

#### UNIVERSITY CANCER RESEARCH FUND

# 2025 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, 2025 in accordance with G.S.116-29.1



As chair of the University Cancer Research Fund Committee, I am pleased to share our annual legislative report on North Carolina's nation-leading investment in cancer care and research: the University Cancer Research Fund (UCRF).

Cancer remains one of the leading causes of death in our state and the world. To fuel innovative research focused on improving cancer prevention, treatment and outcomes in North Carolina, the North Carolina General Assembly established the UCRF in 2007.

UNC Lineberger Comprehensive Cancer Center, the state's only public National Cancer Institute-designated comprehensive cancer center, works closely with UNC Health and other partners throughout North Carolina to make important discoveries that have real, meaningful impacts on patients and communities. The UCRF has been a key source of support for this work by funding critical shared resources and infrastructure, seeding groundbreaking research, and helping to recruit and retain some of the world's best scientists and clinicians.

In addition to its research impacts, the UCRF continues to generate significant economic value for our state, producing more than a 13-to-1 return on the state's investment in Fiscal Year 2025. Some of the financial benefits highlighted in this year's report include:

- Recruiting and retaining 18 faculty members who are experts in their fields;
- Supporting more than 1,550 high-paying research-related jobs in North Carolina;
- Leveraging \$210.8 million in competitive federal research grants and contributing to more than
   \$253.7 million in total external funding; and
- Generating \$25.4 million in state and local tax revenues and a total direct and indirect economic impact of \$807.7 million.

Thanks in no small part to the UCRF, UNC Lineberger is uniquely positioned to remain a leader in cancer research on a global scale that stands to benefit our fellow citizens from all 100 counties in our state. On behalf of those patients, and the researchers and clinicians striving to better prevent, diagnose and treat cancer, we thank the General Assembly for its ongoing support.

With gratitude,

Lee H. Roberts Chancellor Chair, Cancer Research Fund Committee



































## INTRODUCTION





Concerned by the widespread incidence of cancer in North Carolina and worldwide, the N.C. General Assembly created a landmark investment in cancer care and research in 2007: the University Cancer Research Fund.

The UCRF supports cancer care and research at the UNC Lineberger Comprehensive Cancer Center and UNC Health, and with their academic, clinical, research and public health partners across North Carolina. Initially funded through a combination of state appropriations, tobacco settlement funds and taxes on non-cigarette tobacco products, UCRF is now funded solely with General Fund appropriations. The total 2025 allocation to the UCRF was \$59.5 million. To ensure that these funds are utilized as effectively as possible, the General Assembly also established the Cancer Research Fund Committee to provide ongoing oversight and accountability. The committee developed a strategic plan to target 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.

A new strategic plan was recently completed to continue the responsible and innovative use of UCRF resources in this dynamic, evolving field of research. Next year's report will describe researchers' activities in accordance with the new plan.

Complementing the state's ongoing support of the UCRF are two major capital investments also funded by the General Assembly. The N.C. Basnight Cancer Hospital, approved by the legislature in 2004 and opened in 2009, is UNC Lineberger's clinical home and serves patients from all 100 North Carolina counties. The staff at the hospital and its affiliated clinics oversaw more than 250,000 patient visits in Fiscal Year 2025. In 2010, lawmakers funded Marsico Hall, a cutting-edge research facility that opened in 2014, housing highly advanced equipment and technology that accelerates research capabilities and facilitates cross-disciplinary collaboration.

The Cancer Research Fund Committee publishes regular reports on UCRF-supported activities and 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, ensuring that UNC Lineberger remains a global leader in the fight against cancer while caring for patients throughout our state.



#### **Outreach Across North Carolina**

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.

























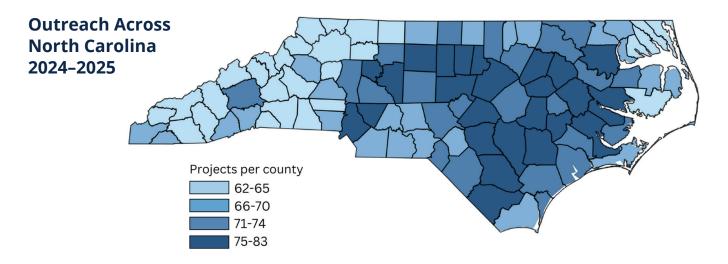








#### **OUTREACH**



#### A. Cancer Data Resources

- Electronic Patient-Reported Outcomes (ePROs) during cancer treatment
- Cancer Information and Population Health Resource (CIPHR)
- **UNC Health Registry**
- · Characterizing delays in cancer diagnosis for underserved populations
- Carolina senior registry
- Rapid case ascertainment
- Improving the diagnosis of gastrointestinal cancers
- Carolina Breast Cancer Study, 4

#### **B. Understanding Cancer Differences**

- Link between obesity, racial disparities and endometrial cancer
- · American Indian men and experiences with prostate cancer communication
- Access to and value of treatment innovation study
- Improving colorectal cancer screening through community pharmacies
- Oncology navigation to enhance equity
- Well Empowered
- South Eastern Consortium for Lung Cancer Health Equity
- Ancestry-related RNA splicing and immune expression in metastatic breast cancer
- Barriers and Facilitators in Black Participant Enrollment in Endocrine Therapy Trial
- Financial hardship among LGBTQ+ cancer survivors and caregivers
- The Carolina Endometrial Cancer Study
- CHANCE-2 (Carolina Head and Neck Cancer Study, Phase 2)
- Carolina Thyroid Cohort Study
- Centering equity in hereditary breast and ovarian cancer genetic testing
- Comparative effectiveness and survivorship health in bladder cancer
- Bladder cancer survivorship
- Understanding financial impacts and improving cost literacy among young adult cancer survivors
- Disparities in the diagnosis of cancer in the ER
- Multi-level driver of liver cancer disparities
- · Health equity impacts of electronic health record data bias
- Diagnostic delay in ovarian and uterine cancer
- Breast cancer mortality disparities: Integrating biology and access
- Impact of spatial heterogeneity in tumor and microenvironment
- Integrating biology and access to understand metastatic breast cancer disparities

- · Southern liver health cohort
- Breast cancer drivers in Black women: Society to cells
- Using genomic data to understand fast-growing breast cancer
- · Lung cancer disparities among American Indians
- Cancer disparities among American Indians

#### C. Cancer Screening

- Shared decision making, utilization and outcomes of lung cancer screening
- Remote colorectal cancer screening intervention
- Evaluating lung cancer screening patterns and outcomes
- Community-based breast cancer screening and surveillance
- · Breast Cancer Sociodemographic Disparities Study
- Community-based breast cancer screening and surveillance SCORE: Scaling Colorectal Cancer Screening Through Outreach,
- Referral, and Engagement Carolina Cancer Screening Initiative
- Digital outreach intervention for lung cancer screening
- Cancer Screening Research Network NC Hub
- Promoting genomic screening among diverse populations

#### D. Cancer Survivorship

- Physical activity intervention with Black colorectal cancer survivors
- Supportive care for patients with cancer-related fatigue
- Supportive care for lymphoma patients with cancer-related fatigue
- · Evaluating an end-of-life predictive tool for breast cancer
- Patient-reported measure to identify treatment priorities of patients with advanced blood cancers
- Spanish adaptation of an exercise program for patients with cancer (Get REAL & HEEL)
- Social needs of breast and gynecological cancer patients and caregivers
- Mobile health strategies to promote weight management among adolescent and young adult cancer survivors
- · Addressing financial toxicity in rural oncology
- Intervention to increase endocrine therapy adherence
- Impact of structural racism among breast cancer survivors
- Cancer survivorship risk models
- · Optimizing endocrine therapy adherence

#### E. Clinic-Based Prevention

- Duke & UNC Tobacco Treatment Specialist Credentialing Program
- Maximizing HPV vaccine uptake in young cancer survivors

#### F. Community-Based Prevention/Education

- Fort Bragg tobacco control
- Overcoming barriers to cancer screening through online intervention

- · Cancer disparities among American Indians: Youth and young adult cancer risk factors
- UNC Superfund Research Program
- · Processes of maintaining healthy diet during prostate cancer survivorship
- Educational tools to advance equity in cancer clinical trial participation
- Impact of e-cigarette prevention messages on adolescents
- Quantitative models of cell cycle arrest
- ASPiRE: Advancing Science & Practice in the Retail Environment
- · Reducing health disparities through tobacco regulation
- Promoting cancer family History sharing among Black Americans
- Impacts of neighborhood development on physical activity in Latine and Black communities

#### **G. Improving Treatment Outcomes**

- Support during treatment for endometrial cancer
- · Diet and drugs to treat endometrial cancer
- Quality of life & physical activity in Black breast cancer survivors
- · Mobile health app to promote participation of Black women in breast cancer clinical trials
- · Palliative care for patients with acute myeloid leukemia -SCOPE Leukemia
- Support of family caregivers of diverse patients with cancer and diabetes
- Improving clinical trial equity and access
- Care gaps and needs in adolescent and young adult cancers
- Funding translational breast cancer research
- Testing a prognostic calculator in patients with breast cancer
- · System for risk differences in patients with lung cancer
- Treatment decision making tool for acute myeloid leukemia
- · Funding patients lodging
- Personalizing kidney cancer communication to support decision-making
- Integrating molecular pathology, radiology and genetics to improve breast cancer risk prediction
- · PROmoting CLinicAl Trlal EngageMent for Pancreatic Cancer
- · UNC Cancer Network telehealth lectures
- · UNC Cancer Network e-tumor boards

#### H. Patient/Community Advisory Board

- Promoting Resilience in Stress Management for Metastatic Breast Cancer (PRISM-MBC)
- Improving childhood cancer survivorship
- Virtual Testis Cancer Lay Support and Survivorship (VITALSS Study)
   Nutrition support to prevent malnutrition among
- gastroesophageal cancer patients

































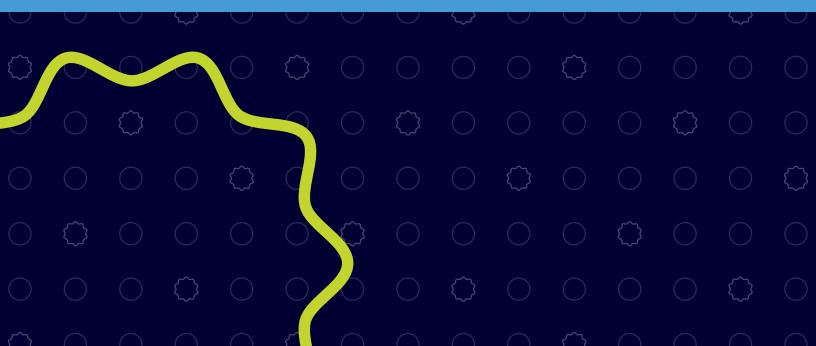








### **ECONOMIC IMPACT**





To estimate the UCRF's economic impact for Fiscal Year 2025, 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 Fiscal Year 2025, the UCRF:

- Had an overall economic impact of \$807.7 million, including \$407.9 million in direct spending and \$399.8 million in indirect and induced impact attributable to external grant funding and downstream spending by employees, vendors and contractors.
- Supported 3,868 high-paying research-related jobs, including the direct support of 1,556 jobs and 2,312 jobs through increased extramural funding and the indirect and induced impacts of those direct jobs and the spending generated within North Carolina.
- Resulted in more than \$25.4 million in state and local tax revenues to North Carolina.
- Generated \$13.57 in economic impact for every UCRF dollar spent.

Tripp Umbach has performed economic analyses of the UCRF since Fiscal Year 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**

UNC Lineberger's world-class faculty are at the heart of our work. They drive our research vision; train future doctors and scientists; invest in staff, equipment and technology; and generate research funds from other sources both inside and outside our state. Their creative, collaborative research breaks ground with impactful scientific and clinical advancements that can lead to earlier detection and diagnosis, more effective treatments and better prevention programs.

Since it was created in 2007, the UCRF has made it possible to recruit or retain 431 top leaders in their fields.

- **Recruitment:** Thanks to the UCRF, UNC Lineberger successfully recruited 14 faculty this year and 350 since 2007. These renowned cancer experts deliver high-quality care for patients and lead innovative research 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 81 since 2007, ensuring that outstanding talent remains at UNC Lineberger to continue their research and clinical work.

































### **ECONOMIC IMPACT**



#### **Extramural Funding Growth**

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 Fiscal Year 2025, UCRF recipients leveraged \$210.8 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 directly attributable to the UCRF was \$253.7 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 Fiscal Year 2025, representing one year of funding. This shows a tremendous growth in UCRF-related extramural funding since \$5 million in Fiscal Year 2008. A complete list of the awards is included in the Appendix.



#### Intellectual Property, Innovation and Entrepreneurship

Getting new discoveries from the lab into the clinic, where they can help patients, is one of UNC Lineberger's top priorities. UCRF-backed innovations and discoveries have helped to create jobs and launch companies to convert these research findings into clinical advances.

In partnership 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 startup companies affiliated with UNC, 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 approximately 500 employees in North Carolina alone.





















Triangle : Biotechnology









































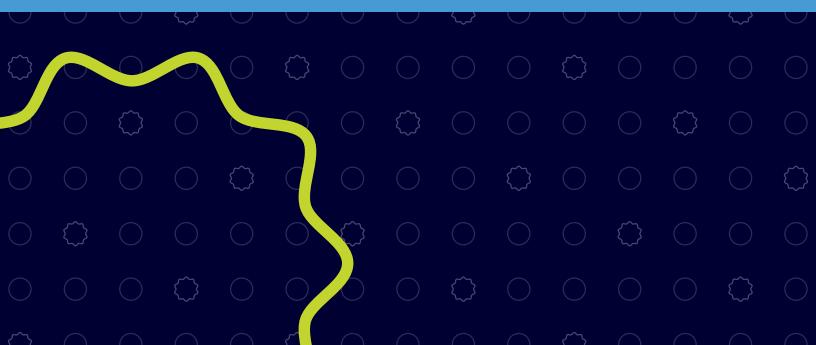
















#### **Guiding Principles**

Based on the strategic plan, 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 enables UNC Lineberger to adapt to a constantly changing field and to keep building leadership and expertise in key clinical and research areas.

For example, the UCRF provides seed funds to recruit top researchers and to acquire and operate advanced 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 the state. 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 throughout North Carolina.

































### New leadership guides UNC Lineberger's bench-to-bedside work

As a renowned physicianscientist, Robert Ferris, MD, PhD, understands deeply the link between medical research and patient care. Ferris, a head and neck surgical oncologist and a leading expert in cancer immunotherapy, sees that bench-to-bedside research journey as vital to UNC Lineberger Comprehensive Cancer Center's mission.



**FERRIS** 

Since he became executive director of UNC Lineberger and chief of oncology clinical services with the UNC Health System in October 2024, Ferris has taken several steps to enhance the center's translational science and amplify its impact on patient care. He created new leadership and research structures and initiated a new strategic plan to optimize UNC Lineberger's assets to better align the cancer center's research and clinical work to improve patient outcomes.

"Every time a new leader comes in, there is an opportunity for review," said Ferris, a graduate of UNC-Chapel Hill who has returned to lead at his alma mater after serving at the University of Pittsburgh as director of the Hillman Cancer Center, senior vice president for oncology programs and associate senior vice chancellor for cancer research. "The programs should reflect the center's strengths, but they should also reflect our strategic direction. That direction is to help Lineberger's programs facilitate interactions among folks with clinical experience, who understand the gaps in the field and who can take this work into the clinic."

Ferris is reconfiguring some programmatic areas within UNC Lineberger where he saw opportunities to bring more clinical perspectives and application into the research space — for example, merging clinical trials and molecular therapeutics, which focuses on developing and advancing new treatments to the clinic, into an overall cancer therapeutics program that spans preclinical research to clinical work.

Beyond leading UNC Lineberger, Ferris is working across UNC Health to build the oncology service line and coordinate clinical services at UNC Health facilities and affiliates throughout the state. UNC Lineberger's deputy directors are playing key roles in supporting this systemwide work.



66 I hope to cure a large number of people through trials, but I also want to care for them one patient at a time. That's why we all got into this profession. - Robert Ferris, MD, PhD





























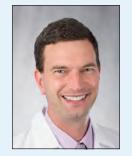
Lisa Carey, MD, ScM, FASCO, deputy director of clinical science, was appointed as executive director of Clinical Research Partners and the chief clinical research officer for UNC Health. Cancer clinical trials make up about half of UNC Health's sponsored research trials, and in her new role, Carey is focused



CAREY

on improving access to all clinical trials, not just cancer trials, and expanding trials to all UNC-owned hospitals and, eventually, to provider practices throughout the state.

Jeremy Rich, MD, MHS, MBA, was named deputy director of research and chief scientific officer — a new role for UNC Lineberger, but similar to one that he held in Pittsburgh. His responsibilities at the Hillman Cancer Center in Pittsburgh include strategic



**RICH** 

planning, faculty recruitment and development, and supporting stronger research collaborations across basic, translational clinical and population sciences. He will also collaborate on making patient care more seamless across the health system.

Amid all these changes, Ferris is staying true to his physician-scientist roots. He tries to see patients every week at his clinic in Raleigh at UNC Rex while doing surgical cases at the North Carolina Basnight Cancer Hospital in Chapel Hill, and, in his NCI-funded lab, further his investigations into head and neck cancers in three RO1-funded studies he began at Pittsburgh. These activities and accomplishments have culminated in his recent election into the prestigious National Academy of Medicine. Continuing his clinical and research work keeps that bench-to-bedside link top of mind.

"It is easier to oversee research if I have a lab, and treating patients builds credibility and fosters relationships with other clinicians," he said. "I hope to cure a large number of people through trials, but I also want to care for them one patient at a time. That's why we all got into this profession."

# Investigating approaches to make lung cancer screening more effective

Lung cancer is the leading cause of cancer deaths nationally and in North Carolina, with most patients diagnosed at an advanced stage when treatment is less effective. To detect the disease earlier, when it is more treatable, annual low-dose computed tomography is recommended to screen for lung cancer in high-risk patients.

But some providers are concerned that lung cancer screening may do more harm than good. For example, many patients undergo screening and receive a false positive: an abnormal lung finding that could potentially be cancerous but turns out not to be after further testing. These patients often endure additional imaging tests or invasive procedures to evaluate the abnormal finding —



There is such a big need for more research across the lung screening care continuum as we work to address the leading cause of cancer mortality in North Carolina. - Louise Henderson, PhD, MSPH

which carry risks of complications and could cause anxiety or financial distress.

To better understand the burdens of false-positive screenings and explore ways to mitigate them, the National Cancer Institute awarded Louise Henderson, PhD. MSPH, a \$3.2 million grant to identify the potential harms of these false-positive results at the patient, clinician, and facility levels. The study's other lead investigators are Angela Stover, PhD, associate professor of health policy and management at UNC Gillings School of Global Public Health, and Patricia Rivera, MD, formerly of UNC Lineberger and now at the University of Rochester Medical Center.



**HENDERSON** 



STOVER

"We want to quantify the extent of this concern and see if we can identify which types of patients are more likely to experience a false positive," said Henderson, professor of radiology and coleader of UNC Lineberger's cancer epidemiology research program. "This information may help to alleviate concerns or may be used in conversations between patients and clinicians when they discuss the screening process to help understand what to expect."

Henderson said more research in lung cancer screening is needed to evaluate how well screening actually performs in real-world populations and settings, not just in clinical trials. For example, the U.S.-based National Lung Screening Trial ensured that about 95% of participants returned every year for three years for their annual scan, but across North Carolina the return rate was only about 40%.

Increasing awareness about the importance of lung cancer screening would help improve low screening participation rates, Henderson said. In North Carolina, lung cancer screening occurs in just 10% of those who are eligible compared with breast or colorectal cancer screening, which occurs in 79% and 64%, respectively. A comprehensive database showing real-world patterns and outcomes of lung cancer screening throughout the state can help illuminate this gap and track changes over time.

The N.C. Lung Screening Registry, a UNC-based statewide partnership with community and academic sites across North Carolina, contains information from more than 40,000 patients, including demographics, comorbidities, smoking history, screening results and cancer outcomes.

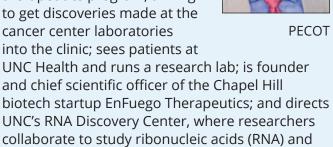
"We collect and analyze data on individuals screened for lung cancer across the state to address the need for evidence on how well lung screening is working and to identify gaps where we can intervene to improve care," Henderson said. "There is such a big need for more research across the lung screening care continuum as we work to address the leading cause of cancer mortality in North Carolina."

### 'If you're trying to make a difference in cancer, you can't go slow'

"Cancer doesn't allow for slow." said Chad Pecot. MD. professor of medicine — and he doesn't, either.

Pecot co-leads UNC Lineberger's cancer therapeutics program, aiming to get discoveries made at the cancer center laboratories into the clinic; sees patients at

their therapeutic potential.



"There are no RNA medicines approved for cancer treatment, partly because they're extremely hard to deliver to tumors and also expensive to make," Pecot said. "However, recently publishing several high-impact papers with newer RNA medicines is a sign that we're on the right track, and it would not have been possible to engineer these molecules and get them to this point without the UCRF."

One of these new medicines. EFTX-G12V, is undergoing toxicity studies needed for FDA approval. Pecot and Albert Bowers, PhD, professor of chemical biology and medicinal chemistry at UNC Eshelman, engineered this molecule to deliver therapeutic RNA



**BOWERS** 

interference into tumors to target a specific mutation of the KRAS oncogene, which is linked to about 25% of all cancers. They found that EFTX-G12V effectively deactivates KRAS G12V, a cancercausing genetic mutation, to stop cancer growth while sparing non-mutated cells.

Pecot also created a molecule, called Chimera, that attacks cancer by simultaneously targeting KRAS and MYC, a difficult-to-drug protein. This innovative dual-targeting approach is a promising treatment strategy for multiple cancer mutations. "To my knowledge, the chimeric drug is the first tumordirected, two-in-one oncology drug that can hit two different oncogenes at once," Pecot said.

Although he is a pioneering physician-scientist today, Pecot initially had no interest in research; he thought it was slow and boring. He liked math and physics, and wanted to design things that could help people, so he studied biomedical engineering at the University of Miami.

His sophomore year, he was diagnosed with testicular cancer. He had surgery followed by months of chemotherapy; he was inspired by fellow patients to help people with cancer.

For his senior design project, Pecot created a medical device that could help treat cancer. But the PhD student he was paired with never tested the device, and the project stalled — feeding into Pecot's beliefs about the drudgery of research.

Pecot then turned to a focus in oncology. He attended medical school at Miami and did his residency at Vanderbilt University, where he met researchers whose enthusiasm for their work made him start to rethink his anti-research views.































But it wasn't until Pecot was an oncologist at MD Anderson Cancer Center that everything clicked. "I'm working at one of the best cancer centers, seeing cancer patients from all over the world, and we were telling so many people we had no options left for them," he said. "I realized I couldn't be in the clinic full time; there had to be something else I could do."

Pecot gave research another try — and this time, it stuck. He spent three years training as

a budding physician-scientist at MD Anderson and in 2013 was recruited to UNC Lineberger, where he thrives at the intersection of medicine, innovation and urgency.

"Once I finally got in the lab and realized that you could use your mind to help people, and that research can be exciting and move fast, I was hooked," he said. "If you're trying to make a difference in cancer, you can't go slow."

# Community Advisory Board engages NC communities in the fight against cancer

About 1 in 3 North Carolinians have had cancer or know someone who has. The vast reach of North Carolina's second-leading cause of death underscores the need to raise public awareness of cancer's signs and symptoms, and to make sure cancer research reflects community needs across the state.

UNC Lineberger's Community Advisory Board works on both fronts. The 14-member board includes those who have lived with different types of cancer, represent various advocacy groups or communities within North Carolina, or have unique perspectives and expertise. Despite their different backgrounds, they share a common goal: putting patients first in UNC Lineberger's service to all 100 N.C. counties.

**Stephanie Wheeler, PhD, MPH,** the Michael S. O'Malley Distinguished Professor of Health Policy and Management and associate director of Community Outreach and Engagement (COE) at

UNC Lineberger, works closely with the CAB and appreciates its role in connecting researchers to the real world. COE staff members Veronica Carlisle, Patty Spears and Jennifer Potter run point on coordinating and communicating with CAB members

run point on coordinating and communicating with CAB members in support of their work with UNC Lineberger.

WHEELER

For example, to help shape the cancer center's research priorities. CAB members and UNC researchers jointly review the Community Health Assets and Needs Assessment (CHANA), a comprehensive resource of statewide data about cancer health needs, risk factors, incidence, mortality and survivorship experiences.

CAB members also incorporate a patient perspective in study designs and protocols, review and approve grant applications from community



organizations, and bring new research ideas from the community to the cancer center.

"CAB members review the data right alongside us and help us think through solutions to improve access to care," Wheeler said. "They're not reviewing the science — they're reflecting on the relevance of the work in terms of impact on cancer in North Carolina. They're focused on questions

like, why does this matter and why is it meaningful for patients and communities?"

For **Eva May**, a marketing professional who pivoted to patient research advocacy and has been part of the CAB since its beginning, research can only be meaningful if it's reflective of the population. She assisted



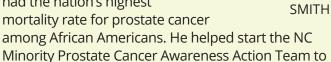
MAY

in the development of and participates in a training initiative that has helped more than 780 researchers learn how to incorporate community engagement into their study designs and protocols.

"Researchers have to think about the people who are going to participate in their studies," May said. "People's genetic makeup along with personal and community factors called social determinants of health can impact their risk of cancer, their diagnosis and their response to treatment. If you don't recruit enough people in key population

cohorts for your research, you won't know whether your approach is going to work."

CAB member **Jim Smith**, a retired psychiatrist and businessman, began his cancer advocacy journey in 1990 upon learning that North Carolina had the nation's highest mortality rate for prostate cancer among African Americans. He had



promote cancer screenings, and although screening rates are now identical among Black and white men, the incidence of prostate cancer for Black men is still nearly double compared to white men.

"This is why the research is so critical — there is much more to find out," he said. "UNC is a state school, and that's important. The CAB gives Lineberger the opportunity to hear from all kinds of people from all kinds of socioeconomic levels, and to help organizations across North Carolina access resources, researchers and clinical trials. It makes a difference."

Board members actively spread the word about the cancer center's work, communicating within and outside of their community organizations and participating in cancer-focused events. In September, three CAB members were panelists or speakers at the 2025 Cancer Center Community Impact Forum, a national conference of community outreach and engagement offices across the country. UNC was chosen to co-host this year's conference with Duke and Wake Forest universities.

The CAB facilitates opportunities for researchers to go into the community to participate in town halls and other data-sharing events, and connects with communities that are unique to North Carolina, including its military bases, American Indian tribes, the state's large Spanish-speaking

population, and largely rural areas in both western and eastern North Carolina.

But to be truly patientcentered, cancer research must go beyond geographic, socioeconomic or other categorical differences and focus on the individual, said CAB member and cancer



**JONES** 

survivor **Matt Jones**, who served on the advisory board for UNC Lineberger's Adolescent and Young Adult (AYA) cancer program before joining the CAB.



"If you think about AYA cancer, the age range is 13–39, a pretty broad age range. I went through cancer at age 34 with a 2-year-old child and a professional life — my challenges were a lot different than a

teenager's," he said. "When researchers are putting together studies or grant applications, I try to bring the perspective that it's not a one-size-fits-all kind of approach."

For Marian Johnson-Thompson, successful community engagement requires open communication that goes both ways. Serving



JOHNSON-THOMPSON

on the CAB allows her to raise awareness about UNC Lineberger's work and to take concerns and perspectives she hears from community members back to Chapel Hill.

"Education is so important when it comes to cancer. People need to understand the signs and symptoms of cancer, because early detection works in almost all cancers — if it's not diagnosed early, there are real costs to the workforce, to families and to communities," said Johnson-Thompson, a former breast cancer researcher and longtime breast cancer advocate with Susan G. Komen. "The CAB engages the community in the process of trying to understand cancer and in working together toward addressing it. It's all about collaboration."

## PRIORITY 1: GENETICS IN CANCER CAUSATION AND TREATMENT

# Adaptive whole-genome sequencing could transform childhood leukemia diagnosis

UNC Lineberger researchers have demonstrated a faster, more cost-effective approach to analyzing the genetic makeup of pediatric acute leukemia. Determining a cancer's genomic classification is critical to developing a more effective treatment plan tailored to a patient's tumor. Their findings were published in the journal Leukemia.

The study enrolled 57 pediatric patients diagnosed with either B-cell acute lymphoblastic leukemia (B-ALL) or acute myeloid leukemia (AML). The researchers used nanopore DNA sequencing

technology to identify the specific genetic alterations in all cases within 48 hours — and in some cases, within 15 minutes. This breakthrough could significantly speed up diagnoses, reduce costs and help doctors start targeted treatments more quickly, improving care for children with leukemia.

Thomas Alexander, MD, MPH, assistant professor of pediatrics, and Jeremy Wang, PhD, associate professor of



**ALEXANDER** 



WANG





























pathology and laboratory medicine and genetics, are the paper's corresponding authors. Julie Geyer, PhD, a postdoctoral research assistant in the Wang lab, is the first author.

"Genomic classification of leukemia is not available for most patients in the world due to a lack of trained workforce and insufficient resources. Even in high-income countries, the process is labor-intensive, expensive and often incomplete," Alexander said. "Our driving motivation is to develop a diagnostic test that is accessible to most of the world to close the diagnostic testing gap."

The researchers demonstrated they can identify clinical genomic information for children with acute leukemia using adaptive sampling, a technique that uses nanopore sequencing to target specific genetic regions. This approach is more flexible, scalable and cost-effective than current methods for determining a cancer's genomic classification.

"Adaptive sampling can be easily adjusted and updated with new targets or for different purposes without relying on new supply chains or wet lab validation," Wang said. "On the same assay without additional wet lab work or sequencing, we also demonstrated the potential for identifying pharmacogenomic variants, with implications for treatment."

This simpler, less expensive, more comprehensive approach has significant implications in lowresource settings where clinical genomic classification is unavailable or incomplete. In high-income countries, it has the potential to simplify molecular pathology for acute leukemia, improve turnaround time and provide more comprehensive clinical findings.



**GEYER** 

#### New drug combination shows promise for older adults with acute myeloid leukemia

A new treatment combining the recently approved drug revumenib with the current standard of care has shown encouraging results for people newly diagnosed with acute myeloid leukemia (AML). Findings from the early-phase clinical trial, which was led by UNC Lineberger and conducted at 12 sites nationwide, were published in the Journal of Clinical Oncology and presented in June at the European Hematology Association Congress in Milan.

AML is a complex blood cancer with many genetic subtypes, requiring personalized treatment. This study focused on patients whose leukemia had one of two specific gene changes — NPM1m or KMT2Ar — which occur in about one-third and 5% of AML patients, respectively. Revumenib, an oral drug known as a menin inhibitor, targets these mutations and is already approved for relapsed AML with a KMT2Ar change.

In the trial, 43 older adults received a combination of revumenib and two standard AML drugs, azacitidine and venetoclax. The results were notable:

- 88% of patients had no detectable leukemia after treatment;
- 67% achieved complete remission with normal blood counts;
- 63% were still alive one year later; and
- These rates are higher than typically seen with current treatments alone.

"The promising results from this early study have led to a larger, Phase 3 trial to see if adding revumenib improves overall survival,"































said Joshua F. Zeidner, MD, associate professor of medicine and chief of leukemia research at UNC Lineberger, who will lead the U.S. arm of the next trial. "This approach could change how we treat AML with these specific genetic alterations."

cancer DNA anomalies



ZEIDNER

#### **Using AI, researchers** launch database to predict

UNC-Chapel Hill researchers have launched CytoCellDB, a database that addresses a major gap in cancer research by identifying extrachromosomal DNA (ecDNA) in cancer cell lines.

