GlaxoSmithKline, Inc.	GSK 209626	2/19/21	2/7/31	GSK-209626-DREAMM12: A Phase I Study to Evaluate the Pharmacokinetics and Safety of Belantamab Mafodotin Mono Therapy in Participants with Relapsed or Refractory Multiple Myeloma Who Have Normal and Varying Degrees of Impaired Renal Function (DREAMM 12)	75,869
Recruitment	Lichtman	Eben	Genzyme Corporation	LCCC2119	12/8/22	1/10/33	Phase 2 Study of Isatuximab Plus Pomalidomide and Dexamethasone in Highly Toxicity-vulnerable Subjects with Relapsed or Refractory Multiple Myeloma	202,066
Recruitment	Lichtman	Eben	AbbVie, Inc.	M24-108	10/12/23	10/19/33	A Multicenter, Phase 1b, Open-label Study to Evaluate Dose Optimization Measures and Safety of ABBV-383 in Subjects with Relapsed or Refractory Multiple Myeloma	242,749

Category	Last Name	First Name	Sponsor	Award Number	Begin	End	Title	Total Cost
Recruitment	Lichtman	Eben	Ichinos Sciences SA	ISB 2001-101	2/23/24	3/10/34	A Phase 1, First-In-Human, Multicenter, Open-Label, Dose Escalation and Dose-Expansion Study of Single-Agent ISB 2001 in Subjects with Relapsed/Refractory Multiple Myeloma	60,349
Theme Investment (BRIC)	Lin	Weili	NIH National Institute on Drug Abuse	3-U01-DA055344-03S1	9/30/21	6/30/26	5/6 HBCD Prenatal Experiences and Longitudinal Development (PRELUDE) Consortium	2,154,328
Theme Investment (BRIC)	Lin	Weili	University of California at San Diego	705059	10/1/21	6/30/24	The Healthy Brain and Child Development National Consortium Administrative Core	47,372
Retention	Linnan	Laura	Centers for Disease Control and Prevention	5-U19-OH012303-01-03	9/1/21	8/31/26	Carolina Center for Healthy Work Design and Worker Well-Being	1,036,125
Recruitment	Liu	Pengda	The Andrew McDonough B Foundation	73893	1/1/22	12/31/24	Targeting ATR/SPOP Signaling to Overcome Chemotherapy Resistance in Ewing Sarcoma	75,000
Recruitment	Liu	Pengda	NIH National Cancer Institute	5-R01-CA244825-01-	7/7/20	6/30/25	Elucidating Novel Gunctions of cGAS in Breast Cancer	348,592
Recruitment	Liu	Pengda	Department of Defense	W81XWH21104 19	7/1/21	6/30/24	Non-Canonical Function of STING in ccRCC	311,000
Recruitment	Liu	Pengda	NIH National Cancer Institute	5-R21-CA270967-01-	5/1/22	4/30/25	Cancer Hijacks Enzyme Substrate Mutations to Facilitate Tumorgenesis	213,727
Retention	Long	Jason	Nucleix Ltd.	Lung-RND-003	6/6/22	3/1/26	Determination and Validation of Lung EpiCheck a Multianalyte Assay for Lung Cancer Prediction. A Case-Control Study	55,882
Retention	Long	Jason	Delfi Diagnostics, Inc.	DELFI-L201	11/19/22	3/31/25	CASCADE LUNG: Cancer Screening Assay using DELFI: A Clinical Validation Study in Lung (DELFI-L201 Study)	28,190
Retention	Long	Jason	Delfi Diagnostics, Inc.	AFT-63	6/13/23	3/31/26	DNA Evaluation of Fragments for Early Interception-Lung Cancer Training Study (DELFI-L101)	37,442
Recruitment	Lund	Jennifer	Westat, Inc.	6473-S07	6/1/19	8/15/24	Constructing Real World Evidence in Cancer Surveillance through Data Linkage and Advanced Methods	30,209
Recruitment	Lund	Jennifer	NIH National Institute on Aging	5-R21-AG068965-01-02	5/1/21	4/30/24	Improving the Prediction of Life Expectancy Among Older Adults with Advanced Cancer Using Geriatric Assessment	225,222
Recruitment	Lund	Jennifer	NIH National Cancer Institute	1-R01-CA277756-01A1	7/1/23	6/30/28	Applying Causal Inference Methods to Improve Estimation of the Real-World Benefits and Harms of Lung Cancer Screening	348,648
Recruitment	Lund	Jennifer	Janssen Research Development, LLC	U01FD007937 C2023018679	9/18/23	9/17/24	Advisory Committee Consulting Agreement - Jenny Lund Development of Novel Methods to Enable Robust Comparison of Real-World Progression Free Survival (rwPFS) and Clinical Trial PFS in Multiple Myeloma	15,884
Theme Investment (HTSF)	Maeda	Nobuyo	NIH National Heart, Lung, and Blood Institute	5-R01-HL049277-30-32	1/1/22	12/31/25	Animal Models for Studying the Genetics of Complex Disease	755,533
Theme Investment (CC)	Magnuson	Terry	NIH Office of the Director	5-U42-OD010924-25	9/30/99	2/28/25	A Carolina Center to Characterize and Maintain Mutant Mice	1,457,678
Theme Investment (CC)	Magnuson	Terry	NIH National Institute of General Medical Sciences	3-R01-GM101974-35S1	12/1/89	3/31/25	Albino Deletion Complex and Early Mouse Development	234,693
Investment (Bios/HTS)	Marron	J. S.	National Science Foundation	DMS-2113404	9/1/21	8/31/25	Data Integration Via Analysis of Subspaces (DIVAS)	125,000
Innovation Award	Matera	Greg	NIH National Institute of General Medical Sciences	5-R35-GM136435-01-05	4/1/20	3/31/25	Ribonucleoprotein Biogenesis and Epigenetic Gene Regulation	587,093
Recruitment	McGinty	Robert	NIH National Institute of General Medical Sciences	5-R35-GM133498-01-05	8/1/19	7/31/24	Molecular Mechanisms of Chromatin Recognition	382,895

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Theme Investment (HTS, CBCS, MP1U)	Merker	Jason	NIH National Cancer Institute	5-UG1-CA233333-06	3/13/19	2/28/25	UNITS: The UNC / UT National Clinical Trials Network Group Integrated Translational Science Production and Consultation Center	637,440
Theme Investment (HTSF)	Mieczkowski	Piotr	North Carolina Biotechnology Center	2024-IIG-0009	3/1/24	12/31/24	Enhancing the High-Throughput Sequencing Facility at UNC: Upgrading from Fluent 1080 to Tecan DreamPrep NGS Workstation for Improved Capability	66,001
Recruitment	Miller	Brian	Burroughs Wellcome Fund	1.02E+06	1/1/22	8/31/26	Targeting Myeloid Cells as a Personalized Immunotherapy Approach to Cancer	175,000
Recruitment	Miller	Brian	Melanoma Research Alliance	1255560	6/1/24	5/31/27	Targeting Suppressive Macrophages to Overcome Resistance to Immunotherapy	510,000
Recruitment	Miller	Brian	NIH National Cancer Institute	5-K08-CA248960-03-05	7/1/20	6/30/25	Targeting Unique Meyloid Populations to Overcome Anti-PD-1 Resistance Conferred by Specific Cancer Mutations	286,658
Recruitment	Mills	Sarah	NIH National Cancer Institute	5-K01-CA242530-05	8/7/19	7/31/25	Modeling the Public Health Impact of a National Menthol Cigarette Ban	115,320
Recruitment	Milner	Justin	V Foundation for Cancer Research	V2022-019	10/1/22	10/1/24	Reprogramming T Cells for Effective and Durable Responses Against Pancreatic Cancer	100,000
Recruitment	Milner	Justin	Mary Kay Ash Foundation	23-Jul	7/1/23	6/30/25	Tailoring CAR-T Cell Responses for Triple Negative Breast Cancer	100,000
Recruitment	Milner	Justin	Lung Cancer Initiative of North Carolina		1/1/24	12/31/25	Engineering Durable and Effective T Cell Responses Against Lung Cancer	150,000
Recruitment	Milner	Justin	Hirshberg Foundation for Pancreatic Cancer Research		5/1/24	5/1/25	Determining the Roles of Kras and p53 on the PDAC Immune Microenvironment and Immune Checkpoint Efficacy	100,000
Recruitment	Milner	Justin	NIH National Institute of Allergy and Infectious Diseases	1-R01-AI177864-01A1	6/18/24	4/30/29	Epigenetic Regulation of T Cell Differentiation During Infection	509,002
Recruitment	Milowsky	Matthew	Merck Sharp and Dohme Corp.		12/2/15	12/2/25	Phase II Single Arm Study of Gemcitabine and Cisplatin plus Pembrolizumab as Neoadjuvant Therapy Prior to Radical Cystectomy in Patients with Muscle-Invasive Bladder Cancer	4,250
Recruitment	Milowsky	Matthew	Genentech, Inc.		7/12/16	12/31/23	A Phase Iii, Multicenter, Randomized, Placebo-Controlled, Double-Blind Study of Atezolizumab (Anti Pd-L1 Antibody) In Combination with Gemcitabine/Carboplatin Versus Gemcitabine/Carboplatin Alone In Patients with Untreated Locally Advanced Or Metastatic Urothelial Carcinoma Who Are Ineligible For Cisplatin-Based Therapy	2,337
Recruitment	Milowsky	Matthew	Bristol-Myers Squibb Company		12/22/16	2/28/25	A Phase 3 Randomized, Double-Blind, Multi-Center Study of Adjuvant Nivolumab Versus Placebo in Subjects with High Risk Invasive Urothelial Carcinoma	6,877
Recruitment	Milowsky	Matthew	Seattle Genetics, Inc		4/20/18	4/30/28	A Phase 1b Dose-escalation and Dose-Expansion Study of Enfortumab Vedotin (ASG-22CE) in Combination with Immune Checkpoint Inhibitor (CPI) Therapy for Treatment of Patients with Locally Advanced or Metastatic Urothelial Cancer	179,702
Recruitment	Milowsky	Matthew	G1 Therapeutics	G1T28-209	3/14/22	4/30/24	A Phase 2, Randomized, Open-Label Study of Trilaciclib Administered with First-Line Platinum-Based Chemotherapy and Avelumab Maintenance Therapy in Patients with Untreated, Locally Advanced or Metastatic Urothelial Carcinoma (PRESERVE 3)	35,170
Recruitment	Milowsky	Matthew	ALX Oncology, Inc.	AT148007	2/7/23	3/1/33	A Phase 1, Open-Label, Multicenter, Safety, Pharmacokinetic, Pharmacodynamic Study of ALX148 in Combination with Enfortumab Vedotin and/or Other Anticancer Therapies in Subjects with Urothelial Carcinoma (ASPEN-07)	113,026

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Recruitment	Milowsky	Matthew	Loxo Oncology, Inc.	LOXO-FG3-22001	4/28/23	5/11/33	An Open-label, Multicenter Study of LOXO-435 (LY3866288) in Advanced Solid Tumor Malignancies with FGFR3 Gene Alterations	102,180
Recruitment	Milowsky	Matthew	Flare Therapeutics, Inc.	FX-909-CLINPRO-1	10/3/23	10/10/33	A Phase 1, First-In-Human, Dose-Escalation and Expansion Study of FX-909 in Patients with Advanced Solid Malignancies, Including Advanced Urothelial Carcinoma	110,130
Recruitment	Milowsky	Matthew	Acrivon Theraputics	ACR-368-201	12/18/23	1/4/34	A Phase 1b/2 Basket Study of ACR-368 as Monotherapy and in Combination with Gemcitabine in Adult Subjects with Platinum-Resistant Ovarian Carcinoma, Endometrial Adenocarcinoma, and Urothelial Carcinoma Based on Acrivon OncoSignature® Status	6,757
Recruitment	Mody	Gita	NIH National Heart, Lung, and Blood Institute	5-K23-HL157765-01-03	1/1/22	12/31/26	Improving Thoracic Surgical Care using Electronic Patient-Reported Outcomes (ePROs)	202,157
Investment (HTS)	Mohlke	Karen	Foundation for the National Institutes of Health		3/3/23	9/3/25	Single Nucleus-RNA and Metabolomics in Subcutaneous Adipose Tissue	488,880
Investment (HTS)	Mohlke	Karen	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	5-R01-DK072193-14-17	9/1/05	7/31/25	Targeted Genetic Analysis of T2D and Quantitative Traits	604,509
Investment (HTS)	Mohlke	Karen	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	5-UM1-DK126185-04	8/20/20	6/30/25	Bridging the Gap Between Type 2 Diabetes GWAS and Therapeutic Targets	1,863,743
Investment (HTS)	Mohlke	Karen	University of California at Los Angeles	1440 G ZB003	5/1/22	4/30/26	Genetics of Adipose Cell-Type Expression and Cardiometabolic Traits	137,384
Investment (HTS)	Mohlke	Karen	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	2-R01-DK093757-11	9/5/11	2/29/28	Genetic Epidemiology of Rare and Regulatory Variants for Metabolic Traits	638,741
Recruitment	Moody	Cary	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI173039-01-02	5/18/23	4/30/28	Interplay Between the Cellular DNA Damage Response and the HPV Life Cycle	412,647
Recruitment	Moon	Andrew	American Association for the Study of Liver Diseases	CTORA22-158537	7/1/22	6/30/24	Incorporating the Patient Voice into HepatoCellular Carcinoma Treatment Models	100,000
Recruitment	Moon	Andrew	Cepheid	293C	1/24/24	1/31/25	Clinical Evaluation of Xpert® HCV Test on the GeneXpert® Xpress System in a CLIA-Waived Environment	2,500
Recruitment	Moorman	Nathaniel	Research Triangle Institute	66818L	4/1/22	3/31/27	Rapidly Emerging Antiviral Drug Development Initiative	700,000
Recruitment	Moorman	Nathaniel	Evotec International GmbH	EVT87671	12/20/23	12/19/28	Development of Innovative RNA-Targeting Antivirals Against HenipavirUses	148,980
Recruitment	Moorman	Nathaniel	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI103311-06-10	12/1/12	6/30/24	The Role of Host and Viral Translation Factors During HCMV Infection	384,607
Recruitment	Moorman	Nathaniel	Battelle Memorial Institute	884661	12/5/23	12/31/26	Rapidly Emerging Antiviral Drug Development Initiative-Battelle	206,756
Recruitment	Moschos	Stergios	Amgen, Inc.		2/13/18	3/31/28	Phase 2 Study of Denosumab in Combination with Pembrolizumab in Patients with Stage IV Cutaneous Melanoma	98,088
Recruitment	Moschos	Stergios	Syndax Pharmaceuticals, Inc.		12/18/18	10/21/28	Breaking Innate PD-1 Inhibitor (PD1i) Resistance Using Epigenetic Modifiers; Antitumor Efficacy and Correlative Analyses of Entinostat Plus Pembrolizumab in Non-Inflamed Metastatic Melanoma (MM)	90,686

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Recruitment	Moschos	Stergios	Merck Sharp and Dohme Corp.		5/6/19	5/14/29	A Multicenter, Open label, Phase III Extension Trial to Study the Long-Term Safety and Efficacy in Participants with Advanced Tumors Who Are Currently on Treatment or in Follow-Up in a Pembrolizumab Trial	11,759
Recruitment	Moschos	Stergios	Pfizer Inc.	C4471001	7/1/21	6/30/31	A Two-Part, Phase 1A/B, Open-Label, Multicenter Trial Evaluating Pharmacokinetics, Safety and Efficacy of PF-07284890 (ARRY-461) in Participants with BRAF V600-Mutant Solid Tumors with and without Brain Involvement	49,319
Recruitment	Moschos	Stergios	Takeda Development Center Americas, Inc.	TAK-981-1502	6/29/23	6/30/33	A Phase 1b/2 Study of TAK-981 Plus Pembrolizumab to Evaluate the Safety, Tolerability, and Antitumor Activity of the Combination in Patients with Select Advanced or Metastatic Solid Tumors	56,079
Recruitment	Moschos	Stergios	Leidos Corporation	17X011	5/24/17	6/30/25	A Phase 2 Study of Ibrutinib (PCI-32765) in Refractory Distant Metastatic Cutaneous Melanoma: Correlation of Biomarkers with Response and Resistance	453,999
Recruitment	Mungo	Chemtai	American Association for Cancer Research	22-20-73-MUNG	9/1/22	8/31/24	Feasibility of Adjuvant Topical Therapy for Cervical Precancer Treatment	103,000
Recruitment	Mungo	Chemtai	Gilead Sciences, Inc.	23-0814	1/30/23	1/29/25	Feasibility of Artemisinin as Neoadjuvant or Adjuvant Topical Therapy for Cervical Precancer Treatment in Among Women Living with HIV in Low- and Middle-Income Countries (LMICs)	90,000
Recruitment	Mungo	Chemtai	NIH National Cancer Institute	1-R34-CA284983-01	9/6/23	8/31/26	Feasibility of Artesunate to Improve HPV and Cervical Pre-Cancer Treatment Outcomes Among HIV Positive Women in LMICs	493,938
Recruitment	Muscatell	Keely	Robert Wood Johnson Foundation	75668	9/1/18	8/31/23	Health Policy Research Scholars Cohort Three 2018 - Gabriella Alvarez	24,000
Recruitment	Muscatell	Keely	Robert Wood Johnson Foundation	77856	9/1/20	8/31/24	Manuel Galvan RWJF Health Policy Research Scholars Award 2020	31,000
Recruitment	Muscatell	Keely	Robert Wood Johnson Foundation	79936	9/1/22	8/31/26	Health Policy Research Scholars Cohort Six - 2022	31,000
Recruitment	Muscatell	Keely	National Science Foundation	BCS-2047344	5/1/21	4/30/26	CAREER: Bidirectional Links Between Social Experiences and the Immune System	146,392
Recruitment	Muscatell	Keely	NIH National Heart, Lung, and Blood Institute	5-R01-HL157422-04	5/1/21	4/30/26	Neural and Molecular Mechanisms Underlying Stress-Induced Inflammatory Responses	518,852
Recruitment	Muss	Hy	American Society of Clinical Oncology	22-0995	7/1/22	6/30/24	Feasibility of Conducting a Geriatric Assessment in Hispanic Patients for the Development of a Hispanic Cancer Registry in North Carolina	25,000
Recruitment	Muss	Hy	Breast Cancer Research Foundation	BCRF-23-114	10/1/22	9/30/24	p16INK4a Expression, Chemotherapy Toxicity, and Aging in Women with Breast Cancer	225,000
Recruitment	Muss	Hy	National Alliance for Hispanic Health	23-1580	4/1/22	6/30/24	Todos Juntos: All of Us Research Program	20,000
Recruitment	Muss	Hy	Sapere Bio, Inc	2101	9/1/22	8/31/24	SBIR: Measuring Cellular Senescence to Predict and Prevent Peripheral Neuropathy	35,454
Recruitment	Muss	Hy	University of California at Los Angeles	1.56E+13	9/1/23	8/31/28	Targeting Senescence to Mitigate Chemotherapy-Induced Functional Decline	11,219
Investment (Chair Package)	Neal-Perry	Genevieve	NIH National Institute of Child Health and Human Development	5-K12-HD103085-04	7/23/20	6/30/25	Advancing Women's Health Through Research: The UNC WRHR Career Development Program	162,714
Recruitment	Nichols	Hazel	NIH National Cancer Institute	5-R01-CA211093-01-	8/5/19	7/31/25	In Vitro Fertilization Outcomes after Cancer	312,048

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Recruitment	Nichols	Hazel	Kaiser Permanente Division of Research	RNG211063-UNC-01	9/15/20	6/30/25	PROJECT 1 Clinical Care Gaps and Unmet Needs in Adolescent and Young Adult (AYA) Cancers	30,504
Recruitment	Nichols	Hazel	NIH National Cancer Institute	5-F31-CA275332-02	5/15/23	5/14/25	Fellow: B Hoover Incidence and Time on Onset of Cardiovascular Risk Factors and Cardiovascular Disease in Adult Survivors of Adolescent and Young Adult Cancer and Association with Exercise	209,250
Recruitment	Nichols	Hazel	University of Texas MD Anderson Cancer Center	3.00E+09	6/28/23	12/31/27	Health Equity in Fertility Specialty Care among Cancer Survivors	57,376
Recruitment	Nichols	Hazel	NIH National Cancer Institute	1-U01-CA281026-01A1	3/1/24	2/28/29	The Carolina Endometrial Cancer Study: A Population-Based Survivor Cohort	659,174
Recruitment	Nielsen	Matthew	University of Kansas Medical Center Research Institute, Inc.	Q125EP20	11/1/19	10/31/24	North Carolina Prospective Prostate Cancer Cohort Study	63,405
Recruitment	Nielsen	Matthew	University of Pennsylvania	576656/PO#4933336	4/1/19	3/31/24	Ostomy TeleHealth Self-Management Training for Cancer Survivors	130,028
Theme Investment	Niethammer	Marc	Kitware, Inc.	K003082-00-S01	7/15/21	6/30/25	A Computational Framework for Distributed Registration of Massive Neuroscience Images	56,486
Theme Investment	Niethammer	Marc	Kitware, Inc.	K003982-00-S01	6/23/23	5/31/25	Exploratory Analysis Tools for Developmental Studies of Brain Microstructure with Diffusion MRI	81,093
Theme Investment	Niethammer	Marc	NIH National Institute of Arthritis and Musculoskeletal and Skin Diseases	1-R01-AR082684-01A1	2/1/24	1/31/29	A Comprehensive Imaging Genetics Framework for Osteoarthritis Research	705,837
Recruitment	Noar	Seth	NIH National Institute on Drug Abuse	5-R01-DA049155-05	6/1/20	5/31/25	Impact of E-Cigarette Prevention Messages on Adolescents	666,154
Theme Investment (HTSF)	Nobel	Andrew	National Science Foundation	DMS-2113676	7/1/21	6/30/25	Inference for Stationary Processes: Optimal Transport and Generalized Bayes	74,986
Retention	North	Kari	Washington University in Saint Louis	WU-24-0532 ST00021501	4/27/21	3/31/25	A Multi-Ancestry Study of Gene-Lifestyle Interactions and Multi-Omics in Cardiometabolic Traits	54,860
Retention	North	Kari	Takeda Development Center Americas, Inc.	8.00E+09	3/15/24	3/14/26	Epidemiology Estimates of AATD in the US	394,355
Retention	North	Kari	Fred Hutchinson Cancer Research Center	1164014	8/20/20	7/31/24	Polygenic Risk Scores for Diverse Populations - Bridging Research and Clinical Care	347,292
Retention	North	Kari	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	5-R01-DK122503-01-04	9/22/20	7/31/25	Integrative Approaches to Identifying Function and Clinical Significance of Adiposity Susceptibility Genes	672,571
Investment (Training)	North	Kari	NIH National Heart, Lung, and Blood Institute	5-T32-HL129982-08	6/1/16	5/31/26	The Genetic Epidemiology of Heart, Lung, and Blood Traits Training Grant (GenHLB)	427,344
Retention	North	Kari	Vanderbilt University Medical Center	VUMC114911	7/1/23	3/31/27	Hispanic Latino Lipid Consortium	102,413
Retention	North	Kari	The University of Texas Health Science Center at Houston	SA0003255 UTH228097	9/1/23	8/31/28	Multi-omics for Obesity-Associated Liver Disease Discovery in Hispanics/Latinos: the Cameron County Hispanic Cohort	150,701
Investment (CBCS)	Nyante	Sarah	NIH National Cancer Institute	5-R01-CA237129-01-05	9/1/19	8/31/24	Understanding the Biological Basis for the Association Between Parenchymal Texture Features and Breast Cancer Risk	485,530
Investment (CBCS)	Nyante	Sarah	NIH National Cancer Institute	5-R21-CA270625-02	3/10/22	6/30/24	Breast Cancer Neoadjuvant Endocrine Therapy During the Covid-19 Pandemic: Opportunity for a New Treatment Paradigm?	213,727

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Investment (CBCS)	Nyante	Sarah	University of Vermont	225028 AWD00001578S UB00000514	9/19/23	8/31/28	Clinical Breast Cancer Risk Prediction Models for Women with a High-Risk Benign Breast Diagnosis	75,573
Theme Investment (HTSF)	Okuda	Kenichi	NIH National Heart, Lung, and Blood Institute	5-R01-HL163602-01-02	2/1/23	1/31/28	Mucociliary Innate Defense Mechanism in the Human Distal	571,271
Innovation Award	Oldenburg	Amy	NIH National Heart, Lung, and Blood Institute	5-R01-HL154429-01-04	9/1/20	7/31/25	Predicting the Need for Surgery in Pediatric Subglottic Stenosis using Airway Elastography derived from Endoscopic OCT and Intraluminal Pressure Measurement	768,494
Innovation Award	Oldenburg	Amy	NIH National Institute of Environmental Health Sciences	5-R01-ES032730-01-04	9/28/20	6/30/25	Developing an In Vitro to In Vivo Pipeline of Mammary Gland Exposure-Response Relationships to Per- and Poly-fluoroalkyl Substances (PFAS)	494,322
Investment (CBCS)	Olshan	Andrew	Centers for Disease Control and Prevention	5-U01DD001231-05	9/1/18	8/31/24	Component A: BD-STEPS II Core at North Carolina Center for Birth Defects Research and Prevention (NC BDSTEPS II Core)	800,000
Investment (CBCS)	Olshan	Andrew	DHHS Centers for Disease Control and Prevention	1-U01-DD001308-01	9/1/23	3/31/27	North Carolina Center for Birth Defects Research and Prevention (NCCBDRP)	600,000
Recruitment	Painschab	Matthew	NIH Fogarty International Center for Advanced Study in the Health Sciences	5-K01-TW011470-01-05	9/16/19	6/30/24	Safety, Efficacy, and Cost-Effectiveness of Rituximab for Multicentric Castleman Disease in Malawi	143,933
Recruitment	Palmer	Adam	V Foundation for Cancer Research	V2020-010	12/1/20	12/1/23	Understanding and Optimizing Curative Combination Therapy for Non-Hodgkin Lymphomas	66,667
Recruitment	Palmer	Adam	Leidos Corporation	2301585	6/7/23	8/11/23	FNL Leidos Contract	11,841
Recruitment	Palmer	Adam	NIH National Cancer Institute	1-R01-CA279968-01A1	2/1/24	1/31/29	Modeling and Analysis of Curative Combination Therapy for Diffuse Large B-Cell Lymphoma	344,581
Theme Investment (CC)	Pardo Manuel de Villena	Fernando	Neogen Corporation		11/15/23	11/14/26	Service Agreement for miniMUGA Inbred Mouse Background Analysis Report	20,000
Recruitment	Patel	Shetal	Lung Cancer Initiative of North Carolina		1/1/21	12/31/25	Metabolic Reprogramming of the Tumor Microenvironment to Enhance Immunotherapy in Lung Cancer	43,750
Recruitment	Patel	Shetal	MacroGenics, Inc.	CP-MGA271-06	9/14/21	4/30/24	MGA271-06: A Phase 2 Open-Label Trial to Evaluate Enoblituzumab in Combination with Retifanlimab or Tebotelimab in the First-Line Treatment of Patients with Recurrent or Metastatic Squamous Cell Carcinoma of the Head and Neck	3,787
Recruitment	Patel	Shetal	Amgen, Inc.	20200469	10/26/22	11/30/32	A Phase 1b Study Evaluating the Safety and Efficacy of First-Line Tarlatamab in Combination with Carboplatin, Etoposide, and PD-L1 Inhibitor in Subjects with Extensive Stage Small Cell Lung Cancer	127,463
Recruitment	Patel	Shetal	Genentech, Inc.	CO43613	7/28/23	8/6/33	A Phase Ib/II, Open-Label, Multicenter, Randomized Umbrella Study Evaulating the Efficacy and Safety of Multiple Treatment Combinations in Patients with Locally Advanced Squamous Cell Carcinoma of the Head and Neck (Morpheus-Head and Neck Cancer)	47,496
Recruitment	Patel	Shetal	Loxo Oncology, Inc.	LOXO-RAS-20001	12/6/23	12/31/34	A Phase 1a/1b Study of LY3537982 in Patients with KRAS G12C-Mutant Advanced Solid Tumors	27,986
Theme Investment (HTSF)	Pattenden	Samantha	Leidos Biomedical Research		3/1/22	8/30/24	Development of a High Throughput Assay Based on Chromatin	622,116
Retention	Pecot	Chad	Enfuego Therapeutics		7/5/23	6/30/24	SBIR: Ligand-Directed KRAS G12V Mutant-Specific Therapeutics	92,541
Retention	Pecot	Chad	Lung Cancer Initiative of North Carolina		7/1/24	6/30/25	Dynamic Ablation of Circular RNAs as a Novel Target in Lung Cancer	25,000