"CytoCellDB provides researchers with an invaluable tool to determine which cancer cell lines contain ecDNA and other chromosomal abnormalities." said Elizabeth Brunk, PhD, assistant professor of pharmacology and chemistry. "It's a significant step toward

**BRUNK** 

understanding ecDNA, paving the way for more effective treatments and improved outcomes for the 15% of cancers that harbor ecDNA."

The researchers reported on the rationale for developing the database in the journal NAR Cancer.

EcDNA enables cancer cells to amplify key genes outside of chromosomes, altering how those genes are regulated, replicated and divided. Found in 14–20% of tumors, ecDNA is a marker of malignancy and genome instability, contributing to cancer growth, drug resistance and epigenetic

changes. However, its biological role has been difficult to study because too few cell-line models clearly show whether ecDNA is present.

While extensive genome sequencing data exist for many cell lines, distinguishing ecDNA from chromosomal DNA requires microscopic imaging. CytoCellDB bridges this gap by combining experimental data and computational predictions across hundreds of publicly available cell lines with multi-omics data.

"By consolidating these data in one place, CytoCellDB lets researchers study how chromosomal abnormalities and ecDNA influence key cellular processes," Brunk said. "The database includes detailed information on 577 cell lines, expanding available ecDNA data by more than 400%."

The researchers used CytoCellDB with the Broad Institute's Dependency Map data to analyze gene expression, gene dependency and drug response in cell lines with and without ecDNA. The resource also improves machine learning algorithms that predict ecDNA from sequencing data, achieving more than 85% accuracy, the highest to date.

"Understanding the impact of ecDNA is an urgent, unmet need that will transform how we analyze genomics data, develop drug screens, and study drug resistance," Brunk said. "This project's success reflects the collaboration of undergraduates, graduate students and senior scientists across disciplines."

By expanding knowledge of ecDNA, CytoCellDB offers a foundation for studying genome function, cancer cell fitness, therapeutic response and drug resistance. "CytoCellDB represents the most comprehensive cytogenetic resource for cancer cell lines," Brunk said. "It provides a foundation for groundbreaking research and future therapeutic innovation."

































#### PRIORITY 2: DEVELOPING NOVEL THERAPEUTICS

#### Priming the pump for new cancer treatments

Cancer genes and tumors can evolve to resist treatment, making the ongoing discovery of new therapies essential in the fight against cancer. UNC Eshelman School of Pharmacy's Chemical Biology and Medicinal Chemistry Division is a central hub for cancer therapeutics. Its faculty — more than half are UNC Lineberger members — are studying the chemical and biological mechanisms that promote cancer growth and persistence.

"We need better therapies," said Ian Davis, MD, PhD, the Stuart H. Gold Distinguished Professor and chief of the Division of Pediatric Hematology-Oncology. "We need to prime the pump with fundamental discoveries and then keep our foot on the gas to keep them moving forward in the pipeline toward clinical trials."



**DAVIS** 

UCRF resources are vital to this work. The Fund helps support the Center for Integrative Chemical Biology and Drug Discovery at UNC, where staff members make proteins and help with compound management for multiple research labs. The UCRF also helped acquire some of the technologies in UNC's high-throughput sequencing core, including state-of-the-art liquid handling platforms and genetic sequencers that are key resources for data-intensive research.

These technologies are used to read the genetic information in cancer cells for UNC and for

outside research institutions, said Samantha Pattenden, PhD, associate professor of chemical biology and medicinal chemistry and the sequencing core's managing director. She and Davis are using the sequencers as part of their longstanding collaboration on Ewing sarcoma, a rare but aggressive



**PATTENDEN** 

cancer that mostly affects bones and tissue of children and teenagers. Surgery, chemotherapy and radiation are standard in the treatment of Ewing sarcoma. But chemotherapy's toxic side effects are significant, and Ewing sarcoma often becomes resistant to treatment, leading to low survival rates.

Davis and Pattenden have invented an accelerated screening process that can simultaneously test thousands of potential compounds for efficacy against Ewing sarcoma. As part of the National Cancer Institute's Experimental Therapeutics Program, and in collaboration with the National Center for Advancing Translational Studies, they are using this process on more than 120,000 molecules to identify compounds that affect the way that proteins and DNA interact, a key factor in Ewing sarcoma.

The main protein that drives Ewing sarcoma, EWS-FLI1, is hard to directly target with drugs, so studies seek to indirectly counteract its activity. Davis and Pattenden take advantage of the precise pattern of how DNA tightly or loosely interacts with proteins, a feature called chromatin accessibility. EWS-FLI1 fuels cancer growth by creating a characteristic pattern in DNA-protein interactions.



















"Since we can't target the oncoprotein, we are targeting chromatin accessibility," Pattenden said, adding that compounds that show potential will undergo further study. "If we find a compound that closes the gap, we have a winner."

The Davis lab also collaborates with the lab of David Drewry, PhD, professor at UNC Eshelman, to develop a compound that could activate destruction of the EWS-FLI1 protein in the tumor cells. Taking a related approach, UNC Lineberger researchers are taking advantage of another potential weakness in Ewing sarcoma's armor: ETV6, a protein that plays a role in cancer growth. Pengda Liu, **PhD**, associate professor of biochemistry and biophysics, and colleagues used custommade DNA strands to develop a molecule that degrades ETV6 and suppresses Ewing sarcoma growth. Further studies will examine

NSD2, another cancer-driving protein, is implicated in several cancer types including pancreatic cancer, prostate cancer and multiple myeloma. Lindsey James, PhD, associate professor of chemical biology and medicinal chemistry, and colleagues have developed

a promising new compound called UNC8732 that effectively

degrades this protein, suppresses cancer cell growth, induces cell death and, in certain contexts, reverses drug resistance.

their molecule's potential against other ETV6driven cancers, such as leukemia and lymphoma.



**DREWRY** 



LIU

Protein degradation is a natural cellular process that breaks down damaged or misfolded proteins. Researchers used UNC8732 to hijack this process to enable degradation of NSD2 by recruiting a protein called FBXO22, an E3 ligase used to mark NSD2 for degradation.

Most protein degraders use two E3 ligases called VHL and CRBN, which somewhat limits the scope of protein degradation because some cancer cells don't express these E3 ligases. UNC8732 is the first compound to recruit the FBXO22 E3 ligase, offering potential for more types of oncoproteins to be degraded.

"The more E3 ligases we know how to recruit, the more broadly applicable this therapeutic strategy is going to be, and the more cancer targets we can go after," James said. "We are excited that companies have been inspired by our work and are using their vast resources to take what we've learned and move it closer to the clinic."

Through the discovery of new cancer dependencies that can be therapeutically exploited, supporting critical equipment and technology, and fueling collaborations, UCRF helps open the spigot of new and innovative treatments for cancer.

#### Immunotherapy and targeted therapy combination proves effective against metastatic colorectal cancer

UNC Lineberger researchers have demonstrated that combining two immunotherapy drugs with a targeted therapy drug proved effective in treating the most common form of metastatic colorectal cancer. In some cases, it produced a durable response, even in patients whose cancer had spread to the liver. Their findings were published in JCO Oncology Advances.















**JAMES** 



















Hanna Sanoff, MD, MPH, professor of medicine and gastrointestinal cancer section chief at UNC School of Medicine, is the study's corresponding author.

Ashwin Somasundaram, MD, assistant professor of medicine, is the first author.

"Our research provides the rationale for better combination trials in the future for our many patients with colorectal cancer," Sanoff said. "We hope some of these studies can keep their disease at bay for many years."

In the Phase 2 clinical trial, researchers enrolled 56 patients to evaluate whether a threedrug regimen — ipilimumab,

nivolumab, and panitumumab — would be effective against microsatellite stable metastatic colorectal cancer. The primary goal was to assess overall response to treatment after 12 weeks.

The combination therapy shrank the tumors in 32.1% (18 of 56) patients and produced a median survival of 17.4 months. Four patients, including two with liver metastases, experienced no cancer progression nearly 44 months after starting the trial. Seven withdrew from the study after their cancer progressed.

"Even patients with liver metastatic disease, which traditionally have not had durable responses, responded well to the intervention," Somasundaram said. "This is a really promising sign that this combination might be more effective than immunotherapy combinations alone."

Panitumumab, a monoclonal antibody that targets and blocks EGFR, a cellular growth protein, has been the standard therapy for microsatellite stable metastatic colorectal cancer. Unfortunately, it has



**SANOFF** 



**SOMASUNDARAM** 

been only modestly effective when used alone. However, tumors responding to EGFR inhibitors have increased T-cell infiltration and higher levels of CTLA-4 and PD-L1, immune checkpoint proteins.

Prior studies have shown that CTLA-4 and PD-L1 prevent the immune system from overreacting and targeting healthy tissues. These proteins can also disrupt immune T-cells from attacking cancer cells. Ipilimumab and nivolumab block CTLA-4 and PD-L1, respectively, releasing the immune system's "brakes" and enabling T-cells to target cancer cells.

Somasundaram and his colleagues hypothesized that combining panitumumab with ipilimumab and nivolumab would be an effective treatment regimen. Findings from their trial support the hypothesis.

"Most patients with this disease do not experience responses that last for years," Somasundaram said. "But our study showed that a small number did — and without this approach, they likely would not have had that benefit. These findings support further studies using similar combinations across the country."

# Combination immunotherapy before surgery may increase survival in people with head and neck cancer

Researchers conducting a clinical trial of immunotherapy drugs for head and neck squamous cell carcinomas (HNSCCs) found that patients responded better to a combination of two immunotherapies than to a single drug. The scientists also analyzed immune cells in each person's tumor after one month of treatment to see which were activated to fight cancer, suggesting these cells and targets could help personalize therapy.

The findings were published in Cancer Cell.































HNSCCs, which develop in the oral cavity, pharynx, larynx, nasal cavity and salivary glands, are the seventh most common cancer worldwide, causing an estimated 890,000 new cases and 450,000 deaths annually.

Current treatments can be disfiguring and affect quality of life. Shrinking tumors before surgery increases the likelihood of preserving the tongue and voice box, which are essential for speaking, breathing, and swallowing.

"My group has conducted pre-operative trials in head and neck cancers for more than 15 years, and the ability to shrink tumors with existing drugs has been disappointing. While single-drug immunotherapy can help, it works for only a small number of patients," said Robert L. Ferris, MD, PhD, executive director of UNC Lineberger and chief of oncology clinical services for UNC Health.

"In our trial, we compared two immunotherapy combinations with a single drug and found that both combinations doubled or tripled the response rate and improved survival. Up to one-third of patients who received two drugs saw more than 50% tumor shrinkage after just one month of treatment."

Ferris began the research at UPMC Hillman Cancer Center in Pittsburgh and completed it after joining UNC Lineberger and UNC Health in June 2024.

The study enrolled 42 patients (one withdrew) who were randomly assigned to three treatment arms: nivolumab alone, nivolumab plus ipilimumab, or nivolumab plus relatlimab. Both combinations performed similarly, likely by activating tumor-specific T lymphocytes that recognize and attack cancer cells. Even after tumor removal, these T cells remained active, providing ongoing immune surveillance that may improve long-term survival.

"We identified biological signatures that helped determine which combination was most effective," Ferris said. "The Lymphocyte Activation Gene-3 (LAG-3) protein was a good marker for some patients, while CTLA-4 was for others. A patient's immune profile at diagnosis could help guide the best treatment. Because of this marker's potential, we have filed a patent for our diagnostic approach."

Based on the similar success of both combinations, the team has expanded the trial to include 40 additional patients and is testing a higher dose of relatlimab, aiming for stronger responses and longer survival.

#### **PRIORITY 3: OUTCOMES**

# Building tools to help doctors better track patient symptoms, improve outcomes

Digital reporting technologies created by UNC Lineberger researchers are now being used in North Carolina and across the country to improve care and outcomes for cancer patients.

Research led by **Ethan Basch**, **MD**, **MSc**, **FASCO**, the Richard M. Goldberg Distinguished Professor in Medical Oncology, chief of oncology at UNC School of Medicine and coleader of UNC Lineberger's Cancer Prevention and Control



BASCH































Research Program, sparked the creation of electronic patient-reported outcomes (PRO) tools that patients can use at home to self-report on symptoms and side effects.

Work by his research team over more than 20 years has led to changes in how the FDA advises pharmaceutical companies to study drugs, how data systems in hospitals function and how billing codes are used in cancer care clinics — all have become more patient centered, which is the mission of Basch and his team.

Their early studies showed that cancer patients often suffer from symptoms and side effects between doctors' visits that go undetected and under-addressed. To remedy this, Basch and his colleagues, with support from the UCRF and other funding sources, built new digital tools to collect symptom and side-effect information directly from patients, and then to convey concerning patient-reported symptoms to care teams to prompt timely management.

They developed these tools here in North Carolina and then tested them nationally in 52 community oncology practices across 26 states and found they improved clinicians' awareness of patient symptoms and accelerated care — leading to better symptom control, improved quality of life, fewer hospitalizations and even longer survival for cancer patients.

PRO tools based directly on the UNC work are now widely available in both the United States and Europe through electronic health record systems like Epic and are being used in global clinical trials to develop new cancer drugs in a more patientcentered way. In recognition of their work, Basch and his UNC Lineberger colleagues received the prestigious 2025 Clinical Innovation Award from the medical information platform Healio and City of Hope, one of the nation's largest cancer care and research organizations.

"Patients experience many of their side effects between visits. Using electronic tools so we can understand how they are feeling and intervene quickly when needed is becoming a standard of care in high-quality cancer care," Basch said. "It is gratifying to see the impact of our work here at UNC. There are multiple researchers here focused on ways to make cancer care more focused on the patient and their family, which is one of the striking qualities of research at UNC and support from the UCRF."

To make these resources more widely available, UNC Lineberger is now leading a national initiative called OncoPRO to provide health systems with training guidance, patient education materials, knowledge on billing codes and technical support. Through this program, and in partnership with the American Society of Clinical Oncology and the American Cancer Society, more than 20 health systems around the country — including UNC Health, East Carolina University, Wake Forest University and Duke University — are implementing PROs, with more coming online this year.

"It's an exciting time for PROs," Basch said, "and UNC is leading the way."

#### Home testing kits and coordinated outreach substantially improve colorectal cancer screening rates

A new study by UNC Lineberger researchers found that mailing at-home colorectal cancer screening kits and coordinating follow-up care tripled screening rates among patients at federally qualified health centers (FQHCs). Findings were published in JAMA Network Open.





























Colorectal cancer screening is a proven way to detect the disease early, when it's most treatable, but remains underused among patients served by FQHCs, which provide care to 1 in 11 people in the United States. These small, grant-funded centers often face resource challenges that limit access to preventive services.

"Reaching a largely unscreened, predominantly low-income population using centralized mailed screening kits and patient navigation can substantially increase colorectal cancer screening in federally qualified health centers," said the study's corresponding author, Daniel Reuland,

MD, MPH, the Robert A. Ingram Distinguished Professor at UNC School of Medicine and co-director of the UNC Lineberger Carolina Cancer Screening Initiative (CCSI).

The Scaling Colorectal Cancer Screening through Outreach, Referral and Engagement (SCORE) study enrolled 4,002 adults aged 50-75 who were

not current with screening guidelines at two North Carolina FQHCs: Blue Ridge Health in Hendersonville and Roanoke Chowan Community Health Center in Ahoskie.

Half of the participants received usual care. The other half received usual care plus a mailed fecal immunochemical test (FIT) kit and navigation services for follow-up colonoscopy if the FIT was positive.

Within six months, 30% of participants in the intervention group completed screening, compared with 9.7% in the control group. By 12 months, completion rates rose to 34.6% vs. 16.6%. Among those with a positive FIT, 68.8% of the intervention group completed a colonoscopy, compared with 44.4% of the control group.

"Mailed FIT is an excellent complement to usual care," said Alison Brenner, PhD, MPH, CCSI deputy director and associate professor of medicine. "It reaches patients who aren't getting screened otherwise and relieves pressure on both underresourced FQHCs and busy primary care providers."



**BRENNER** 

Colorectal cancer is the second-leading cause of cancer death in the United States. The National Cancer Institute estimates 152,000 new diagnoses and 53,000 deaths this year. While rates are declining among older adults, incidence and mortality in people under 50 have been rising since 1990.

Reuland said the next step is to assess program costs and explore statewide expansion. "FIT testing is inexpensive, so this approach could be a cost-effective way to improve screening at the population level," he said. "We're also working with North Carolina Medicaid to explore how a FIT-based outreach strategy could help expand screening while making the best use of limited colonoscopy capacity."

#### **E-cigarette warnings lower vaping** interest and raise guit intentions

Electronic-cigarette warnings are effective in discouraging vaping, with harm-specific warnings generally more effective than warnings about addiction, according to a meta-analysis of 24 studies conducted by UNC Lineberger researchers and their colleagues. The researchers also found no unintended negative consequences of e-cigarette warnings, such as encouraging people to smoke cigarettes instead









**REULAND** 

















of vaping. The results were published in JAMA Internal Medicine.

"This is the first metaanalysis that has tested the effectiveness of e-cigarette warnings that appear on packages and advertising," said **Seth M. Noar, PhD,** the James Howard and Hallie McLean Parker Distinguished Professor and director of the Communicating for Health Impact Lab at the Hussman



**NOAR** 

School of Journalism and Media. "The results are very promising and highlight the importance of communicating the risks and harms of e-cigarette use to tobacco users and to the public."

The U.S. Food and Drug Administration mandates only a single addiction warning on vaping products. The authors note that effective warning policies should use multiple, rotating warnings, since tobacco product use can result in more than a single harm. Countries such as Canada have rotating warnings on advertising, including a health harms warning on e-cigarette products that states, "WARNING: Vaping products release chemicals that may harm your health."

The warnings examined in this analysis were published in studies between 2007 and 2024 and used text only.

"Part of the novelty of our findings is that we found that warnings that use only text can serve an important role in informing about tobacco product risk for e-cigarettes," said Youjin Jang, PhD, a postdoctoral researcher in Noar's lab and first author of the article. "Expanding textonly warnings on packages



JANG

and advertisements to include potential health hazards and harms of using e-cigarettes — such as exposure to harmful chemicals — is the next important step for e-cigarette warning policies."

The researchers found that, compared to the control group, e-cigarette warnings increased the perceptions of vaping as both harmful and addictive. Health harm warnings had a greater impact than addiction warnings on most measures, including intentions to quit vaping.

"A crucial finding of this meta-analysis is that these warnings do not increase the false belief that e-cigarettes are more harmful than cigarettes," Noar said. "This is profoundly important because we want these warnings to discourage use without creating misperceptions about tobacco product risk."























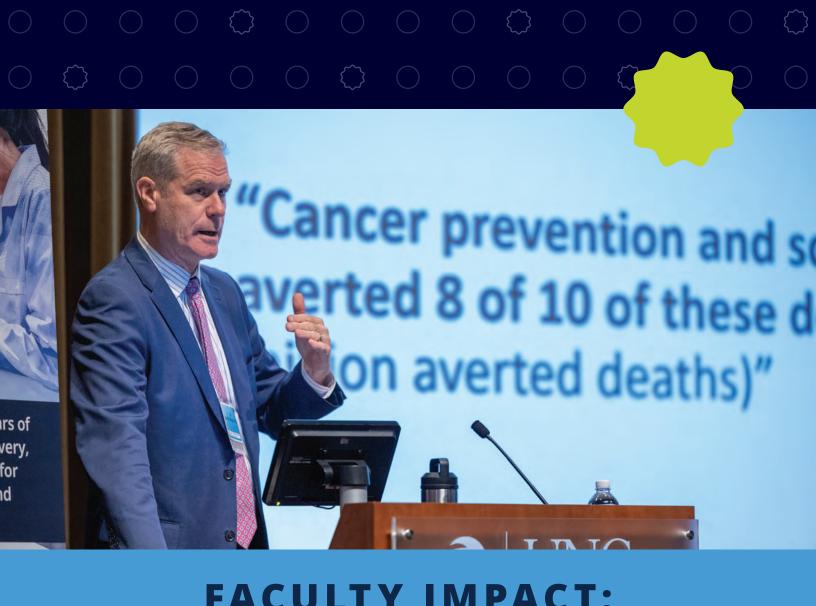




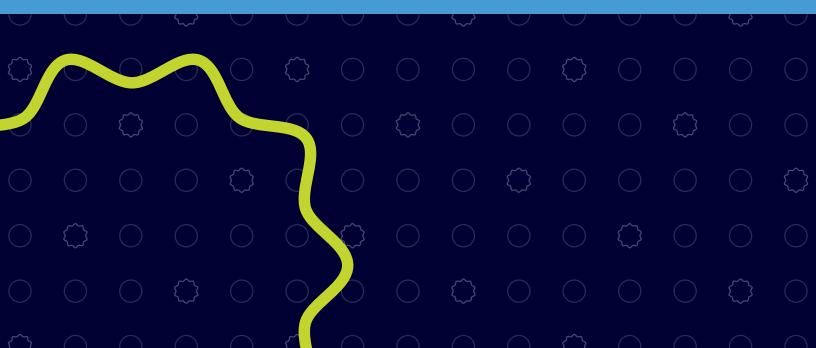








## FACULTY IMPACT: RESEARCH AND SCIENCE



### **FACULTY IMPACT:** RESEARCH AND SCIENCE

#### ARPA-H funding supports adaptive clinical trial for metastatic breast cancer

**UNC Lineberger Comprehensive Cancer** Center has received up to \$28 million from the Advanced Research Projects Agency for Health (ARPA-H) to lead a next-generation clinical trial for metastatic breast cancer. The study will use real-time data to track how tumors evolve and adjust treatment accordingly.

The Translational Breast Cancer Research Consortium (TBCRC) Evolutionary Clinical Trial for Novel Biomarker-Driven Therapies (EVOLVE) will draw on the expertise of UNC Lineberger and 14 other TBCRC member institutions — National Cancer Institute-designated centers committed to accelerating lab discoveries into new treatments.

Lisa Carey, MD, ScM, FASCO, the L. Richardson and Marilyn Jacobs Preyer Distinguished Professor for Breast Cancer Research and UNC Lineberger's deputy director of clinical science, is the study's lead investigator.

**CAREY** 

"Despite progress in breast cancer treatment, we still lack curative therapies for metastatic disease," Carey said. "EVOLVE takes a new approach by using real-time biomarker data to adapt treatment as the tumor changes."

The trial will enroll up to 700 patients with metastatic breast cancer. Researchers will analyze tumor biopsies, blood samples, imaging, and medical records, along with circulating tumor DNA (ctDNA), to detect resistance and guide therapy in real time.

EVOLVE is part of ARPA-H's \$142 million Advanced Analysis for Precision Cancer Therapy (ADAPT)

program, which funds 10 projects aimed at transforming personalized cancer care. ADAPT's goals include integrating diverse patient data to predict drug response, designing adaptive clinical trials and creating a shared research platform for real-time collaboration.

"We don't yet have strong predictive biomarkers for metastatic breast cancer, and we've largely failed to combine genomic, clinical and imaging data in a meaningful way," Carey said. "This trial will let us intervene earlier — before symptoms return — to give patients more time and better quality of life."

#### **Advanced Cellular Therapeutics Facility earns accreditation**

The Foundation for the Accreditation of Cellular Therapy (FACT) awarded accreditation without any deficiency citations to UNC Lineberger's Advanced Cellular Therapeutics Facility.

The cancer center established the Advanced Cellular Therapeutics Facility in 2015 to support clinical trials requiring human cellular therapy products. Cellular therapy products are generated and expanded in this facility for patients receiving adoptive cell therapy for the treatment of cancer, including chimeric antigen receptor T-cell, or CAR-T, therapy.

"Earning FACT accreditation is a major milestone for any manufacturing facility and underscores our commitment to the highest standards in cellular therapy," said Jonathan Serody, MD, the Elizabeth Thomas Professor of Medicine, Microbiology and Immunology

**SERODY** and chief of the Division of Hematology at UNC School of Medicine. "This recognition reflects the





























# FACULTY IMPACT: RESEARCH AND SCIENCE

dedication of our faculty and staff, as well as the rigor of our processes and procedures, which meet or exceed FACT's stringent standards and governmental regulations."

This was the first time the Advanced Cellular Therapeutics Facility underwent FACT review. "Achieving accreditation without a single issue identified by FACT inspectors is an extraordinary accomplishment," Serody said. "It's a testament to the outstanding work of our team and our unwavering commitment to providing the highest quality of care to our patients."

#### Cancer center members recognized for highly cited research

Eight UNC Lineberger members published some of the most influential scientific papers during the past decade, according to an independent analysis.

Clarivate's 2024 Highly Cited Researchers™ list recognizes scientists from 59 countries and regions who published papers ranked in the top 1% of cited publications in their field between 2013–2023. UNC-Chapel Hill ranked 35th among universities worldwide, with 33 faculty named to the list.

UNC Lineberger members named to the 2024 Highly Cited Researchers list are:

- Noel T. Brewer, PhD
- Gianpietro Dotti, MD
- Katherine A. Hoadley, PhD
- Barry M. Popkin, PhD, MS
- Scott Randell, PhD
- Bryan L. Roth, MD, PhD
- Jenny P.Y. Ting, PhD
- David van Duin, MD, PhD



**BREWER** 



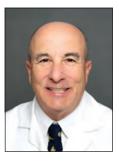
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**POPKIN** 



**RANDELL** 



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TING



VAN DUIN



























### **FACULTY IMPACT:** RESEARCH AND SCIENCE

#### Troester elected chair of the AACR **Populations Sciences Working Group**

Melissa Troester, PhD, MPH, was elected the next chair of the American Association for Cancer Research Populations Sciences Working Group.

She will serve as chair-elect for the 2025-2026 term and will assume the role of chair for the 2026–2028 term at the 2026 AACR Annual Meeting.



**TROESTER** 

"During a time of scientific flux, it is both a privilege and an important responsibility to help set the collaborative agenda for AACR population sciences research," said Troester, associate director of the UNC Lineberger Population Sciences Program, professor of epidemiology at UNC Gillings School of Global Public Health and a professor of pathology and laboratory medicine at UNC School of Medicine. "Ensuring that all cancer patients receive optimized prevention and treatment must be an enduring priority."

#### **Rushing receives NCI grant to create** the Human Cancer Metabolome Atlas

Blake Rushing, PhD, was awarded a five-year, \$3.9 million National Cancer Institute grant to support the development of the Human Cancer Metabolome Atlas. The project aims to map the complex metabolic processes that drive cancer's progression and resistance to treatment.



RUSHING

The Human Cancer Metabolome Atlas will catalog how cancer cells alter their metabolism to survive

and thrive. Previous research has shown there can be significant metabolic diversity among tumors, even within the same diagnosis. This detailed metabolic profile of various cancers will help researchers identify new targets for therapies and improve the understanding of cancer biology.

"This goal of this research is to undertake a large-scale, pan-cancer metabolomics analysis and then generate a publicly available resource that all cancer researchers can use to study the landscape of tumor metabolism," said Rushing, assistant professor of nutrition and pathology and laboratory medicine. "Cancer metabolism has gained tremendous traction as a source of potential therapeutic targets. The Human Cancer Metabolome Atlas will help to identify these targets, the subpopulations of individuals who would best respond to these approaches and potentially lead to more effective treatments and ultimately improve outcomes for individuals with cancer."

#### **UNC team awarded federal funding** to harness data science for faster, more precise cancer care

A team of UNC-Chapel Hill researchers has been awarded up to \$10 million in Advanced Research Projects Agency for Health (ARPA-H) funding to develop the Cancer Identification and Precision Oncology Center (CIPOC). The project is designed to improve cancer diagnosis and support personalized treatments by quickly aggregating and analyzing a wide range of health data, including electronic health records, histopathological and radiological images, insurance claims and geographic information.

Specifically, CIPOC will facilitate the development of an oncology health learning system that utilizes Al-ready data to generate real-time



















### **FACULTY IMPACT:** RESEARCH AND SCIENCE

identification of new cancer cases, support patient recruitment for research, recommend precision cancer care, and help improve cancer care equity and quality. It also will create an accessible, adaptable system for health providers across diverse locations and resources.

The project is led by four principal investigators across Carolina:

- **Ashok Krishnamurthy, PhD,** director of the Renaissance Computing Institute (RENCI) and data science core lead.
- Jennifer Elston Lafata, PhD, professor in the Division of Pharmaceutical Outcomes and Policy at UNC Eshelman School of Pharmacy and innovation and optimization partners lead.
- Caroline Thompson, PhD, MPH, associate professor of epidemiology at UNC Gillings School of Global Public Health and rapid identification core lead.
- Melissa Troester, PhD, MPH, professor of epidemiology at UNC Gillings and precision oncology core lead.

The project will organize and facilitate collaborative research conducted by faculty, staff and trainees from more than 12 schools, centers, departments and programs at UNC-Chapel Hill with a shared vision to create cutting-edge data

tools researchers and practitioners can use at UNC — and in time across North Carolina and the United States — to improve the diagnosis and treatment of cancer.

"While precision oncology has made major advances in recent years, translation of these innovations to practice has lagged behind, as has our ability to monitor, track, and therefore understand and plan for needed cancer-related services," Thompson said. "By accelerating the identification of cancer cases and developing innovative informatics tools to make improved, precision recommendations for care, this project can advance the provision of equitable care services and delivery."

#### Marks to receive the American Society for Therapeutic Radiology and **Oncology's highest honor**

The American Society for Therapeutic Radiology and Oncology (ASTRO) presented its highest honor — the Gold Medal — to Lawrence B. Marks. MD. FASTRO. The Gold Medal recognizes individuals who have made outstanding contributions to the field of radiation oncology through



**MARKS** 



**KRISHNAMURTHY** 



LAFATA



**THOMPSON** 



TROESTER

research, clinical care, teaching and service.

Marks is the Sidney K. Simon Distinguished Professor of Oncology Research at UNC School of Medicine. He chaired the Department of





























# FACULTY IMPACT: RESEARCH AND SCIENCE

Radiation Oncology from 2009 to 2023, leading a period of significant growth and innovation.

"I'm indebted to my wonderful mentors, colleagues, trainees, friends and family who have assisted me in my career," Marks said. "It is a great privilege to be able to combine my interests in physics, math and engineering to help people with serious diseases such as cancer."

During his tenure, Marks spearheaded the creation of the Division of Healthcare Engineering, which applies lean management principles, behavioral science and systems engineering to improve the efficiency, safety and quality of radiation therapy. The department also expanded its clinical footprint, providing radiation oncology services at nine UNC Health locations across North Carolina.

 DOD grant funds AI tool linking pancreatic cancer patients to clinical trials

> Naim Rashid, PhD, assistant professor of biostatistics at UNC Gillings School of Global Public Health, received a two-year, \$311,000 Department of Defense Pancreatic Cancer Research Program award to develop an artificial intelligence (AI)



**RASHID** 

tool that provides personalized clinical trial recommendations for patients with pancreatic ductal adenocarcinoma (PDAC).

Using data from PDAC patients treated at UNC Health, Rashid will link patient information to listings on ClinicalTrials.gov to build an Alpowered system that helps patients identify and discuss relevant trials with their care teams. The goal is to improve awareness and access and boost enrollment in pancreatic cancer trials.

While new treatments from clinical trials have doubled the five-year survival rate for pancreatic cancer over the past two decades, many patients still face barriers to trial access. The growing number and complexity of PDAC trials make it increasingly difficult for patients and physicians to find suitable options.

Rashid's team will fine-tune a large language model using UNC patient data and trial listings to create a personalized recommendation system that functions like an AI chatbot. The tool will rank trials by relevance and integrate with a mobile health app to make the process simple and accessible for patients and providers.

"Our Al mHealth app aims to remove the guesswork from clinical trial searches, empowering PDAC patients to self-advocate and explore more opportunities for treatment," Rashid said. "In the future, we hope to expand this approach to other cancer types."