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Retention	Pecot	Chad	NIH National Cancer Institute	5-F30-CA250189-05	4/1/20	3/31/25	Fellow: N Sengottuvel The Role of SPON1 Expressing Inflammatory Monocytes in Promoting Lung Cancer Metastasis	53,974
Retention	Pecot	Chad	NIH National Cancer Institute	5-R01-CA258451-01-	3/1/21	2/28/26	Tumor Endothelial Cell Regulation of Pro-Metastatic Fibrin Matrices	551,095
Retention	Pecot	Chad	NIH National Cancer Institute	5-R01-CA279532-01-	4/4/23	3/31/28	Circle RNA Regulation of Lung Cancer Metastasis	360,511
Theme Investment (HTS)	Peifer	Mark	NIH National Institute of General Medical Sciences	3-R35-GM118096-08S1	7/16/16	8/31/26	Regulating Cell Fate and Shaping the Body Plan During Morphogenesis and their Alteration During Oncogenesis	619,768
Theme Investment (HTS, CBCS, MP1U)	Perou	Charles	Susan G Komen for the Cure	SAC160074	7/15/16	1/15/26	Identification of the Genetic Drivers of HER2-Enriched Subtype Breast Cancers	200,000
Theme Investment (HTS, CBCS, MP1U)	Perou	Charles	Johns Hopkins University	AURORA ProGCC UNC (PO 2004285639)	7/29/19	12/31/24	AURORA US: Prospective Genomic Characterization Center in Metastatic Breast Cancer	169,740
Theme Investment (HTS, CBCS, MP1U)	Perou	Charles	Johns Hopkins University	2004285639	7/29/19	12/31/24	AURORA US: Prospective Genomic Characterization Center in Metastatic Breast Cancer RELATED 4101005	143,003
Theme Investment (HTS, CBCS, MP1U)	Perou	Charles	Breast Cancer Research Foundation	DRC-20-004	1/15/21	1/14/25	Disentangling the Anti-Tumor Effects from the Immune Effects of Abemaciclib Using RB-Proficient and RB-Deficient Breast Cancer Mouse Models	100,000
Theme Investment (HTS, CBCS, MP1U)	Perou	Charles	Breast Cancer Research Foundation	BCRF-23-127	10/1/22	9/30/24	Molecular Therapeutic for Luminal Tumor Subtypes	225,000
Theme Investment (HTS, CBCS, MP1U)	Perou	Charles	NIH National Cancer Institute	5-P50-CA058223-28	8/5/97	8/31/24	SPORE in Breast Cancer	49,999
Theme Investment (HTS, CBCS, MP1U)	Perou	Charles	NIH National Cancer Institute	5-U01-CA238475-05	6/1/19	5/31/25	Predictive Modeling of the EGFR-MAPK Pathway for Triple Negative Breast Cancer Patients	557,886
Theme Investment (HTS, CBCS, MP1U)	Perou	Charles	NIH National Cancer Institute	5-R01-CA148761-11-14	3/17/10	3/31/26	Therapeutic Targeting of Breast Cancer Tumor Initiating Cells	380,233
Theme Investment (HTS, CBCS, MP1U)	Perou	Charles	NIH National Cancer Institute	1-F31-CA290953-01	7/1/24	6/30/27	Fellow: D O'Connell Characterizing and Overcoming MHC-I-Mediated Immune Evasion in Triple-Negative Breast Cancer	40,064
Recruitment	Pfaff	Emily	University of Colorado Denver	FY22.1126.032	10/1/21	2/29/24	Subcontract with University of Denver Colorado Collaborative Analytics for EHR- and Other Real-World Data in N3C - PASC Phase II	1,003,959
Recruitment	Pfaff	Emily	University of Colorado Denver	FY23.1126.037 1001860890	10/3/22	8/31/23	Subcontract University of Denver Colorado Anschutz Medical Campus N3C	266,125
Recruitment	Pfaff	Emily	University of Colorado Denver	FY24.1126.015	9/2/23	3/1/25	All of Us Center for Linkage and Acquisition of Data (CLAD)	1,129,227
Recruitment	Phanstiel	Douglas	NIH National Institute on Aging	5-R01-AG066871-01-05	4/15/20	3/31/25	Identifying Alzheimer's Disease Causal Variants and Target Genes Using iPSC-Derived Microglia	709,940
Recruitment	Phanstiel	Douglas	NIH National Institute of Arthritis and Musculoskeletal and Skin Diseases	5-R01-AR079538-01-02	9/20/22	8/31/27	Identifying Novel Osteoarthritis Risk Genes Using GWAS, Chondrocyte Genomics, and Genome Editing	508,492
Recruitment	Phanstiel	Douglas	NIH National Institute on Aging	1-F31-AG084224-01	8/4/23	8/3/26	Cell-Type Specific Interrogation of Variant Function in Alzheimer's Disease	39,138
Recruitment	Phanstiel	Douglas	Duke University	303002773	9/4/23	6/30/27	The Role for Phase Separation in Oncogenesis and Aberrant Chromatin Looping Formation	236,041

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Recruitment	Phanstiel	Douglas	NIH National Institute of General Medical Sciences	2-R35-GM128645-06	7/19/18	12/31/28	Mechanisms and Impacts of Chromatin Looping	456,600
Recruitment	Phanstiel	Douglas	NIH National Institute on Aging	4-K00-AG068509-03	9/1/20	1/31/28	Elucidating Immune and Microglial Dynamics in Alzheimer's Disease with Advanced Organoid Models	73,093
Recruitment	Pinton	Gianmarco	NIH National Institute of Biomedical Imaging and Bioengineering	5-R01-EB029419-01-04	7/1/21	3/31/25	A Machine Learning Ultrasound Beamformer Based on Realistic Wave Physics for High Body Mass Index Imaging	432,085
Recruitment	Pinton	Gianmarco	NIH National Institute of Biomedical Imaging and Bioengineering	5-R21-EB033150-01-02	8/1/22	5/31/25	Lung-Specific Ultrasound Beamforming for Diagnostic Imaging	190,329
Recruitment	Purvis	Jeremy	NIH National Institute of General Medical Sciences	5-R01-GM138834-01-04	9/11/20	7/31/25	Computational Models of the Human Cell Cycle to Reveal Disease Mechanism and Inform Treatment	299,340
Recruitment	Purvis	Jeremy	NIH National Heart, Lung, and Blood Institute	5-F31-HL156464-04	1/1/21	12/31/24	Fellow: T Zikry Deep Learning Models to Predict Primitive Streak Formation in Human Development	39,208
Recruitment	Purvis	Jeremy	National Science Foundation	MCB-2242980	3/1/23	2/28/27	Quantitative Models of Reversible and Irreversible Cell Cycle Arrest	300,000
Recruitment	Purvis	Jeremy	NIH National Cancer Institute	1-R01-CA280482-01A1	2/1/24	1/31/29	Cell Cycle Paths as a Framework for Understanding Drug Resistance in Tumor Cell Subpopulations	617,314
Retention	Pylayeva-Gupta	Yuliya	The Mark Foundation for Cancer Research		1/1/22	12/31/24	Reprogramming B Cell Fate and Function in Cancer	375,000
Retention	Pylayeva-Gupta	Yuliya	American Cancer Society	RSG-21-103-01 IBCD	1/1/22	12/31/25	B Cells as Mediators of Tumor Eradication in Pancreatic Cancer	264,000
Retention	Pylayeva-Gupta	Yuliya	NIH National Cancer Institute	1-F31-CA278589-01A1	7/12/23	7/11/25	Fellow: W Bell Role of Gastrokine 2 in Pancreatic Cancer Development	39,211
Retention	Pylayeva-Gupta	Yuliya	NIH National Cancer Institute	4-R37-CA230786-06	4/1/24	3/31/26	Function of IL35+ B Cells in Pancreatic Cancer	396,171
Recruitment	Raab	Jesse	NIH National Institute of General Medical Sciences	3-R35-GM147286-02S1	8/15/22	7/31/27	Mechanisms of SWI/SNF Complex Assembly and Function	408,583
Theme Investment (HTSF)	Rauf	Christoph Daniel	NIH National Heart, Lung, and Blood Institute	5-R01-HL162636-01-02	3/1/23	12/31/27	Elucidating the Role of Multinuclearity in Healthy and D	544,488
Recruitment	Rauf	Yasmeen	Denovo Biopharma	DB102-01	4/8/22	3/31/32	DB102-01: A Randomized, Double-Blind, Placebo-Controlled Phase 3 Study of Enzastaurin Added to Temozolomide During and Following Radiation Therapy in Newly Diagnosed Glioblastoma Patients Who Possess the Novel Genomic Biomarker	68,303
Recruitment	Rauf	Yasmeen	Imvax, Inc.	14379-201	10/4/23	10/10/33	A Randomized, Multicenter, Double-Blind, Placebo-Controlled, Phase 2b Study to Assess the Safety and Efficacy of IGV-001, an Autologous Cell Immunotherapy with Antisense Oligonucleotide (IMV-001) Targeting IGF-1R, in Newly Diagnosed Patients with Glioblastoma	64,109
Recruitment	Ray	Emily	Conquer Cancer Foundation		7/1/21	12/31/24	Validation and Usability Testing in an Academic Comprehensive Cancer Center of a Prognostic Calculator for 30-Day Mortality in Patients with Metastatic Breast Cancer	66,667
Recruitment	Ray	Emily	Lung Cancer Initiative of North Carolina	22-1942	1/1/22	12/31/24	Development of an Enhanced Risk Stratification System for Patients with Hospital-Diagnosed Advanced Lung Cancer	75,000

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Recruitment	Ray	Emily	Agency for Healthcare Research and Quality	1-K08-HS028862-01A1	9/1/23	8/31/28	Evaluation of End-of-Life Best Practices and Implementation of a Tool to Predict Near-Term Death Among Patients with Metastatic Breast Cancer in an Oncology Clinic	162,540
Innovation Award	Redinbo	Matthew	Bay Area Lyme Foundation		3/1/21	8/31/24	Structural Biology Essential to Pre-Clinical Development of Novel Borrelia Targeting Therapeutic and Diagnostic Imaging Agents	71,736
Innovation Award	Redinbo	Matthew	University of Pennsylvania Board of Trustees	581896 PO# 5170422	5/1/21	4/30/24	The Ultra Processed Western Diet, the Gut Microbiome	78,226
Innovation Award	Redinbo	Matthew	Boston Children's Hospital	GENFD0002231816	8/1/22	5/31/25	Microbial Reactivation of Sex Steroids and Visceral Pain	60,220
Innovation Award	Redinbo	Matthew	NIH National Institute of General Medical Sciences	1-R35-GM152079-01	3/1/24	2/28/29	Gut Microbial Enzymes and Human Disease	565,080
Innovation Award	Redinbo	Matthew	Cornell University Weill Medical College	232310-1	3/1/24	1/31/29	Gut Microbial Beta-Glucuronidases as a Biomarker for Mycophenolic Acid Enterohepatic Recirculation and Associated Toxicities	155,367
Recruitment	Reeder-Hayes	Katie	Dana-Farber Cancer Institute		2/11/14	5/1/28	A Randomized Phase II Study of Adjuvant Trastuzumab Emtansine (T-DM1) vs. Paclitaxel in Combination with Trastuzumab for Stage I HER2-Positive Breast Cancer (ATEMPT Trial)	19,376
Recruitment	Reeder-Hayes	Katie	Pfizer International, LLC	63633669 21-0928	12/10/20	6/30/24	Racial Disparities Hot-Spotting to Improve Breast Cancer Outcomes In North Carolina	99,722
Recruitment	Reeder-Hayes	Katie	Susan G Komen for the Cure	OG23872434	3/17/24	3/16/27	Capturing Patient Reported Data to Impact Disparities in Metastatic Breast Cancer	166,666
Recruitment	Reeder-Hayes	Katie	American Cancer Society	PASD-TEAM-23-1076363-01-PASD	1/1/24	12/31/28	Geographic Small Area Estimation of Cancer Screening Rates: Precision Approaches to Inform Screening Equity, Outreach, and Interventions	300,000
Recruitment	Reeder-Hayes	Katie	Pfizer Inc.	88230111	11/15/23	8/31/25	Promoting Resilience in Stress Management for Metastatic Breast Cancer (PRISM-MBC)	249,988
Recruitment	Reeves	Brandi	Janssen Research & Development, LLC		10/23/15	3/6/24	A Randomized Phase 2 Trial to Evaluate Three Daratumumab Dose Schedules in Smoldering Multiple Myeloma	9,252
Recruitment	Reeves	Brandi	Janssen Research & Development, LLC		8/29/19	2/11/25	A Randomized Study of Daratumumab Plus Lenalidomide Versus Lenalidomide Alone as Maintenance Treatment in Patients with Newly Diagnosed Multiple Myeloma Who Are Minimal Residual Disease Positive After Frontline Autologous Stem Cell Transplant	48,031
Recruitment	Reeves	Brandi	Incyte Corporation		9/16/20	10/22/30	A Phase 1, Open-Label, Safety and Tolerability Study of INCB057643 in Participants with Myelofibrosis	13,681
Recruitment	Reeves	Brandi	Hemostasis and Thrombosis Research Society	HTRS MRA 2022 REEVES 02	7/1/22	6/30/24	Hypoxia Inducible Factors in Myeloproliferative Neoplasm Associated Thrombosis	82,500
Recruitment	Reeves	Brandi	Bristol-Myers Squibb Company	CA011-023	10/26/23	6/20/33	Phase 1b/2 Study of BMS-986158 Monotherapy and in Combination with Either Ruxolitinib or Fedratinib in Participants with DIPSS-Intermediate or High Risk Myelofibrosis	40,467
Recruitment	Reeves	Brandi	PharmaEssentia USA	A22-301	7/25/23	7/9/33	A Single-Arm, Multicenter Study to Assess the Efficacy, Safety, and Tolerability of Ropeginterferon alfa-2b-njft (P1101) in Adult Patients with Essential	53,086
Recruitment	Reeves	Brandi	PharmaEssentia Corporation	A22-203	1/31/24	12/15/33	A Phase IIIb, Randomized, Open-Label, Parallel Group, Multicenter Study to Assess Efficacy, Safety, and Tolerability of Two Dosing Regimens of Ropeginterferon Alfa-2b-njft (P1101) in Adult Patients with Polycythemia Vera (PV)	62,909
Recruitment	Reeves	Brandi	NIH National Heart, Lung, and Blood Institute	1-K08-HL163485-01A1	8/1/23	7/31/28	Hypoxia-Inducible Factors and Neutrophil Heterogeneity in Myeloproliferative Neoplasm-Associated Venous Thrombosis	423,633