### INFRASTRUCTURE AND SHARED RESOURCES



## INFRASTRUCTURE AND SHARED RESOURCES

In addition to supporting the research and clinical work of UNC's cancer experts, the UCRF invests and underwrites 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 for advancing cancer research and improving patient 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.

**Continuing education:** Providing continuing education to health care professionals across the state is a significant part of UNC Lineberger's mission as an academic institution. 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, allows UNC faculty to deliver live, interactive medical and nursing lectures that reach physicians, nurses and allied health professionals all over the state.

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 4,978 credit hours this year, including:

- 74 American Medical Association Continuing Medical Education credits;
- 3,559 American Nurses Credentialing Center credits;
- 339 American Society of Radiologic Technologist credits;
- 875 Accreditation Council for Pharmacy Education credits; and
- 131 Oncology Data Specialist credits.

**Tumor boards:** UCRF-funded infrastructure facilitates collaboration between UNC cancer experts and oncologists and patients across the state, through virtual "tumor boards" — in-depth reviews of a particular patient's case with a team of doctors — and consultations in specialties that are not available in rural communities. This year 803 virtual tumor boards, across 24 different disciplines, helped connect community-based medical professionals with UNC oncology experts and served as another source for continuing education.



## INFRASTRUCTURE AND SHARED RESOURCES

**Telehealth:** 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. UNC Lineberger hosted 30 telehealth live webinars this year with more than 3,100 participants such as 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 33 Palliative Care Grand Rounds lectures, which cover topics that impact the practice of palliative medicine, and 6 Schwartz Rounds, which focus on issues related to the emotional impacts of patient care.

These rounds, along with lectures, webinars and videos, are part of UNCLCN's video library, which contains 1,509 oncology videos, including 109 Patient Centered Care webinars, 104 Research to Practice webinars, 42 Advanced Practice Provider webinars, 12 Southeastern American Indian Cancer Health Equity Partnership webinars, 206 Palliative Care Grand Rounds, 233 Didactic Fellows Lectures, 51 Exploring Cancer Lectures, and 60 Introduction to the Pathology of Disease lectures. UNCLCN's YouTube channel contains more than 310 videos that are readily available to health professionals and 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 webinars and recordings created in coordination with the North Carolina Community College System;
- Exploring Cancer. A series of 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; and
- The Pathology of Disease. A pathology course with classes taught online to students at N.C. A&T and NCCU.



# INFRASTRUCTURE AND SHARED RESOURCES

## Using real-world data to understand complicated issues tied to North Carolina cancer outcomes

In addition to the outreach and education activities the UCRF supports through the UNC Lineberger Cancer Network, its funding has been used to build and maintain vital foundational infrastructure for population-based research.

The Cancer Information & Population Health Resource (CIPHR) is a rich data resource that gives researchers and policymakers alike a deeper understanding of the complicated issues tied to North Carolina cancer outcomes. CIPHR integrates large data sets from multiple public and private sources, allowing researchers to analyze real-world information about real-world patients.

With information on 1.1 million cancer patients in the state, this unique research tool connects data on cancer incidence, mortality and burden in North Carolina to individual and aggregate data sources describing 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.

1.1 million Cancer cases, 2003-2021

86% Linked to claims data



12.2 million Claims data for NC residents between 2003-2021

84 Principal investigators

172 Projects

175 Manuscripts

# INFRASTRUCTURE AND SHARED RESOURCES

### **Recruitment and Retention**



### **Faculty Recruitment**

### Clinical Infrastructure

### Yash Agrawal, MD

Assistant Professor
UNC School of Medicine
Department of Medicine
Breast cancer, genomics
University of North Carolina at Chapel Hill

### Catherine Fahey, MD

Assistant Professor UNC School of Medicine Department of Medicine GU/renal cell cancers Vanderbilt University

#### Laura Ferris, MD, PhD

UNC School of Medicine Chair and Clayton E. Wheeler, Jr. Distinguished Professor Department of Dermatology Melanoma, clinical trials University of Pittsburgh

### Jose Martinez, MD, PhD

Assistant Professor
UNC School of Medicine
Department of Medicine
Leukemia, RNA splicing in cancer
University of North Carolina at Chapel Hill































# INFRASTRUCTURE AND SHARED RESOURCES

### **Developing New Treatments**

### Felicia Cao, MD, PhD

Assistant Professor
UNC School of Medicine
Department of Medicine
Solid tumor CAR-T therapy
University of North Carolina at Chapel Hill

#### Robert Ferris, MD, PhD

Executive Director of UNC Lineberger
Chief of Oncology Clinical Services for UNC Health
UNC School of Medicine
Department of Otolaryngology/Head
& Neck Surgery
Immunotherapy
University of Pittsburgh

### **Brent Hanks, MD, PhD**

Associate Professor UNC School of Medicine Department of Medicine Cancer immunology, melanoma, GI cancers Duke University

### Samuel Young, PhD

Professor
UNC School of Medicine
Department of Pediatrics/Genetics
& Metabolism
Gene Therapy Center
University of Iowa

#### **Genomics**

### Michael Iglesia, MD, PhD

Associate Professor UNC School of Medicine Department of Medicine GI cancers, bioinformatics, genetics Washington University St. Louis

### **Opportunity**

### Jeremy Rich, MD, MHS, MBA

Professor
UNC School of Medicine
Department of Neurology/Neuro-Oncology
Neuro-oncology, glioblastoma, UNC Lineberger
Deputy Director
University of Pittsburgh

### **Tigist Tamir, PhD**

Assistant Professor
UNC School of Medicine
Department of Biochemistry
& Biophysics, Nutrition
Cancer signaling, proteomics, metabolomics
Massachusetts Institute of Technology



# INFRASTRUCTURE AND SHARED RESOURCES

### **Optimizing NC Outcomes**

### Tamryn Gray, PhD, RN, MPH, MSN

Assistant Professor
UNC School of Nursing
Department of Nursing
Cancer survivorship, palliative care
Dana-Farber/Brigham and Women's Hospital

### Meghan O'Leary, PhD

Assistant Professor UNC Gillings of Global Public Health Department of Health Policy & Management Health services, health outcomes University of North Carolina at Chapel Hill

### Kea Turner, PhD, MPH

Associate Professor UNC School of Nursing Department of Nursing Cancer cachexia, nutrition Moffitt Cancer Center

### **Faculty Retention**

#### **Genomics**

### William Kim, MD

Rush S. Dickson Distinguished Professor of Medicine UNC School of Medicine Department of Medicine Bladder cancer, genetics, therapy

### **Developing New Treatments**

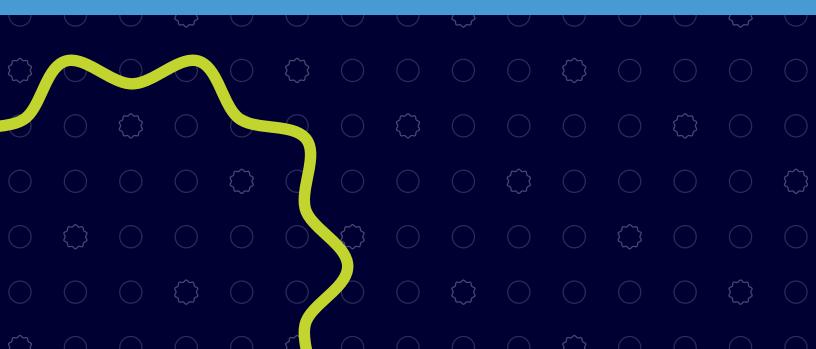
### Jen Jen Yeh, MD

Professor and Assistant Dean for Translational Research UNC School of Medicine Department of Surgery, Pharmacology Surgical oncology, pancreatic cancer





# 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. As of July 1, 2024, the UCRF is supported by an annual appropriation from the North Carolina General Assembly.

This report and its charts reflect anticipated and actual revenue for Fiscal Year 2025, and the fund balance after considering carryover and expenditure.

### Fiscal Year 2025 Anticipated and Actual Fund Revenue

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

<sup>\*</sup> Rounded to the nearest dollar

### Fiscal Year 2025 Budget and Expenditures

| Anticipated Budget            | Amount*      |
|-------------------------------|--------------|
| Revenue                       | \$59,520,000 |
| Carryover from Fiscal Year 24 | (\$14,876)   |
| Total                         | \$59,505,124 |
| Actual Budget                 |              |
| Revenue                       | \$59,520,000 |
| Carryover from Fiscal Year 24 | (\$14,876)   |
| Total                         | \$59,505,124 |
| Expenditures                  | \$59,577,164 |
| Balance                       | (\$72,040)   |

<sup>\*</sup> 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**



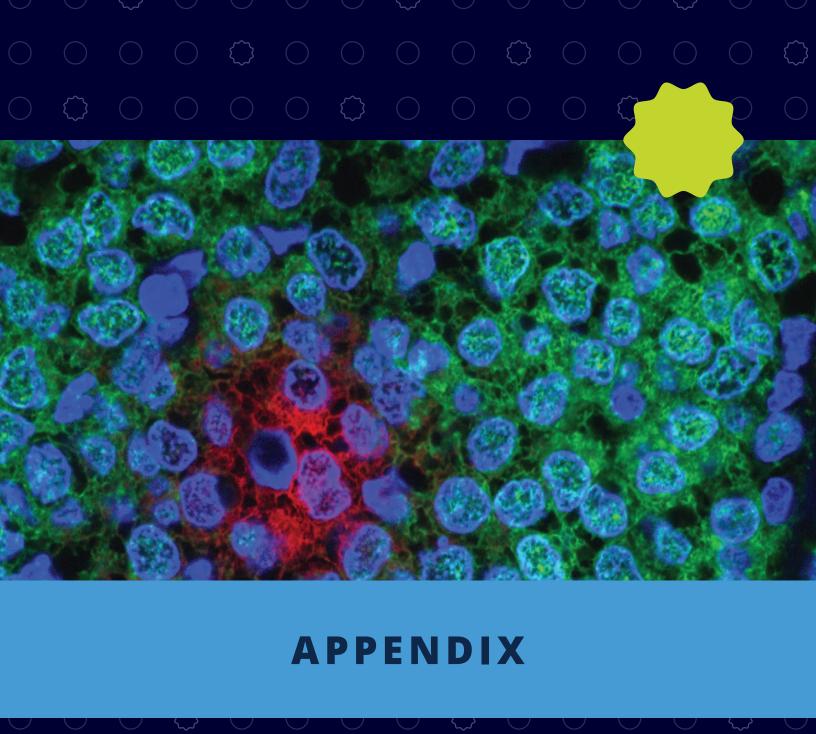
### **Conclusion**

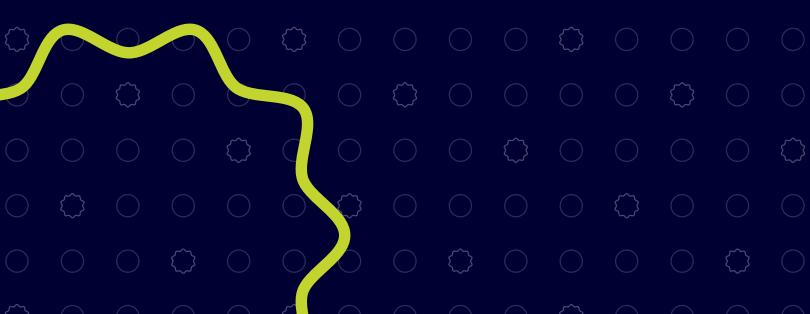
The University Cancer Research Fund is a nation-leading investment whose positive impacts have grown every year since its creation in 2007. As this report demonstrates, the UCRF continues to benefit North Carolina by creating jobs, generating outside grant funds and tax revenues, and sustaining vital resources that help UNC Lineberger serve patients in all 100 counties and continue as a global leader in advancing cancer research and care.

The UCRF lays a strong foundation for the patient-centered clinical work and innovative research of our world-class cancer experts, not to mention their partnerships with health care providers and communities statewide — for the ultimate benefit of patients and families affected by cancer both throughout and beyond North Carolina. On behalf of those patients and families, and the researchers and clinicians who serve them, thank you for your continued support of this incredible investment.









### O APPENDIX O



### **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 Hill. 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 and director 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
CEO, UNC Health
The University of North Carolina
at Chapel Hill



Robert Ferris, MD, PhD Executive 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



































#### 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.































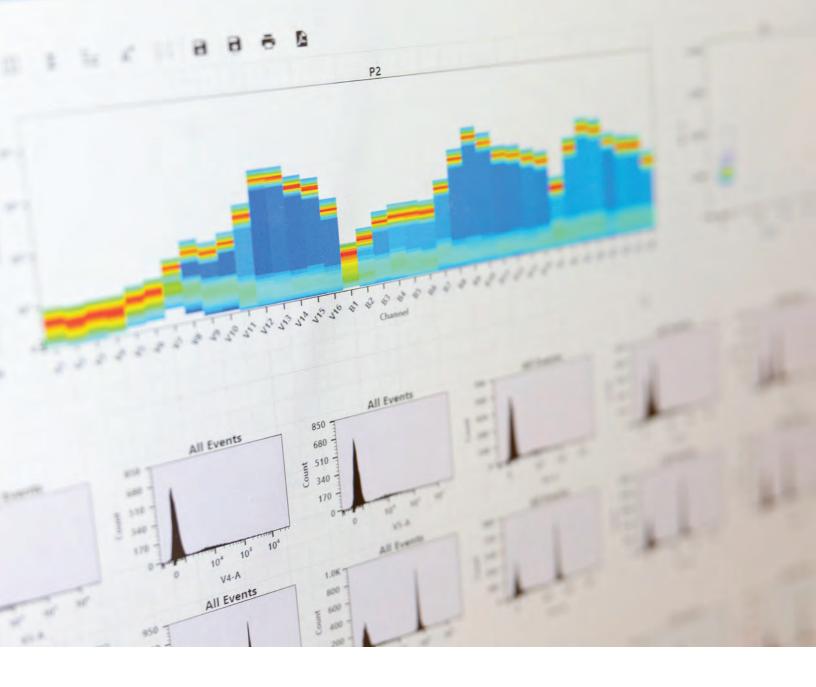






# THE ECONOMIC IMPACT OF UNIVERSITY CANCER RESEARCH FUND

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 the University Cancer Research Fund (UCRF) to support and advance cancer research at the UNC Lineberger Comprehensive Cancer Center. The initial \$25 million investment has grown to \$59.5 million in FY 2025, and according to an analysis by Tripp Umbach, this year's funding alone played a key role in generating \$807.7 million in economic impact. This sustained support has fueled innovation in cancer detection, treatment, and prevention—positioning UNC Lineberger as one of the nation's leading public comprehensive cancer centers.

UNC Lineberger is one of only 57 National Cancer Institute—designated comprehensive cancer centers and the only public cancer center in North Carolina. It serves as a leading hub for groundbreaking research and clinical care, bringing together some of the country's top physicians and scientists to advance prevention, early detection, and treatment strategies. From lab research to clinical trials to community outreach, UNC Lineberger faculty are driving discoveries that shape the future of cancer care. Investment in the UCRF ensures that North Carolinians have access to world-class treatments while reinforcing the state's long-term commitment to public health.























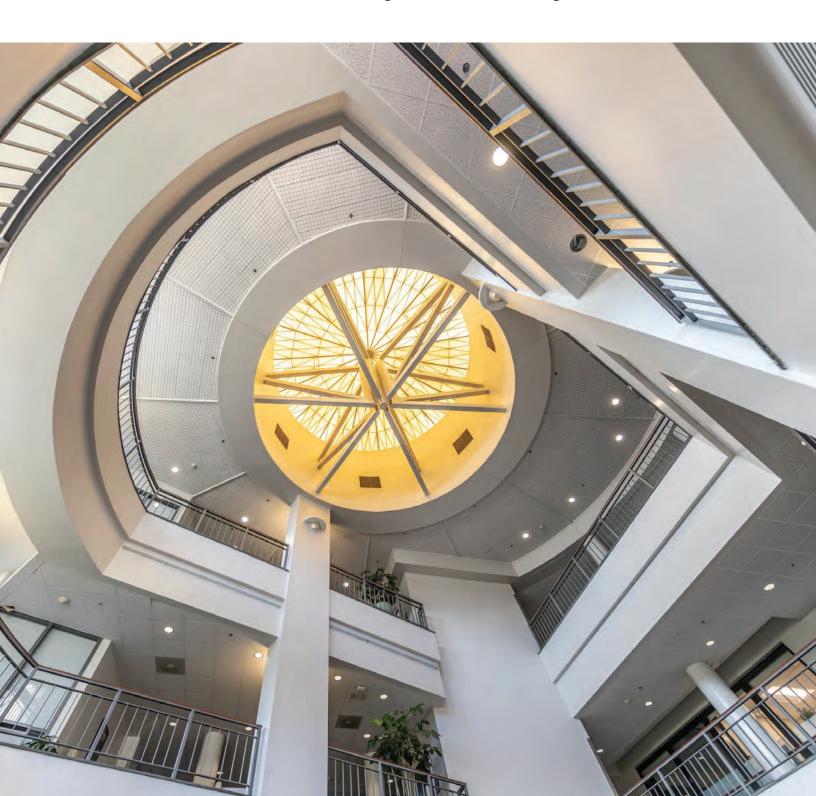






The UCRF's strength lies in its focus on people and collaboration. The fund supports talented researchers and expert clinicians whose work translates into real-world treatments and cures. At UNC-Chapel Hill, collaboration is embedded in the culture—both across disciplines within the university and with external partners—helping transform research discoveries into tangible progress against cancer.

Beyond advancing cancer science and care, the UCRF generates broad economic benefits. It drives job creation, supports North Carolina's biomedical sector, and multiplies dollars throughout the state's economy. This report highlights both the current-year impact of UCRF investments and the cumulative benefits since the fund's inception, including expanding the state economy, creating jobs, generating tax revenue, fostering scientific collaboration, and attracting federal research dollars. Together, these investments strengthen North Carolina's position as a national leader in biomedical research and innovation, while enhancing the health and well-being of its residents.



# EXPANDING THE STATE'S ECONOMY

In FY 2025, the UCRF generated a total economic impact of **\$807.7 million** in North Carolina. This impact includes direct spending of more than \$407.9 million within the state, with a significant portion of this amount coming from national grants secured through research activities, totaling \$253.7 million. The ripple effect of this in-state spending contributed an additional \$399.8 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 financial landscape.

### **CREATING JOBS**

The UCRF has been a critical driver of employment in North Carolina, directly supporting 1,556 jobs in FY 2025. Beyond this, the indirect and induced impacts of those jobs, as well as the spending generated by the UCRF, contributed to the creation of an additional 2,312 jobs across the state. In total, the fund supported 3,868 jobs in FY 2025, 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 **\$25.4 million** in local and state tax revenue in FY 2025. 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 2025 alone, UCRF recipients leveraged \$210.8 million in federal research grants, contributing to more than \$253.7 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 nationwide. 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.























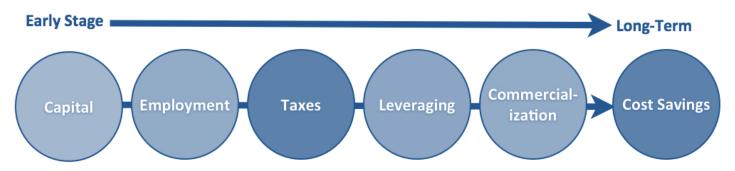




### **IMPACTS OF THE UCRF IN FY 2025**

State research funds deliver economic benefits that ripple across North Carolina's economy—immediately and for years to come. 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. These investments, in turn, lead to the development of 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**

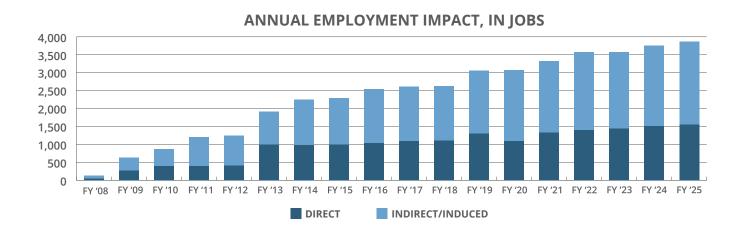
In FY 2025, UCRF investments in research contributed to a **\$807.7 million** expansion of North Carolina's economy. Tripp Umbach's economic impact analysis reveals that even in the program's early years (2007-2011), investments in capital and human resources yielded a return of more than three dollars for every dollar invested. By FY 2025, this return has grown substantially, with nearly **\$13.57 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 17 years are detailed in the chart below.



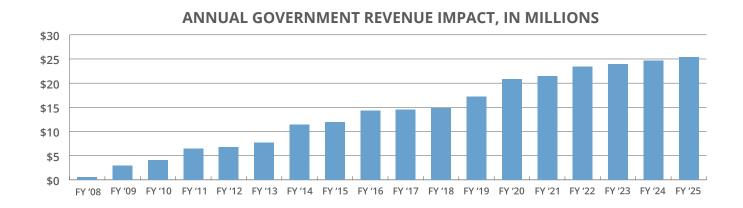
#### IMPACT OF UCRF DOLLARS ON EMPLOYMENT

Tripp Umbach estimates that in FY 2025, UCRF funding for healthcare research created and sustained **3,868 high-paying research-related jobs** across North Carolina. These jobs include 1,556 high-paying jobs directly tied to UNC, as well as an additional 2,312 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 2025 UCRF funds generated **\$25.4 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 boost tax revenues further. 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

These state funds have measurably enhanced the North Carolina academic medical industry and growing life sciences industry. Federal medical research funding helps fuel clinical enterprises. These funds from the state's UCRF have encouraged researchers at the recipient organization to collaborate on applying for and winning highly competitive federal grants. These funds have enabled recipients of UCRF dollars to leverage federal research funds amounting to \$210.8 million, bringing the total to \$253.7 million in external funding in 2025 alone.

### COMMERCIALIZATION

Additional impacts that will be realized due to the UCRF are the levels of commercialization that occur when clusters of research professionals collaborate on a specific area of research. Looking at the projected commercialization impact in 2032, Tripp Umbach estimates **\$807.7 million** at a conservative level of growth scenario, and more than **\$1.4 billion** using an aggressive level of growth, which includes additional economic activity within North Carolina. These activities will also create an additional 4,148 (conservative estimate) to 7,631 (aggressive estimate) high-paying jobs. These additional economic and employment impacts will translate into an additional state and local tax impact of \$27.6 million to \$49.5 million.

It is essential to note that these commercialization impacts are in addition to the annual operational impacts of the UCRF, and they will continue to grow as the research fund remains successful. These impacts are realized after years of research, once breakthroughs or discoveries have been made, and the discoveries begin to reach the marketplace. Examples of successful spinoff businesses supported by UNC Lineberger include Meryx, 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 2025

### TOTAL IMPACT

The total impact of an organization is a compilation of its direct impact, indirect impact, and induced impact on the economy.

### DIRECT IMPACT

Direct impact encompasses all direct effects that the organization has on the regional area due to its organizational operations. These items include direct employee expenses, organizational expenditures, employee expenditures, and expenditures by patients and visitors to the organization.

### INDIRECT IMPACT

The indirect impact encompasses the effect of local industries purchasing goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money leaks out of the local economy, either through imports or through payments for 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 (including employee compensation and proprietor income components of value added) is not considered leakage to the regional economy. This money is recirculated through the household spending patterns, causing further local economic activity.

#### MULTIPLIER EFFECT

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





















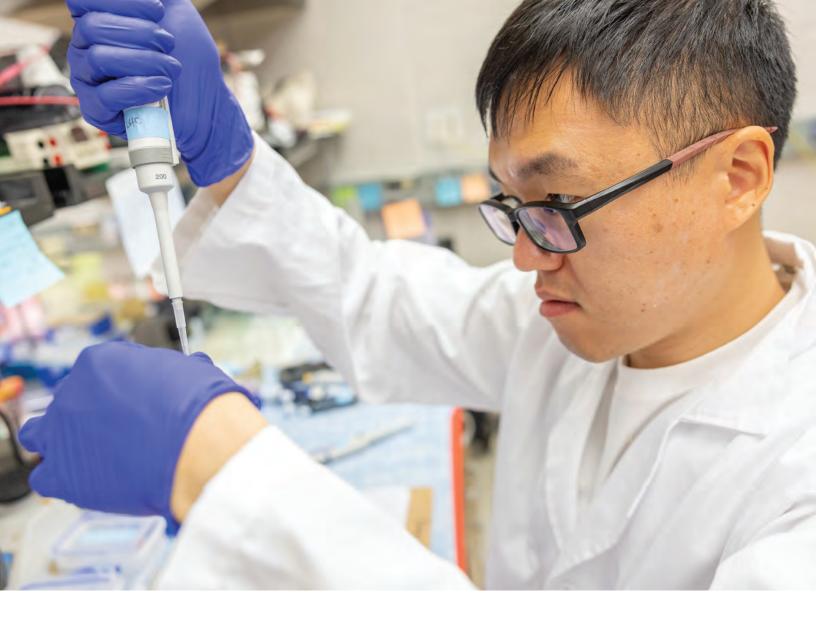












### **APPENDIX B: METHODOLOGY**

To measure the impact of UCRF funding on UNC Lineberger's operations across North Carolina, Tripp Umbach applied a rigorous and conservative methodology designed to ensure accuracy and reproducibility for future studies.

The analysis used the IMPLAN economic impact model, a nationally recognized tool for quantifying the direct, indirect, and induced effects of economic activity. Direct impacts reflect jobs and spending directly tied to operations; indirect impacts capture activity generated through vendors and suppliers; and induced impacts result from household spending by employees. IMPLAN was selected for its independence, reliability, and widespread use in economic impact research.

Employment and operational data were collected from UNC Lineberger and validated to ensure accuracy, then modeled using the most recent IMPLAN datasets (2022). These datasets offer detailed coverage of hundreds of industries, adhering to the conventions of the U.S. Bureau of Economic Analysis and the United Nations for input/output modeling.

This approach enabled Tripp Umbach to deliver a comprehensive and credible estimate of UCRF's economic contribution at the state level, while ensuring consistency with best practices in economic impact analysis.























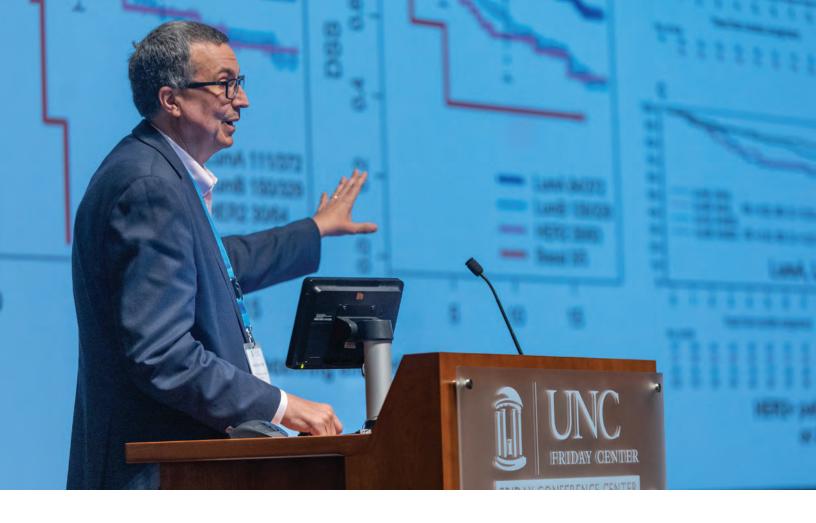












## **APPENDIX C: TRIPP UMBACH QUALIFICATIONS**

Tripp Umbach is the national leader in providing economic impact analysis to leading healthcare organizations and academic health centers. The firm has completed over 500 economic impact studies 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.

























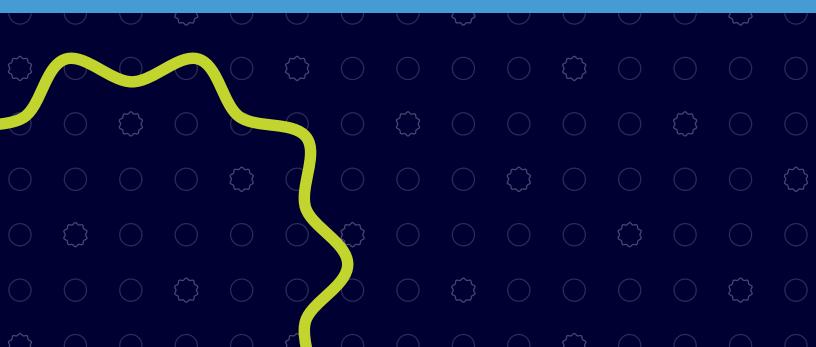








# FISCAL YEAR 2025 EXPENDITURES



### **FY 2025 EXPENDITURES**

### **Expenditures of State Funds Invested in the UCRF**

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. The Cancer Research Fund Committee developed the UCRF strategic plan to guide the responsible, strategic use of UCRF resources. The plan included three major research themes, an Opportunity Fund that allows UNC Lineberger to remain nimble and seize opportunities as they arise in a quickly changing field, and a focus on shared infrastructure to support clinical excellence and outreach.

| Strategy                                                                               | Annual<br>Budget | Year to<br>Date Actual* | Cash<br>Balance* |
|----------------------------------------------------------------------------------------|------------------|-------------------------|------------------|
| Theme 1: Optimizing NC Cancer Outcomes                                                 | \$10,905,000     | \$10,908,668            | (\$3,668)        |
| Theme 2: Understanding Genetics in Cancer — Basic Approaches and Clinical Applications | \$9,550,000      | \$9,495,399             | \$54,601         |
| Theme 3: Developing New Cancer Treatments                                              | \$9,590,000      | \$9,825,962             | (\$235,962)      |
| Tier 2: Opportunity Fund                                                               | \$9,500,000      | \$8,050,536             | (\$144,041)      |
| Tier 3: Infrastructure — Clinical Excellence and Outreach                              | \$8,250,000      | \$8,509,077             | \$199,464        |
| Infrastructure                                                                         | \$11,725,000     | \$11,652,557            | \$72,443         |
| Grand Total                                                                            | \$59,520,000     | \$59,577,164            | (\$57,164)       |

<sup>\*</sup> Rounded to the nearest dollar

















# O FY 2025 EXPENDITURES O

### **Total Expenses**

| <b>Expense Category</b>         | Year To Date Actual* | Expense to Total Expenditure |
|---------------------------------|----------------------|------------------------------|
| Faculty Salaries                | \$20,220,901         | 33.9%                        |
| EPA Student Salaries            | \$3,502,336          | 5.9%                         |
| Staff Salaries                  | \$7,664,763          | 12.9%                        |
| Other Staff                     | \$577,916            | 1.0%                         |
| Benefits                        | \$10,013,126         | 16.8%                        |
| Physician Benefits              | \$265,690            | 0.4%                         |
| Other Staff Benefits            | \$198,179            | 0.3%                         |
| Transit Tax                     | \$106,112            | 0.2%                         |
| Consultants/Contracted Services | \$627,679            | 1.1%                         |
| Employee Education              | \$32,240             | 0.1%                         |
| Repairs and Maintenance         | \$31,990             | 0.1%                         |
| Other Current Services          | \$4,711,335          | 7.9%                         |
| Supplies, Other                 | \$4,371,753          | 7.3%                         |
| Travel                          | \$801,667            | 1.3%                         |
| Advertising                     | \$13,839             | 0.0%                         |
| Meetings and Amenities          | (\$71,166)           | -0.1%                        |
| Printing and Binding            | \$88,714             | 0.1%                         |
| Communication                   | \$140,983            | 0.2%                         |
| Computer Services               | \$593,403            | 1.0%                         |
| Rental/Lease Facilities         | \$1,142,732          | 1.9%                         |
| Equipment                       | \$2,287,711          | 3.8%                         |
| Study Subjects and Expenses     | \$248,656            | 0.4%                         |
| Health care system Residents    | \$714,392            | 1.2%                         |
| Insurance                       | \$29,728             | 0.0%                         |
| Student Support                 | \$1,261,991          | 2.1%                         |
| Legal Fees                      | \$494                | 0.0%                         |
| Grand Total                     | \$59,577,164         | 100.0%                       |

<sup>\*</sup> Rounded to the nearest dollar































# ○ FY 2025 EXPENDITURES ۞ ○

### **UCRF Funding by Strategy and Expense**

| Theme 1: Optimizing NC Cancer Outcomes       | Year to Date Actual |
|----------------------------------------------|---------------------|
| Faculty Salaries                             | \$3,708,519         |
| EPA Student Salaries                         | \$378,914           |
| Staff Salaries                               | \$2,042,556         |
| Other Staff                                  | \$186,760           |
| Benefits                                     | \$2,148,948         |
| Physician Benefits                           | \$10,678            |
| Other Staff Benefits                         | \$49,964            |
| Transit Tax                                  | \$21,195            |
| Consultants/Contracted Services              | \$80,558            |
| Employee Education                           | \$14,034            |
| Repairs and Maintenance                      | \$514               |
| Other Current Services                       | \$795,729           |
| Supplies, Other                              | \$121,835           |
| Travel                                       | \$286,056           |
| Advertising                                  | \$730               |
| Meetings and Amenities                       | \$1,505             |
| Printing and Binding                         | \$41,836            |
| Communication                                | \$47,332            |
| Computer Services                            | \$40,174            |
| Rental/Lease Facilities                      | \$489,198           |
| Equipment                                    | \$18,488            |
| Study Subjects and Expenses                  | \$170,064           |
| Insurance                                    | \$15,414            |
| Student Support                              | \$233,057           |
| Legal Fees                                   | \$4,609             |
| Theme 1: Optimizing NC Cancer Outcomes Total | \$10,908,668        |

<sup>\*</sup> Rounded to the nearest dollar















# ☼ ○ FY 2025 EXPENDITURES ۞ ○ ○

| Theme 2: Understanding Genetics in Cancer — Basic Approaches and Clinical Applications       | Year to Date Actual* |
|----------------------------------------------------------------------------------------------|----------------------|
| Faculty Salaries                                                                             | \$3,444,419          |
| EPA Student Salaries                                                                         | \$383,901            |
| Staff Salaries                                                                               | \$1,075,768          |
| Other Staff                                                                                  | \$64,934             |
| Benefits                                                                                     | \$1,675,376          |
| Physician Benefits                                                                           | \$16,525             |
| Other Staff Benefits                                                                         | \$32,240             |
| Transit Tax                                                                                  | \$16,540             |
| Consultants/Contracted Services                                                              | \$3,493              |
| Employee Education                                                                           | \$3,976              |
| Repairs and Maintenance                                                                      | \$1,305              |
| Other Current Services                                                                       | \$845,021            |
| Supplies, Other                                                                              | \$1,358,719          |
| Travel                                                                                       | \$33,954             |
| Advertising                                                                                  | \$7,168              |
| Printing and Binding                                                                         | \$1,079              |
| Communication                                                                                | \$3,661              |
| Computer Services                                                                            | \$272,346            |
| Equipment                                                                                    | \$120,080            |
| Study Subjects and Expenses                                                                  | \$5,206              |
| Insurance                                                                                    | \$1,540              |
| Student Support                                                                              | \$132,069            |
| Legal Fees                                                                                   | (\$3,920)            |
| Theme 2: Understanding Genetics in Cancer — Basic Approaches and Clinical Applications Total | \$9,495,399          |

<sup>\*</sup> Rounded to the nearest dollar

















# ○ FY 2025 EXPENDITURES ۞ ○

| Theme 3: Developing New Cancer Treatment       | Year to Date Actual* |
|------------------------------------------------|----------------------|
| Faculty Salaries                               | \$2,389,359          |
| EPA Student Salaries                           | \$350,338            |
| Staff Salaries                                 | \$1,248,096          |
| Other Staff                                    | \$119,604            |
| Benefits                                       | \$1,368,474          |
| Physician Benefits                             | \$1,965              |
| Other Staff Benefits                           | \$27,809             |
| Transit Tax                                    | \$13,592             |
| Consultants/Contracted Services                | \$84,616             |
| Employee Education                             | \$275                |
| Repairs and Maintenance                        | \$10,851             |
| Other Current Services                         | \$1,369,091          |
| Supplies, Other                                | \$1,411,701          |
| Travel                                         | \$87,438             |
| Advertising                                    | \$725                |
| Printing and Binding                           | \$4,410              |
| Communication                                  | \$6,578              |
| Computer Services                              | \$24,647             |
| Rental/Lease Facilities                        | \$624,465            |
| Equipment                                      | \$393,799            |
| Insurance                                      | \$8,421              |
| Student Support                                | \$114,241            |
| Health care system Residents                   | \$165,468            |
| Theme 3: Developing New Cancer Treatment Total | \$9,825,962          |

<sup>\*</sup> Rounded to the nearest dollar

















# ○ FY 2025 EXPENDITURES ○ ○

| Tier 2: Opportunity Fund        | Year to Date Actual* |
|---------------------------------|----------------------|
| Faculty Salaries                | \$1,632,044          |
| EPA Student Salaries            | \$980,613            |
| Staff Salaries                  | \$1,067,303          |
| Other Staff                     | \$178,195            |
| Benefits                        | \$1,129,877          |
| Physician Benefits              | \$13,208             |
| Other Staff Benefits            | \$21,724             |
| Transit Tax                     | \$12,854             |
| Consultants/Contracted Services | \$5,474              |
| Employee Education              | \$3,100              |
| Repairs and Maintenance         | \$18,162             |
| Other Current Services          | \$1,172,711          |
| Supplies, Other                 | \$1,047,034          |
| Travel                          | \$320,701            |
| Advertising                     | \$14,923             |
| Meetings and Amenities          | \$144                |
| Printing and Binding            | \$38,991             |
| Communication                   | \$18,586             |
| Computer Services               | \$207,481            |
| Rental/Lease Facilities         | \$28,170             |
| Equipment                       | \$1,532,231          |
| Study Subjects and Expenses     | \$30,421             |
| Insurance                       | \$661                |
| Student Support                 | \$169,630            |
| Legal Fees                      | (\$195)              |
| Tier 2: Opportunity Fund Total  | \$9,644,041          |

<sup>\*</sup> Rounded to the nearest dollar



# ☼ ○ FY 2025 EXPENDITURES ۞ ○ ○

| Tier 3: Infrastructure — Clinical Excellence and Outreach       | Year to Date Actual* |
|-----------------------------------------------------------------|----------------------|
| Faculty Salaries                                                | \$5,527,146          |
| Staff Salaries                                                  | \$390,969            |
| Other Staff                                                     | \$28,424             |
| Benefits                                                        | \$1,512,385          |
| Physician Benefits                                              | \$220,438            |
| Other Staff Benefits                                            | \$12,774             |
| Transit Tax                                                     | \$19,684             |
| Consultants/Contracted Services                                 | \$66,247             |
| Employee Education                                              | \$10,795             |
| Repairs and Maintenance                                         | (\$3,462)            |
| Other Current Services                                          | \$25,172             |
| Supplies, Other                                                 | \$88,227             |
| Travel                                                          | \$1,271              |
| Advertising                                                     | \$764                |
| Meetings and Amenities                                          | \$7,051              |
| Communication                                                   | \$2,374              |
| Computer Services                                               | \$5,700              |
| Study Subjects and Expenses                                     | \$850                |
| Health care system Residents                                    | \$133,179            |
| Student Support                                                 | \$549.45             |
| Tier 3: Infrastructure — Clinical Excellence and Outreach Total | \$8,050,536          |

<sup>\*</sup> Rounded to the nearest dollar

















# ☼ ○ FY 2025 EXPENDITURES ☼ ○ ○

| Infrastructure                  | Year to Date Actual* |
|---------------------------------|----------------------|
| Faculty Salaries                | \$3,519,415          |
| EPA Student Salaries            | \$1,408,570          |
| Staff Salaries                  | \$1,840,071          |
| Benefits                        | \$2,178,066          |
| Physician Benefits              | \$2,877              |
| Other Staff Benefits            | \$53,668             |
| Transit Tax                     | \$22,248             |
| Consultants/Contracted Services | \$387,291            |
| Employee Education              | \$60                 |
| Repairs and Maintenance         | \$4,619              |
| Other Current Services          | \$503,611            |
| Supplies, Other                 | \$344,236            |
| Travel                          | \$72,248             |
| Advertising                     | (\$10,471)           |
| Meetings and Amenities          | (\$79,867)           |
| Printing and Binding            | \$2,397              |
| Communication                   | \$62,452             |
| Computer Services               | \$43,056             |
| Rental/Lease Facilities         | \$900                |
| Equipment                       | \$223,112            |
| Insurance                       | \$3,693              |
| Study Subjects and Expenses     | \$42,116             |
| Health care system Residents    | \$415,745            |
| Student Support                 | \$612,444.94         |
| Infrastructure Total            | \$11,652,557         |
| Grand Total                     | \$59,577,164         |

<sup>\*</sup> Rounded to the nearest dollar

















| Category             | Last Name | First name | Sponsor                                                            | Sponsor Award No         | Begin    | End      | Title                                                                                                                                                                                                                                                                     | Total Award |
|----------------------|-----------|------------|--------------------------------------------------------------------|--------------------------|----------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Retention            | Abdou     | Yara       | VCU Medical<br>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                                                                                                                                         | \$80,000    |
| Retention            | Abdou     | Yara       | Gilead Sciences,<br>Inc.                                           | GS-US-595-6184           | 3/12/24  | 3/27/34  | A Randomized, Open-Label, Phase 3 Study of<br>Adjuvant Sacituzumab Govitecan and<br>Pembrolizumab Versus Treatment of Physician's<br>Choice in Patients With Triple Negative Breast<br>Cancer Who Have Residual Invasive Disease After<br>Surgery and Neoadjuvant Therapy | \$25,322    |
| Retention            | Abdou     | Yara       | Blueprint<br>Medicines<br>Corporation                              | BLU-222-1101             | 3/12/24  | 3/26/34  | A Phase 1/2 Study to Evaluate the Safety,<br>Pharmacokinetics, and Efficacy of BLU-222 as a<br>Single Agent and in Combination Therapy for<br>Patients with Advanced Solid Tumors                                                                                         | \$90,439    |
| Retention            | Abdou     | Yara       | University of Texas<br>Southwestern<br>Medical Center              | 230405                   | 1/1/24   | 12/31/26 | Phase 1 pilot study with dose expansion of chemotherapy in combination with CD40 agonist and Flt3 ligand in metastatic triple negative breast cancer                                                                                                                      | \$14,000    |
| Retention            | Abdou     | Yara       | Johns Hopkins<br>University                                        | TBCRC059                 | 9/13/24  | 9/12/34  | TBCRC-059 / DF-HCC-22-225: ETHAN: A phase II study comparing different Endocrine THerapies for mAle breast caNcer                                                                                                                                                         | \$25,895    |
| Retention            | Abdou     | Yara       | Conquer Cancer<br>Foundation                                       |                          | 10/1/24  | 9/30/27  | Molecular Residual Disease in Triple Negative Breast Cancer: Detection and Therapeutic Interception                                                                                                                                                                       | \$66,667    |
| Retention            | Abdou     | Yara       | Memorial Sloan-<br>Kettering Cancer<br>Center                      | TBCRC-058                | 12/3/24  | 12/3/29  | A randomized, phase II study of enzalutamide,<br>enzalutamide with mifepristone and treatment of<br>physician's choice in patients with AR+ metastatic<br>triple-negative or ER-low breast cancer                                                                         | \$21,290    |
| Retention            | Abdou     | Yara       | Johns Hopkins<br>University                                        | TBCRC 2024<br>2006482705 | 7/1/24   | 6/30/25  | TBCRC 2024 - Infrastructure Support Task Order                                                                                                                                                                                                                            | \$28,000    |
| Retention            | Abdou     | Yara       | Johns Hopkins<br>University                                        | TBCRC 2024<br>2006467310 | 7/1/24   | 6/30/25  | TBCRC 2024 - Infrastructure Support Task Order                                                                                                                                                                                                                            | \$28,000    |
| Investment<br>(HTSF) | Ahmed     | Shawn      | NIH National<br>Institute of<br>Environmental<br>Health Sciences   | 5-R01-ES035777-01-<br>02 | 3/15/24  | 2/28/29  | Telomere uncapping epigenetically reprograms a stress response and longevity pathway                                                                                                                                                                                      | \$487,001   |
| Investment (CC)      | Ainslie   | Kristie    | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 5R01Al167099-03          | 1/3/23   | 12/31/27 | Mechanistic Evaluation of Mast Cell Agonists Combined with TLR, NOD and STING Agonists                                                                                                                                                                                    | \$612,113   |
| Recruitment          | Akulian   | Jason      | Biodesix                                                           |                          | 10/24/19 | 12/31/25 | (INSIGHT): An Observational Study Assessing the<br>Clinical Effectiveness of VeriStrat® and Validating<br>Immunotherapy Tests in Subjects with Non-Small<br>Cell Lung Cancer BDX00146                                                                                     | \$25,892    |
| 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)                                                                                                    | \$14,302    |
| 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 of Patients with Non-Small Cell Lung Cancer Using Comprehensive Next-Generation Sequencing Assays                                                                 | \$20,480    |
| Recruitment          | Akulian   | Jason      | Tempus Labs, Inc                                                   | TP-CA-003                | 7/12/23  | 10/31/28 | A Tissue and Longitudinal Circulating Tumor DNA<br>(ctDNA) Biomarker Profiling Study of Patients with<br>Small CellLung Cancer (SCLC) Using Comprehensive<br>Next-Generation Sequencing (NGS) Assays                                                                      | \$22,336    |
| Recruitment          | Akulian   | Jason      | Pleural Dynamics,<br>Inc.                                          | CL2301                   | 4/12/24  | 5/31/27  | A Post-Market Study Evaluating Fluid Shunting<br>Using the Automatic Continuous Effusion<br>Management System (ACES™) in Patients with<br>Symptomatic Aseptic Pleural Effusion: The ACES<br>Study                                                                         | \$58,332    |
| Recruitment          | Aleman    | Maria      | Sanofi US Services,<br>Inc.                                        | 24-0279                  | 9/12/24  | 7/24/27  | Fibrin Formation Assays to Test Procoagulant Activity                                                                                                                                                                                                                     | \$24,825    |
| Recruitment          | Alexander | Thomas     | Public Health<br>Institute                                         | AR68422                  | 8/1/23   | 7/31/25  | COG NCORP Per Case Reimbursement (5UG1CA189955-10)                                                                                                                                                                                                                        | \$32,750    |
| Recruitment          | Alexander | Thomas     | Public Health<br>Institute                                         | ATR67200                 | 7/1/23   | 6/30/26  | APEC14B1 Project: Every Child (PEC) A Registry,<br>Eligibility Screening, Biology and Outcome Study                                                                                                                                                                       | \$9,500     |

| Category                 | Last Name | First name | Sponsor                                                                 | Sponsor Award No                    | Begin   | End      | Title                                                                                                                                            | Total Award |
|--------------------------|-----------|------------|-------------------------------------------------------------------------|-------------------------------------|---------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment              | Andermann | Tessa      | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases      | 5-K23-Al163365-01-<br>04            | 9/10/21 | 8/31/26  | Precision characterization of antimicrobial resistance gene dynamics in bloodstream infection risk after hematopoietic stem cell transplantation | \$202,619   |
| Theme<br>Investment      | Anton     | Eva        | NIH National<br>Institute of<br>Neurological<br>Disorders and<br>Stroke | 5-R35-NS116859-06                   | 5/1/20  | 4/30/28  | Defining mechanisms of progenitor balance and neuronal connectivity                                                                              | \$544,250   |
| Theme<br>Investment      | Anton     | Eva        | NIH National<br>Institute of Mental<br>Health                           | 5-R01-MH132710-01-<br>03            | 8/19/22 | 5/31/27  | Primary Cilia: A Novel Signaling Gateway To Neural<br>Circuit Modulation                                                                         | \$1,094,968 |
| Theme<br>Investment      | Anton     | Eva        | The Brain and<br>Behavior Research<br>Foundation                        | 33063                               | 3/15/25 | 3/14/26  | Decoding the Communications of Neuronal<br>Antennae Essential for Neural Circuit Function                                                        | \$100,000   |
| Investment<br>(Protocol) | Armistead | Paul       | Ohio State<br>University                                                | SPC-1000013903<br>GR137375          | 9/1/24  | 6/30/25  | The Ohio State Blood and Marrow Transplant<br>Research Consortium                                                                                | \$19,596    |
| Recruitment              | Arthur    | Janelle    | Wake Forest University Health Sciences                                  | 2045-45110-<br>11000001883          | 6/14/23 | 5/31/28  | Mechanisms of Klebsiella pneumoniae gastrointestinal colonization                                                                                | \$14,399    |
| Investment<br>(Training) | Aubé      | Jeff       | NIH National<br>Institute of General<br>Medical Sciences                | 5-T32-GM135122-04                   | 7/1/21  | 6/30/26  | UNC Chemical Biology Interface Training Program                                                                                                  | \$281,364   |
| Recruitment              | Aubé      | Jeff       | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases      | 5-R01-Al155510-01-<br>04            | 7/13/21 | 6/30/25  | Discovery of Phospopantetheinyl Transferse<br>Inhibitors Against Mycobacterium tuberculosis                                                      | \$770,597   |
| Recruitment              | Aubé      | Jeff       | University of<br>Florida                                                | SUB00004841                         | 4/15/25 | 2/28/30  | Novel Probes of the Kappa Opioid Receptor:<br>Chemistry, Pharmacology, and Biology                                                               | \$204,577   |
| Retention                | Bae-Jump  | Victoria   | University of<br>Washington                                             | UWSC12682/PO#5596<br>5              | 4/1/21  | 8/31/25  | Social Interventions for Support during Treatment for Endometrial Cancer and Recurrence: SISTER Study                                            | \$16,800    |
| Retention                | Bae-Jump  | Victoria   | NIH National<br>Cancer Institute                                        | 5-R21-CA267584-01-<br>02            | 8/1/22  | 7/31/25  | Impact of Obesity on Immuno-Oncology Agents in<br>Endometrial Cancer                                                                             | \$172,653   |
| Retention                | Bae-Jump  | Victoria   | Magee-Womens<br>Research Institute<br>Foundation                        | 6843                                | 1/1/25  | 12/31/27 | EGFL6: A Link Between Obesity, High Risk<br>Endometrial Cancer, and Racial Disparities                                                           | \$153,134   |
| Retention                | Bae-Jump  | Victoria   | Department of<br>Defense                                                | HT94252411024                       | 8/15/24 | 8/14/27  | Targeting Obesity Via Diet and Drugs for the<br>Treatment of Endometrial Cancer                                                                  | \$518,333   |
| Recruitment              | Baker     | Rick       | NIH National<br>Institute of General<br>Medical Sciences                | 5-R35-GM150960-01-<br>02            | 9/20/23 | 7/31/28  | Molecular mechanisms of endocytic initiation and cargo selection                                                                                 | \$388,750   |
| Recruitment              | Baker     | Rick       | NIH National<br>Institute of Dental<br>and Craniofacial<br>Research     | 1-F31-DE034311-01                   | 9/1/24  | 8/31/27  | Fellow: D Sloan Molecular mechanism of CCDC32 in Cardiofacioneurodevelopmental syndrome                                                          | \$37,346    |
| Theme<br>Investment      | Baric     | Ralph      | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases      | HHSN272201700036I<br>75N93022F00001 | 7/14/17 | 9/30/26  | Animal Models II Umbrella                                                                                                                        | \$1,201,020 |
| Theme<br>Investment      | Baric     | Ralph      | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases      | 5-R01-Al110700-06-<br>10            | 4/20/15 | 8/31/25  | Cell entry, cross-species transmission and pathogenesis of novel coronavirus from Wuhan                                                          | \$748,081   |
| Theme<br>Investment      | Baric     | Ralph      | Washington University in Saint Louis                                    | WU-21-<br>206/PO#ST00000215         | 9/15/20 | 8/31/25  | Human Anti-body based countermeasures against the Wuhan Coronavirus SARS-CoV-2                                                                   | \$383,802   |
| Investment<br>(Training) | Baric     | Ralph      | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases      | 5-F30-Al160898-04                   | 7/1/21  | 6/30/26  | Fellow: D Zhu Age in dengue antibody response and risk after primary natural infection                                                           | \$53,787    |
| Theme<br>Investment      | Baric     | Ralph      | International<br>Vaccine Institute                                      | 23-5358                             | 4/25/24 | 4/24/29  | SARS-CoV-2 VLP-forming mRNA Vaccine: Broadly protective against SARS-CoV-2, variants, and sarbecoviruses with crossover potential into humans    | \$170,159   |
| Theme<br>Investment      | Baric     | Ralph      | SK bioscience                                                           | 24-0961                             | 6/1/24  | 5/31/25  | SK Bioscience Service Agreement                                                                                                                  | \$1,020,689 |

| Category                            | Last Name | First name | Sponsor                                                            | Sponsor Award No                  | Begin   | End      | Title                                                                                                                                                                                                         | Total Award |
|-------------------------------------|-----------|------------|--------------------------------------------------------------------|-----------------------------------|---------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Theme<br>Investment                 | Baric     | Ralph      | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 5R01Al148260-05                   | 3/5/20  | 2/28/26  | Antibody Landscape Following Human Norovirus Infection and Vaccination                                                                                                                                        | \$73,247    |
| Investment (CC)                     | Baric     | Ralph      | NIH National<br>Cancer Institute                                   | 3-U54-CA260543-02                 | 9/30/20 | 8/31/25  | North Carolina SeroNet Center of Excellence                                                                                                                                                                   | \$403,614   |
| Investment (CC)                     | Baric     | Ralph      | NIH National<br>Cancer Institute                                   | 3-U54-CA260543-<br>02S1           | 9/1/23  | 8/31/25  | North Carolina SeroNet Center of Excellence-<br>Supplement                                                                                                                                                    | \$1,475,028 |
| Theme<br>Investment                 | Baric     | Ralph      | NIH National<br>Cancer Institute                                   | 3-U54-CA260543-<br>02S2           | 9/30/20 | 8/31/25  | North Carolina SeroNet Center of Excellence-<br>Supplement                                                                                                                                                    | \$820,801   |
| Theme<br>Investment                 | Baric     | Ralph      |                                                                    | A12522                            | 5/20/25 | 8/31/25  | Mini binder Supplemental Proposal 2                                                                                                                                                                           | \$108,106   |
|                                     | Baron     | John       | Medical University of South Carolina                               | A21-0071-S002                     | 9/1/20  | 8/31/25  | The immune contexture of colorectal adenomas and serrated polyps                                                                                                                                              | \$42,144    |
| Investment<br>(HTSF)                | Bartlelt  | Luther     | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 5-R01-Al151214-01-<br>05          | 9/1/20  | 8/31/26  | Interactions of dietary protein intake and intestinal resident microbiota affecting susceptibility to persistent Giardia infection and Giardia-mediated enteropathy                                           | \$600,193   |
| Retention                           | Basch     | Ethan      | University of<br>Alabama at<br>Birmingham                          | 000527573-SC001                   | 5/4/21  | 2/28/26  | Evaluating the implementation and impact of navigator-delivered ePRO home symptom monitoring and management                                                                                                   | \$169,439   |
| Investment<br>(Training)            | Basch     | Ethan      | NIH National<br>Cancer Institute                                   | 5-T32-CA116339-17                 | 7/1/05  | 7/31/28  | Cancer Care Quality Training Program (CCQTP T32)                                                                                                                                                              | \$392,446   |
| Retention                           | Basch     | Ethan      | Patient-Centered Outcomes Research Institute                       | DI-2023C1-31283                   | 3/1/24  | 2/28/30  | Implementation of Symptom Monitoring with<br>Electronic Patient-Reported Outcomes (ePROs)<br>during Cancer Treatment: The OncoPRO Initiative                                                                  | \$652,458   |
| Retention                           | Basch     | Ethan      | Johns Hopkins<br>University                                        | 2006636808 YACS-24-<br>1416263-01 | 10/1/24 | 9/30/26  | Improving the equity, actionability, and effectiveness of electronic patient-reported outcomes for clinical cancer care                                                                                       | \$17,706    |
| Innovation<br>Award                 | Bautch    | Victoria   | NIH National Heart,<br>Lung, and Blood<br>Institute                | 5-R35-HL139950-07                 | 1/1/18  | 12/31/25 | Molecular and cellular control of angiogenesis                                                                                                                                                                | \$73,783    |
| Innovation<br>Award                 | Bautch    | Victoria   | American Heart Association                                         | 25POST1377401                     | 1/1/25  | 12/31/26 | LINC complex function in endothelial cell during vascular development, function and in disease                                                                                                                | \$156,640   |
| Retention                           | Bear      | James      | NIH National<br>Institute of General<br>Medical Sciences           | 5-R35-GM130312-06-<br>07          | 2/1/19  | 4/30/29  | Systematic Analysis of the Actin Cytoskeleton and Directed Cell Migration                                                                                                                                     | \$588,330   |
| Recruitment                         | Bell      | Ronny      | University of<br>Miami                                             | SPC-003698<br>OS00001332          | 8/15/23 | 6/30/25  | Native Alzheimer's Disease Resource Center for<br>Minority Aging Research (NAD-RCMAR)                                                                                                                         | \$18,290    |
| Recruitment                         | Bennett   | Antonia    | Boston University Board of Trustees                                | 4500000000                        | 7/1/18  | 6/30/25  | Access to and Value of Treatment Innovation Study                                                                                                                                                             | \$85,654    |
| Recruitment/<br>Theme<br>Investment | Berg      | Jonathan   | NIH National<br>Human Genome<br>Research Institute                 | 3-U24-HG009650-<br>08S1           | 9/12/17 | 6/30/26  | The Clinical Genome Resource - Advancing genomic medicine through biocuration and expert assessment of genes and variants at scale                                                                            | \$4,980,872 |
| Recruitment/<br>Theme<br>Investment | Berg      | Jonathan   | NIH National<br>Human Genome<br>Research Institute                 | 3-R01-HG012271-<br>03S1           | 9/14/22 | 6/30/27  | Age-based genomic screening in newborns, infants, and children: a novel paradigm in public health genomics                                                                                                    | \$969,413   |
| Recruitment                         | Bjurlin   | Marc       | Janssen Research<br>& Development,<br>LLC                          | WO#<br>56021927PCR3011            | 6/21/19 | 12/31/27 | A Randomized, Double-blind, Placebo-controlled,<br>Phase 3 Study of Apalutamide in Subjects with High-<br>risk, Localized or Locally Advanced Prostate Cancer<br>Who are Candidates for Radical Prostatectomy | \$49,444    |
| Recruitment                         | Bjurlin   | Marc       | enGene, Inc.                                                       | EG-70-101                         | 7/1/22  | 4/30/26  | A Phase 1/2 Study of EG-70 as an Intravesical<br>Administration to Patients with BCG-Unresponsive<br>NMIBC and High-Risk NMIBC Patients who are BCG<br>Naïve or Received Incomplete BCG Treatment             | \$11,719    |
| Recruitment                         | Bowers    | Albert     | National Science<br>Foundation                                     | CHE-2204094                       | 6/1/22  | 5/31/25  | Controlling protein post-translational modification<br>by separating affinity and catalysis in designer<br>enzymes                                                                                            | \$165,000   |
| Recruitment                         | Bowers    | Albert     | NIH National<br>Institute of General<br>Medical Sciences           | 5-R35-GM125005-06-<br>08          | 9/5/17  | 8/31/27  | Chemoenzymatic Synthesis, Mode of Action and<br>Evolution of Natural Product-based Macrocycles                                                                                                                | \$389,341   |
| Recruitment                         | Bowers    | Albert     | NIH National<br>Institute of General<br>Medical Sciences           | 1-F32-GM157944-01                 | 12/1/24 | 11/30/27 | Fellow: J Elllis Engineering and application of<br>modular chimeric tRNA synthetases in mRNA<br>display                                                                                                       | \$73,828    |
| Recruitment                         | Bowers    | Albert     | Eindura<br>Therapeutics, Inc.                                      | 25-4202                           | 6/1/25  | 5/31/26  | mRNA Display Selections Against Eindura Targets                                                                                                                                                               | \$260,060   |
| Recruitment                         | Branca    | Rosa       | University of Massachusetts Medical School                         | SUB00000106-<br>UNC/WA0118039     | 8/15/21 | 8/14/25  | Advancement of CRISPR-based Adipose Therapeutics for Type 2 Diabetes to Non-human Primates                                                                                                                    | \$293,285   |
|                                     |           |            |                                                                    |                                   |         |          |                                                                                                                                                                                                               |             |