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Retention	Reuland	Dan	NIH National Cancer Institute	5-UH3-CA233251-06	9/30/18	8/31/24	Scaling Colorectal Cancer Screening Through Outreach, Referral, and Engagement (SCORE): A State-Level Program to Reduce Colorectal Cancer Burden in Vulnerable Populations	904,616
Retention	Reuland	Dan	NIH National Cancer Institute	1-UG1-CA286949-01	2/15/24	12/31/27	Cancer Screening Research Network - North Carolina Hub (CSRN-NC HUB)	876,146
Theme Investment (HTSF)	Ribeiro	Carla	NIH National Heart, Lung, and Blood Institute	5-R01-HL155261-01-03	9/15/21	8/31/25	Pre-Clinical Evaluation of IRE1beta as a Novel Therapeutic	464,553
Retention	Ribisl	Kurt	Cumberland County Department of Health	24000500	7/1/23	6/30/24	Fort Bragg Tobacco Control: Military Health and Readiness Initiative	31,077
Retention	Ribisl	Kurt	University of Virginia	GR012810.SUB00000019	5/1/18	12/31/24	The Determinants of Tobacco Relapse and Initiation Following a Period of Forced Abstinence in the U.S. Military: A Social Ecological Approach	107,062
Retention	Ribisl	Kurt	NIH National Cancer Institute	5-P01-CA225597-01-	9/1/18	8/31/24	ASPiRE: Advancing Science & Practice in the Retail Environment	1,130,943
Investment (Training)	Ribisl	Kurt	NIH National Cancer Institute	5-T32-CA057726-32	7/1/17	6/30/27	Cancer Control Education Program	302,958
Retention	Ribisl	Kurt	University of California at San Francisco	13816sc	9/1/22	8/31/24	Tobacco Retail Policy Innovation to Reduce Health Disparities	92,472
Retention	Ribisl	Kurt	University of Oklahoma Health Sciences Center	RS20222177-02	5/1/23	4/30/25	Investigating the Impact of Local Land Use and Zoning Policies on Equitably Reducing Tobacco Retailer Availability	10,335
Retention	Ribisl	Kurt	NIH National Institute on Drug Abuse	1-U54-DA060049-01	9/30/23	8/31/28	Advancing Tobacco Regulatory Science to Reduce Health Disparities	3,920,034
Recruitment	Richardson	Daniel	American Society of Hematology		7/1/23	6/30/26	Developing a Patient-Reported Measure to Identify Treatment Priorities of Patients with Advanced Blood Cancers	150,000
Recruitment	Richardson	Daniel	NIH National Cancer Institute	1-K08-CA273684-01A1	6/11/24	5/31/29	Developing a Values Elicitation Tool to Improve Treatment Decision-Making in Acute Myeloid Leukemia	285,049
Recruitment	Roberson	Mya	American Association for Cancer Research	22-20-73-ROBE	3/1/23	8/31/24	Centering Equity in HBOC Genetic Testing: A Mixed Methods Study	97,734
Recruitment	Roberson	Mya	Prevent Cancer Foundation		1/15/24	1/14/26	We Got Us: Promoting Cancer Family History Sharing Among Black Americans	100,000
Recruitment	Roberson	Mya	Vanderbilt University Medical Center	VUMC114183	3/1/23	8/31/25	IMProving Care After Inherited Cancer Testing (Impact) Study: Diversity Supplement	209,807
Recruitment	Roberts	Megan	University of Texas Southwestern Medical Center	0000002723220726	8/15/21	8/14/25	Familial Hypercholesterolemia in the United States: Evaluating a Centralized Cascade Screening Model to Improve Early Diagnosis	24,787
Recruitment	Roberts	Megan	NIH National Human Genome Research Institute	1-R21-HG012672-01	9/1/22	8/31/24	Implementing and Evaluating Genetic Screening in Healthy Adults for Precision Public Health	210,385
Recruitment	Roberts	Megan	NIH National Cancer Institute	2-R13-CA261073-02	7/16/21	5/31/26	Transdisciplinary Conference for Future Leaders in Precision Public Health	42,000
Recruitment	Rose	Tracy	Syndax Pharmaceuticals, Inc.		3/25/19	4/14/29	Window of Opportunity Platform Study to Define Immunogenomic Changes with Pembrolizumab Alone and in Rational Combinations in Muscle-Invasive Bladder Cancer	324,681
Recruitment	Rose	Tracy	NIH National Cancer Institute	5-K08-CA248967-01-03	4/1/20	3/31/24	Selective Histone Deacetylase Inhibition with Entinostat to Enhance the Anti-Tumor Immune Response to Immune Checkpoint Inhibition in Urothelial Cancer	262,296
Recruitment	Rosenstein	Donald	American Cancer Society	98449	4/1/24	3/31/25	2024 Patient Lodging Grant	50,000
Recruitment	Rubinstein	Samuel	American Society of Hematology	24-3629	7/1/22	6/30/26	ASH Research Collaborative Data Hub Protocol: A Multicenter Data Hub of Individuals Living with Hematologic Disease	105,000

Category	Last Name	First Name	Sponsor	Award Number	Begin	End	Title	Total Cost
Recruitment	Rubinstein	Samuel	Janssen Research Development, LLC	64407564MMY3002	2/17/23	2/28/29	A Phase 3 Randomized Study Comparing Talquetamab SC in Combination with Daratumumab SC and Pomalidomide (Tal-DP) or Talquetamab SC in Combination with Daratumumab SC (Tal-D) Versus Daratumumab SC, Pomalidomide and Dexamethasone (DPd), in Participants with Relapsed or Refractory Multiple Myeloma Who Have Received at Least 1 Prior Line of Therapy	384,280
Recruitment	Rubinstein	Samuel	Rhode Island Hospital	7137836	9/15/22	8/31/27	Enhancing the HemOnc Knowledgebase of Chemotherapy Drugs and Regimens	20,400
Recruitment	Rubinsteyn	Alexander	Rare Cancer Research Foundation	24-0888	11/5/23	11/4/24	Neoantigen Identification from Long-Read Sequencing	282,346
Recruitment	Rubinsteyn	Alexander	Victor Family Foundation		4/1/24	4/1/25	Pre-Clinical Development of a Shared Antigen Therapeutic Vaccine for NUT Carcinoma	360,000
Recruitment	Rubinsteyn	Alexander	Natera, Inc	24-3809	6/25/24	12/25/24	Comparison of T-Cell Responses in Mice from Different Vaccine Formulations, Adjuvants, and Routes of Administration	134,012
Theme Investment	Samulski	Richard J	AskBio	22-5401	8/2/22	8/1/27	AAV Gene Delivery in Collaborative Cross Mice	400,000
Investment (HTS)	Sancar	Aziz	NIH National Institute of General Medical Sciences	5-R35-GM118102-06-08	4/1/16	8/31/26	Molecular Mechanism of Mammalian DNA Excision Repair and the Circadian Clock	1,030,111
Investment (HTS)	Sancar	Aziz	NIH National Institute of Environmental Health Sciences	5-R01-ES033414-01-03	9/17/21	6/30/26	DNA Adduct Detection and Repair in Mammalian Cells	556,623
Investment (Protocol)	Sanoff	Hanna	AstraZeneca Pharmaceuticals LP		8/27/19	9/26/29	A Phase III Randomized, Double-Blind, Placebo-Controlled, Multi-Regional, International Study of Durvalumab in Combination with Gemcitabine plus Cisplatin Versus Placebo in Combination with Gemcitabine Plus Cisplatin for Patients with First-Line Advanced Biliary Tract Cancers (TOPAZ-1)	50,392
Investment (Protocol)	Sanoff	Hanna	University of Iowa	S02645-01	7/1/21	7/31/25	Comparative Effectiveness Research for Neuroendocrine Tumors	18,550
Recruitment	Savoldo	Barbara	Department of Defense	W81XWH2010890 0011479913	9/15/20	9/14/24	Phase I Study of Autologous Activated T-Cells Transduced with a 3rd Generation GD2 Chimeric Antigen Receptor, Co-Expression of IL-15 and iCaspase9 Safety Switch	202,315
Recruitment	Savoldo	Barbara	NIH National Cancer Institute	5-R01-CA247497-01-	7/1/20	6/30/25	Tailoring CAR T Cell Therapy for Hodgkin Lymphoma	619,470
Recruitment	Savoldo	Barbara	DOD DA Army Medical Research Acquisition	W81XWH2211111 0011753836	9/30/22	9/29/25	GD2 CASRT for Lung Cancer	421,945
Retention	Schoenfisch	Mark	KNOW Bio, LLC		8/21/23	8/20/24	Exploration of the Antimicrobial Properties of Nitric Oxide Releasing Compounds	60,000
Retention	Schoenfisch	Mark	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	5-R01-DK108318-05-08	12/1/15	6/30/25	Role of Diabetes and Nitric Oxide Release Duration on Analytical Performance of In Vivo Glucose Biosensors	616,509
Retention	Schoenfisch	Mark	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	5-R01-DK132778-01-02	1/1/23	12/31/26	Nitric Oxide-Releasing Glycosaminoglycans for Treating Complex Wounds	366,170
Retention	Schoenfisch	Mark	NIH National Institute of Dental and Craniofacial Research	5-R01-DE032060-01-02	5/1/23	4/30/28	Nitric Oxide-Releasing Hyaluronic Acid Therapeutics for Treating Periodontal Disease	475,349

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Recruitment	Schrank	Travis	NIH National Institute of Dental and Craniofacial Research	5-K08-DE029241-01-04	9/1/20	8/31/25	Mechanisms Determining Dysregulation of the NRF2 Oxidative Stress Response in Head and Neck Squamous Cell Carcinoma	173,993
Recruitment	Schumacher	Jessica	University of Wisconsin at Madison	3615	4/5/24	3/31/25	Understanding Patient-Surgeon Interactions to Support Deimplementation of Preference-Sensitive Low Value Care	53,545
Investment (Training)	Sekelsky	Jeff	NIH National Institute of General Medical Sciences	5-T32-GM135128-04	7/1/20	6/30/25	NRSA in Genetics	742,749
Innovation Award	Sekelsky	Jeff	NIH National Institute of General Medical Sciences	3-R35-GM118127-09S1	6/1/16	3/31/26	Mechanisms of Meiotic and Mitotic Recombination	519,008
Innovation Award	Sekelsky	Jeff	NIH National Institute on Aging	5-F31-AG074637-03	9/1/21	8/31/24	Fellow: C Turcotte Mechanisms and Regulation of Meiotic Recombination	39,190
Innovation Award	Sekelsky	Jeff	NIH National Institute on Aging	5-F31-AG079626-02	9/1/22	8/31/25	Fellow: N Pazhayam Preventing Age-Associated Oocyte Aneuploidy: Mechanisms Behind the Drosophila Melanogaster Centromere Effect	39,216
Recruitment	Sellers	Rani	North Carolina Biotechnology Center	2024-IIG-0015	4/15/24	4/14/25	Innovating Digital Pathology in North Carolina by Harnessing Technology: HALO Image Analysis Platform for High-Impact Image Analysis	148,407
Recruitment	Sengupta	Soma	American Brain Tumor Association	DG2300057	10/1/23	9/30/24	Reprogramming Macrophages in Brain Metastatic Lung Cancer	50,000
Retention	Serody	Jonathan	Merck Sharp and Dohme Corp.	54829	12/15/16	12/31/24	Correlative Study of the Activity of Pembrolizumab in Combination with Gemcitabine and Cisplatin as Neoadjuvant Therapy Prior to Radical Cystectomy in Patients with Muscle-Invasive Urothelial Carcinoma of the Bladder	99,132
Retention	Serody	Jonathan	Merck Sharp and Dohme Corp.	54823	12/15/16	12/31/24	Immune Biomarker Analysis of Pembrolizumab in AML	105,491
Retention	Serody	Jonathan	Merck Sharp and Dohme Corp.	58116	1/30/19	12/31/23	OTSP: Evaluating the Function of B Cells in the Activity of Anti-PD-1 mAb Therapy in Patients with Metastatic Breast Cancer	80,212
Retention	Serody	Jonathan	Carisma Therapeutics, Inc		1/14/21	1/13/24	Single Cell & Correlative Evaluations After Monocyte-Derived Macrophage CAR Therapy Targeting HER-2/neu	65,275
Retention	Serody	Jonathan	American Society of Clinical Oncology		7/1/23	6/30/24	Characterization of a STING Mediated Metabolic Switch to Fuel Anti-Tumor Immunity of CAR T Cells	50,000
Retention	Serody	Jonathan	American Society of Hematology		7/1/24	6/30/26	Targeting a Novel Cyclic Dinucleotide Signaling Pathway in CAR T Cells to Drive Antitumor Immunity	100,000
Retention	Serody	Jonathan	NIH National Heart, Lung, and Blood Institute	5-R01-HL155098-01-03	9/1/21	6/30/25	Enhancing Innate Immune Reconstitution Post Allogeneic HSCT	693,720
Investment (Training)	Serody	Jonathan	NIH National Cancer Institute	1-T32-CA285257-01	9/15/23	8/31/28	UNC Immunotherapy Training Grant (IM-TAG)	165,117
Recruitment	Serrano	Natalicio	Robert Wood Johnson Foundation	81521	2/15/24	2/14/26	A Complex Systems Approach to Understand the Impacts of Neighborhood Development on Physical Activity in Latine and Black Communities	260,000
Retention	Shaheen	Nicholas	C2 Therapeutics		12/29/17	12/31/26	Safety and Efficacy of the Cryoballoon Ablation for Treatment of Patients with Resistant Barrett's Esophagus (BE) - The Resistant BE Trial (ReBET)	292,934
Retention	Shaheen	Nicholas	Lucid Diagnostics		3/30/20	7/31/25	A Multicenter, Single-Arm Study of the Efficacy of EsoGuard on Samples Collected Using EsoCheck Versus Esophagogastroduodenoscopy for the Diagnosis of Barrett's Esophagus in an At-Risk Screening Population (EG-CL-101)	5,985