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|----------------------|-----------|------------|--------------------------------------------------------------------|--------------------------|----------|----------|-------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment          | Brenner   | Alison     | Drexel University                                                  |                          | 7/1/23   | 6/30/25  | Assessing Equity in Shared Decision Making,<br>Utilization, and Outcomes of Lung Cancer Screening                             | \$42,000    |
| Recruitment          | Brenner   | Alison     | NIH National<br>Cancer Institute                                   | 5-R01-CA279010-01-<br>02 | 2/1/24   | 1/31/29  | Expanding access to colorectal cancer screening through community pharmacies: The PharmFIT study                              | \$584,334   |
| Recruitment          | Brewer    | Noel       | NIH National<br>Institute on Drug<br>Abuse                         | 5-R01-DA048390-01-<br>05 | 7/1/20   | 4/30/26  | Informing ENDS policies: Studying the impact of ecigarette warnings on behavior                                               | \$522,726   |
| Recruitment          | Brewer    | Noel       | NIH National<br>Cancer Institute                                   | 5-P01-CA250989-01-<br>04 | 9/23/21  | 8/31/26  | Program Project - Improving Provider<br>Announcement Communication Training (IMPACT)                                          | \$2,273,914 |
| 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   | NIH National<br>Institute of General<br>Medical Sciences           | 5-R35-GM128855-06-<br>07 | 8/1/18   | 7/31/28  | Spindle Assembly Checkpoint Silencing                                                                                         | \$454,118   |
| Recruitment          | Brown     | Nicholas   | Amgen, Inc.                                                        | 20231200000              | 12/12/23 | 11/30/25 | Uncovering New Interactions to a Vast Set of Ubiquitin Ligases                                                                | \$250,355   |
| Recruitment          | Brown     | Nicholas   | University of<br>California at San<br>Diego                        | 707092                   | 7/5/24   | 6/30/26  | Recognition and Ubiqutination of neurodevelopmental chromatin regulators                                                      | \$113,171   |
| Recruitment          | Brown     | Nicholas   | National Ataxia<br>Foundation                                      | 25-2479                  | 3/1/25   | 2/28/26  | Deciphering the link between mRNA regulation and protein degradation in PUM1-related ataxias, PADDAS and PRCA                 | \$50,000    |
| Investment<br>(HTSF) | Browne    | Edward     | NIH National<br>Institute on Drug<br>Abuse                         | 5-R61-DA059918-01-<br>02 | 9/30/23  | 7/31/25  | Defining the impact of cannabinoids on the HIV reservoir in humanized mice                                                    | \$519,071   |
| Investment<br>(HTSF) | Browne    | Edward     | NIH National<br>Institute on Drug<br>Abuse                         | 4-R33-DA053599-04        | 7/1/21   | 6/30/26  | Defining the impact of cannabinoids on the latent HIV reservoir through multi-omic analysis                                   | \$730,078   |
| Investment<br>(HTSF) | Browne    | Edward     | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 2-R56-Al143381-05        | 7/16/19  | 7/31/26  | Regulation of HIV Latency by Host Cell<br>Transcriptional and Epigenetic Networks                                             | \$415,427   |
| Recruitment          | Brudno    | Yevgeny    | North Carolina<br>Biotechnology<br>Center                          | 2024-TRG-0018            | 1/15/24  | 1/14/26  | Implantable Bio factories For Rapid and More<br>Potent CAR T Cell Therapy                                                     | \$100,000   |
| Recruitment          | Brudno    | Yevgeny    | NIH National<br>Cancer Institute                                   | 7-R21-CA277018-02        | 6/1/24   | 5/31/25  | Biomaterial Scaffolds for In Vivo CAR T Cell<br>Manufacture                                                                   | \$199,164   |
| Recruitment          | Brudno    | Yevgeny    | NIH National<br>Cancer Institute                                   | 5-R01-CA278961-02-<br>03 | 8/27/24  | 2/28/29  | Bioinstructive Scaffolds for Potent and Affordable CAR-T Cell Therapy Against Brain Tumors                                    | \$634,205   |
| Recruitment          | Brudno    | Yevgeny    | NIH National<br>Cancer Institute                                   | 5-R37-CA260223-05-<br>06 | 7/2/24   | 3/31/26  | Biomaterial Scaffolds for Ex Vivo and In Situ CAR-T<br>Cell Production                                                        | \$344,389   |
| Recruitment          | Brudno    | Yevgeny    | NIH National<br>Cancer Institute                                   | 7-R33-CA281875-02        | 8/17/23  | 7/31/27  | MASTER Scaffolds for Rapid, Single-Step Manufacture and Prototyping of CAR-T cells                                            | \$276,536   |
| Recruitment          | Brudno    | Yevgeny    | Persistence Therapeutics                                           | 25-2413                  | 3/1/25   | 2/28/26  | Persistence - Translating SynthNode materials to the clinic.                                                                  | \$300,132   |
| Recruitment          | Brudno    | Yevgeny    | NIH National<br>Cancer Institute                                   | 1-F31-CA290823-<br>01A1  | 7/1/25   | 6/30/27  | Fellow: M Vanblunk Potent and Affordable GD2-<br>Specific CAR T Cell Therapy for Glioblastoma<br>Treatment Using Biomaterials | \$40,752    |
| Recruitment          | Brunk     | Elizabeth  | Pharmaceutical<br>Research and<br>Manufacturers of<br>America      | 25-0780                  | 1/1/25   | 12/31/25 | Controlling Rapid and Reversible DNA Adaptations Through Epigenetic Remodel                                                   | \$100,000   |
| Recruitment          | Bryant    | Ashley     | NIH National<br>Cancer Institute                                   | 5-K00-CA253762-03-<br>06 | 5/17/22  | 4/30/26  | Understanding Quality of Life and Physical Activity in Black Breast Cancer Survivors                                          | \$91,112    |
| Recruitment          | Bryant    | Kirsten    | NIH National Cancer Institute                                      | 5-R37-CA251877-01-<br>05 | 7/1/20   | 6/30/25  | Mechanistic dissection and inhibitor targeting of autophagy in RAS driven cancers                                             | \$306,070   |
| Recruitment          | Bryant    | Kirsten    | Department of<br>Defense                                           | W81XWH2110693            | 9/1/21   | 8/31/25  | Targeting KRAS-dysregulated metabolism for novel therapeutic approaches                                                       | \$164,467   |
| 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.                                               | \$138,194   |
| Recruitment          | Bryant    | Kirsten    | NIH National<br>Cancer Institute                                   | 1-F31-CA284869-<br>01A1  | 7/1/24   | 6/30/27  | Mechanistic examination and inhibitor targeting of nutrient scavenging for the treatment of pancreatic cancer                 | \$40,064    |

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|--------------------------|---------------------|------------|-----------------------------------------------------------------------|------------------------------|----------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Investment<br>(GeriOnc)  | Busby-<br>Whitehead | Jan        | Hebrew<br>Rehabilitation<br>Center                                    | 90108                        | 6/1/21   | 2/28/26  | NIDUS II: Advanced-Stage Development and<br>Utilization of the NIDUS Research Infrastructure to<br>Advance Interdisciplinary Aging Research in<br>Delirium                                                                                                            | \$19,046    |
| Investment<br>(GeriOnc)  | Busby-<br>Whitehead | Jan        | American Geriatrics<br>Society                                        |                              | 10/1/23  | 9/30/27  | Geriatrics Workforce Enhancement Program Coordinating Center                                                                                                                                                                                                          | \$64,650    |
| Investment<br>(GeriOnc)  | Busby-<br>Whitehead | Jan        | HRSA Bureau of<br>Health Workforce                                    | 1-U1Q-HP53061-01             | 7/1/24   | 6/30/29  | Carolina Geriatric Workforce Enhancement Program                                                                                                                                                                                                                      | \$1,000,000 |
| Recruitment              |                     | Mauro      | National Science<br>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<br>Institute of Child<br>Health and Human<br>Development | 5-F31-HD111292-03            | 3/1/23   | 2/28/26  | Fellow: M Murvin Dissecting mechanisms of gene silencing by the IncRNA Kcnq1ot1 in mouse trophoblast stem cells                                                                                                                                                       | \$42,798    |
| Recruitment              | Calabrese           | Mauro      | NIH National<br>Institute of General<br>Medical Sciences              | 5-R35-GM153293-02            | 4/1/24   | 3/31/29  | Mechanisms of gene regulation by long noncoding RNAs                                                                                                                                                                                                                  | \$624,197   |
| Recruitment              | Calabrese           | Mauro      | NIH National<br>Institute of Child<br>Health and Human<br>Development | 1-F31-HD114456-<br>01A1      | 11/1/24  | 10/31/26 | Fellow: E Abrash Decoding Repression: Recruitment of epigenetic silencers by RNA binding proteins and long non-coding RNAs                                                                                                                                            | \$40,064    |
| Recruitment              | Calabrese           | Mauro      | Duke University                                                       | 313000145                    | 9/30/24  | 9/29/25  | Targeting the Macro IncRNA KCNQ1OT1 in Rhabdomyosarcoma Tumorigenesis                                                                                                                                                                                                 | \$42,000    |
| Recruitment              | Calhoun             | Ben        | Dana-Farber<br>Cancer Institute                                       | 6444400                      | 7/1/23   | 6/30/26  | Endocrine therapies for male breast cancer                                                                                                                                                                                                                            | \$28,460    |
| Recruitment              | Cameron             | Craig      | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases    | 5-R01-Al045818-22-<br>25     | 9/1/19   | 6/30/26  | RNA-dependent RNA Polymerase                                                                                                                                                                                                                                          | \$404,270   |
| Recruitment              | Cameron             | Craig      | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases    | 5-R01-Al169462-01-<br>04     | 4/13/22  | 3/31/27  | Enteroviral 2C protein as a therapeutic target                                                                                                                                                                                                                        | \$747,931   |
| Recruitment              | Cameron             | Craig      | Leland Stanford<br>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<br>Institute of Allergy<br>and Infectious<br>Diseases    | 5-R37-Al053531-20-<br>22     | 2/1/23   | 1/31/28  | Picornavirus Genome Replication                                                                                                                                                                                                                                       | \$534,015   |
| Retention                | Campbell            | Sharon     | NIH National<br>Cancer Institute                                      | 5-R01-CA281295-01-<br>03     | 3/1/23   | 2/29/28  | KRAS G12C: Kinetic and Redox Characterization of Covalent Inhibition                                                                                                                                                                                                  | \$569,072   |
| Retention                | Campbell            | Sharon     | Ohio State<br>University                                              | SPC-1000013748<br>GR137338   | 7/1/24   | 6/30/29  | Molecular mechanism of allele specific NRAS signaling and tumorigenesis                                                                                                                                                                                               | \$319,727   |
| Retention                | Campbell            | Sharon     | NIH National<br>Institute of General<br>Medical Sciences              | 2-R35-GM134962-06            | 2/1/20   | 1/31/30  | Structure and Mechanism of G-proteins and cell adhesion proteins in regulation of cell growth and motility                                                                                                                                                            | \$602,153   |
| Investment<br>(Protocol) | Carey               | Lisa       | Syndax<br>Pharmaceuticals,<br>Inc.                                    |                              | 12/15/17 | 8/20/25  | LCCC 1639: A non-randomized, non-comparative, open-label, window trial of entinostat in patients with TNBC (Part 1) or entinostat with or without exemestane in patients with newly diagnosed, Stage I-IIIC, hormone receptor - positive (HR+) breast cancer (Part 2) | \$55,472    |
| Investment<br>(Protocol) | Carey               | Lisa       | NIH National<br>Cancer Institute                                      | 3-UG1-CA233373-<br>06S1      | 5/1/19   | 2/28/26  | UNC Lead Academic Participating Site                                                                                                                                                                                                                                  | \$303,121   |
| Investment<br>(Protocol) | Carey               | Lisa       | Dana-Farber<br>Cancer Institute                                       | DF-HCC 20-166                | 7/22/21  | 6/2/31   | DF-HCC 20-166: Saci-IO TNBC: Randomized phase II study of sacituzumab govitecan with or without pembrolizumab in PD-L1-negative metastatic triple negative breast cancer (TNBC)                                                                                       | \$27,074    |
| Investment<br>(Protocol) | Carey               | Lisa       | Dana-Farber Mass<br>General Brigham<br>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)                                                                                             | \$19,343    |
| Investment<br>(Protocol) | Carey               | Lisa       | SOLTI                                                                 | SOLTI-2101 /<br>LEE011A2303R | 11/2/23  | 5/14/33  | A Phase III, multicenter, open-label study of ribociclib vs. palbociclib in patients with advanced hormone receptor-positive/HER2-negative/HER2-Enriched breast cancer - HARMONIA trial                                                                               | \$13,712    |

| Category                 | Last Name | First name | Sponsor                                                                         | Sponsor Award No                      | Begin    | End      | Title                                                                                                                                                                                                                                                                                                | Total Award |
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| Investment<br>(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<br>(Protocol) | Carey     | Lisa       | Dana-Farber Mass<br>General Brigham<br>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)                                                   | \$14,940    |
| Investment<br>(Protocol) | Carey     | Lisa       | Breast Cancer<br>Research<br>Foundation                                         | BCRF-24-023                           | 10/1/24  | 9/30/25  | Clinical implications of metastatic subtype, microenvironment, and organ of involvement                                                                                                                                                                                                              | \$225,000   |
| Investment<br>(Protocol) | Carey     | Lisa       | Johns Hopkins<br>University                                                     | 2006524155                            | 10/1/24  | 9/30/25  | AURORA US: PROspective Biospecimen Repository in Metastatic Breast Cancer: Tissue Source Site.                                                                                                                                                                                                       | \$28,988    |
| Investment<br>(Protocol) | Carey     | Lisa       | NIH Advanced<br>Research Projects<br>Agency for Health                          | 140D042590009                         | 5/20/25  | 5/19/31  | TBCRC Evolutionary Clinical Trial for Novel Biomarker-driven Therapies (EVOLVE_BDT)                                                                                                                                                                                                                  | \$4,430,837 |
| Investment<br>(HTSF)     | Cohan     | Todd       | NIH National<br>Institute on Aging                                              | 5-R01-AG087877-01-<br>02              | 8/15/24  | 4/30/29  | Environmental risk factors linked to TDP-43 proteinopathies                                                                                                                                                                                                                                          | \$772,621   |
| Investment<br>(HTSF)     | Cohan     | Todd       | NIH National<br>Institute of<br>Neurological<br>Disorders and                   | 1-R61-NS140724-01                     | 12/24/24 | 11/30/26 | The translational potential of next-generation sporadic mouse and human models of ALS/FTD                                                                                                                                                                                                            | \$374,349   |
| Investment<br>(Training) | Caron     | Kathleen   | NIH National<br>Institute of General<br>Medical Sciences                        | 5-T32-GM133364-05                     | 7/1/20   | 6/30/25  | Training Program in Cellular Systems and Integrative Physiology                                                                                                                                                                                                                                      | \$217,676   |
| Innovation<br>Award      | Caron     | Kathleen   | NIH National Heart,<br>Lung, and Blood<br>Institute                             | 5-F31-HL163885-03                     | 9/1/22   | 8/31/25  | Elucidating the GPCR protein networks that drive lymphatic growth                                                                                                                                                                                                                                    | \$43,481    |
| Innovation<br>Award      | Caron     | Kathleen   | NIH National<br>Institute of Child<br>Health and Human<br>Development           | 5-R01-HD060860-11-<br>13              | 4/1/09   | 1/31/28  | Adrenomedullin Signaling at the Maternal-Fetal Interface                                                                                                                                                                                                                                             | \$419,055   |
| Investment<br>(CC)       | Caron     | Kathleen   | NIH National Heart,<br>Lung, and Blood<br>Institute                             | 5R01HL129086-08                       | 6/8/23   | 6/30/25  | Cardiac Lymphatics in Development and Repair                                                                                                                                                                                                                                                         | \$583,072   |
| Investment (CC)          | Caron     | Kathleen   | NIH National Heart,<br>Lung, and Blood<br>Institute                             | 5R01HL129086-08S1                     | 6/27/23  | 6/30/25  | Cardiac Lymphatics in Development and Repair -<br>Supplement                                                                                                                                                                                                                                         | \$252,485   |
| Innovation<br>Award      | Caron     | Kathleen   | American Heart Association                                                      | 24POST1188946                         | 7/1/24   | 6/30/26  | Role of ACKR3 in postpartum cardiomyopathy                                                                                                                                                                                                                                                           | \$144,580   |
| Innovation<br>Award      | Caron     | Kathleen   | VentureWell<br>(National Collegiate<br>Inventors and<br>Innovators<br>Alliance) | SWH-16                                | 10/23/24 | 10/22/26 | FLyGT: Female Lymphatic GPCR Therapeutics for Migraine Treatment                                                                                                                                                                                                                                     | \$1,514,040 |
| Recruitment              | Casey     | Dana       | Johns Hopkins<br>University                                                     | TBCRC053-M-60030                      | 6/30/22  | 5/25/32  | TBCRC053-M-60030: A Randomized Study of<br>Preoperative Chemotherapy, Pembrolizumab and<br>No, Low or High Dose RADiation in Node-Positive,<br>HER2-Negative Breast Cancer                                                                                                                           | \$29,824    |
| Recruitment              | Casey     | Dana       | Johns Hopkins<br>University                                                     | TBCRC053-M-<br>59105/PO<br>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 Breast Cancer                                                                                                                                    | \$14,313    |
| Recruitment              | Charlot   | Marjory    | Conquer Cancer<br>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   |
| Investment<br>(Protocol) | Coghill   | James      | Sanofi US Services,<br>Inc.                                                     | EFC17757                              | 5/23/24  | 5/23/34  | A randomized, double-blind, multicenter, Phase 3 study to evaluate efficacy and safety of belumosudil in combination with corticosteroids versus placebo in combination with corticosteroids in participants at least 12 years of age with newly diagnosed chronic graft versus host disease (cGVHD) | \$53,597    |
| Retention                | Cook      | Jean       | NIH National<br>Institute of General<br>Medical Sciences                        | 5-R35-GM141833-01-<br>04              | 7/1/21   | 6/30/26  | Cell Cycle Dynamics that ensure Genome<br>Maintenance                                                                                                                                                                                                                                                | \$575,320   |

| Category                 | Last Name | First name        | Sponsor                                                            | Sponsor Award No         | Begin    | End      | Title                                                                                                                                            | Total Award |
|--------------------------|-----------|-------------------|--------------------------------------------------------------------|--------------------------|----------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment              | Coombs    | Lorinda           | AcademyHealth                                                      | 350-04-10847             | 11/15/23 | 8/31/25  | Characterizing Delays in Cancer Diagnosis for<br>Underserved Populations in North Carolina                                                       | \$57,681    |
| Investment<br>(HTSF)     | Crowley   | James             | NIH National<br>Institute of Mental<br>Health                      | 5-R01-MH124675-01-<br>05 | 12/15/20 | 10/31/25 | 2/2 Rare Genetic Variation and Risk for Obsessive<br>Compulsive Disorder                                                                         | \$198,263   |
| Investment<br>(HTSF)     | Crowley   | James             | NIH National<br>Institute of Mental<br>Health                      | 5-U01-MH125050-04        | 9/1/21   | 6/30/26  | 1/2 Trans-ancestry genomic analysis of obsessive-<br>compulsive disorder                                                                         | \$362,266   |
| Investment<br>(HTSF)     | Crowley   | James             | Karolinska Institute                                               |                          | 3/15/23  | 2/28/26  | Saving lives: Constructing a nationwide cohort with multimodal data to improve precision in prediction and prevention of suicide                 | \$563,897   |
| Investment<br>(HTSF)     | Crowley   | James             | NIH National<br>Institute of Mental<br>Health                      | 1-R13-MH133380-<br>01A1  | 6/1/24   | 5/31/25  | Annual Latin American Congress on OCD                                                                                                            | \$20,000    |
| Investment<br>(HTSF)     | Crowley   | James             | Icahn School of<br>Medicine at Mount<br>Sinai                      | 0255-J201-4609           | 5/10/24  | 2/28/29  | Phenotypic and genetic architecture of OCD in African Americans                                                                                  | \$91,787    |
| Retention                | Damania   | Blossom           | NIH National<br>Cancer Institute                                   | 5-U54-CA254564-05        | 8/13/20  | 7/31/25  | Innovations for screening and prognosis in HIV+<br>cancers including Kaposi sarcoma, cervical cancer,<br>and lymphoma in Malawi and South Africa | \$1,094,228 |
| Retention                | Damania   | Blossom           | NIH National<br>Cancer Institute                                   | 5-P01-CA019014-42-<br>44 | 5/1/97   | 6/30/27  | Viral Oncogenesis, Latency and Replication                                                                                                       | \$1,936,921 |
| Retention                | Damania   | Blossom           | Leukemia and<br>Lymphoma Society                                   | 5653-24                  | 7/1/23   | 6/30/26  | Elucidating the role of FAM72A in EBV-driven B cell lymphomagenesis                                                                              | \$70,000    |
| Retention                | Damania   | Blossom           | American Cancer<br>Society                                         | PF-23-1031420-01-<br>CDP | 7/1/23   | 12/31/25 | Inhibition of NEK2 as a novel therapy for viral lymphomas                                                                                        | \$73,750    |
| Retention                | Damania   | Blossom           | NIH National<br>Cancer Institute                                   | 1-R01-CA291437-<br>01A1  | 9/1/24   | 8/31/29  | Therapy for Non-Hodgkin lympoma                                                                                                                  | \$435,506   |
| Retention                | Damania   | Blossom           | NIH National<br>Cancer Institute                                   | 1-U01-CA294800-01        | 9/10/24  | 8/31/29  | Targeting EBV-associated lymphomas                                                                                                               | \$645,012   |
| Retention                | Damania   | Blossom           | Lymphoma<br>Research<br>Foundation of                              |                          | 7/1/25   | 6/30/28  | Novel therapy for EBV-positive lymphomas                                                                                                         | \$65,000    |
| Theme<br>Investment      | Dangl     | Jeff              | Brookhaven Science Associates, LLC                                 | 436421                   | 11/17/23 | 9/30/26  | Unlocking the Molecular Basis of Plant-Pathogen<br>Interactions to Create Resilient Bioenergy Crops                                              | \$225,000   |
| Theme<br>Investment      | Dangl     | Jeff              | National Science<br>Foundation                                     | IOS-2416244              | 9/1/24   | 8/31/27  | Mechanisms of microbiota detente with the plant immune system.                                                                                   | \$139,664   |
| Investment<br>(HTSF)     | Darville  | Lee<br>Antoinette | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 5-U01-Al182180-01-<br>02 | 5/10/24  | 3/31/29  | Development of a recombinant protein vaccine for Chlamydia trachomatis                                                                           | \$1,925,693 |
| Investment<br>(Genomics) | Davis     | lan               | V Foundation for<br>Cancer Research                                | T2020-003                | 11/1/20  | 11/1/24  | Combining Cellular and Epigenetic Therapies to<br>Treat Pediatric Solid Tumors                                                                   | \$150,000   |
| Investment<br>(Genomics) | Davis     | lan               | National Pediatric<br>Cancer Foundation                            | 22-3605                  | 4/1/22   | 6/30/26  | Enhancing immunotherapy for pediatric solid tumors through epigenetic modulation                                                                 | \$25,000    |
| Investment<br>(Genomics) | Davis     | lan               | V Foundation for<br>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<br>(Genomics) | Davis     | lan               | NIH National<br>Cancer Institute                                   | 5-R01-CA276663-01-<br>03 | 1/1/23   | 12/31/27 | Developmental control of chromatin states in cancer                                                                                              | \$424,710   |
| Retention                | Dayton    | Paul              | NIH National Cancer Institute                                      | 3-R01-CA189479-<br>08S1  | 9/4/14   | 8/31/26  | Academic-Industrial Partnership for Translation of Acoustic Angiography                                                                          | \$576,707   |
| 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<br>State University                                 | 500768                   | 6/15/23  | 5/31/28  | Quantitative assessment of angiogenesis using ultrasound multiple scattering                                                                     | \$255,895   |
| Retention                | Dayton    | Paul              | NIH National Cancer Institute                                      | 5-R21-CA286897-01-<br>02 | 1/1/24   | 12/31/25 | Novel approaches to enrich CAR-T cell Therapy in brain tumors using focused ultrasound                                                           | \$211,773   |
| Retention                | Dayton    | Paul              | California Institute of Technology                                 |                          | 1/1/24   | 12/31/27 | Biogenic Gas Nanostructures as Molecular Imaging<br>Reporters for Ultrasound                                                                     | \$80,200    |
| Retention                | Dayton    | Paul              | North Carolina<br>State University                                 | 501628                   | 5/15/24  | 3/31/28  | Integrated Dual-frequency Ultrasound Catheter for Accelerated Sonothrombolysis (iDUCAS)                                                          | \$157,551   |
| Retention                | Dayton    | Paul              | North Carolina<br>State University                                 | 501752                   | 4/1/25   | 3/31/27  | Duplex dual-frequency CMUT array for acoustic angiography                                                                                        | \$18,000    |

| Category                   | Last Name     | First name | Sponsor                                                                 | Sponsor Award No                | Begin   | End      | Title                                                                                                                                                                                                                                                                                                                         | Total Award |
|----------------------------|---------------|------------|-------------------------------------------------------------------------|---------------------------------|---------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Retention                  | Dees          | Claire     | Vanderbilt<br>University Medical<br>Center                              | VICC BRE 15136                  | 8/20/18 | 8/19/28  | A Phase II trial of Atezolizumab (anti-PDL1) with<br>Carboplatin in Patients with Metastatic Triple<br>Negative Breast Cancer                                                                                                                                                                                                 | \$26,240    |
| Retention                  | Dees          | Claire     | Johns Hopkins<br>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                                                                                                                                                                                 | \$29,607    |
| Retention                  | Dees          | Claire     | Ohio State<br>University                                                | SPC-<br>1000012759/GR1343<br>26 | 3/1/23  | 2/28/25  | OSU ETCTN supplement to add UNC                                                                                                                                                                                                                                                                                               | \$162,871   |
| Retention                  | Dees          | Claire     | Ohio State<br>University                                                | SPC-1000014209<br>GR138040      | 3/1/24  | 2/28/25  | The Ohio State University as a Lead Academic<br>Organization (LAO) for the Experimental<br>Therapeutics Clinical Trials Network                                                                                                                                                                                               | \$44,877    |
| Retention                  | Dees          | Claire     | Duality Biologics                                                       | DB-1303-O-3002                  | 9/24/24 | 10/17/34 | DB-1303-O-3002: A Phase 3, Randomized, Multicenter, Open-label Study of DB-1303 Versus Investigator's Choice Chemotherapy in Human Epidermal Growth Factor Receptor 2 (HER2)-low, Hormone Receptor Positive (HR+) Metastatic Breast Cancer Patients whose Disease has Progressed on Endocrine Therapy (ET) (DYNASTY-Breast02) | \$58,019    |
| Retention                  | Dees          | Claire     | Daiichi Sankyo, Inc                                                     | DS3201-324                      | 1/7/25  | 1/7/30   | A Phase 1B, Multicenter, open-label study of<br>Valemetostat Tosylate in combination with DXd<br>ADCs in subjects with solid tumors                                                                                                                                                                                           | \$58,492    |
| 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   |
| Recruitment                | Denby-Brinson | Ramona     | Blue Cross Blue<br>Shield of North<br>Carolina<br>Foundation            |                                 | 7/14/25 | 7/14/28  | Public Sector Leadership and Workforce<br>Development Program, BCBSNC                                                                                                                                                                                                                                                         | \$400,000   |
| Investment<br>(Proteomics) | Der           | Channing   | NIH National<br>Cancer Institute                                        | 5-R35-CA232113-07               | 9/1/18  | 8/31/25  | Targeting undruggable RAS for cancer treatment                                                                                                                                                                                                                                                                                | \$865,656   |
| Investment (Proteomics)    | Der           | Channing   | Department of<br>Defense                                                | W81XWH2110692<br>0011663366     | 9/1/21  | 8/31/25  | Targeting KRAS-dysregulated metabolism for novel therapeutic approaches                                                                                                                                                                                                                                                       | \$82,769    |
| Investment<br>(Proteomics) | Der           | Channing   | Revolution<br>Medicines, Inc.                                           | 22-4651                         | 6/21/22 | 6/20/25  | Evaluation of KRAS inhibitors in pancreatic cancer                                                                                                                                                                                                                                                                            | \$74,070    |
| Investment<br>(Proteomics) | Der           | Channing   | American Cancer<br>Society                                              | PF-22-066-01                    | 7/1/22  | 6/30/25  | Targeting mitochondrial function as a therapeutic strategy for pancreatic cancer                                                                                                                                                                                                                                              | \$70,167    |
| Investment<br>(Proteomics) | Der           | Channing   | Pancreatic Cancer<br>Action Network                                     | 22-WG-DERB                      | 7/1/22  | 6/30/25  | Determination of novel RAF/MEK and/or FAK inhibitor combinations in KRAS-mutant PDAC                                                                                                                                                                                                                                          | \$113,333   |
| Investment<br>(Training)   | Der           | Channing   | NIH National<br>Cancer Institute                                        | 5-T32-CA071341-27               | 9/30/96 | 6/30/28  | Cancer Cell Biology Training Program                                                                                                                                                                                                                                                                                          | \$332,856   |
| Investment (Proteomics)    | Der           | Channing   | NIH National<br>Cancer Institute                                        | 5-K99-CA276700-01-<br>02        | 7/1/23  | 11/30/24 | Mechanistic Basis for ERK in driving KRAS-<br>dependent pancreatic cancer                                                                                                                                                                                                                                                     | \$111,438   |
| Investment (Proteomics)    | Der           | Channing   | American Cancer<br>Society                                              | PF-23-1072348-01-<br>CDP        | 1/1/24  | 12/31/26 | Overcoming resistance to KRASG12D inhibitors in KRASG12D mutant pancreatic cancer                                                                                                                                                                                                                                             | \$108,750   |
| Theme<br>Investment        | Deshmukh      | Mohanish   | NIH National<br>Institute of<br>Neurological<br>Disorders and<br>Stroke | 5-R01-NS122399-01-<br>05        | 6/3/21  | 3/31/26  | Spatial Restriction of Apoptotic Machinery during<br>Neuronal Apoptosis and Pruning                                                                                                                                                                                                                                           | \$344,560   |
| Theme<br>Investment        | Deshmukh      | Mohanish   | NIH National<br>Institute on Aging                                      | 5-R01-AG082140-01-<br>03        | 4/1/23  | 12/31/27 | miR-29: A brain homeostasis molecule for<br>Alzheimer's disease prevention                                                                                                                                                                                                                                                    | \$570,149   |
| Theme<br>Investment        | Deshmukh      | Mohanish   | NIH National<br>Institute of<br>Neurological<br>Disorders and<br>Stroke | 5-R01-NS117133-02-<br>03        | 2/1/21  | 1/31/26  | Unexpected Function of Inflammasomes in Axon<br>Pruning: Focus on NLRP1                                                                                                                                                                                                                                                       | \$492,776   |
| Investment<br>(Training)   | Deshmukh      | Mohanish   | NIH National<br>Institute of General<br>Medical Sciences                | 3-T32-GM152316-<br>01S1         | 7/1/24  | 6/30/29  | UNC Medical Scientist Training Program                                                                                                                                                                                                                                                                                        | \$1,378,526 |
| Retention                  | Dittmer       | Dirk       | EMMES<br>Corporation                                                    | 13992                           | 9/1/20  | 8/31/25  | AIDS Malignancy Consortium (AMC)                                                                                                                                                                                                                                                                                              | \$216,027   |
| Retention                  | Dittmer       | Dirk       | NIH National<br>Cancer Institute                                        | 5-R01-CA163217-11-<br>13        | 9/1/11  | 6/30/27  | Targeted Therapies for HIV-Associated Kaposi<br>Sarcoma and Lymphoma                                                                                                                                                                                                                                                          | \$400,103   |
|                            |               |            |                                                                         |                                 |         |          |                                                                                                                                                                                                                                                                                                                               |             |

| Category                         | Last Name     | First name  | Sponsor                                                                  | Sponsor Award No           | Begin    | End      | Title                                                                                                                                                                                                            | Total Award |
|----------------------------------|---------------|-------------|--------------------------------------------------------------------------|----------------------------|----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Retention                        | Dittmer       | Dirk        | NIH National<br>Institute of Dental<br>and Craniofacial<br>Research      | 1-U01-DE034179-01          | 9/20/24  | 6/30/28  | Concentration and single virion analysis of the virome                                                                                                                                                           | \$233,250   |
| Recruitment                      | Dittus        | Christopher | Seattle Genetics,<br>Inc                                                 |                            | 10/18/17 | 1/1/27   | Brentuximab Vedotin with Cyclophosphamide,<br>Doxorubicin, Etoposide, and Prednisone (BV-CHEP)<br>for the treatment of Adult T-Cell<br>Leukemia/Lymphoma: A Phase II Trial of the Rare<br>Lymphoma Working Group | \$138,523   |
| Recruitment                      | Dittus        | Christopher | AstraZeneca<br>Pharmaceuticals LP                                        |                            | 3/3/20   | 3/2/30   | A Phase II Trial of Acalabrutinib in<br>Relapsed/Refractory Primary and Secondary CNS<br>Lymphomas                                                                                                               | \$172,092   |
| Investment<br>(Training)         | Doerschuk     | Claire      | NIH National Heart,<br>Lung, and Blood<br>Institute                      | 5-T32-HL166141-02          | 7/1/23   | 6/30/28  | UNC Research Training Program in Respiratory Diseases and Critical Care                                                                                                                                          | \$563,600   |
| Recruitment                      | Doerschuk     | Claire      | NIH National<br>Institute of<br>Environmental<br>Health Sciences         | 1-R21-ES035981-<br>01A1    | 9/17/24  | 8/31/26  | The pulmonary immune response induced by single and multiple exposures to combustion products of burn pit constituents                                                                                           | \$427,625   |
| Recruitment                      | Doerschuk     | Claire      | NIH National Heart,<br>Lung, and Blood<br>Institute                      | 1-R01-HL171598-<br>01A1    | 8/26/24  | 5/31/28  | Uncovering and understanding the many functions of ICAM-1 in the lungs during homeostasis and innate immune responses                                                                                            | \$759,025   |
| Recruitment                      | Doerschuk     | Claire      | NIH National Heart,<br>Lung, and Blood<br>Institute                      | 1-R01-HL175463-<br>01A1    | 5/15/25  | 2/28/29  | Migration and resolution, lung microenvironment and mechanisms: examining the diverse responses of neutrophils during S. pneumoniae pneumonia and acute lung injury                                              | \$759,983   |
| Investment<br>(Chair<br>Package) | Dohlman       | Henrik      | NIH National<br>Institute of General<br>Medical Sciences                 | 5-R35-GM118105-06-<br>10   | 5/1/21   | 4/30/26  | Negative and positive feedback in cell signaling                                                                                                                                                                 | \$659,119   |
| Recruitment                      | Dominguez     | Daniel      | NIH National<br>Institute of General<br>Medical Sciences                 | 5-R35-GM142864-01-<br>04   | 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<br>(GR118142) | 9/21/22  | 8/31/27  | RNA Splicing Defects as Oncogenic Events and Targets in Pancreatic Cancer                                                                                                                                        | \$43,931    |
| Recruitment                      | Dotti         | Gianpietro  | NIH National<br>Cancer Institute                                         | 5-R01-CA247436-01-<br>05   | 1/1/21   | 12/31/25 | Tuning CAR-T Cell Functions.                                                                                                                                                                                     | \$447,292   |
| Recruitment                      | Dotti         | Gianpietro  | NIH National<br>Cancer Institute                                         | 5-R01-CA256898-01-<br>05   | 2/1/21   | 1/31/27  | Targeting B7-H3 in ovarian cancer.                                                                                                                                                                               | \$597,170   |
| Recruitment                      | Dotti         | Gianpietro  | V Foundation for<br>Cancer Research                                      | D2024-013                  | 8/15/24  | 8/15/27  | B7H3 CAR TTherapy of Therapeutically Resistant Pancreatic Cancer                                                                                                                                                 | \$116,667   |
| Recruitment                      | Dotti         | Gianpietro  | Boston Children's<br>Hospital                                            | GENFD0002650935            | 7/3/24   | 6/30/29  | Multiplex Epitope Editing to Enable Novel<br>Immunotherapies for Acute Myeloid Leukemia                                                                                                                          | \$97,253    |
| Recruitment                      | Dowen         | Jill        | NIH National<br>Institute of General<br>Medical Sciences                 | 5-R35-GM152103-01-<br>02   | 1/1/24   | 12/31/28 | The role of genome folding in regulating gene expression and chromatin state                                                                                                                                     | \$373,010   |
| Recruitment                      | Dowen         | Rob         | NIH National<br>Center for<br>Complementary<br>and Integrative<br>Health | 5-F31-AT012138-02          | 8/1/23   | 7/31/25  | Fellow: R Dumez Elucidating the Host Metabolic<br>Response to Consumption of Kombucha-<br>associated Microorganisms                                                                                              | \$40,064    |
| Recruitment                      | Dowen         | Rob         | NIH National<br>Institute of General<br>Medical Sciences                 | 2-R35-GM137985-06          | 7/1/20   | 4/30/30  | Developmental and nutritional regulation of lipid metabolism                                                                                                                                                     | \$422,076   |
| Investment<br>(Protocol)         | Downs-Canner  | Stephanie   | Johns Hopkins<br>University                                              | TBCRC042/PO#20042<br>61049 | 6/26/19  | 6/25/29  | (TBCRC042) A Randomized Phase II Window-of-<br>opportunity Trial of Ruxolitinib in Patients with<br>High Risk and Premalignant Breast Conditions                                                                 | \$2,266     |
| Theme<br>Investment              | Earp          | Shelton     | NIH National<br>Cancer Institute                                         | 5-R01-CA270792-01-<br>03   | 12/1/22  | 11/30/27 | Divergent Roles of MerTK, Tyro3, and Axl in<br>Pancreatic Cancer and Metastasis                                                                                                                                  | \$537,271   |
| Theme<br>Investment              | Earp          | Shelton     | Breast Cancer<br>Research<br>Foundation                                  | BCRF-24-041                | 10/1/24  | 9/30/25  | Receptor Tyrosine Kinases and Breast Cancer<br>Progression                                                                                                                                                       | \$225,000   |
| Recruitment                      | Elmore        | Shekinah    | American Society<br>of Clinical<br>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<br>Institute of General<br>Medical Sciences                 | 5-R35-GM127145-06-<br>07   | 7/1/18   | 6/30/28  | Mathematical modeling of cellular signaling systems                                                                                                                                                              | \$466,907   |
| Recruitment                      | Elston Lafata | Jennifer    | American Cancer<br>Society                                               | 84266                      | 7/1/22   | 6/30/25  | Implementing Navigation Decision Support to<br>Enhance Oncology Care Equity                                                                                                                                      | \$100,000   |

| Category                 | Last Name | First name | Sponsor                                                                  | Sponsor Award No         | Begin   | End      | Title                                                                                                                                           | Total Award |
|--------------------------|-----------|------------|--------------------------------------------------------------------------|--------------------------|---------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Investment<br>(Training) | Emanuele  | Michael    | NIH National<br>Institute of General<br>Medical Sciences                 | 5-T32-GM135095-05        | 7/1/20  | 6/30/25  | Pharmacological Sciences Training Program                                                                                                       | \$549,359   |
| Recruitment              | Emanuele  | Michael    | University of California at Irvine                                       | 2023-2008 49476          | 7/1/23  | 6/30/25  | Harnessing the ubiquitin system as a therapeutic approach in SCLC                                                                               | \$40,000    |
| Recruitment              | Emanuele  | Michael    | NIH National<br>Institute of General<br>Medical Sciences                 | 5-R35-GM153250-01-<br>02 | 4/1/24  | 3/31/29  | Proteostasis signaling in cell cycle control                                                                                                    | \$770,656   |
| Recruitment              | Emanuele  | Michael    | NIH National<br>Cancer Institute                                         | 1-F31-CA288070-01        | 8/15/24 | 8/14/27  | Regulation of the retinoblastoma (Rb) tumor suppressor by the ubiquitin-proteasome system                                                       | \$40,188    |
| Investment<br>(Training) | Emanuele  | Michael    | NIH National<br>Institute of General<br>Medical Sciences                 | 2-T32-GM135095-06        | 7/1/20  | 6/30/30  | Pharmacological Sciences Training Program                                                                                                       | \$534,450   |
| Recruitment              | Engel     | Larry      | NIH National<br>Institute of<br>Environmental<br>Health Sciences         | 2479801                  | 9/27/24 | 9/26/26  | IPA for Lawrence Engel to the NIEHS                                                                                                             | \$150,343   |
| Recruitment              | Enyioha   | Chineme    | NIH National<br>Institute on Drug<br>Abuse                               | 5-K23-DA057416-01-<br>03 | 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   |
| Recruitment              | Fenton    | Owen       | NIH National<br>Institute of<br>Biomedical Imaging<br>and Bioengineering | 5-R21-EB034942-01-<br>02 | 8/1/23  | 7/31/26  | Optimization of Tannic Acid Lipid Nanoparticles for a Therapeutic mRNA Vaccine Against Melanoma                                                 | \$226,293   |
| Recruitment              | Fenton    | Owen       | NIH National<br>Institute of General<br>Medical Sciences                 | 1-R35-GM157060-01        | 1/1/25  | 11/30/29 | Investigating and Manipulating Cells in Low Oxygen Environments Using Lipid Nanoparticles                                                       | \$381,995   |
| Investment<br>(CC)       | Ferris    | Robert     | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases       | 1P01Al181898-01          | 8/20/24 | 5/31/29  | Systems Genetics of Tuberculosis                                                                                                                | \$326,550   |
| Investment (CC)          | Ferris    | Robert     | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases       | 5R21Al175987-02          | 11/1/24 | 10/31/25 | The Impact of IL-4 and IL-4-Producing Cells on Protective Immunity to Tuberculosis                                                              | \$62,536    |
| Recruitment              | Ferris    | Robert     | NIH National<br>Cancer Institute                                         | 5-P30-CA016086-45-<br>49 | 6/1/97  | 11/30/25 | Cancer Center Support Grant                                                                                                                     | \$7,402,429 |
| Recruitment              | Ferris    | Robert     | University of<br>Pittsburgh                                              | AWD00007794<br>139360-1  | 10/1/24 | 6/30/28  | Mechanisms of PD-1 and Tim-3 crosstalk in tumor-<br>infiltrating lymphocytes                                                                    | \$34,417    |
| Recruitment              | Flick     | Matthew    | •                                                                        | 5-R01-HL160046-01-<br>04 | 9/1/21  | 7/31/25  | Mechanisms linking the plasminogen/fibrinogen axis to the pathogenesis of COVID-19                                                              | \$531,940   |
| Recruitment              | Flick     | Matthew    | Michigan State<br>University                                             | RC115226UNC              | 5/11/23 | 2/28/27  | Novel proteolytic mechanisms driving pathologic hepatic congestion in drug-induced hepatotoxicity                                               | \$66,227    |
| Recruitment              | Flick     | Matthew    | NIH National Heart,<br>Lung, and Blood<br>Institute                      | 5-R01-HL168009-01-<br>02 | 2/15/25 | 1/31/28  | Novel mechanisms to limit thrombosis by decreasing fibrinogen or suppressing fibrin matrix formation.                                           | \$648,218   |
| 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                                                              | \$50,000    |
| Recruitment              | Flick     | Matthew    | The University of<br>Texas Health<br>Science Center at<br>Houston        | SA0003464                | 1/10/24 | 12/31/27 | On the Basis of Sex: The Role of Sex chromosomal complement in AtrialFibrillation and Dementia                                                  | \$37,848    |
| Recruitment              | Flick     | Matthew    | University of Illinois at Urbana- Champaign                              | 118511-20106             | 2/20/24 | 8/31/27  | Reprogramming to PDAC Stroma by Targeting Coagulation in the Tumor Microenvironment                                                             | \$446,892   |
| Recruitment              | Flick     | Matthew    | Versiti Wisconsin,<br>Inc. aka Versiti<br>Blood Center of<br>Wisconsin   | 2002656-UNC              | 9/1/24  | 8/31/26  | Controlling Thromboembolism After Polytrauma with an RNA Therapy Against Excess Fibrinogen                                                      | \$203,580   |
| Recruitment              | Frerichs  | Leah       | Avera Health                                                             | R01DA050696-S2UNC        | 10/1/20 | 5/31/25  | Community Based System Dynamics Models of Alcohol and Substance Exposed Pregnancy in Northern Plains American Indian Women.                     | \$30,823    |
| Recruitment              | Frerichs  | Leah       | Robert Wood<br>Johnson<br>Foundation                                     | 79640                    | 4/15/22 | 1/15/26  | Assessing and promoting equity in mental health systems of care for adolescent youth in a rural community in North Carolina                     | \$90,253    |

| Category                 | Last Name | First name | Sponsor                                                                        | Sponsor Award No            | Begin    | End      | Title                                                                                                                                                                                              | Total Award |
|--------------------------|-----------|------------|--------------------------------------------------------------------------------|-----------------------------|----------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment              | Frerichs  | Leah       | NIH National<br>Cancer Institute                                               | 5-R01-CA273331-01-<br>02    | 8/1/23   | 7/31/28  | Evaluating a remotely delivered, digital health CRC screening intervention among racially diverse patients of a community health center                                                            | \$577,297   |
| Recruitment              | Frerichs  | Leah       | Avera Health                                                                   | U54HD113179-1001            | 8/17/23  | 7/31/25  | Maternal American-Indian Rural Community Health (M.A.R.C.H.)                                                                                                                                       | \$83,558    |
| Recruitment              | Frerichs  | Leah       | William T Grant<br>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       | NIH National<br>Institute of Child<br>Health and Human<br>Development          | 1-F30-HD116454-01           | 8/21/24  | 8/20/29  | Fellow: C Smith Helping clinicians address digital information about contraception with adolescents                                                                                                | \$41,241    |
| Recruitment              | Frerichs  | Leah       | Klingenstein Third<br>Generation<br>Foundation                                 |                             | 7/1/25   | 6/30/27  | Preventing serious mental illness among rural Black<br>youth by integrating appealing and culturally<br>relevant mind-body interventions into physical<br>education                                | \$200,000   |
| Retention                | Fry       | Rebecca    | NIH National<br>Institute of<br>Environmental<br>Health Sciences               | 5-P42-ES031007-05           | 2/20/20  | 1/31/25  | The UNC Chapel Hill Superfund Research Program (UNC-SRP)                                                                                                                                           | \$236,190   |
| Investment<br>(Training) | Fry       | Rebecca    | NIH National<br>Institute of<br>Environmental<br>Health Sciences               | 5-T32-ES007018-48           | 7/1/77   | 6/30/27  | Biostatistics for Research in Environmental Health                                                                                                                                                 | \$1,387,182 |
| Retention                | Fry       | Rebecca    | NIH National<br>Institute of<br>Environmental<br>Health Sciences               | 2-P42-ES031007-06           | 9/11/20  | 1/31/30  | The UNC Chapel Hill Superfund Research Program (UNC-SRP)                                                                                                                                           | \$2,586,206 |
| Recruitment              | Frye      | Stephen    | NIH National<br>Institute of General<br>Medical Sciences                       | 5-R35-GM139514-01-<br>05    | 4/1/21   | 1/31/26  | PROBING ALLOSTERY IN METHYL-LYSINE READER DOMAINS                                                                                                                                                  | \$383,255   |
| Recruitment              | Furey     | Terry      | NIH National<br>Institute of<br>Diabetes, Digestive,<br>and Kidney<br>Diseases | 5-R01-DK138462-01-<br>02    | 3/1/24   | 2/29/28  | Multi-omic characterization of genetic variants in IBD risk loci                                                                                                                                   | \$413,948   |
| Recruitment              | Furey     | Terry      | NIH National<br>Institute of<br>Diabetes, Digestive,<br>and Kidney<br>Diseases | 5-F31-DK137574-02           | 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  | Mayo Clinic in<br>Jacksonville                                                 | THE-294275-03<br>P002197575 | 2/1/23   | 1/31/27  | Targeted Prevention of Postpartum-Related Breast Cancer                                                                                                                                            | \$178,395   |
| Recruitment              | Gilkey    | Melissa    | University of<br>Alabama at<br>Birmingham                                      | 000526841-SC002             | 9/18/20  | 8/31/25  | 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    | Kaiser Foundation<br>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                                    | \$10,876    |
| Investment<br>(HTSF)     | Giudice   | Jimema     | NIH National<br>Institute of General<br>Medical Sciences                       | 5-R35-GM152426-01-<br>02    | 7/9/24   | 4/30/29  | When alternative splicing meets cytoskeleton organization, local translation, and transcription regulation                                                                                         | \$383,755   |
| Innovation<br>Award      | Goldstein | Bob        | American Cancer<br>Society                                                     | PF-23-1152831-01-<br>CCB    | 1/1/24   | 12/31/26 | Understanding how developmental patterning coordinates cell shape changes                                                                                                                          | \$108,750   |
| Innovation<br>Award      | Goldstein | Bob        | NIH National<br>Institute of General<br>Medical Sciences                       | 5-R35-GM134838-06-          | 1/1/20   | 12/31/28 | C. elegans gastrulation: A model for understanding apical constriction mechanisms                                                                                                                  | \$663,771   |
| Recruitment              | Greenberg | Caprice    | Agency for<br>Healthcare<br>Research and<br>Quality                            | 7-R01-HS025989-06           | 9/1/18   | 6/30/25  | Video-based Collaborative Learning to Improve<br>Ventral Hernia Repair                                                                                                                             | \$151,205   |
| Recruitment              | Grover    | Natalie    | Celgene<br>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                                                                        | \$16,506    |
| Recruitment              | Grover    | Natalie    | Kite Pharma, Inc.                                                              | KT-US-471-0140              | 11/30/23 | 7/5/34   | Expanded Access Study for the Treatment of Patients with Commercially Out-of-Specification Axicabtagene Ciloleucel                                                                                 | \$36,584    |

| Category    | Last Name | First name | Sponsor                                                                        | Sponsor Award No            | Begin    | End      | Title                                                                                                                                                                                                                                                                                   | Total Award |
|-------------|-----------|------------|--------------------------------------------------------------------------------|-----------------------------|----------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment | Grover    | Natalie    | Kite Pharma, Inc.                                                              | KT-US-472-0141              | 11/30/23 | 7/5/34   | Expanded Access Study for the Treatment of Patients with Commercially Out-of-Specification Brexucabtagene Autoleuce                                                                                                                                                                     | \$24,056    |
| Recruitment | Grover    | Natalie    | Regeneron<br>Pharmaceuticals<br>Inc.                                           | R1979-HM-2298               | 3/8/24   | 3/10/34  | R1979-HM-2298: A Phase 3, Open-Label,<br>Randomized Study to Compare the Efficacy and<br>Safety of Odronextamab (REGN1979), an Anti-<br>CD20 X Anit-CD3 Bispecific Antibody, Versus<br>Investigator's Choice in Previously Untreated<br>Participants With Follicular Lymphoma (OLYMIPA- | \$85,589    |
| Recruitment | Grover    | Natalie    | Poseida<br>Therapeutics, Inc.                                                  | P-CD19CD20-ALLO1-<br>001    | 6/10/24  | 6/5/34   | Open-Label, Multicenter, Phase 1 Study to Assess<br>the Safety of P-CD19CD20-ALLO1 in Subjects with<br>Selected Relapsed/Refractory B cell Malignancies                                                                                                                                 | \$64,737    |
| 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                                                                                                                                                                                                    | \$75,000    |
| Recruitment | Grover    | Natalie    | Affimed GmbH                                                                   | AFM13-203                   | 7/18/24  | 7/22/34  | Phase 2 Study of AFM13 in Combination With AB-<br>101 in Subjects With R/R HL and CD30+ PTCL<br>(LuminICE-2                                                                                                                                                                             | \$63,117    |
| Retention   | Gupta     | Gaorav     | Merck Sharp<br>Dohme LLC                                                       | 60963                       | 7/6/22   | 12/31/25 | Correlative Biomarker Analysis of P-RAD: A<br>Randomized Study of Preoperative Pembrolizumab<br>and No, Low or High Dose Radiation in Node-<br>Positive, Triple Negative Breast Cancer                                                                                                  | \$333,237   |
| Retention   | Gupta     | Gaorav     | Department of<br>Defense                                                       | HT94252310961<br>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<br>Cancer Institute                                               | 5-R37-CA227837-06-<br>07    | 12/1/18  | 11/30/25 | Mre 11-Dependent DNA Damage Responses in<br>Breast Cancer Pathogenesis                                                                                                                                                                                                                  | \$422,092   |
| Retention   | Gupta     | Gaorav     | NIH National<br>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                                                                                                                                  | \$355,463   |
| Retention   | Gupta     | Gaorav     | Breast Cancer<br>Research<br>Foundation                                        | BCRF-24-214                 | 10/1/24  | 9/30/25  | Immune sensing of DNA damage in breast cancer                                                                                                                                                                                                                                           | \$225,000   |
| Recruitment | Gupton    | Stephanie  | NIH National<br>Institute of General<br>Medical Sciences                       | 5-R35-GM135160-01-<br>05    | 12/1/19  | 1/16/25  | Coordinated Cytoskeletal Dynamics and Membrane<br>Remodeling in Cellular Shape Change                                                                                                                                                                                                   | \$38,027    |
| Recruitment | Gupton    | Stephanie  | NIH National<br>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<br>Cancer Institute                                               | 3-F99-CA294269-<br>01S1     | 9/1/24   | 8/31/26  | The interface of neurons and cancer                                                                                                                                                                                                                                                     | \$41,079    |
| Recruitment | Gupton    | Stephanie  | NIH National<br>Institute of General<br>Medical Sciences                       | 2-R35-GM135160-06           | 12/1/19  | 11/30/29 | Coordinated Cytoskeletal Dynamics and Membrane<br>Remodeling in Cellular Shape Change                                                                                                                                                                                                   | \$443,311   |
| Retention   | Hahn      | Klaus      | University of Texas<br>Southwestern<br>Medical Center                          | GMO 210601 PO<br>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<br>Institute of General<br>Medical Sciences                       | 5-R35-GM122596-06-<br>09    | 4/1/17   | 3/31/27  | Dissecting signaling in vivo via precise control and visualization of protein activity                                                                                                                                                                                                  | \$810,270   |
| Retention   | Hahn      | Klaus      | University of Texas<br>Southwestern<br>Medical Center                          | PO 000002859B<br>GMO231206  | 9/17/22  | 6/30/27  | UTSW-UNC Center for Cell Signaling Analysis                                                                                                                                                                                                                                             | \$332,184   |
| Retention   | Hahn      | Klaus      | Duke University                                                                | 383002051                   | 12/1/23  | 11/30/25 | Revealing the Hidden Topologies of the Human Kinome                                                                                                                                                                                                                                     | \$333,333   |
| Recruitment | Hall      | Marissa    | NIH National<br>Institute on<br>Alcohol Abuse and<br>Alcoholism                | 5-R01-AA030548-01-<br>02    | 7/20/23  | 6/30/28  | Informing alcohol policy: The impact of evidence-<br>based alcohol warnings on consumption                                                                                                                                                                                              | \$582,475   |
| Recruitment | Hall      | Marissa    | NIH National<br>Institute of<br>Diabetes, Digestive,<br>and Kidney<br>Diseases | 5-R01-DK135743-01-<br>02    | 4/4/24   | 1/31/29  | Evaluating the impact of sugar warnings on beverage purchases in Hispanic populations                                                                                                                                                                                                   | \$587,694   |
| Recruitment | Han       | Zongchao   | BrightFocus<br>Foundation                                                      | M2022001F                   | 7/1/22   | 8/31/24  | Nanoceria-Coated Melanin Nanoparticle as a Novel<br>Antioxidant for Age-Related Macular Degeneration                                                                                                                                                                                    | \$100,000   |

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|-----------------------------|-----------|------------|------------------------------------------------------------------------------|---------------------------|---------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment                 | Han       | Zongchao   | North Carolina<br>Biotechnology<br>Center                                    | 2024-FLG-0059             | 7/1/24  | 6/30/25  | Transforming Viral Vectors into Nonviral Solutions in AMD Gene Therapy                                                                                           | \$20,000    |
| Recruitment                 | Hanks     | Brent      | NIH National<br>Cancer Institute                                             | 7-R01-CA251136-05         | 7/20/21 | 12/31/26 | Role of the tumor NLRP3 inflammasome in the generation of anti-PD-1 antibody immunotherapy-associated toxicities                                                 | \$263,831   |
| Recruitment                 | Hanks     | Brent      | Melanoma<br>Research<br>Foundation                                           |                           | 2/1/25  | 9/29/25  | Role of the Gli2 Pathway in Melanoma<br>Immunotherapy Resistance                                                                                                 | \$104,091   |
| Innovation<br>Award         | Hanson    | Laura      | NIH National<br>Institute on Aging                                           | 5-R01-AG065394-01-<br>05  | 9/10/20 | 5/31/26  | Palliative Care for Persons with Late-stage<br>Alzheimer's and Related Dementias and their<br>Caregivers: a Randomized Clinical Trial                            | \$524,104   |
| Innovation<br>Award         | Hanson    | Laura      | University of<br>Pittsburgh                                                  | AWD00008316<br>(139521-1) | 9/30/23 | 5/31/28  | Improving Primary Care Clinicians' Advance Care Planning for Alzheimer's Disease and Related Dementias                                                           | \$554,622   |
| Innovation<br>Award         | Hanson    | Laura      | Massachusetts<br>General Hospital                                            |                           | 4/16/24 | 1/1/30   | Specialty Compared to Oncology Delivered Palliative<br>Care for Patients with Acute Myeloid Leukemia -<br>SCOPE-Leukemia                                         | \$171,220   |
| Recruitment                 | Hathaway  | Nate       | Georgia Institute of<br>Technology                                           | AWD-002151-G1             | 3/1/21  | 2/28/25  | Reposition and Optimization of Deferiprone for<br>Breast Cancer Therapy                                                                                          | \$41,583    |
| Recruitment                 | Hathaway  | Nate       | NIH National<br>Institute of General<br>Medical Sciences                     | 5-R35-GM148365-01-<br>03  | 6/1/23  | 5/31/28  | Illumination of Chromatin Regulation via Chemical Controlled Proximity                                                                                           | \$440,289   |
| Recruitment                 | Hathaway  | Nate       | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases           | 1-F31-AI179044-01A1       | 8/12/24 | 8/11/26  | Fellow: S Wassernan Dose control of recombinant adeno-associated virus with Chemical Epigenetic Modifiers                                                        | \$40,277    |
| Theme<br>Investment<br>(CC) | Heise     | Mark       | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases           | 5-R01-Al157253-01-<br>05  | 9/25/20 | 8/31/25  | Genetic Analysis of COVID-19 Susceptibility and Resistance Determinants in the Collaborative Cross                                                               | \$766,144   |
| Theme<br>Investment<br>(CC) | Heise     | Mark       | Oregon Health and<br>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<br>(Training)    | Heise     | Mark       | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases           | 5-T32-Al007419-32         | 9/1/93  | 8/31/28  | Molecular Biology of Viral Diseases Predoctoral<br>Training Grant                                                                                                | \$198,475   |
| Retention                   | Henderson | Louise     | Virginia<br>Commonwealth<br>University                                       | FP00015652_SA002          | 2/1/22  | 1/31/26  | South Eastern Consortium for Lung Cancer Health Equity                                                                                                           | \$491,853   |
| Retention                   | Henderson | Louise     | NIH National<br>Cancer Institute                                             | 5-R01-CA212014-06-<br>07  | 9/20/17 | 5/31/28  | Evaluating Lung Cancer Screening Patterns and Outcomes in Diverse Populations and Settings                                                                       | \$507,725   |
| Retention                   | Henderson | Louise     | NIH National<br>Cancer Institute                                             | 1-R01-CA285976-<br>01A1   | 7/18/24 | 6/30/29  | Lung Cancer Screening: Cumulative Risk and<br>Multilevel Impact of False Positive Findings                                                                       | \$657,536   |
| Retention                   | Henderson | Louise     | NIH National<br>Cancer Institute                                             | 1-R01-CA298002-01         | 1/1/25  | 12/31/29 | OPTimizing surveillance in lung cancer survivors with novel IMAging biomarkers and deep-Learning (OPTIMAL)                                                       | \$968,999   |
| Recruitment                 | Hingtgen  | Shawn      | NIH National<br>Cancer Institute                                             | 5-R01-CA269974-01-<br>04  | 2/1/22  | 1/31/27  | Harnessing Continuous Liquid Interface 3D Printing to Improve Tumor-homing Stem Cell Therapy for Post-surgical Brain Cancer                                      | \$430,654   |
| Recruitment                 | Hingtgen  | Shawn      | NIH National<br>Institute of<br>Neurological<br>Disorders and<br>Stroke      | 5-F31-NS134198-02         | 9/1/23  | 8/31/25  | Fellow: L Kass Novel Bioprinted Neural Stem Cell-<br>Embedded Hydrogel Matrices forEnhanced<br>Treatment of Glioblastoma                                         | \$40,492    |
| Recruitment                 | Hirschey  | Rachel     | NIH National<br>Institute on<br>Minority Health<br>and Health<br>Disparities | 5-K23-MD015719-01-<br>05  | 5/3/21  | 1/31/26  | Physical activity intervention co-created and pilot<br>tested with African American Colorectal Cancer<br>Survivors                                               | \$158,736   |
| Recruitment                 | Hirschey  | Rachel     | NIH National<br>Institute of<br>Nursing Research                             | 5-F31-NR021241-02         | 5/1/24  | 1/31/26  | Fellow: Xu Jingle The processes through which prostate cancer survivors and their partners adopt and maintain a healthy diet during prostate cancer survivorship | \$31,699    |
| Recruitment                 | Hoadley   | Katherine  | Scimentis, LLC                                                               | SMS0002267B               | 5/9/22  | 9/30/25  | Bioinformatics and Computational Biology Subject<br>Matter Expertise in Support of Human Research<br>Program SpaceRadiation Element                              | \$113,333   |
| Recruitment                 | Hoadley   | Katherine  | NIH National<br>Cancer Institute                                             | 5-U24-CA264021-04         | 9/1/21  | 8/31/26  | Specialized RNA analysis center for integrative genomic analyses                                                                                                 | \$344,352   |