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Retention	Shaheen	Nicholas	Lucid Diagnostics		5/5/20	7/31/25	A Multicenter Case-Control Study of the Efficacy of EsoGuard on Samples Collected Using EsoCheck, Versus Esophagogastroduodenoscopy, for the Diagnosis of Barrett's Esophagus with and without Dysplasia, and for Esophageal Adenocarcinoma (EG-CL-102)	9,650
Retention	Shaheen	Nicholas	Phathom Pharmaceuticals	NERD-301	3/11/22	4/30/27	A Phase 3, Randomized, Double-Blind, Multicenter Study to Evaluate the Efficacy and Safety of Vonoprazan 10 and 20 mg Compared to Placebo for Relief of Heartburn in Subjects with Symptomatic Non-Erosive Gastroesophageal Reflux Disease (NERD) After 4 Weeks and to Evaluate the Efficacy and Safety of Vonoprazan 10 and 20 mg for Relief of Heartburn in Subjects with NERD	36,678
Retention	Shaheen	Nicholas	GIE Medical, Inc.	PR2052	1/23/23	2/28/29	PATENT-E : Paclitaxel Coated Balloon for the Treatment of chronic bEnigN sTricture-Esophagus	83,453
Retention	Shaheen	Nicholas	University of Colorado Board of Regents	193212	2/15/23	2/14/28	A Multicenter Randomized Trial of Seattle Biopsy Protocol Versus Wide-Area Transepithelial Sampling in Patients with Barrett's Esophagus Undergoing Surveillance (the SWAT-BE Study)	39,461
Retention	Shaheen	Nicholas	Fractyl Health, Inc.	C-00044	10/24/23	11/29/30	(Revitalize 1) A Prospective, Randomized, Double-Blind, Sham-Controlled, Multi-Center Pivotal Study to Evaluate the Efficacy and Safety of Duodenal Mucosal Resurfacing Using the Revita® System in Subjects withType 2 Diabetes on Insulin Therapy - Revita T2Di Pivotal Study - Protocol #C-	39,782
Retention	Shaheen	Nicholas	EndoStim, Inc.		4/2/24	4/1/25	EndoStim Closeout Project	22,615
Retention	Shaheen	Nicholas	University of Colorado Denver	FY22.1035.015	5/15/22	4/30/24	A Multicenter Randomized Controlled Trial of Surveillance vs. Endoscopic Therapy for Barrett's Esophagus with Low-Grade Dysplasia: The SURVENT Trial	144,264
Retention	Shaheen	Nicholas	Case Western Reserve University	RES602260	9/22/22	8/31/27	Validation of Biomarkers for Predicting Barrett's Esophagus that Will or Will Not: i) Progress Toward Cancer, or ii) Recur after Ablation	115,420
Retention	Shaheen	Nicholas	NIH National Center for Advancing Translational Sciences	5-UM1-TR004406-02	4/28/23	3/31/30	1/3 North Carolina Translational and Clinical Sciences Institute (NC TraCS)	2,474,274
Retention	Shaheen	Nicholas	University of Michigan	SUBK00020146/ 3007704625	7/1/23	6/30/25	Obeticholic Acid for Prevention in Barrett's Esophagus	10,885
Retention	Shaheen	Nicholas	Mayo Clinic in Rochester	THE-319907 P000615440	9/30/23	9/29/26	External Validation and Evaluation of a Novel Deep Learning Platform for the Diagnosis and Risk Stratification of Dysplasia in Barrett's Esophagus Histology	56,111
Recruitment	Shea	Thomas	ECOG-ACRIN Cancer Research Group		3/30/15	4/30/25	ECOG - ACRIN Master (LAPS Clinical Trials)	43,575
Recruitment	Shea	Thomas	Alliance for Clinical Trials in Oncology		9/11/13	3/5/30	Alliance Prime eIPF	22,456
Recruitment	Sheeran	Paschal	NIH National Cancer Institute	5-R01-CA242746-01-03	7/1/21	6/30/25	State-of-The-Art Synthesis of Interventions to Promote Quit Intentions and Smoking Cessation	627,468
Recruitment	Sheeran	Paschal	University of Colorado Boulder	1001918652 1564540	9/18/23	8/31/25	Exercise Adherence and Cognitive Decline: Engaging with the Black Community to Develop and Test a Goal-Setting and Exercise Intensity Intervention	17,209
Recruitment	Sheeran	Paschal	North Carolina State University	PAM-P23-003103-SA01	9/1/23	8/31/26	IHBEM: Data-Driven Integration of Behavior Change Interventions into Epidemiological Models Using Equation Learning	75,800

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Theme Investment (HTSF)	Sheikh	Shehzad Zafar	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	5-R01-DK136262-01-02	4/1/23	1/31/27	High Throughput Functional Studies of IBD-associated GWA	637,105
Recruitment	Shen	Colette	Nanobiotix S.A.		3/14/19	3/20/29	A Phase I/II Study Of NBTXR3 Activated By Radiation Therapy (SABR) For Patients with Advanced HNSCC or NSCLC Treated with an Anti-PD1 Antibody	846,321
Recruitment	Shen	Colette	GT Medical Technologies, Inc.	GTM-101	10/27/20	10/26/25	GTM-101: A Multicenter Observational Study of GammaTile Surgically Targeted Radiation Therapy (STaRT) in Intracranial Brain Neoplasms	8,252
Recruitment	Shen	Colette	Hoosier Cancer Research Network	BRE18-360	4/1/21	4/11/31	BRE18-360: Phase I/II Study of Stereotactic Radiosurgery with Concurrent Administration of DNA Damage Response (DDR) Inhibitor (Olaparib) Followed by Adjuvant Combination of Durvalumab (MEDI4736) and Physician s Choice Systemic Therapy in Subjects with Breast Cancer Brain Metastases	6,421
Recruitment	Shen	Colette	Nanobiotix S.A.	NANORAY-312	10/13/22	7/31/32	NANORAY-312: A Phase 3 (Pivotal Stage) Study of NBTXR3 Activated by Investigator s Choice of Radiotherapy Alone or Radiotherapy in Combination with Cetuximab for Platinum-Based Chemotherapy-Ineligible Elderly Patients with Locally Advanced Head & Neck Squamous Cell Carcinoma	49,649
Recruitment	Shen	Colette	GT Medical Technologies, Inc.	GTM-102	9/5/23	3/3/33	A Phase 3 Randomized Controlled Trial of Post-Surgical Stereotactic Radiotherapy (SRT) Versus Surgically Targeted Radiation Therapy (STaRT) with Gamma Tile for Treatment of Newly Diagnosed Metastatic Brain Tumors	54,269
Recruitment	Shen	Colette	University of Michigan	SUBK00014248	8/1/21	7/31/26	A Clinical Tool for Automated Detection and Delineation of Intracranial Metastases from MRI	42,635
Recruitment	Sheth	Sid	Merck Sharp and Dohme Corp.		4/15/20	4/26/30	A Phase 3, Randomized, Placebo-Controlled, Double-Blind Clinical Study of Pembrolizumab (MK-3475) with or without Lenvatinib (E7080/MK-7902) to Evaluate the Safety and Efficacy of Pembrolizumab and Lenvatinib as 1L Intervention in a PD-L1 Selected Population of Participants with Recurrent or Metastatic Head and Neck Squamous Cell Carcinoma (LEAP-010)	60,355
Recruitment	Sheth	Sid	Merck Sharp Dohme LLC	60988	4/18/24	4/17/26	Tissue and Plasma Based Changes of Molecular Response to Pembrolizumab and Olaparib in Locally Advanced HNSCC	360,937
Recruitment	Sheth	Sid	BeiGene, Ltd.	BGB-900-102	6/22/21	7/21/31	Phase 1-2 Study Investigating Safety, Tolerability, Pharmacokinetics and Preliminary Antitumor Activity of Anti-TIM-3 Monoclonal Antibody BGB-A425 in Combination with Anti-PD-1 Monoclonal Antibody Tislelizumab in Patients with Advanced Solid Tumors	81,367
Recruitment	Sheth	Sid	Merck Sharp and Dohme Corp.	LCCC 2047	8/10/21	4/12/32	A Phase II Trial of Induction and Maintenance Pembrolizumab and Olaparib in Locally-Advanced Head and Neck Squamous Cell Carcinoma (HNSCC)	150,000
Recruitment	Sheth	Sid	Presage Biosciences, Inc.	PBI-MST-01	3/27/23	5/4/33	A Phase 0 Master Protocol Using the CIVO® Platform to Evaluate Intratumoral Microdoses of Anti-Cancer Therapies in Patients with Solid Tumors	48,499

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Recruitment	Sheth	Sid	Erasca, Inc	ERAS-601-01	7/5/23	5/22/24	An Open-Label, Multi-Center Phase 1/1b Dose Escalation and Expansion Study of ERAS-601 SHP2 Inhibitor as a Monotherapy and in Combination with Other Anti-Cancer Therapies in Patients with Advanced or Metastatic Solid Tumors (FLAGSHP-1)	132,410
Recruitment	Sheth	Sid	IconOVir Bio, Inc	1042-CLN01	1/26/24	2/1/34	Phase 1 First-In-Human Dose Escalation and Expansion Study to Assess Safety and Tolerability of Intravenous Administration of ICVB-1042 in Patients with Advanced Solid Tumors	73,338
Retention	Shih	Yen-Yu	NIH Office of the Director	1-S10-OD026796-	5/1/20	4/30/24	9 4T Small Animal MRI Scanner at UNC	500,000
Retention	Shih	Yen-Yu	NIH National Institute of Mental Health	5-R01-MH126518-01-04	4/1/21	3/31/26	Neural Circuit Mechanisms Governing Default Mode Network Dynamics	681,379
Retention	Shih	Yen-Yu	Leland Stanford Junior University	62680095-115866	8/15/21	7/31/24	Methods for Dynamic Causal Interactions in Human Brain Aging and AD/ADRD	45,142
Retention	Shih	Yen-Yu	University of California at Santa Barbara	KK2357	3/15/23	2/29/28	Metal-free, Genetically Encoded Reporters for Calcium Recording with MRI	150,409
Retention	Shih	Yen-Yu	NIH National Institute of Biomedical Imaging and Bioengineering	1-R01-EB033790-01A1	8/1/23	7/31/27	SORDINO-fMRI for Mouse Brain Applications	621,858
Recruitment	Smith	Jennifer	NIH National Cancer Institute	5-F30-CA257181-04	2/1/21	1/31/26	Fellow: A Bukowski The Effect of Epigenetic DNA Methylation on the Progression of HPV-Associated Precancerous Cervical Lesions	53,787
Recruitment	Smith	Jennifer	Cleveland Clinic Lerner College of Medicine	CCF23209065	9/1/22	3/31/27	SCALE: Single Visit Clinical Validation of Ampfire, a Low Cost HPV Test: Efficacy and Cost Effectiveness	41,120
Recruitment	Smith	Jennifer	NIH National Cancer Institute	5-UG1-CA275403-03	9/2/22	5/31/27	UNC CASCADE Network Research Base	615,041
Recruitment	Smith	Jennifer	University of Washington	UWSC15644 0100082578	9/21/23	8/31/24	Towards Cervical Cancer Elimination: Implementation and Scale-Up of a Single-Visit, Screen-and-Treat Approach with Thermal Ablation for Sustainable Cervical Cancer Prevention Services in Kenya - Admin Suppl	8,462
Recruitment	Smitherman	Andrew	The Board of Trustees of the University of Alabama	000527577-SC008	3/24/21	2/29/24	Predictors of Systemic Exposure to Oral 6MP During Maintenance in Adolescents and Young Adults with Acute Lymphoblastic Leukemia	18,881
Recruitment	Smitherman	Andrew	University of Alabama at Birmingham	000527577-SC008	3/24/21	2/29/24	Predictors of Systemic Exposure to Oral 6MP During Maintenance in Adolescents and Young Adults with Acute Lymphoblastic Leukemia	4,082
Recruitment	Smitherman	Andrew	Georgetown University	425038_GR424901-UNC	9/21/21	8/31/24	Randomized Trial of a Multilevel Intervention to Improve Adherence to Childhood Cancer Survivorship Guidelines	84,837
Recruitment	Smitherman	Andrew	Georgetown University	425789_GR425703-UNC SUP-0002150	9/1/23	8/31/24	Bridging Information Divides and Gaps to Ensure Survivorship: the BRIDGES Randomized Controlled Trial of a Multilevel Intervention to Improve Adherence to Childhood Cancer Survivorship	15,000
Recruitment	Somasundaram	Ashwin	Dana-Farber Mass General Brigham Cancer Care Inc.	19-529	9/29/20	9/29/30	Phase II Trial of ERK Inhibition Alone and in Combination with Autophagy Inhibition in Patients with Metastatic Pancreatic Cancer	130,694
Recruitment	Somasundaram	Ashwin	Sorrento Therapeutics, Inc.		1/13/23	5/31/24	A Phase 1B, Dose-escalation Study of the Safety and Preliminary Efficacy of STI-11386 Oncolytic Virus in Patient with Relapsed or Refractory Solid Tumors	63,989
Recruitment	Somasundaram	Ashwin	Zai Biopharmaceutical (Suzhou) Co., Ltd	ZL-1211-001	6/21/23	6/22/33	A Phase I/II, First-In-Human, Open-Label, Dose Escalation Study of ZL-1211 in Patients with Unresectable or Metastatic Solid Tumor	60,899

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Recruitment	Somasundaram	Ashwin	Replimune, Inc.	RPL-004	11/13/23	1/19/24	RPL-004- A Phase 2 Clinical Trial Investigating Oncolytic Immunotherapy in Combination with Atezolizumab and Bevacizumab for the Treatment of Patients with Advanced Microsatellite Stable and Mismatch Repair Proficient Colorectal Carcinoma	54,492
Recruitment	Somasundaram	Ashwin	NIH National Cancer Institute	1-K08-CA259342-01A1	8/21/23	7/31/28	The Role of IL6-Induced LAG3 as a Resistance Mechanism to PD1 Blockade in NSCLC Patients	275,561
Recruitment	Sondek	John	NIH National Institute of General Medical Sciences	5-R35-GM149299-01-02	5/1/23	3/31/28	Phospholipase C Isozymes	427,684
Recruitment	Spanheimer	Philip	Gilead Sciences, Inc.	24-2768	4/29/24	4/28/26	Targeting Reprogrammed Kinase Signaling Networks in Endocrine Therapy Resistant ER+ Breast Cancer	180,000
Recruitment	Spanheimer	Philip	NIH National Cancer Institute	5-K08-CA280388-01-	6/15/23	5/31/28	Repurposing RET Inhibitors for Endocrine Resistant Breast Cancer	203,026
Recruitment	Spanheimer	Philip	University of Puerto Rico		11/6/23	7/31/24	Posttranslational Regulation of FOXA1 in Breast Cancer	22,090
Recruitment	Spees	Lisa	NIH National Institute on Minority Health and Health Disparities	5-K01-MD016989-01-02	9/25/22	12/31/26	Patient Navigation in Gynecologic Oncology: Improving Care Among Rural Endometrial Cancer Patients	134,832
Recruitment	Stanley	Natalie	NIH National Institute of Allergy and Infectious Diseases	1-R21-AI171745-01A1	8/3/23	7/31/25	Automating the Discovery of Clinically-Relevant Intracellular Signaling Responses in Immune Cell-Types	180,866
Recruitment	Starbird	Chrystal	Burroughs Wellcome Fund	1.02E+06	6/1/23	8/31/26	Postdoctoral Diversity Enrichment Program	57,838
Recruitment	Starbird	Chrystal	NIH National Institute of General Medical Sciences	5-R00-GM144683-02-03	2/24/23	1/31/26	The Structural Basis of TAM Receptor Oligomerization and Co-Receptor Interactions	218,208
Theme Investment (HTSF)	Stein	Jason	NIH National Institute of Mental Health	5-R01-MH122509-03-04	5/1/23	4/30/26	Discovery and Validation of Genetic Variation Impacting	537,706
Recruitment	Stover	Angela	Pfizer Inc.	73592487	12/12/22	2/28/25	Oncology Pharmacist-Facilitated PROM Monitoring at UNC Cancer Clinics	50,000
Innovation Award	Strahl	Brian	NIH National Institute of General Medical Sciences	5-R35-GM126900-06-07	5/1/18	4/30/28	Mechanisms of Chromatin and Transcriptional Regulation	673,380
Investment (Chair Package)	Stürmer	Til	American Diabetes Association	4-22-PDFPM-06	4/1/22	3/31/25	Precision Medicine Analysis for Subgroups Identification and Optimal Treatment Selection in Older Adults with Type 2 Diabetes Initiating SGLT2 Inhibitors or GLP-1 Receptor Agonists	64,540
Investment (Chair Package)	Stürmer	Til	NIH National Institute on Aging	5-R01-AG056479-05-06	9/15/17	5/31/27	Propensity Scores and Preventative Drug Use in the Elderly	625,918
Investment (Chair Package)	Stürmer	Til	Wake Forest University Health Sciences	1832-45828-11000001644	4/1/23	3/31/24	NCDRC Human Studies Consultation Core	101,162
Investment (Chair Package)	Stürmer	Til	Janssen Research and Development, LLC	U01FD007937 C2023018680	9/19/23	9/18/24	Advisory Committee Consulting Agreement - Til Stürmer: Development of Novel Methods to Enable Robust Comparison of Real-World Progression Free Survival (rwPFS) and Clinical Trial PFS in Multiple Myeloma	15,884
Investment (HTS)	Sullivan	Patrick	NIH National Institute of Mental Health	5-R01-MH121545-01-05	9/23/19	7/31/25	2/2-Genetics at an Extreme: An Efficient Genomic Study of Individuals with Clinically Severe Major Depression Receiving ECT	1,374,707
Investment (HTS)	Sullivan	Patrick	NIH National Institute of Mental Health	5-R01-MH123724-01-05	6/10/20	3/31/25	A Trans-Nordic Study of Extreme Major Depression	715,679
Investment (HTS)	Sullivan	Patrick	NIH National Institute of Mental Health	5-R01-MH124871-01-04	4/14/21	2/28/26	1/7 PGC: Advancing Discovery and Impact	647,207

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Investment (HTS)	Sullivan	Patrick	Duke University	A034582	4/1/21	1/31/25	Beyond GWAS: High Throughput Functional Genomics & Epigenome Editing to Elucidate the Effects of Genetic Associations for Schizophrenia	363,208
Investment (HTS)	Sullivan	Patrick	NIH National Institute of Mental Health	5-R01-MH130671-01-02	9/1/22	6/30/28	1/3 Sequencing and Trans-Diagnostic Phenotyping of Severe Mental Illness in Diverse Populations	760,305
Investment (HTS)	Swanstrom	Ronald	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI147849-01-05	2/13/20	1/31/25	Formation of the HIV-1 Latent Reservoir	568,505
Investment (HTS)	Swanstrom	Ronald	NIH National Institute on Drug Abuse	5-R01-DA051890-01-05	7/1/20	3/31/25	Intersection of HIV, Opiods, and Amyloid Fibrils in a CNS Organoid Model	325,549
Investment (HTS)	Swanstrom	Ronald	University of Massachusetts Medical School	OSP32239-02 WA01036197	9/10/20	6/30/24	Integration of Evolution to Avoid Resistance in Structure Based Drug Design	40,945
Investment (HTS)	Swanstrom	Ronald	NIH National Institute of Allergy and Infectious Diseases	3-P30-AI050410-27S2	8/20/01	5/31/26	The University of North Carolina Center for AIDS Research	839,096
Investment (HTS)	Swanstrom	Ronald	University of Michigan	SUBK00016306 3008105435	6/9/22	3/31/27	Center for Structural Biology of HIV RNA	213,980
Investment (HTS)	Swanstrom	Ronald	NIH National Institute of Allergy and Infectious Diseases	1-R56-AI172630-01A1	7/25/23	6/30/25	Biology and Molecular Biology of the Evolution of Macrophage-Tropic HIV-1	382,192
Investment (HTS)	Swanstrom	Ronald	NIH National Institute of Allergy and Infectious Diseases	1-R13-AI179319-01	8/10/23	12/31/23	27th Annual United States Conference on HIV/AIDS (USCHA)	186,789
Recruitment	Tan	Ray	American Cancer Society	MRSG-18-193-01	1/1/19	12/31/24	Designing Visual Tools to Enhance Cancer Surgeon Decision-Making	147,400
Recruitment	Tan	Ray	Department of Defense	W81XWH2110775 0011654672	9/1/21	8/31/25	Personalizing Kidney Cancer Communication to Support Patient-Centered Decision-Making	232,405
Recruitment	Tan	Ray	University of Michigan	SUBK00017095/ PO 3006912546	1/26/22	8/31/24	Determining the Clinical Impact of Gene Expression Testing in Localized Prostate Cancer	10,240
Theme Investment	Tarantino	Lisa	Jackson Laboratory	210247-0624-07	9/1/22	6/30/27	Center for Systems Neurogenetics of Addiction	206,958
Investment (CHAI Core)	Tate	Deborah	George Washington University	23-M42	11/15/22	11/14/25	Effectiveness Study of a Lifestyle Intervention Versus Metformin in Mothers with Recent Gestational Diabetes	79,306
Investment (Training)	Tate	Deborah	NIH National Cancer Institute	5-T32-CA128582-15	9/1/09	8/31/24	Cancer Health Disparities Training Program	266,589
Investment (CHAI Core)	Tate	Deborah	University of Connecticut	378777 5656810	9/23/19	6/30/24	Using Behavioral Economics Strategies to Address Obesity in Economically Disadvantaged Adults	36,795
Investment (CHAI Core)	Tate	Deborah	NIH National Institute of Diabetes, Digestive, and Kidney Diseases	5-R01-DK125779-01-04	7/10/20	6/30/25	Optimization of a mHealth Behavioral Weight Loss Intervention	634,519
Investment (CHAI Core)	Tate	Deborah	NIH National Heart, Lung, and Blood Institute	5-R01-HL161836-03	6/10/22	5/31/27	Preventing Weight Gain in U.S. Air Force Personnel Using a Novel Mobile Health Intervention	558,660
Investment (CHAI Core)	Tate	Deborah	University of Connecticut	160009447/KFS #567316	5/15/22	4/30/27	Optimizing a Couples-Based Behavioral Intervention for Weight Management	163,755
Recruitment	Thaxton	Jessica	NIH National Cancer Institute	5-R01-CA248359-03-	4/1/20	3/31/25	Exploitation of ER Stress Induced Immune Dysfunction to Improve Immunotherapy	335,255
Recruitment	Thaxton	Jessica	Brigham and Womens Hospital	127349	7/1/22	6/30/27	Immunometabolic Pathways Enabled by PARP inhibition in Breast Cancer	28,761
Recruitment	Thaxton	Jessica	NIH National Cancer Institute	3-R01-CA244361-05S1	7/1/20	6/30/25	Targeting Chronic ER Stress in T Cells to Improve Cancer Immunotherapy	449,157
Recruitment	Thom	Bridgette	Memorial Sloan-Kettering Cancer Center	C22437258	9/1/23	3/31/25	Enhancing Health Cost Literacy and Financial Capability Among Young Adult Cancer Survivors	24,966

Category	Last Name	First Name	Sponsor	Award Number	Begin	End	Title	Total Cost
Retention	Thomas	Nancy	NIH National Cancer Institute	5-R01-CA233524-01-	4/1/20	3/31/25	Identification of Lethal Melanomas at the Time of Diagnosis	842,445
Recruitment	Thompson	Caroline	Baylor College of Medicine	11505/PO# P700000311	7/22/22	12/31/24	Measuring Missed Opportunities in the Diagnosis of Gastrointestinal Cancers	46,891
Recruitment	Thompson	Patrick	H Lee Moffitt Cancer and Research Institute	MCC20320	4/8/21	4/7/25	Blood Based Biomarkers for Minimal Residual Disease Detection in Pediatric Sarcomas	8,540
Recruitment	Thompson	Tess	American Cancer Society	MRSG-19-086-01	7/1/23	6/30/24	Mentored Research Scholar Grant (MRSG-19-086-01)	192,718
Recruitment	Thompson	Caroline	NIH National Cancer Institute	5-R01-CA264176-02-04	7/1/21	6/30/26	Diagnosis of Cancer in the Emergency Room - Explaining Persistent Disparities (Grant Transfer)	327,618
Recruitment	Thompson	Caroline	University of California at San Francisco	13498SC	8/1/21	7/31/24	Understanding the Multilevel Drivers of Liver Cancer Disparities	60,668
Recruitment	Thompson	Caroline	Oregon Health and Science University	1022094_UNC	8/4/23	4/30/27	Health Equity and the Impacts of EHR Data Bias Associated with Social Determinants	28,497
Recruitment	Thompson	Tess	NIH National Cancer Institute	5-R37-CA277778-02-03	1/19/23	12/31/27	Dyadic Analysis of Unmet Social Needs Among Breast and Gynecologic Patients and Their Informal Caregivers	337,921
Recruitment	Thompson	Tess	NIH National Cancer Institute	7-R03-CA273485-03	7/3/23	6/30/25	Developing a Dyadic Survivorship Intervention for Black Women with Breast Cancer and Their Informal Caregivers	121,831
Retention	Ting	Jenny	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI141333-01-05	12/14/18	11/30/24	Micro-Particle Delivery of a Potent Intracellular Adjuvant for a Universal Flu Vaccine	1,097,998
Retention	Ting	Jenny	NIH National Cancer Institute	5-R35-CA232109-05	9/17/19	8/31/26	IntraCellular Innate Immune Receptors in Cancer Suppression and Immunotherapy	906,118
Retention	Ting	Jenny	Duke University	303002453	8/1/20	7/31/24	Innate Immune Receptor Ligand and the Microbiota as Countermeasures for Radiation	357,650
Retention	Ting	Jenny	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI158314-01-02	7/15/22	6/30/27	Role and Mitigation of Inflammasomes and Inflammation During COVID-19	620,359
Retention	Ting	Jenny	NIH National Institute of Allergy and Infectious Diseases	1-K99-AI175479-01A1	5/23/24	4/30/26	Regulation of Pathologic Inflammasome Responses to SARS-CoV-2	104,722
Retention	Ting	Jenny	Duke University	303002838	8/1/23	7/31/24	NIAID-IRSN Collaborative Administrative Supplement: PREClinical Studies to Determine the Role of FSL-1 IN Mitiation of GI-ARS	100,000
Retention	Troester	Melissa	Susan G Komen for the Cure	TREND2168625 8	12/3/21	12/2/24	Breast Cancer Mortality Disparities: Integrating Biology and Access	135,000
Retention	Troester	Melissa	Susan G Komen for the Cure	SAC210102	12/23/21	12/22/24	Impact of Spatial Heterogeneity in Tumor and Microenvironment on Recurrence	200,000
Retention	Troester	Melissa	Susan G Komen for the Cure	OG22873776	5/18/22	5/17/25	Integrating Biology and Access to Understand Metastatic Breast Cancer Disparities	166,667
Retention	Troester	Melissa	Susan G Komen for the Cure	OG230001	9/1/23	8/31/26	Carolina Breast Cancer Study, Phase 4	1,055,000
Retention	Troester	Melissa	Ohio State University	SPC-1000013021/GR 130443	1/1/23	12/31/24	Examining the Role of Allostatic Load in Racial Disparities in Intrinsic Breast Cancer Subtype and as a Prognostic Marker	80,018
Retention	Troester	Melissa	Breast Cancer Research Foundation	HEI-23-003	11/1/23	10/31/24	Breast Cancer Drivers in Black Women: Society to Cells	974,697
Retention	Troester	Melissa	ECOG-ACRIN Medical Research Foundation	2UG1CA189828-06-UNC1	8/1/18	7/31/24	ECOG-ACRIN NCORP Research Base	150,000
Retention	Troester	Melissa	Memorial Sloan-Kettering Cancer Center	PO C22588905	8/1/19	7/31/24	Body Composition and the Obesity Paradox in Clear Cell Renal Cell Carcinoma	180,505