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|-----------------------------|--------------------|-------------|--------------------------------------------------------------------|-------------------------------|----------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment                 | Hoadley            | Katherine   | Duke University                                                    | 383000605                     | 6/8/22   | 6/7/25   | Ancestry-related RNA Splicing and Immune<br>Expression in Metastatic Breast Cancer                                                                                                                                   | \$53,605    |
| Recruitment                 | Hoadley            | Katherine   | Johns Hopkins<br>University                                        | 2006533752                    | 7/1/24   | 9/30/25  | AURORA US: PROspective Biospecimen Repository in Metastatic Breast Cancer: Clinical Data Coordinating Center                                                                                                         | \$111,398   |
| Recruitment                 | Hood-<br>Pishchany | Indriati    | Bill and Melinda<br>Gates Foundation                               | INV-072197                    | 10/28/24 | 11/20/25 | VMRC Bacterial Community Co-culture Preclinical Studies                                                                                                                                                              | \$499,886   |
| Recruitment                 |                    | Valerie     | American<br>Association of<br>Retired Persons<br>Andrus            |                               | 7/1/24   | 6/30/25  | Promoting Healthy Work Environments and<br>Confronting Workplace Violence Through<br>Simulation Training                                                                                                             | \$25,000    |
| Recruitment                 | Hucks              | George      | Department of<br>Defense                                           | W81XWH2010889                 | 9/15/20  | 9/14/25  | Phase I Study of Autologous Activated T-cells<br>Transduced With a 3rd Generation GD2 Chimeric<br>Antigen Receptor, Co-expression of IL-15 and<br>iCaspase9 Safety Switch                                            | \$159,828   |
| Investment<br>(HTSF)        | Hunter             | Senyene     | Kennedy Krieger<br>Institute                                       | 9000166                       | 7/1/23   | 6/30/26  | Child Neurologist Career Development Program                                                                                                                                                                         | \$206,221   |
| Recruitment                 | Hursting           | Stephen     | University of Utah                                                 | U000527486<br>10058539-01-UNC | 9/23/21  | 8/30/26  | Adipose tissue-colorectal tumor cross-talk: new targets for breaking the obesity-cancer link                                                                                                                         | \$33,423    |
| Recruitment                 | Hursting           | Stephen     | Purdue University                                                  | 11001401-029                  | 12/28/22 | 11/30/27 | Impact of hypoxia on lipid metabolism in obesity-<br>driven breast cancer progression                                                                                                                                | \$145,197   |
| Recruitment                 | Hursting           | Stephen     | NIH National<br>Cancer Institute                                   | 5-F31-CA275336-02             | 9/12/23  | 9/11/25  | Fellow: E Devericks Evaluating the impact of obesity-<br>associated fatty acid metabolic dysregulation on<br>breast cancer sensitivity to ferroptosis                                                                | \$35,988    |
| Recruitment                 | Hursting           | Stephen     | Breast Cancer<br>Research<br>Foundation                            | BCRF-24-073                   | 10/1/24  | 9/30/25  | Preclinical Investigations into Next Generation<br>Incretin Therapy for Preventing Obesity-Associated<br>Breast Cancer                                                                                               | \$225,000   |
| Investment<br>(Training)    | Ibrahim            | Joseph      | NIH National<br>Cancer Institute                                   | 5-T32-CA106209-19             | 5/1/04   | 7/31/26  | Biostatistics for Research in Genomics and Cancer                                                                                                                                                                    | \$257,213   |
| Retention                   | Ibrahim            | Joseph      | GlaxoSmithKline,<br>Inc.                                           | AGR-6303                      | 12/7/23  | 12/6/26  | Bayesian Non-parametric Statistics Methodology Collaboration                                                                                                                                                         | \$87,846    |
| Retention                   | Ibrahim            | Joseph      | Amgen<br>Pharmaceuticals                                           | 7300800000                    | 1/1/25   | 12/31/25 | Scientific Collaboration Agreement with Amgen                                                                                                                                                                        | \$249,000   |
| Retention                   | Ibrahim            | Joseph      | Merck Sharp<br>Dohme LLC                                           | 25-2459                       | 12/5/24  | 12/4/26  | Research Agreement with Merck                                                                                                                                                                                        | \$300,000   |
| Theme<br>Investment<br>(CC) | Jackson            | Klarissa    | NIH National<br>Institute of General<br>Medical Sciences           | 5-R35-GM143044-01-<br>04      | 7/1/21   | 6/30/26  | Interindividual Variability in Drug Metabolism in Ethnically Diverse Populations                                                                                                                                     | \$381,394   |
| Theme<br>Investment         | James              | Lindsey     | NIH National<br>Cancer Institute                                   | 5-R01-CA242305-01-<br>06      | 8/23/19  | 7/31/25  | Discovery of First-in-Class NSD2 Degraders for Cancer Therapy                                                                                                                                                        | \$138,700   |
| Investment<br>(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 incombination with Azacitidine after allogeneic Stem Cell Transplantation in Subjects with Acute MyeloidLeukemia (AML) (VIALE-T) | \$29,040    |
| Investment<br>(Protocol)    | Jamieson           | Katarzyna   | National Marrow<br>Donor Program                                   | ACCESS                        | 8/17/21  | 12/31/27 | ACCESS: A Multi-Center, Phase II Trial of HLA-<br>Mismatched Unrelated Donor Hematopoietic Cell<br>Transplantation with Post-Transplantation<br>Cyclophosphamide for Patients with Hematologic<br>Malignancies       | \$12,500    |
| Investment<br>(Protocol)    | Jensen             | Christopher | American Society<br>of Clinical<br>Oncology                        |                               | 7/1/24   | 6/30/27  | Combating Cancer-Related Fatigue for Patients with Indolent Lymphoma: An Integrated Supportive Care Program                                                                                                          | \$66,667    |
| Investment<br>(Protocol)    | Jensen             | Christopher | CLL Society                                                        |                               | 7/1/24   | 6/30/26  | Combating Cancer-Related Fatigue: A Personalized Supportive Care Program                                                                                                                                             | \$50,000    |
| ,                           | Jiang              | Guochun     | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 5-R01-Al186609-01-<br>02      | 6/10/24  | 4/30/29  | Histone decrotonylation uniquely regulates HIV latency                                                                                                                                                               | \$733,530   |
| Investment<br>(HTSF)        | Jiang              | Guochun     | NIH National<br>Institute of Mental<br>Health                      | 5-R01-MH136852-01-<br>02      | 5/6/24   | 3/31/29  | Defining the HIV reservoir and latency mechanism in human brain myeloid cells                                                                                                                                        | \$623,736   |
| Investment<br>(Proteomics)  | Johnson            | Gary        | University of<br>Alabama at<br>Birmingham                          | 000531784-SC002               | 1/12/22  | 12/31/26 | Credentialing next-generation human glioma models for precision therapeutics                                                                                                                                         | \$11,883    |
| Investment<br>(HTSF)        | Jones              | Corbin      | National Science<br>Foundation                                     | IOS-2034929                   | 6/15/21  | 5/31/26  | Collaborative Research: Rules for Dynamic-Light<br>Environmental Sculpting of Genomes                                                                                                                                | \$242,522   |

| Category                 | Last Name | First name | Sponsor                                                            | Sponsor Award No         | Begin    | End      | Title                                                                                                                           | Total Award |
|--------------------------|-----------|------------|--------------------------------------------------------------------|--------------------------|----------|----------|---------------------------------------------------------------------------------------------------------------------------------|-------------|
| Investment<br>(HTSF)     | Jones     | Corbin     | NIH National<br>Cancer Institute                                   | 75N91019D00033/<br>75N9  | 9/8/21   | 9/7/26   | Comprehensive total RNA, mRNA, and miRNA sequencing for OCCPR                                                                   | \$627,585   |
| Investment<br>(HTSF)     | Jones     | Corbin     | Duke University                                                    | 303-000857               | 6/15/22  | 4/30/26  | Social experience dependent modification of gene regulation and circuit function                                                | \$52,340    |
| Investment<br>(HTSF)     | Jones     | Corbin     | National Science<br>Foundation                                     | IOS-2243536              | 3/1/23   | 2/28/27  | Collaborative Research: Ideas Lab: The Role of<br>Extracellular RNA in Intercellular and Interkingdom<br>Communication          | \$231,247   |
| Recruitment              | Joseph    | Sarah      | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 5-R01-Al176596-01-<br>03 | 3/2/23   | 2/29/28  | Identifying Roadblocks to Antigen Expression and<br>Enhancing Killing of HIV-Infected Cells That Are<br>Refractory to Clearance | \$1,132,909 |
| Investment<br>(HTSF)     | Juliano   | Jonathan   | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 5-R01-Al155730-01-<br>04 | 8/1/21   | 7/31/25  | Importation and transmission of malaria in Zanzibar: a case study for elimination                                               | \$753,731   |
| Investment<br>(HTSF)     | Juliano   | Jonathan   | Brown University                                                   | 00002016                 | 8/5/21   | 7/31/25  | Artemisinin Resistance in Africa: its emergence and evolution in Rwanda                                                         | \$186,743   |
| Investment<br>(HTSF)     | Juliano   | Jonathan   | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 5-R01-Al165537-01-<br>03 | 7/25/22  | 6/30/27  | Relapsing malaria in Africa: mechanisms for persistence amid falciparum decline                                                 | \$771,018   |
| Investment<br>(HTSF)     | Juliano   | Jonathan   | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 5-K24-Al134990-06-<br>08 |          |          | Mentoring in Translational Malaria Genomics                                                                                     | \$172,941   |
| Investment<br>(HTSF)     | Juliano   | Jonathan   | Duke University                                                    | 303-001853               | 1/25/23  | 6/30/25  | Evolutionary dynamics of zoonotic malaria                                                                                       | \$88,848    |
| Investment<br>(HTSF)     | Juliano   | Jonathan   | University of California at San Francisco                          | 15073SC                  | 12/1/23  | 11/30/27 | Surveillance to track ACT resistance trends in<br>Ugandan malaria parasites (STARTUP)                                           | \$97,212    |
| Investment<br>(Training) | Kabanov   | Alexander  | NIH National<br>Cancer Institute                                   | 5-T32-CA196589-10        | 7/1/15   | 6/30/25  | Carolina Cancer Nanotechnology Training Program (C-CNTP)                                                                        | \$520,560   |
| Recruitment              | Kabanov   | Alexander  | University of Texas<br>Rio Grande Valley                           | 1R01Al147731-01A1 (01)   | 7/16/20  | 6/30/25  | A targeted anti-HIV drug delivery to the GALT                                                                                   | \$78,647    |
| Recruitment              | Kabanov   | Alexander  | NIH National<br>Cancer Institute                                   | 5-R01-CA264488-01-<br>04 | 8/1/21   | 7/31/25  | Toward Translation of Nanoformulated Paclitaxel-<br>Platinum Combination                                                        | \$582,405   |
| Recruitment              | Kabanov   | Alexander  | St Baldricks<br>Foundation                                         | 1052982                  | 7/1/23   | 6/30/26  | Naturally Targeted Exosomal TLR7/8 Agonist for<br>Immunotherapy of Medulloblastoma                                              | \$66,667    |
| Recruitment              | Kabanov   | Alexander  | NIH National<br>Institute of<br>Neurological<br>Disorders and      | 1-R21-NS135362-01        | 9/20/23  | 8/31/25  | Naturally Targeted Exosomal TLR7/8 Agonist for<br>Immunotherapy of Medulloblastoma                                              | \$213,813   |
| Recruitment              | Kabanov   | Alexander  | Emervax, Inc.                                                      | A24-0634-R23-5143        | 10/31/23 | 4/30/25  | Safe and Effective Circular RNA Vaccines for<br>Emerging Viruses                                                                | \$283,683   |
| Recruitment              | Kabanov   | Alexander  | Vanderbilt<br>University Medical<br>Center                         | VUMC127499               | 8/20/24  | 7/31/27  | Bunyavirus and Picornavirus Pandemic Pathogen<br>Preparedness (BP4) Center                                                      | \$229,619   |
| Investment (CC)          | Kafri     | Tal        |                                                                    | 5R01HL155986-04          | 9/1/20   | 8/31/26  | The Circadian Rhythm as a Lentiviral Vector<br>Restriction factor                                                               | \$240,850   |
| Investment<br>(CC)       | Kelada    | Samir      | NIH National<br>Institute of<br>Environmental<br>Health Sciences   | 5-R01-ES034260-01-<br>04 | 4/18/22  | 2/28/27  | Regulatory Genomics of Ozone Air Pollution<br>Response in Vitro and In Vivo                                                     | \$637,686   |
| Investment (CC)          | Kelada    | Samir      | Genentech, Inc.                                                    |                          | 12/9/22  | 7/1/25   | Research Collaboration Agreement with Genentech, Inc.                                                                           | \$50,000    |
| Investment<br>(CC)       | Kelada    | Samir      | NIH National Heart,<br>Lung, and Blood<br>Institute                | 1-F31-HL176167-01        | 9/1/24   | 8/31/27  | Fellow: S Lester Understanding the Genetic<br>Contributions to Variation in Ozone Exposure<br>Response                          | \$40,064    |
| Investment (CC)          | Kelada    | Samir      | NIH National<br>Institute of<br>Environmental<br>Health Sciences   | 1-R01-ES036228-<br>01A1  | 1/1/25   | 10/31/29 | Genetic mechanisms underlying maladaptive respiratory responses to air pollution                                                | \$671,165   |
| Recruitment              | Kent      | Erin       | NCDHHS Division<br>of Aging and Adult<br>Services                  | 00047720 NC533873        | 7/18/24  | 9/30/25  | NC Department of Health and Human Services<br>Division of Aging and Adult Services All Ages, All<br>Stages NC Data Dashboard    | \$249,463   |
| Recruitment              | Kent      | Erin       | Agency for<br>Healthcare<br>Research and<br>Quality                | 1-R36-HS030175-01        | 8/1/24   | 7/31/25  | Financial Hardship among LGBTQ+ Cancer Survivors and Caregivers: Prevalence, Determinants, and Access to Care                   | \$45,170    |
|                          |           |            |                                                                    |                          |          |          |                                                                                                                                 |             |

| Category                 | Last Name | First name | Sponsor                                                              | Sponsor Award No         | Begin    | End      | Title                                                                                                                                                                                                                                                                                                          | Total Award |
|--------------------------|-----------|------------|----------------------------------------------------------------------|--------------------------|----------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment              | Kent      | Erin       | Fred Hutchinson<br>Cancer Center                                     | 1195451                  | 8/15/24  | 6/30/29  | Development of Measures to Screen for Financial<br>Hardship in Alzheimer's Disease and Dementia                                                                                                                                                                                                                | \$50,685    |
| Recruitment              | Kent      | Erin       | Humana<br>Foundation                                                 |                          | 1/1/25   | 6/30/26  | enCompass: expanding the support of family caregivers of diverse patients with cancer and diabetes                                                                                                                                                                                                             | \$299,998   |
| Recruitment              | Kent      | Erin       | Duke University                                                      | 383002633                | 10/1/24  | 9/30/25  | Reconceptualizing the experiences of caregiving for older adults: developing items to inform a caregiver-centered assessment survey to improve caregiver services and supports.                                                                                                                                | \$19,437    |
| Retention                | Key       | Nigel      | uniQure<br>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 | \$18,154    |
| Investment<br>(Training) | Key       | Nigel      | NIH National Heart,<br>Lung, and Blood<br>Institute                  | 5-T32-HL007149-48        | 7/1/22   | 6/30/27  | Research Training in Hematology at UNC Chapel Hill,<br>Reissue of PA-18-403 for due dates on or after<br>May 25, 2020                                                                                                                                                                                          | \$484,006   |
| Retention                | Key       | Nigel      | BioMarin<br>Pharmaceutical,<br>Inc.                                  | 270-401                  | 12/18/23 | 12/15/48 | A Long-Term Follow-Up Study in Subjects with<br>Severe Hemophilia A Who Received BMN 270, an<br>Adeno-Associated Virus Vector-Mediated Gene<br>Transfer of Human Factor VIII in a Prior BioMarin<br>Clinical Trial (BMN 270-401)                                                                               | \$39,832    |
| Retention                | Key       | Nigel      | NIH National Heart,<br>Lung, and Blood<br>Institute                  | 5-R01-HL171501-01-<br>02 | 2/15/24  | 1/31/28  | Mechanisms of venous thrombosis and renal dysfunction in sickle trait                                                                                                                                                                                                                                          | \$628,149   |
| Retention                | Key       | Nigel      | CSL Behring                                                          | CSL222_3003              | 12/2/24  | 12/2/29  | An Extension Study Assessing the Long-term Safety<br>and Efficacy of Etranacogene Dezaparvovec<br>(CSL222) Previously Administered to Adult Male<br>Subjects with Hemophilia B                                                                                                                                 | \$58,565    |
| Retention                | Khairat   | Saif       | NIH National<br>Center for<br>Advancing<br>Translational<br>Sciences | 5-RC2-TR004380-01-<br>03 | 8/1/23   | 4/30/28  | Center for Virtual Care Value and Equity (ViVE)                                                                                                                                                                                                                                                                | \$749,745   |
| Retention                | Kim       | Hong Jin   | North Carolina<br>State University                                   | PAM-P23-000090-<br>SA01  | 4/1/23   | 3/31/28  | Enteric Glia is a New Biological Target to Block Drug<br>Resistance in Colon Cancer                                                                                                                                                                                                                            | \$12,874    |
| Retention                | Kim       | William    | Vanderbilt<br>University Medical<br>Center                           | VUMC108453               | 9/2/22   | 9/1/25   | Academy of Kidney Cancer Investigators Dean<br>Award                                                                                                                                                                                                                                                           | \$40,954    |
| Retention                | Kim       | William    | NIH National<br>Cancer Institute                                     | 5-R01-CA290597-01-<br>02 | 3/12/24  | 2/28/29  | Triggering Aberrant RNA Processing for RCC Therapy                                                                                                                                                                                                                                                             | \$618,056   |
| Retention                | Kim       | William    | NIH National<br>Cancer Institute                                     | 2-K12-CA120780-16        | 9/17/07  | 6/30/29  | UNC Oncology K12                                                                                                                                                                                                                                                                                               | \$756,019   |
| Retention                | Kim       | William    | NIH National<br>Cancer Institute                                     | 1-F31-CA281339-<br>01A1  | 7/1/24   | 6/30/27  | Fellow: M Sturdivant The Mutagenic Effects of APOBEC3A and APOBEC3B in Urothelial Carcinoma                                                                                                                                                                                                                    | \$35,843    |
| Retention                | Kim       | William    | Conquer Cancer<br>Foundation                                         |                          | 7/1/24   | 12/31/25 | Multispecific T-cell engagers targeting intracellular cancer-testis antigens in urothelial carcinoma                                                                                                                                                                                                           | \$50,000    |
| Retention                | Kim       | William    | NIH National<br>Cancer Institute                                     | 1-R01-CA292625-<br>01A1  | 3/1/25   | 2/28/30  | Targeting APOBEC3-induced squamous differentiation in bladder cancer                                                                                                                                                                                                                                           | \$514,582   |
| Investment<br>(HTSF)     | Kim       | Wonho      | NIH National<br>Institute of General<br>Medical Sciences             | 5-R35-GM155096-01-<br>02 | 7/1/24   | 4/30/29  | Deciphering the Stepwise Regulatory Mechanisms of Genome Folding                                                                                                                                                                                                                                               | \$388,750   |
| Investment (Bios/HTSF)   | Kosorok   | Michael    | National Science<br>Foundation                                       | DMS-2210659              | 8/15/22  | 7/31/25  | Collaborative Research: Semiparametric and Reinforcement Learning for Precision Medicine                                                                                                                                                                                                                       | \$86,667    |
| Investment<br>(CC)       | Kulis     | М          | Department of<br>Defense                                             | W81XWH-20-PRMRP-<br>EA   | 9/30/21  | 9/29/25  | Exploiting Inhibitory Siglecs to Combat Food<br>Allergies                                                                                                                                                                                                                                                      | \$374,916   |
| Investment (CC)          | Kulis     | М          | National Institute of Health                                         | 75N93022C00053           | 8/25/22  | 8/31/27  | Adjuvant Comparison and Characterization - UNC subcontract                                                                                                                                                                                                                                                     | \$202,660   |
| Investment<br>(Protocol) | Kuzmiak   | Cherie     | ECOG-ACRIN<br>Cancer Research<br>Group                               | EA1151                   | 10/20/17 | 10/19/30 | ECOG-ACRIN LAPS: Protocol EA1151, Tomosynthesis Mammographic Imaging Screening Trial (TMIST)                                                                                                                                                                                                                   | \$392,129   |
| Retention                | Laederach | Alain      | NIH National<br>Institute of General<br>Medical Sciences             | 5-R35-GM140844-01-<br>05 | 6/1/21   | 5/31/26  | Variant induced RNA structure change in human genetic disease                                                                                                                                                                                                                                                  | \$483,390   |

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|--------------------------|-----------|------------|-----------------------------------------------------------------------------|--------------------------|----------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Retention                | Laederach | Alain      | National Science<br>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,<br>Lung, and Blood<br>Institute                         | 5-R01-HL111527-11        | 1/1/12   | 8/31/27  | Non-coding RNA structure change in Chronic<br>Obstructive Pulmonary Disease                                                                                                    | \$696,520   |
| Retention                | Laederach | Alain      | New York<br>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           | \$145,917   |
| Recruitment              | Lai       | Sam        | Oak Crest Institute of Science                                              | UNC20-315                | 5/5/20   | 2/28/25  | Next Generation Multipurpose Prevention<br>Technology: An Intravaginal Ring for HIV Prevention<br>and Nonhormonal Contraception                                                | \$15,125    |
| Recruitment              | Lai       | Sam        | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases          | 5-R01-Al165853-01-<br>03 | 9/19/22  | 7/31/27  | Engineered muco-trapping antibodies for inhaled therapy of parainfluenza and human metapneumovirus infections                                                                  | \$629,240   |
| Recruitment              | Lai       | Sam        | Benaroya Research<br>Institute                                              | FY24ITN622               | 2/1/23   | 1/31/25  | Measurement of anti-PEG antibodies in COVID-19-<br>004 clinical trial                                                                                                          | \$153,508   |
| Recruitment              | Lai       | Sam        | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases          | 5-R21-Al180822-01-<br>02 | 1/19/24  | 11/30/25 | Engineering a vaccine that generates antibodies with fully tunable variable domain and immunoglobulin isotype specificity based on in vivo transduction of circulating B-cells | \$211,869   |
| Recruitment              | Lai       | Sam        | Pharmaceutical<br>Research and<br>Manufacturers of<br>America<br>Foundation | 25-0948                  | 1/1/25   | 12/31/26 | Direct in vivo engineering of CAR-T cells for cost-<br>effective cancer therapy                                                                                                | \$30,000    |
| Recruitment              | Lai       | Sam        | Ovarian Cancer<br>Research Fund<br>Alliance                                 | RPG-R-2025-2-<br>1455356 | 6/1/25   | 5/31/27  | In vivo engineering of B7-H3.CAR-T cell therapy for ovarian cancer                                                                                                             | \$75,000    |
| Recruitment              | Lai       | Sam        | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases          | 1-R21-Al185808-01A1      | 5/13/25  | 4/30/27  | Engineering non-replicating self-recirculating phages as platform for gene therapy of the microbiome                                                                           | \$233,250   |
| Innovation<br>Award      | Lawrence  | David      | NIH National Heart,<br>Lung, and Blood<br>Institute                         | 5-R01-HL153744-01-<br>04 | 5/1/21   | 4/30/25  | Design and Application of Photoresponsive<br>Modules in Circulating Erythrocytes                                                                                               | \$56,156    |
| Innovation<br>Award      | Lawrence  | David      | NIH National Heart,<br>Lung, and Blood<br>Institute                         | 1-R01-HL17666-01         | 1/15/25  | 12/30/28 | Assembly, Dosimetry, and Assessment of a<br>Platform Technology for the Delivery of<br>Thrombolytics                                                                           | \$767,077   |
| Recruitment              | Lazear    | Helen      | Burroughs<br>Wellcome Fund                                                  | 1021339                  | 7/1/21   | 7/1/26   | Host Range Determinants of Emerging Flaviviruses                                                                                                                               | \$100,000   |
| Recruitment              | Lazear    | Helen      | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases          | 5-R01-Al170625-01-<br>03 | 8/5/22   | 7/31/26  | Host Factors Controlling Neuroinvasive Flavivirus<br>Pathogenesis                                                                                                              | \$388,750   |
| Recruitment              | Lazear    | Helen      | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases          | 5-R01-Al175708-01-<br>03 | 3/13/23  | 2/29/28  | Antiviral and immunomodulatory effects of interferon lambda in the skin                                                                                                        | \$594,722   |
| Investment<br>(Protocol) | Lee       | Carrie     | V Foundation for<br>Cancer Research                                         | DM2023-003               | 4/1/23   | 4/1/25   | Use of Multimedia Educational Tools to Advance<br>Equity in Cancer Clinical Trial Participation                                                                                | \$25,000    |
| Recruitment              | Legant    | Wesley     | David and Lucile Packard                                                    | 2019-69652               | 10/15/19 | 11/30/27 | Al-enhanced microscopy                                                                                                                                                         | \$109,375   |
| Recruitment              | Legant    | Wesley     | Silicon Valley<br>Community<br>Foundation                                   | 2023-321164              | 3/1/23   | 8/31/25  | Molecules in Context with 4Pi Lattice Light Sheet<br>Nanoscopy                                                                                                                 | \$627,554   |
| Investment<br>(HTSF)     | Li        | Feng       | NIH National<br>Institute of Child<br>Health and Human<br>Development       | 5-R01-HD101485-01-<br>05 | 8/16/21  | 5/31/26  | Benefits of nicotinamide in placental development and in preeclamsia                                                                                                           | \$410,139   |
| Recruitment              | Li        | Zibo       | NIH National<br>Cancer Institute                                            | 5-R01-CA247769-01-<br>05 | 7/15/20  | 6/30/26  | The development of novel radiation-sensitizer based on ultra-small carbon dots                                                                                                 | \$474,089   |
| Recruitment              | Li        | Zibo       | University of<br>Georgia Board of<br>Regents                                | SUB00002554              | 6/1/21   | 5/31/25  | Development of a novel biodegradable inorganic nanoparticle therapeutic for cancer                                                                                             | \$232,684   |

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| Recruitment                   | Li        | Zibo       | NIH National<br>Cancer Institute                                         | 5-R01-CA287184-01-<br>02    | 12/5/23  | 11/30/27 | Development of an Efficient 18F labeling technology based on tetrazine trans-cyclooctene ligation                                                                                                                                                                           | \$616,880   |
| Recruitment                   | Li        | Zibo       | NIH National<br>Institute of<br>Biomedical Imaging<br>and Bioengineering | 1-K99-EB037078-01           | 7/1/25   | 6/30/27  | Development of Radiofluorination Methods and<br>Prosthetic Groups Suitable for Quick Iterative<br>Constructions of PET Tracer Analogs in Rapid<br>Radiopharmaceutical Development and SAR Study                                                                             | \$122,260   |
| Recruitment                   | Lichtman  | Eben       | GlaxoSmithKline,<br>Inc.                                                 | GSK 209626                  | 2/19/21  | 2/7/31   | GSK-209626-DREAMM12: A Phase I Study to<br>Evaluate the Pharmacokinetics and Safety of<br>Belantamab Mafodotin Monotherapy in<br>Participants with Relapsed or Refractory Multiple<br>Myeloma Who Have Normal and Varying Degrees of<br>Impaired Renal Function (DREAMM 12) | \$118,634   |
| Recruitment                   | Lichtman  | Eben       | AbbVie, Inc.                                                             | M24-108                     | 10/12/23 | 10/19/33 | A Multicenter, Phase 1b, Open-label Study to<br>Evaluate Dose Optimization Measures and Safety of<br>ABBV-383 in Subjects with Relapsed or Refractory<br>Multiple Myeloma                                                                                                   | \$114,221   |
| Recruitment                   | Lichtman  | Eben       | Juno Therapeutics                                                        | CA0881000                   | 6/12/24  | 6/26/34  | A Phase 2, Open-Label, Multicenter Study of BMS-<br>986393, a GPRC5D-directed CAR T Cell Therapy in<br>Adult Participants with Relapsed or Refractory<br>Multiple Myeloma                                                                                                   | \$42,729    |
| Recruitment                   | Lichtman  | Eben       | AbbVie, Inc.                                                             | M22-574                     | 11/12/24 | 11/12/27 | A Phase 3, Multicenter, Randomized, Open-Label<br>Study of ABBV-383 Compared with Standard<br>Available Therapies in Subjects with Relapsed or<br>Refractory Multiple Myeloma (3L+RRMM<br>Monotherapy Study)                                                                | \$48,460    |
| Theme<br>Investment<br>(BRIC) | Lin       | Weili      | NIH National<br>Institute on Drug<br>Abuse                               | 5-U01-DA055344-04           | 9/30/21  | 6/30/26  | 5/6 HBCD Prenatal Experiences and Longitudinal Development (PRELUDE) Consortium                                                                                                                                                                                             | \$2,623,446 |
| Theme<br>Investment<br>(BRIC) | Lin       | Weili      | University of<br>California at San<br>Diego                              | 705059                      | 10/1/21  | 6/30/25  | The Healthy Brain and Child Development National Consortium Administrative Core                                                                                                                                                                                             | \$136,258   |
| Theme<br>Investment<br>(BRIC) | Lin       | Weili      | University of<br>Washington                                              | UWSC16385 PO-<br>0100153658 | 9/1/24   | 8/31/28  | ADRC Consortium for Clarity in ADRD Research<br>Through Imaging                                                                                                                                                                                                             | \$249,187   |
| Theme<br>Investment<br>(BRIC) | Lin       | Weili      | Once Upon a Time<br>Foundation                                           |                             | 11/1/24  | 10/31/26 | The Raynor Cerebellum Project (RCP)                                                                                                                                                                                                                                         | \$357,477   |
| Retention                     | Linnan    | Laura      | Centers for Disease<br>Control and<br>Prevention                         | 5-U19-OH012303-01-<br>04    | 9/1/21   | 8/31/26  | Carolina Center for Healthy Work Design and Worker Well-Being                                                                                                                                                                                                               | \$963,426   |
| Recruitment                   | Liu       | Pengda     | NIH National<br>Cancer Institute                                         | 5-R01-CA244825-01-<br>05    | 7/7/20   | 6/30/26  | Elucidating novel functions of cGAS in breast cancer                                                                                                                                                                                                                        | \$337,922   |
| Recruitment                   | Liu       | Pengda     | Department of Defense                                                    | HT94252410644<br>0012116536 | 7/1/24   | 6/30/28  | Targeting the E3 ligase SPOP in treating Renal Cell Carcinoma                                                                                                                                                                                                               | \$311,000   |
| Recruitment                   | Liu       | Pengda     | Mary Kay Ash<br>Foundation                                               | 45954                       | 7/1/24   | 6/30/26  | Statins suppress breast cancer metastasis by controlling canonical and non-canonical 2'3'-cGAMP signaling                                                                                                                                                                   | \$50,000    |
| Recruitment                   | Liu       | Pengda     | DOD DA Army<br>Medical Research<br>Acquisition Activity                  | HT94252410823<br>0012138754 | 9/1/24   | 8/14/27  | Combination therapy to overcome chemoresistance in Ewing sarcoma                                                                                                                                                                                                            | \$181,417   |
| Retention                     | Long      | Jason      | Nucleix Ltd.                                                             | Lung-RND-003                | 6/6/22   | 3/1/26   | Determination and Validation of Lung EpiCheck a<br>Multianalyte Assay for Lung Cancer Prediction. A<br>Case-ControlStudy                                                                                                                                                    | \$18,301    |
| Retention                     | Long      | Jason      | Delfi Diagnostics,<br>Inc.                                               | AFT-63                      | 6/13/23  | 3/31/26  | DNA evaluation of fragments for early interception-<br>Lung Cancer Training Study (DELFI-L101)                                                                                                                                                                              | \$23,998    |
| Recruitment                   | Lund      | Jennifer   | NIH National<br>Cancer Institute                                         | 3-R01-CA277756-<br>02S1     | 7/1/23   | 6/30/28  | Applying causal inference methods to improve estimation of the real-world benefits and harms of lung cancer screening                                                                                                                                                       | \$406,375   |
| Recruitment                   | Lund      | Jennifer   | Janssen Research<br>Development, LLC                                     | U01FD007937<br>C2025038551  | 9/18/23  | 6/1/25   | Advisory Committee Consulting Agreement - Jenny<br>LundTitle of Proposal: Development of novel<br>methods to enable robust comparison of real-<br>world Progression Free Survival (rwPFS) and Clinical<br>Trial PFS in Multiple Myeloma                                     | \$37,445    |
| Investment<br>(HTSF)          | MacIver   | Nancie     | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases       | 5-R21-Al180741-01-<br>02    | 11/16/23 | 10/31/25 | Utilizing alternative dietary interventions to alter gut microbiome and improve T cell responses to viral infection in obesity                                                                                                                                              | \$241,877   |