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Retention	Troester	Melissa	NIH National Institute of Environmental Health Sciences	5-P30-ES-010126-23	4/1/21	2/28/26	UNC Center for Environmental Health and Susceptibility	1,548,545
Retention	Troester	Melissa	NIH National Cancer Institute	5-R01-CA253450-01-	4/6/21	3/31/26	P53, DNA Repair, and Immune Response in Breast Cancer Mortality Disparities	562,462
Retention	Troester	Melissa	North Carolina State University	PAM-P24-001939-SA02	9/21/21	8/31/27	Southern Liver Health Cohort	562,000
Retention	Troester	Melissa	North Carolina Central University	23-0109-A001-SUB01	6/1/23	5/31/24	Immune Microenvironments and Hepatocyte Growth Factor Signaling Interactions in Breast Cancer Disparities	42,111
Retention	Troester	Melissa	Department of Defense	HT9425231023 5 0011903639	9/15/23	9/14/27	Integrating Molecular Pathology, Radiology and Genetics to Improve Breast Cancer Risk Prediction	965,973
Recruitment	Trogdon	Justin	NIH National Cancer Institute	5-F30-CA254064-03	7/9/20	7/7/24	Fellow: N Oh Cancer Detection and Care for Dual-Eligible Beneficiaries in Medicare Shared Savings Program	51,752
Recruitment	Tsagaratou	Ageliki	NIH National Institute of General Medical Sciences	5-R35-GM138289-01-04	7/1/20	6/30/25	Epigenetic Regulation of Lineage Specification	378,288
Recruitment	Tuchman	Sascha	Karyopharm Therapeutics Inc		7/25/18	8/17/28	A Phase 1b/2 Study of Selinexor (KPT-330) in Combination with Backbone Treatments for Relapsed/Refractory Multiple Myeloma	10,083
Recruitment	Tuchman	Sascha	Alexion Pharmaceuticals, Inc.	CAEL 101-302	1/11/21	1/19/31	A Phase 3, Double-Blind, Multicenter Study to Evaluate the Efficacy and Safety of CAEL-101 and Plasma Cell Dyscrasia Treatment Versus Placebo and Plasma Cell Dyscrasia Treatment in Plasma Cell Dyscrasia Treatment-Naïve Patients with Mayo Stage IIIa AL Amyloidosis	530,094
Recruitment	Tuchman	Sascha	Alliance Foundation Trials, LLC	AFT-41	1/22/21	11/30/30	A Phase II Study of Lenalidomide, Ixazomib, Dexamethasone, and Daratumumab in Transplant-Ineligible Patients with Newly Diagnosed Multiple Myeloma	6,013
Recruitment	Tuchman	Sascha	TeneoBio, Inc	TNB383B-0001	6/1/21	6/30/31	A Multicenter, Phase 1, Open-label, Dose-escalation and Expansion Study of TNB-383B, a Bispecific Antibody Targeting BCMA in Subjects with Relapsed or Refractory Multiple Myeloma	31,438
Recruitment	Tuchman	Sascha	Patient Discovery Solutions	PD-PROT-001	8/23/21	6/27/31	Prospective, Multi-Site Pilot Study to Evaluate Improvement in Disease Management and Communication for Patients with Multiple Myeloma or Amyloidosis	8,040
Recruitment	Tuchman	Sascha	Janssen Research Development, LLC	68284528MMY 4006	10/6/23	10/1/33	Intermediate-Size Population Expanded Access Program (EAP) for Ciltacabtagene autoleucel (cilta-Cel) Out-of-Specification (OOS) in patients with Multiple Myeloma	16,376
Investment (Training)	Valdar	William	NIH National Institute of General Medical Sciences	5-T32-GM135123-03	7/1/21	6/30/26	Predoctoral Training Program in Bioinformatics and Computational Biology+O864	265,268
Recruitment	Valdar	William	Texas A and M AgriLife	M2102712	7/1/21	3/31/25	Foundational Studies for Precision Nutrition	122,060
Recruitment	Valdar	William	NIH National Institute of General Medical Sciences	2-R35-GM127000-06	4/1/18	8/31/28	Statistical Modeling of Multiparental and Genetic Reference Populations	364,837
Recruitment	Valle	Carmina	NIH National Heart, Lung, and Blood Institute	5-R01-HL161373-01-03	1/15/22	12/31/25	A Micro-Randomized Trial of JITAI Messaging to Improve Adherence to Multiple Weight Loss Behaviors in Young Adults	711,595
Recruitment	Valle	Carmina	NIH National Cancer Institute	5-R01-CA270111-01-02	4/1/23	3/31/28	Using Tailored mHealth Strategies to Promote Weight Management among Adolescent and Young Adult Cancer Survivors	602,168

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Recruitment	Van Duin	David	Merck Sharp and Dohme Corp.	MISP #60823	11/24/21	12/1/23	Susceptibility to Ceftolozane-Tazobactam and Imipenem-Relebactam in Clinical E. coli Isolates and Genetic Determinants of Outcome	58,553
Recruitment	Van Duin	David	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI143910-01-05	2/13/19	1/31/25	Bacterial Characteristics of Community-Associated Carbapenem-Resistant Enterobacteriaceae	381,209
Recruitment	Van Duin	David	Duke University	303003054	12/1/20	11/30/24	Antibacterial Resistance Leadership Group COC	112,372
Recruitment	Van Duin	David	Houston Methodist Research Institute	AGMT00008232	6/1/22	5/31/24	VENOUS: A Translational Study of Enterococcal Bacteremia	19,999
Recruitment	Van Duin	David	Houston Methodist Research Institute	AGMT00008429 AM2	8/1/22	7/31/24	Dynamics of Colonization and Infection by Multidrug-Resistant Pathogens in Immunocompromised and Critically Ill Patients (DYNAMITE)	14,993
Recruitment	Van Duin	David	NIH National Institute of Allergy and Infectious Diseases	1-R34-AI170386-01A1	8/2/23	7/31/24	Planning an Antibiotic Duration Trial for Acute Graft Pyelonephritis After Kidney Transplantation	226,219
Recruitment	Van Duin	David	Duke University	303003049	12/1/22	11/30/24	Antibacterial Resistance Leadership Group COC	182,181
Recruitment	Vincent	Benjamin	Duke University	383000603	5/16/22	5/15/25	Personalized T-Cell Immunity Against Metastatic TNBC Using MAVS immunostimulation	82,708
Recruitment	Vincent	Benjamin	Sage Bionetworks	22-4992	7/1/22	6/30/24	CRI iAtlas Development	167,000
Recruitment	Vincent	Benjamin	American Society of Clinical Oncology		7/1/23	6/30/24	Human Endogenous Retrovirus (hERV) Expression and Immunogenic Signatures in Mantle Cell Lymphoma	50,000
Recruitment	Vincent	Benjamin	Conquer Cancer Foundation		7/1/24	6/30/25	Cancer-Specific Peptide Vaccination to Exploit the Antigen Unlocking, Histone Hyperacetylating Activity of BRD4-NUTM1 in NUT Carcinoma	50,000
Recruitment	Vincent	Benjamin	NIH National Cancer Institute	5-R37-CA247676-01-04	7/1/20	6/30/25	Gvl mHA Specific T Cell Responses Prevent AML Relapse Following AlloGeneic Stem Cell Transplantation	514,741
Recruitment	Vincent	Benjamin	Memorial Sloan-Kettering Cancer Center	C22545300	1/5/21	12/31/24	Machine Learning with Immunogenetics for the Prediction of Hematopoietic Cell Transplant Outcomes	361,563
Recruitment	Vincent	Benjamin	NIH National Cancer Institute	5-F30-CA268748-02	8/1/22	7/31/26	Fellow: K Olsen Minor Histocompatibility Antigen T Cell Targeting in Acute Myeloid Leukemia	52,694
Recruitment	Vincent	Benjamin	NIH National Cancer Institute	1-F30-CA278317-01A1	8/1/23	7/31/26	Effects of Entinostat and Neoantigen Vaccination on Bladder Cancer	46,129
Recruitment	Virkud	Yamini	NIH National Institute of Allergy and Infectious Diseases	1-R21-AI185550-01	6/3/24	4/30/26	Metabolomics of Food Allergen Immunotherapy	279,900
Theme Investment (HTSF)	Vogt	Matthew	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI169461-01-03	3/1/22	2/28/27	Human Antibody Cross-Reactivity in Non-Polio Enterovirus	611,746
Recruitment	Wan	Yisong	Novabio Therapeutics, Limited		10/19/22	4/30/24	Adoptive Cell Therapy (ACT) Using Genetic Manipulated Treg Cells to Mitigate Autoimmunity Using Mouse Models	349,875
Recruitment	Wan	Yisong	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI160774-01-04	1/16/21	12/31/25	TGF-B Superfamily Signaling in Controlling Th17 Cell Function in Autoimmune Neuroinflammation	382,837
Recruitment	Wan	Yisong	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI123193-06-07	12/12/16	6/30/27	Functional Protein Networks Underlying T Cell Growth, Proliferation and Differentiation	385,384
Innovation Award	Waters	Marcey	National Science Foundation	CHE-2107685	7/1/21	6/30/25	Cooperativity Driven Communication Through Noncovalent Networks in Biomimetic Systems	120,000

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Innovation Award	Waters	Marcey	National Science Foundation	CHE-1757413	9/1/18	8/31/24	REU Site: Summer Undergraduate Research Opportunity in Chemistry (SUROC) at UNC Chapel Hill	53,000
Innovation Award	Waters	Marcey	NIH National Institute of General Medical Sciences	5-R35-GM145227-01-02	9/1/22	6/30/27	Mechanistic Investigation and Engineering of Histone Reader Proteins	408,393
Theme Investment (HTSF)	Weeks	Kevin	NIH National Institute on Aging	1-R21-AG084970-01	9/20/23	9/19/25	Translational Regulation by Covalent Modification of mRN	231,280
Retention	Weiss	Jared	AstraZeneca Pharmaceuticals LP		4/28/17	12/22/24	Multimodality Therapy with Induction Carboplatin/nab-Paclitaxel/Durvalumab (MEDI4736) Followed by Surgical Resection and Risk-adapted Adjuvant Therapy for the Treatment of Locally-Advanced and Surgically Resectable Squamous Cell Carcinoma of the Head and Neck	175,079
Retention	Weiss	Jared	AstraZeneca Pharmaceuticals LP		2/8/18	4/30/28	A Phase I Study of Durvalumab with Radiotherapy and Durvalumab Plus Tremilumumab Together with Radiotherapy for the Adjuvant Treatment of High Risk Head and Neck Squamous Cell Carcinoma	129,835
Retention	Weiss	Jared	Loxo Oncology, Inc.		5/29/18	6/14/28	A Phase 1 Study of Oral LOXO-292 in Patients with Advanced Solid Tumors, Including RET-Fusion Non-Small Cell Lung Cancer, Medullary Thyroid Cancer and Other Tumors with Increased RET Activity	675,799
Retention	Weiss	Jared	Bluebird bio, Inc.	BBB47141US MAGE-A4-TCR	12/1/19	11/30/29	Phase 1 Study of the Administration of Autologous MAGE-A4 TCR T-Cells for Relapsed/Refractory Solid Tumors	123,813
Retention	Weiss	Jared	Mirati Therapeutics, Inc		7/12/19	8/31/29	A Phase 1/2 Multiple Expansion Cohort Trial of MRTX849 in Patients with Advanced Solid Tumors with KRAS G12C Mutation	581,688
Retention	Weiss	Jared	MedImmune, Inc.		5/14/20	6/3/30	A Phase 1, Open-Label, Dose-Escalation and Dose-Expansion Study to Evaluate the Safety, Tolerability Pharmacokinetics Immunogenicity, and Antitumor Activity of MEDI5752 in Subjects with Advanced Solid Tumors	92,103
Retention	Weiss	Jared	Boehringer Ingelheim Pharmaceuticals, Inc.	1426-0001	12/14/20	12/20/30	Phase I, First in Human Trial Evaluating BI 1387446 Alone and In Combination with BI 754091 in Solid Tumors	11,369
Retention	Weiss	Jared	PDS Biotechnology Corporation	VERSATILE-002	1/19/21	1/19/31	Versatile-002: A Phase II, Open-Label, Multi-Center Study of PDS0101 (ImmunoMAPK - RDOTAP/HPV-16 E6 & E7 Peptides) and Pembrolizumab (KEYTRUDA®) Combination Immunotherapy as a First Line Treatment in Subjects with Recurrent and/or Metastatic Head and Neck Cancer and High-Risk Human Papillomavirus-16 (HPV16) Infection (PDS0101-HNC-201)	134,440
Retention	Weiss	Jared	Genmab	GCT1046-01	1/13/21	11/30/30	GCT1046-01: First-In-Human, Open-Label, Dose-Escalation Trial with Expansion Cohorts to Evaluate Safety of GEN1046 in Subjects with Malignant Solid Tumors	4,488
Retention	Weiss	Jared	Loxo Oncology, Inc.	LOXO-NGR-21001	11/4/22	10/11/32	A Phase 1 Study of Oral LOXO-260 in Patients with RET Fusion-Positive Solid Tumors, Medullary Thyroid Cancer, and Other Tumors with RET Activation Refractory to Selective RET Inhibitors	19,637
Retention	Weiss	Jared	Verastem, Inc.	VS-6766-204	5/9/23	5/3/33	A Phase 1/2 Study of VS-6766 in Combination with Adagrasib in Patients with KRAS G12C mutant Non-Small Cell Lung Cancer (NSCLC) (RAMP 204)	71,690

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Retention	Weiss	Jared	Nurix Therapeutics, Inc.	NX-1607-101	4/26/23	5/4/34	A Phase 1a, Dose Escalation, Safety and Tolerability Study of NX-1607, a Casitas B-lineage Lymphoma Proto-Oncogene (CBL-B) Inhibitor, in Adults with Advanced Malignancies, with Phase 1b Expansion in Select Tumor Types	64,454
Retention	Weiss	Jared	Inspirna, Inc.	LCCC 2113	8/28/23	12/12/32	A Pilot Window of Opportunity Study Evaluating Durvalumab (MEDI4736) in Combination with Platinum Doublet Chemotherapy followed by Evaluation of Durvalumab (MEDI4736) in Combination with Platinum Doublet Chemotherapy and Abequolixron (RGX-104) in Non-Small Cell Lung Cancer	394,543
Retention	Weiss	Jared	Lung Cancer Initiative of North Carolina		7/1/23	6/30/24	Genomic Deletion of Fusion Proteins in NUT Carcinoma of the Lung	25,000
Retention	Weiss	Jared	TScan Therapeutics	TSCAN-003	11/9/23	12/5/33	Screening Study to Determine HLA Type, HLA Loss of Heterozygosity Status and Tumor Antigen Expression in Participants with Locally Advanced (Unresectable) or Metastatic Solid Tumors	56,768
Retention	Weiss	Jared	Department of Defense	W81XWH22111 10 0011753834	9/30/22	9/29/25	GD2 CASRT for Lung Cancer	194,551
Recruitment	Wheeler	Stephanie	V Foundation for Cancer Research	D2022-012	5/1/22	5/1/24	Understanding Cancer Health Disparities Among American Indians in North Carolina	112,500
Recruitment	Wheeler	Stephanie	Yale University	CON-80004924 (GR113820)	4/1/24	6/30/25	Development of Cancer Survivorship Risk Models to Inform Pathways of Care	90,297
Recruitment	Wheeler	Stephanie	Duke University	383001477	4/1/23	2/29/24	Understanding Cancer Health Disparities Among American Indians in North Carolina--Lung Cancer	399,996
Recruitment	Wheeler	Stephanie	Wake Forest University Health Sciences	2383-45814-11000002690	4/15/24	3/31/25	Understanding and Addressing Cancer Disparities Among American Indians in North Carolina: Gastric and Liver Cancers	183,312
Recruitment	Wheeler	Stephanie	NIH National Cancer Institute	5-R01-CA237357-01-05	9/1/19	8/31/25	Optimizing Endocrine Therapy Adherence through Motivational Interviewing and Text Interventions	474,140
Recruitment	Wheeler	Stephanie	NIH National Cancer Institute	3-R01-CA240092-04S1	8/15/19	7/31/24	Addressing Cancer-Related Financial Toxicity In Rural Oncology Care Settings	186,676
Recruitment	Wheeler	Stephanie	Alliance for Clinical Trials in Oncology	202010116	9/1/20	7/31/24	Optimizing Endocrine Therapy Adherence - Pillsy Cap Shipping	99,437
Recruitment	Wheeler	Stephanie	University of Alabama at Birmingham	000528180-SC003	5/2/22	1/31/25	Racial Inequities in Emotional and Functional Well-Being Among Breast Cancer Survivors: Impact of Structural Racism and Multilevel Factors	2,500
Theme Investment (HTSF)	Whitmire	Jason	NIH National Institute of Allergy and Infectious Diseases	5-R01-AI143894-01-05	2/1/19	1/31/25	Regulation of CD8+ T Cell Responses to Chronic Virus Infection	500,892
Theme Investment (HTSF)	Whitmire	Jason	Department of Defense	W81XWH21109 19	9/30/21	9/29/25	Pathogenic T Cells in Guillain Barre Syndrome	300,118
Recruitment	Wilkerson	Greg	University of Colorado Boulder	1564563 1001916392	8/1/23	7/31/27	Characterizing Host-Virus Interactions in a New HIV Model Organism	93,850
Recruitment	Williams	Scott	US-Israel Binational Science Foundation	2019230	10/1/20	9/30/24	Exploring the Involvement of the Actin Cytoskeleton and its Associated Adhesion Structures in Spindle Orientation	38,400
Recruitment	Williams	Scott	NIH National Institute of Arthritis and Musculoskeletal and Skin Diseases	5-R01-AR077591-01-04	3/1/21	1/31/26	Intrinsic and Extrinsic Spindle Orientation Mechanisms in Mammalian Epidermis	305,509
Recruitment	Willson	Tim	Structural Genomics Consortium		9/30/18	9/30/25	Structural Genomics Consortium Grant Funding	150,000
Recruitment	Willson	Tim	Structural Genomics Consortium		7/1/21	6/30/25	Structural Genomics Consortium	300,000

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Recruitment	Willson	Tim	Structural Genomics Consortium	2021-UNC-2-BMGF	9/28/21	8/31/24	Non-Hormonal Contraceptive Target-Enabling Packages (TEPs) for Drug Discovery	83,333
Recruitment	Willson	Tim	Seattle Children's Hospital Research Institute	12492SUB	9/22/20	8/31/24	Dual Targeting of Mtb Resistance Mechanisms	155,500
Recruitment	Willson	Tim	University of Toronto	513954 SUBGRANT 1	3/22/22	2/28/27	Targeting the Casein Kinase 1 (CK1)-like Kinase Yck2 in Fungal Pathogenesis	304,655
Recruitment	Willson	Tim	Loyola University Chicago	UNC215902	5/11/23	10/31/24	Structural-Transcriptional Relationships that Improve Y537S Estrogen Receptor Antagonism	40,147
Recruitment	Wood	William	Incyte Corporation	MA-GVHD-401	5/23/23	3/14/29	A Prospective, Observational Cohort Study of Participants at Risk for Chronic Graft-Versus-Host Disease in the United States (THRIVE)	42,091
Recruitment	Wood	William	Ohio State University	SPC-1000012037	7/26/17	6/30/25	The Ohio State Blood and Marrow Transplant Research Consortium	18,049
Recruitment	Yarbrough	Wendell	North Carolina Biotechnology Center	2023-FLG-0049	7/1/23	6/30/24	From Basic Science to Clinical Application: Developing a Clinical Assay to Guide Patient Therapy in HPV-Associated Head and Neck Cancer	20,000
Recruitment	Yarbrough	Wendell	NIH National Institute of Dental and Craniofacial Research	5-R01-DE027942-01-05	6/1/19	7/31/24	Exploring Mechanisms of Therapeutic Demethylation Effects in HPV-associated Head and Neck Cancer	404,678
Recruitment	Yarbrough	Wendell	Yale University	CON-80004624(GR121705)	7/1/20	6/30/25	Yale SPORE in HN Cancer	152,738
Recruitment	Yarbrough	Wendell	NIH National Institute of Dental and Craniofacial Research	5-U01-DE029754-05	7/1/20	4/30/25	Observational Study to Validate HPV DNA Genotyping and Prognostic Genomic Biomarkers for Diagnosis and Treatment of HPV-associated HNSCC	704,533
Recruitment	Yarbrough	Wendell	NIH National Institute of Dental and Craniofacial Research	5-R01-DE031297-01-02	3/1/23	12/31/27	Dissecting NF-kB Pathway in HPV-Associated Head and Neck Cancer	536,605
Recruitment	Yates	Melinda	University of Texas MD Anderson Cancer Center	3.00E+09	9/23/23	5/31/27	Overcoming the Triple Threat to Diversity in the Health Science Workforce: Empowering the Next Gen	18,419
Retention	Yeh	Jen Jen	University of Rochester	GR533465 SUB000000558	2/1/23	9/30/24	A Phase 1b/2 Trial of Immunotherapy with Nivolumab and Pepinemab Combined with First Line Folfirinox For Treating Patients with Unresectable Pancreatic Adenocarcinoma	395,884
Retention	Yeh	Jen Jen	Lustgarten Foundation		1/2/23	1/1/26	PROmoting Clinical Trial EngageMent for Pancreatic Cancer App Study (PROCLAIM Study)	150,000
Investment (Training)	Yeh	Jen Jen	NIH National Cancer Institute	5-T32-CA244125-05	9/20/19	8/31/24	UNC Integrated Translational Oncology Program (UNC-ITOP)	569,539
Retention	Yeh	Jen Jen	Princeton University	SUB0000542	9/22/21	8/31/26	Pathway, Network and Spatiotemporal Integration of Cancer Genomics Data	90,000
Retention	Yeh	Jen Jen	NIH National Cancer Institute	5-K99-CA267561-02	7/1/22	7/2/23	Characterization of Regulatory Landscape of Pancreatic Cancer Subtypes	104,603
Retention	Yeh	Jen Jen	University of North Carolina at Charlotte	20220451-01-UNC	8/1/22	7/31/27	Stimuli-responsive Mucin1-Specific Nanoparticles for Efficacious Combinatorial Chemotherapy of Pancreatic Ductal AdenoCarcinoma	114,867
Retention	Yeh	Jen Jen	NIH National Cancer Institute	3-U01-CA274298-02S1	9/1/22	8/31/27	Integrating Tumor and Stroma to Understand and Predict Treatment Response	1,029,988
Retention	Yeh	Jen Jen	NIH National Cancer Institute	3-P50-CA257911-02S1	9/16/22	8/31/27	Selective Targeting of Pancreatic Cancer SPORE	2,141,161
Retention	Yeh	Jen Jen	NIH National Cancer Institute	1-R01-CA288145-01	2/1/24	1/31/29	Targeting EGFR for Basal Subtype Cancer	639,879
Innovation Award	Zaharoff	David	North Carolina State University	500751	9/1/23	8/31/24	Intravesical Immunotherapy of Spontaneous Canine Invasive Urothelial Carcinoma	26,771
Recruitment	Zamboni	William	NIH National Cancer Institute	5-R01-CA247652-01-04	4/1/21	3/31/26	Minibeam Radiation Therapy Enhanced Delivery of Nanoparticle Anti-Cancer Agents to Pancreatic Cancer Tumors	528,058

Category	Last Name	First Name	Sponsor	Award Number	Begin	End	Title	Total Cost
Recruitment	Zamboni	William	Deep Creek Pharma, LLC		5/1/23	4/30/25	STTR: Phase II: Improved Treatment of Colorectal Cancer with CF10	190,882
Recruitment	Zamboni	William	Wake Forest University Health Sciences	1930-45107-11000001894	7/1/23	6/30/28	Nanodelivery of FP Polymers to Improve Treatment of Metastatic Colorectal Cancer	127,877
Recruitment	Zeidner	Joshua	Millennium Pharmaceuticals, Inc.		8/22/18	9/11/28	Pevonedistat-3001 A Phase 3, Randomized, Controlled, Open-Label, Clinical Study of Pevonedistat Plus Azacitidine Versus Single-Agent Azacitidine as First-Line Treatment for Patients with Higher-Risk Myelodysplastic Syndromes, Chronic Myelomonocytic Leukemia, or Low-Blast Acute Myelogenous Leukemia	18,878
Recruitment	Zeidner	Joshua	Arog Pharmaceuticals, Inc.		2/27/19	1/31/29	ARO-021- Phase III Randomized Study of Crenolanib Versus Midostaurin Administered Following Induction Chemotherapy and Consolidation Therapy in Newly Diagnosed Subjects with FLT3 Mutated Acute Myeloid Leukemia	4,488
Recruitment	Zeidner	Joshua	Millennium Pharmaceuticals, Inc.		10/1/19	10/31/31	A Phase 1 Study of Pevonedistat in Combination with Azacitidine in Patients with Higher-Risk Myelodysplastic Syndromes, Chronic Myelomonocytic Leukemia, or Relapsed/Refractory Acute Myelogenous Leukemia with Severe Renal Impairment or Mild Hepatic Impairment	43,467
Recruitment	Zeidner	Joshua	Forty Seven Inc.		2/28/20	3/3/30	A Phase 1b Trial of Hu5F9-G4 Monotherapy or Hu5F9-G4 in Combination with Azacitidine in Patients with Hematological Malignancies	74,081
Recruitment	Zeidner	Joshua	Forty Seven Inc.	5F9009	10/27/20	10/31/25	A Randomized, Double-Blind, Multicenter Study Comparing Magrolimab in Combination with Azacitidine Versus Azacitidine Plus Placebo in Treatment-Naïve Patients with Higher Risk Myelodysplastic Syndrome	46,310
Recruitment	Zeidner	Joshua	Takeda Development Center Americas, Inc.	Pevonedistat-2002	1/26/21	1/31/31	A Randomized, Open-Label, Controlled, Phase 2 Study of Pevonedistat, Venetoclax, and Azacitidine Versus Venetoclax Plus Azacitidine in Adults with Newly Diagnosed Acute Myeloid Leukemia Who Are Unfit for Intensive Chemotherapy	18,281
Recruitment	Zeidner	Joshua	Gilead Sciences, Inc.	GS-US-546-5857	11/2/21	7/31/31	A Phase 3, Randomized, Open-Label Study Evaluating the Safety and Efficacy of Magrolimab in Combination with Azacitidine Versus Physician's Choice of Venetoclax Plus Azacitidine or Intensive Chemotherapy in Previously Untreated Patients with TP53 Mutant Acute Myeloid Leukemia	319,877
Recruitment	Zeidner	Joshua	Newave Pharmaceutical, Inc.	LP-118-US-101	5/22/23	8/29/31	A Phase 1/1b Study Evaluating the Safety, Pharmacokinetics, and Preliminary Efficacy of LP-118 in Subjects with Relapsed or Refractory Hematological Malignancies	46,693
Recruitment	Zeidner	Joshua	Sumitomo Pharma Oncology, Inc.	DSP-5336-101	10/31/22	11/6/32	DSP-5336-101: A Phase 1/2, Open-Label, Dose-Escalation, Dose-Expansion Study of DSP-5336 in Adult Acute Leukemia Patients with and without Mixed Lineage Leukemia (MLL) Rearrangement or Nucleophosmin 1 (NPM1) Mutation	626,748
Recruitment	Zeidner	Joshua	Beat AML, LLC	BAML-16-001-S12	5/2/23	6/22/33	A Randomized Phase 2 Trial of 28 Day (Arm A) Versus 14 Day (Arm B) Schedule of Venetoclax (Ven) + Azacitidine (Aza) In Newly Diagnosed Acute Myeloid Leukemia (AML) Patients	181,718

Category	Last Name	First Name	Sponsor	Award Number	Begin	End	Title	Total Cost
Recruitment	Zeidner	Joshua	SELLAS Life Sciences Group	GFH009X2101	9/14/23	7/2/33	A Phase I, Open-Label Dose Escalation and Dose Expansion Study of Intravenous GFH009 Single Agent in Patients with Relapsed/Refractory Hematologic Malignancies	396,722
Recruitment	Zeidner	Joshua	Novartis Pharmaceuticals Corporation	CABL001AUS08	10/23/23	7/30/27	A Phase II Multicenter, Open-Label, Single-arm Dose Escalation Study of Asciminib MonoTherapy in 2nd and 1st Line Chronic Phase - Chronic Myelogenous Leukemia (ASC2ESCALATE)	78,650
Recruitment	Zeidner	Joshua	K-Group Alpha, Inc	ZN-D5-004C	1/3/24	1/10/34	A Phase 1/2 Dose Escalation Study of the BCL-2 Inhibitor ZN-D5 and the Wee1 Inhibitor ZN-C3 in Subjects with Acute Myeloid Leukemia	$ 75,621
Recruitment	Zeidner	Joshua	Hoosier Cancer Research Network (HCRN)	HCRN-AML20-472	3/27/24	4/7/34	HCRN AML20-472: Phase II Study of Tagraxofusp in Newly Diagnosed Secondary AML After Previous Exposure to Hypomethylating Agents (TAGALONG Study)	424
Recruitment	Zhang	Qi	NIH National Institute of General Medical Sciences	5-R01-GM114432-06-09	5/1/15	1/31/25	Riboswitch Dynamics at Atomic Resolution	339,357
Theme Investment	Zhou	Otto	NIH National Institute of Dental and Craniofacial Research	1-R56-DE030962-01	7/2/21	6/30/24	Improve the Diagnostic Accuracy of CBCT for Oral Lesions	170,767
Theme Investment	Zhou	Otto	NIH National Institute of Biomedical Imaging and Bioengineering	5-R21-EB032919-01-02	5/1/22	2/28/25	Developing a Dual Energy X-ray Source for Low-Cost Spectral CT	187,441
Theme Investment	Zhou	Otto	NIH National Heart, Lung, and Blood Institute	4-R33-HL161819-03	2/16/22	4/30/25	Bedside 3D Diagnostic Imaging in ICU	351,601
Theme Investment (Biostatistics	Zou	Fei	Vanderbilt University Medical Center	24-0840	12/10/21	5/31/24	Vanderbilt University: Biostatistics Fellowship	10,207


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