| Category                    | Last Name | First name | Sponsor                                                            | Sponsor Award No                | Begin   | End      | Title                                                                                                                                                                                                                              | Total Award |
|-----------------------------|-----------|------------|--------------------------------------------------------------------|---------------------------------|---------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Investment<br>(HTSF)        | Maeda     | Nobuyo     | NIH National Heart,<br>Lung, and Blood<br>Institute                | 5-R01-HL049277-30-<br>33        | 9/30/92 | 12/31/25 | Animal Models for Studying the Genetics of Complex Diseases                                                                                                                                                                        | \$770,952   |
| Theme<br>Investment<br>(CC) | Magnuson  | Terry      | NIH Office of the<br>Director                                      | 2-U42-OD010924-26               | 9/30/99 | 2/28/30  | A Carolina Center to Characterize and Maintain<br>Mutant Mice                                                                                                                                                                      | \$1,166,141 |
| Investment<br>(Bios/HTSF)   | Marron    | James      | National Science<br>Foundation                                     | DMS-2113404                     | 9/1/21  | 8/31/25  | Data Integration Via Analysis of Subspaces (DIVAS)                                                                                                                                                                                 | \$125,000   |
| Innovation<br>Award         | Matera    | Greg       | NIH National<br>Institute of General<br>Medical Sciences           | 5-R35-GM136435-01-<br>05        | 4/1/20  | 3/31/25  | Ribonucleoprotein Biogenesis and Epigenetic Gene Regulation                                                                                                                                                                        | \$65,232    |
| Innovation<br>Award         | Matera    | Greg       | NIH National<br>Institute of General<br>Medical Sciences           | 2-R35-GM136435-06               | 4/1/20  | 3/31/30  | Role of histone PTMs in epigenetic control of metazoan transcription and RNA processing                                                                                                                                            | \$725,271   |
| Investment<br>(Protocol)    | Mcclure   | Elizabeth  | University of<br>Kentucky Research<br>Foundation                   | 3210002492-25-255<br>7800007927 | 9/30/24 | 9/29/25  | Improving Documentation of Occupational Heat<br>Related Injuries in North Carolina to Inform Worker<br>Protections                                                                                                                 | \$15,000    |
| Recruitment                 | McGinty   | Robert     | NIH National<br>Institute of General<br>Medical Sciences           | 5-R35-GM133498-07               | 8/1/19  | 5/31/29  | Molecular Mechanisms of Chromatin Recognition                                                                                                                                                                                      | \$461,304   |
| Investment<br>(HTSF)        | McKay     | Daniel     | NIH National<br>Institute of General<br>Medical Sciences           | 5-R35-GM128851-06-<br>08        | 8/1/18  | 5/31/28  | Genetic and epigenetic mechanisms of developmental gene regulation                                                                                                                                                                 | \$457,926   |
| Investment<br>(HTSF)        | Merker    | Jason      | NIH National<br>Cancer Institute                                   | 3-UG1-CA233333-<br>06S1         | 3/13/19 | 2/28/26  | UNITS: The UNC / UT National Clinical Trials Network<br>Group Integrated Translational Science Production<br>and Consultation Center                                                                                               | \$438,001   |
| Investment<br>(HTSF)        | Merker    | Jason      | Redbud Labs                                                        |                                 | 7/1/24  | 6/30/25  | SBIR: Improving extraction success of FFPE samples with automated and reliable microfluidic sample                                                                                                                                 | \$163,175   |
| Recruitment                 | Miller    | Brian      | NIH National<br>Cancer Institute                                   | 5-K08-CA248960-03-<br>06        | 7/1/20  | 6/30/25  | preparation Targeting Unique Meyloid Populations to Overcome Anti-PD-1 Resistance Conferred by Specific Cancer Mutations                                                                                                           | \$286,658   |
| Recruitment                 | Miller    | Brian      | Burroughs<br>Wellcome Fund                                         | 1021540                         | 1/1/22  | 8/31/26  | Targeting Myeloid Cells as a Personalized Immunotherapy Approach to Cancer                                                                                                                                                         | \$175,000   |
| Recruitment                 | Miller    | Brian      | Melanoma<br>Research Alliance                                      | 1255560                         | 6/1/24  | 5/31/27  | Targeting suppressive macrophages to overcome resistance to immunotherapy                                                                                                                                                          | \$85,000    |
| Recruitment                 | Miller    | Brian      | V Foundation for<br>Cancer Research                                | V2024-021                       | 10/1/24 | 10/1/27  | Dissecting metabolic vulnerabilities of tumor-<br>associated macrophages to improve the efficacy of<br>immunotherapy                                                                                                               | \$200,000   |
| Recruitment                 | Milner    | Justin     | V Foundation for<br>Cancer Research                                | V2022-019                       | 10/1/22 | 10/1/24  | Reprogramming T cells for effective and durable responses against pancreatic cancer                                                                                                                                                | \$200,000   |
| Recruitment                 | Milner    | Justin     | Mary Kay Ash<br>Foundation                                         | 45861                           | 7/1/23  | 6/30/26  | Tailoring CAR-T Cell Responses for Triple Negative<br>Breast Cancer                                                                                                                                                                | \$33,333    |
| Recruitment                 | Milner    | Justin     | Lung Cancer<br>Initiative of North<br>Carolina                     |                                 | 1/1/24  | 12/31/25 | Engineering durable and effective T cell responses against lung cancer                                                                                                                                                             | \$75,000    |
| Recruitment                 | Milner    | Justin     | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 5-R01-Al177864-01-<br>02        | 6/18/24 | 4/30/29  | Epigenetic regulation of T cell differentiation during infection                                                                                                                                                                   | \$559,331   |
| Recruitment                 | Milner    | Justin     | Brown University                                                   | 2556                            | 5/21/24 | 3/31/26  | Interrogating mucosal resident memory CD8 T cell biology with 3D organoids                                                                                                                                                         | \$129,466   |
| Recruitment                 | Milowsky  | Matthew    | Seattle Genetics,<br>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 | \$18,586    |
| Recruitment                 | Milowsky  | Matthew    | ALX Oncology, Inc.                                                 | AT148007                        | 2/7/23  | 3/1/33   | A Phase 1, Open-label, Multicenter, Safety,<br>Pharmacokinetic, Pharmacodynamic Study of<br>ALX148 in Combination with Enfortumab Vedotin<br>and/or Other Anticancer Therapies in Subjects with<br>Urothelial Carcinoma (ASPEN-07) | \$65,685    |
| Recruitment                 | Milowsky  | Matthew    | Loxo Oncology,<br>Inc.                                             | LOXO-FG3-22001                  | 4/28/23 | 5/11/33  | An Open-label, Multicenter Study of LOXO-435<br>(LY3866288) in Advanced Solid Tumor<br>Malignancies with FGFR3 Gene Alterations                                                                                                    | \$88,784    |
| Recruitment                 | Milowsky  | Matthew    | Flare Therapeutics,<br>Inc.                                        | FX-909-CLINPRO-1                | 10/3/23 | 10/10/33 | A Phase 1, First-in-Human, Dose-Escalation and<br>Expansion Study of FX-909 in Patients with<br>Advanced Solid Malignancies, Including Advanced<br>Urothelial Carcinoma                                                            | \$167,416   |

| Category             | Last Name | First name | Sponsor                                                                        | Sponsor Award No           | Begin    | End      | Title                                                                                                                                                                                                                                                                                              | Total Award |
|----------------------|-----------|------------|--------------------------------------------------------------------------------|----------------------------|----------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment          | Milowsky  | Matthew    | Seagen, Inc.                                                                   | RC48G001                   | 11/22/24 | 11/22/29 | A Phase 2 Multi-Cohort, Open-Label, Multi-Center<br>Clinical Study Evaluating the Efficacy and Safety of<br>Disitamab Vedotin (RC48-ADC) Alone or in<br>Combination with Pembrolizumab in Subjects with<br>Locally-Advanced Unresectable or Metastatic<br>Urothelial Carcinoma That Expresses HER2 | \$63,421    |
| Investment (CC)      | Mock      | Jason      | NIH National Heart,<br>Lung, and Blood<br>Institute                            | 1R01HL173765-<br>01A1      | 2/1/25   | 11/30/29 | The Effect of Endogenous and Exogenous<br>Glucocorticoids Acting Through Regulatory T Cells<br>on Resolution of ALI and the Contribution of Host<br>nGenetic Variability                                                                                                                           | \$775,992   |
| Recruitment          | Mody      | Gita       | NIH National Heart,<br>Lung, and Blood<br>Institute                            | 5-K23-HL157765-01-<br>04   | 1/1/22   | 12/31/26 | Improving Thoracic Surgical Care using electronic Patient-Reported Outcomes (ePROs)                                                                                                                                                                                                                | \$202,157   |
| Investment<br>(HTSF) | Mohlke    | Karen      | NIH National<br>Institute of<br>Diabetes, Digestive,<br>and Kidney<br>Diseases | 5-R01-DK072193-14-<br>18   | 9/1/05   | 7/31/25  | Targeted Genetic Analysis of T2D and Quantitative Traits                                                                                                                                                                                                                                           | \$568,529   |
| Investment<br>(HTSF) | Mohlke    | Karen      | NIH National<br>Institute of<br>Diabetes, Digestive,<br>and Kidney<br>Diseases | 5-UM1-DK126185-05          | 8/20/20  | 6/30/26  | Bridging the gap between type 2 diabetes GWAS and therapeutic targets                                                                                                                                                                                                                              | \$1,767,978 |
| Investment<br>(HTSF) | Mohlke    | Karen      | University of California at Los Angeles                                        | 1.44E+13                   | 5/1/22   | 4/30/26  | Genetics of adipose cell-type expression and cardiometabolic traits                                                                                                                                                                                                                                | \$171,656   |
| Investment<br>(HTSF) | Mohlke    | Karen      | Foundation for the<br>National Institutes<br>of Health                         |                            | 3/3/23   | 9/3/25   | Single nucleus-RNA and metabolomics in subcutaneous adipose tissue                                                                                                                                                                                                                                 | \$488,880   |
| Investment<br>(HTSF) | Mohlke    | Karen      | NIH National<br>Institute of<br>Diabetes, Digestive,<br>and Kidney             | 5-R01-DK093757-11-<br>12   | 9/5/11   | 2/29/28  | Genetic epidemiology of rare and regulatory variants for metabolic traits                                                                                                                                                                                                                          | \$562,388   |
| Investment<br>(HTSF) | Mohlke    | Karen      | Broad Institute                                                                | 879-5500003202             | 1/1/25   | 12/31/25 | Regulatory variants and effector genes at T2D-associated loci                                                                                                                                                                                                                                      | \$177,109   |
| Recruitment          | Moody     | Cary       | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases             | 5-R01-Al173039-01-<br>03   | 5/18/23  | 4/30/28  | Interplay between the cellular DNA damage response and the HPV life cycle                                                                                                                                                                                                                          | \$403,970   |
| Recruitment          | Moon      | Andrew     | Cepheid                                                                        | 293C                       | 1/24/24  | 1/31/25  | Clinical Evaluation of Xpert® HCV Test on the<br>GeneXpert® Xpress System in a CLIA-Waived<br>Environment                                                                                                                                                                                          | \$169,447   |
| Recruitment          | Moon      | Andrew     | University of Texas<br>Southwestern<br>Medical Center                          | GMO 251110<br>PO0000003584 | 8/1/24   | 7/31/27  | National Liver Cancer Screening Trial                                                                                                                                                                                                                                                              | \$146,693   |
| Recruitment          | Moorman   | Nathaniel  | Research Triangle<br>Institute                                                 | 66818L                     | 4/1/22   | 3/31/27  | Rapidly Emerging Antiviral Drug Development<br>Initiative                                                                                                                                                                                                                                          | \$700,000   |
| Recruitment          | Moorman   | Nathaniel  | Evotec<br>International<br>GmbH                                                | EVT87671                   | 12/20/23 | 12/19/28 | Development of innovative RNA-targeting antivirals against Henipaviruses                                                                                                                                                                                                                           | \$37,245    |
| Recruitment          | Moorman   | Nathaniel  | Battelle Memorial<br>Institute                                                 | 884661                     | 12/5/23  | 12/31/26 | Rapidly Emerging Antiviral Drug Development<br>Initiative                                                                                                                                                                                                                                          | \$620,268   |
| Retention            | Morrison  | Kaitlin    | DHHS Food and Drug Administration                                              | 1-U01-FD008266-01          | 8/1/24   | 7/31/25  | Building Hybrid Operations to Promote Equity (HOPE) and improve clinical trial access across North Carolina                                                                                                                                                                                        | \$250,000   |
| Recruitment          | Moschos   | Stergios   | Merck Sharp and<br>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                                                                                       | \$29,108    |
| Recruitment          | Moschos   | Stergios   | University of<br>Washington                                                    | UWSC11108                  | 10/1/19  | 5/31/25  | A Multicenter, Randomized, Double-Blinded,<br>Placebo-Controlled, Phase 3 Trial of Adjuvant<br>Avelumab (anti-PDL-1 antibody) in Merkel Cell<br>Carcinoma Patients with Clinically Detected Lymph<br>Node Metastases.                                                                              | \$20,000    |

| Category                         | Last Name  | First name | Sponsor                                                                               | Sponsor Award No         | Begin   | End      | Title                                                                                                                                                                                                                                                    | Total Award |
|----------------------------------|------------|------------|---------------------------------------------------------------------------------------|--------------------------|---------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment                      | Moschos    | Stergios   | Merck Sharp and<br>Dohme Corp.                                                        | V940-001-1949            | 3/18/24 | 4/7/34   | A Phase 3, Randomized, Double-Blind, Placebo-<br>and Active-Comparator-Controlled Clinical study of<br>Adjuvant V940 (mRNA-4157) Plus Pembrolizumab<br>Versus Adjuvant Placebo Plus Pembrolizumab in<br>Participants With High-Risk Stage II-IV Melanoma | \$52,200    |
| Recruitment                      | Mungo      | Chemtai    | American Association for Cancer Research                                              | 22-20-73-MUNG            | 9/1/22  | 2/28/25  | Feasibility of adjuvant topical therapy for cervical precancer treatment                                                                                                                                                                                 | \$68,667    |
| Recruitment                      | Mungo      | Chemtai    | Gilead Sciences,<br>Inc.                                                              | 23-0814                  | 1/30/23 | 7/29/25  | Feasibility of Artemisinin as neoadjuvant or adjuvant topical therapy for cervical precancer treatment in among women living with HIV in lowand middle-income countries (LMICs)                                                                          | \$90,000    |
| Recruitment                      | Mungo      | Chemtai    | NIH National<br>Cancer Institute                                                      | 5-R34-CA284983-01-<br>02 | 9/6/23  | 8/31/26  | Feasibility of artesunate to improve HPV and cervical precancer treatment outcomes among HIV positive women in LMICs                                                                                                                                     | \$278,390   |
| Recruitment                      | Muscatell  | Keely      | National Science<br>Foundation                                                        | BCS-2047344              | 5/1/21  | 4/30/26  | CAREER: Bidirectional Links Between Social<br>Experiences and the Immune System                                                                                                                                                                          | \$146,392   |
| Recruitment                      | Muscatell  | Keely      |                                                                                       | 5-R01-HL157422-05        | 5/1/21  | 4/30/26  | Neural and Molecular Mechanisms Underlying<br>Stress-Induced Inflammatory Responses                                                                                                                                                                      | \$530,953   |
| Recruitment                      | Muscatell  | Keely      | Robert Wood<br>Johnson                                                                | 79936                    | 9/1/22  | 8/31/26  | Health Policy Research Scholars Cohort Six - 2022                                                                                                                                                                                                        | \$31,000    |
| Recruitment                      | Muss       | Ну         | Breast Cancer<br>Research<br>Foundation                                               | BCRF-23-114              | 10/1/22 | 9/30/24  | p16INK4a Expression, Chemotherapy Toxicity, and Aging in Women with Breast Cancer                                                                                                                                                                        | \$26,333    |
| Recruitment                      | Muss       | Ну         | University of<br>California at Los<br>Angeles                                         | 1.559E+13                | 9/1/23  | 8/31/28  | Targeting Senescence to Mitigate Chemotherapy-<br>induced Functional Decline                                                                                                                                                                             | \$97,641    |
| Recruitment                      | Muss       | Ну         | Breast Cancer Research Foundation                                                     | BCRF-24-114              | 10/1/24 | 9/30/25  | p16INK4a Expression, Chemotherapy Toxicity, and Aging in Women with Breast Cancer                                                                                                                                                                        | \$225,000   |
| Recruitment                      | Muss       | Ну         | Conquer Cancer<br>Foundation                                                          |                          | 7/1/25  | 6/30/26  | Aging and intrinsic subtype-specific intratumoral and systemic immune profiles in stage I-III hormone receptor-positive/HER2-negative (HR+/HER2-) breast cancer                                                                                          | \$50,000    |
| Recruitment                      | Nakamura   | Zev        | NIH National<br>Institute on Aging                                                    | 1-K23-AG086604-01        | 9/10/24 | 6/30/29  | Memantine and Exercise for Chemotherapy-Related Cognitive Decline in Patients with Breast Cancer                                                                                                                                                         | \$181,626   |
| Investment<br>(Chair<br>Package) | Neal-Perry | Genevieve  | NIH National<br>Institute of Child<br>Health and Human<br>Development                 | 5-K12-HD103085-05        | 7/23/20 | 6/30/25  | Advancing women's health through research: the UNC WRHR Career Development Program                                                                                                                                                                       | \$340,200   |
| Recruitment                      | Nichols    | Hazel      | Kaiser Permanente Division of                                                         | RNG211063-UNC-01         | 9/15/20 | 6/30/25  | PROJECT 1 Clinical Care Gaps and Unmet Needs in Adolescent and Young Adult (AYA) Cancers                                                                                                                                                                 | \$70,470    |
| Recruitment                      | Nichols    | Hazel      | Kaiser Permanente<br>Division of<br>Research                                          | RNG211061-UNC-01         | 9/15/20 | 6/30/25  | CORES A & B Clinical Care Gaps and Unmet Needs in Adolescent and Young Adult (AYA) Cancers                                                                                                                                                               | \$34,904    |
| Recruitment                      | Nichols    | Hazel      | University of Texas<br>MD Anderson<br>Cancer Center                                   | 3002230000               | 6/28/23 | 12/31/27 | Health equity in fertility specialty care among cancer survivors                                                                                                                                                                                         | \$22,461    |
| Recruitment                      | Nichols    | Hazel      | NIH National<br>Cancer Institute                                                      | 5-U01-CA281026-02        | 3/1/24  | 2/28/29  | The Carolina Endometrial Cancer Study: A population-based survivor cohort                                                                                                                                                                                | \$637,806   |
| Recruitment                      | Nielsen    | Matthew    | University of Kansas Medical Center Research Institute, Inc.                          | AWD-003150<br>GR18144    | 4/1/24  | 3/31/26  | NC ProCESS-2: North Carolina Prostate cancer Comparative Effectiveness and Survivorship Study                                                                                                                                                            | \$457,178   |
| Recruitment                      | Nielsen    | Matthew    | National Academy<br>of Sciences                                                       | SCON-10001130            | 7/1/24  | 6/30/26  | Advancing Diagnostic Excellence and Health Equity in Prostate Cancer Care through Enhanced Quality in MRI and MRI Fusion Biopsy                                                                                                                          | \$35,000    |
| Theme<br>Investment              | Niethammer | Marc       | Kitware, Inc.                                                                         | K003982-00-S01           | 6/23/23 | 5/31/25  | Exploratory Analysis Tools for Developmental<br>Studies of Brain Microstructure with Diffusion MRI                                                                                                                                                       | \$88,609    |
| Theme<br>Investment              | Niethammer | Marc       | NIH National<br>Institute of<br>Arthritis and<br>Musculoskeletal<br>and Skin Diseases | 5-R01-AR082684-01-<br>02 | 2/1/24  | 1/31/29  | A comprehensive imaging genetics framework for osteoarthritis research                                                                                                                                                                                   | \$649,156   |
| Theme<br>Investment              | Niethammer | Marc       | NIH National Heart,<br>Lung, and Blood<br>Institute                                   | 1-R21-HL172230-<br>01A1  | 8/1/24  | 12/23/24 | A Pediatric Atlas of Upper Airway Shape has completed the first phase of peer review                                                                                                                                                                     | \$109,870   |

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| Retention                | Noar      | Seth       | Wake Forest University Health Sciences                                         | 555-45117-<br>100000555115 | 4/1/20   | 9/30/25  | Communicating Waterpipe Tobacco Harms To<br>Reduce Use among Young Adults                                                                                                                  | \$19,092    |
| Investment<br>(HTSF)     | Nobel     | Andrew     | National Science<br>Foundation                                                 | DMS-2113676                | 7/1/21   | 6/30/25  | Inference for Stationary Processes: Optimal Transport and Generalized Bayes                                                                                                                | \$74,986    |
| Investment<br>(HTSF)     | Nobel     | Andrew     | National Science<br>Foundation                                                 | DMS-2413928                | 8/1/24   | 7/31/27  | Collaborative Research: Network Analysis via<br>Optimal Transport of Markov Embeddings                                                                                                     | \$91,667    |
| Retention                | North     | Kari       | Fred Hutchinson<br>Cancer Research<br>Center                                   | 1164014                    | 8/20/20  | 7/31/25  | Polygenic Risk Scores for Diverse Populations -<br>Bridging Research and Clinical Care                                                                                                     | \$127,447   |
| Retention                | North     | Kari       | NIH National<br>Institute of<br>Diabetes, Digestive,<br>and Kidney<br>Diseases | 5-R01-DK122503-01-<br>05   | 9/22/20  | 7/31/25  | Integrative Approaches to Identifying Function and Clinical Significance of Adiposity Susceptibility Genes                                                                                 | \$640,718   |
| Investment<br>(Training) | North     | Kari       |                                                                                | 5-T32-HL129982-09          | 6/1/16   | 5/31/26  | The Genetic Epidemiology of Heart, Lung, and Blood<br>Traits Training Grant (GenHLB)                                                                                                       | \$354,722   |
| Retention                | North     | Kari       | Vanderbilt<br>University Medical<br>Center                                     | VUMC114911                 | 7/1/23   | 3/31/27  | Hispanic Latino Lipid Consortium                                                                                                                                                           | \$96,154    |
| Retention                | North     | Kari       | The University of<br>Texas Health<br>Science Center at<br>Houston              | SA0003255                  | 9/1/23   | 5/2/25   | Multi-omics for obesity-associated liver disease discovery in Hispanics/Latinos: the Cameron County Hispanic Cohort                                                                        | \$156,024   |
| Retention                | North     | Kari       | Takeda Development Center Americas, Inc.                                       | 8001500000                 | 3/15/24  | 3/14/26  | Epidemiology Estimates of AATD in the US.                                                                                                                                                  | \$197,177   |
| Retention                | North     | Kari       | Westat, Inc.                                                                   |                            | 7/30/24  | 8/14/24  | Leveraging integrative multi-omics to disentangle<br>molecular mechanisms for severe obesity in diverse<br>cohorts participating in Trans-Omics for Precision<br>Medicine (TOPMed) Program | \$16,931    |
| Retention                | North     | Kari       | Vanderbilt<br>University Medical<br>Center                                     | VUMC134234                 | 9/1/24   | 4/30/25  | Integrative multi-omics for discovery of molecular<br>pathways associated with diabetic retinopathy in<br>Hispanics/Latinos                                                                | \$136,080   |
| Retention                | North     | Kari       | Texas Tech<br>University                                                       | 23A9CR-01                  | 11/25/24 | 11/10/25 | DNA Methylation in Anorexia Nervosa                                                                                                                                                        | \$24,898    |
| Retention                | Nyante    | Sarah      | University of<br>Washington                                                    | UWSC12808<br>BPO56485      | 6/1/21   | 5/31/26  | Disparities in Breast Cancer Diagnostic Pathways<br>and Outcomes According to Socioeconomic<br>Characteristics                                                                             | \$45,515    |
| Retention                | Nyante    | Sarah      | University of<br>California at Davis                                           | A22-1534-S008              | 9/16/22  | 8/31/27  | Advancing Equitable Risk-based Breast Cancer<br>Screening and Surveillance in Community Practice                                                                                           | \$145,998   |
| Investment<br>(CBCS)     | Nyante    | Sarah      | University of<br>Vermont                                                       | 225028<br>AWD00001578S     | 9/19/23  | 8/31/28  | Clinical breast cancer risk prediction models for women with a high-risk benign breast diagnosis                                                                                           | \$73,059    |
| Investment<br>(CBCS)     | Nyante    | Sarah      | University of<br>Washington                                                    | UWSC16274<br>0100156307    | 9/9/24   | 8/31/29  | Evaluation of Commercial Mammography-Based<br>Artificial Intelligence Algorithms for Breast Cancer<br>Risk Prediction in U.S. Screening Populations                                        | \$85,502    |
| Investment<br>(HTSF)     | O'Connell | Catherine  | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases             | 5-R01-Al170959-01-<br>02   | 1/2/24   | 11/30/28 | Natural History of Chlamydia trachomatis genital tract infection in women                                                                                                                  | \$742,607   |
| Innovation<br>Award      | Oldenburg | Amy        |                                                                                | 5-R01-HL154429-01-<br>05   | 9/1/20   | 7/31/25  | Predicting the Need for Surgery in Pediatric<br>Subglottic Stenosis using Airway Elastography<br>derived from Endoscopic OCT and Intraluminal<br>Pressure Measurement                      | \$738,780   |
| Innovation<br>Award      | Oldenburg | Amy        | NIH National<br>Institute of<br>Environmental<br>Health Sciences               | 5-R01-ES032730-01-<br>05   | 9/28/20  | 6/30/26  | Developing an in vitro to in vivo pipeline of mammary gland exposure-response relationships to per- and poly-fluoroalkyl substances (PFAS)                                                 | \$499,609   |
| Investment<br>(CBCS)     | Olshan    | Andrew     | DHHS Centers for<br>Disease Control<br>and Prevention                          | 5-U01-DD001308-01-<br>02   | 9/1/23   | 8/31/27  | North Carolina Center for Birth Defects Research and Prevention (NCCBDRP)                                                                                                                  | \$570,000   |
| Recruitment              | Painschab | Matthew    | NIH National<br>Cancer Institute                                               | 1-DP1-CA291150-01          | 7/1/24   | 6/30/29  | Innovations in diagnosis for lymphadenopathy across HIV Centers of Excellence in Malawi                                                                                                    | \$544,250   |
| Recruitment              | Palmer    | Adam       | NIH National<br>Cancer Institute                                               | 5-R01-CA279968-01-<br>02   | 2/1/24   | 1/31/29  | Modeling and analysis of curative combination therapy for Diffuse Large B-Cell Lymphoma                                                                                                    | \$344,581   |
| Recruitment              | Palmer    | Adam       | Merck Sharp<br>Dohme LLC                                                       |                            | 7/9/24   | 7/8/26   | Forecasting the efficacy of combination therapies with TIGIT immune checkpoint inhibition.                                                                                                 | \$71,018    |

| Category             | Last Name                  | First name | Sponsor                                                                   | Sponsor Award No         | Begin    | End      | Title                                                                                                                                                                                                                                                  | Total Award |
|----------------------|----------------------------|------------|---------------------------------------------------------------------------|--------------------------|----------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Investment (CC)      | Pardo Manuel<br>de Villena | Fernando   | Neogen<br>Corporation                                                     |                          | 11/15/23 | 11/14/26 | Service Agreement for miniMUGA inbred mouse<br>Background Analysis Report                                                                                                                                                                              | \$25,000    |
| Investment<br>(HTSF) | Parnell                    | Scott      | NIH National<br>Institute on<br>Alcohol Abuse and<br>Alcoholism           | 5-R01-AA031346-01-<br>02 | 9/15/23  | 7/31/28  | Characterizing the Genetics of FASD in<br>Complementary Mouse and Fish Models                                                                                                                                                                          | \$545,168   |
| Recruitment          | Patel                      | Shetal     | Lung Cancer<br>Initiative of North<br>Carolina                            |                          | 1/1/21   | 12/31/25 | Metabolic reprogramming of the tumor microenvironment to enhance immunotherapy in lung cancer                                                                                                                                                          | \$43,750    |
| Recruitment          | Patel                      | Shetal     | Dracen Pharmaceuticals, Inc.                                              | DRA-104-001              | 5/3/21   | 8/6/25   | Phase 1 and Phase 2a, First-in-human Study of DRP-<br>104, a Glutamine Antagonist, in Adult Patients with<br>Advanced Solid Tumors                                                                                                                     | \$12,535    |
| Recruitment          | Patel                      | Shetal     | American Society<br>of Clinical<br>Oncology                               |                          | 2/22/22  | 4/30/31  | Testing the Use of Food and Drug Administration<br>(FDA) Approved Drugs That Target a Specific<br>Abnormality in a Tumor Gene in People With<br>Advanced Stage Cancer (TAPUR)                                                                          | \$13,000    |
| Recruitment          | Patel                      | Shetal     | Amgen, Inc.                                                               | 20200469                 | 10/26/22 | 11/30/32 | A Phase 1b Study Evaluating the Safety and Efficacy<br>of First-Line Tarlatamab in Combination With<br>Carboplatin, Etoposide, and PD-L1 Inhibitor in<br>Subjects with Extensive Stage Small Cell Lung Cancer                                          | \$119,013   |
| Recruitment          | Patel                      | Shetal     | Loxo Oncology,<br>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                                                                                                                                                               | \$110,129   |
| Recruitment          | Patel                      | Shetal     | Black Diamond<br>Therapeutics, Inc.                                       | BDTX-4933-101            | 5/8/24   | 11/30/24 | A Phase 1, Open-label Study of Oral BDTX-4933 in<br>Patients with BRAF and Other SelectRAS/MAPK<br>Mutation Positive Neoplasms                                                                                                                         | \$49,547    |
| Recruitment          | Patel                      | Shetal     | Genentech, Inc.                                                           | BO45217                  | 11/14/24 | 11/14/29 | BO45217: A Phase III, Randomized, Open-Label, Multicenter Study Evaluating the Efficacy and Safety of Divarasib Versus Sotorasib or Adagrasib in Patients With Previously Treated KRAS G12C-Positive Advanced or Metastatic Non-Small Cell Lung Cancer | \$58,101    |
| Investment<br>(HTSF) | Pawlinski                  | Rafal      | NIH National Heart,<br>Lung, and Blood<br>Institute                       | 5-R01-HL157441-01-<br>04 | 4/1/21   | 3/31/25  | Mechanism of sickle cell disease-specific venous thromboembolism                                                                                                                                                                                       | \$647,758   |
| Retention            | Pecot                      | Chad       | NIH National<br>Cancer Institute                                          | 5-R01-CA258451-01-<br>05 | 3/1/21   | 2/28/26  | Tumor Endothelial Cell Regulation of Pro-Metastatic Fibrin Matrices                                                                                                                                                                                    | \$580,098   |
| Retention            | Pecot                      | Chad       | NIH National<br>Cancer Institute                                          | 5-R01-CA279532-01-<br>03 | 4/4/23   | 3/31/28  | Circle RNA Regulation of Lung Cancer Metastasis                                                                                                                                                                                                        | \$398,845   |
| Retention            | Pecot                      | Chad       | Enfuego<br>Therapeutics                                                   |                          | 7/5/23   | 6/30/25  | SBIR: Ligand-Directed KRAS G12V Mutant-Specific Therapeutics                                                                                                                                                                                           | \$224,522   |
| Retention            | Pecot                      | Chad       | Lung Cancer<br>Initiative of North<br>Carolina                            |                          | 7/1/24   | 6/30/25  | Dynamic Ablation of Circular RNAs as a Novel Target in Lung Cancer                                                                                                                                                                                     | \$25,000    |
| Investment<br>(HTSF) | Peifer                     | Mark       | NIH National<br>Institute of General<br>Medical Sciences                  | 5-R35-GM118096-06-<br>09 | 7/16/16  | 8/31/26  | Regulating cell fate and shaping the body plan during morphogenesis and their alteration during oncogenesis                                                                                                                                            | \$595,169   |
| Investment<br>(HTSF) | Perou                      | Charles    | Susan G Komen for the Cure                                                | SAC160074                | 7/15/16  | 1/15/26  | Identification of the Genetic Drivers of HER2-<br>Enriched Subtype Breast Cancers                                                                                                                                                                      | \$266,667   |
| Investment<br>(HTSF) | Perou                      | Charles    | Breast Cancer<br>Research<br>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   |
| Investment<br>(HTSF) | Perou                      | Charles    | NIH National<br>Cancer Institute                                          | 5-R01-CA148761-11-<br>15 | 3/17/10  | 3/31/26  | Therapeutic Targeting of Breast Cancer Tumor Initiating Cells                                                                                                                                                                                          | \$413,297   |
| Investment<br>(HTSF) | Perou                      | Charles    | NIH National<br>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    |
| Investment<br>(HTSF) | Perou                      | Charles    | Breast Cancer<br>Research<br>Foundation                                   | BCRF-24-127              | 10/1/24  | 9/30/25  | Molecular Therapeutics for Luminal Tumor<br>Subtypes                                                                                                                                                                                                   | \$225,000   |
| Investment<br>(HTSF) | Perou                      | Charles    | NIH National<br>Cancer Institute                                          | 2-P50-CA058223-<br>29A1  | 8/5/97   | 8/31/29  | SPORE in Breast Cancer                                                                                                                                                                                                                                 | \$2,268,690 |
| Investment<br>(HTSF) | Perou                      | Charles    | Johns Hopkins<br>University                                               | 2006533717               | 7/1/24   | 9/30/25  | AURORA US: Prospective Genomic Characterization<br>Center in Metastatic Breast Cancer (ProGCC)                                                                                                                                                         | \$109,013   |
| Investment<br>(HTSF) | Perou                      | Charles    | The Jayne Koskinas<br>Ted Giovanis<br>Foundation for<br>Health and Policy |                          | 2/1/25   | 3/31/29  | Identifying interactions between metastatic breast cancer tumor cells and the lung Microenvironment                                                                                                                                                    | \$247,500   |

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| Investment<br>(HTSF) | Perou          | Charles    | Department of<br>Defense                                                              | HT94252510107<br>0012232964  | 3/1/25  | 2/28/29  | The Breast Cancer Cellular Atlas                                                                                                                                       | \$385,320   |
| Recruitment          | Pfaff          | Emily      | Mayo Clinic                                                                           | THE-282677-03<br>P001833511  | 7/12/21 | 7/31/25  | Subcontract with Mayo Clinic School of Medicine<br>Jiang R01 - FHIRCat: Enabling the Semantics of FHIR<br>and Terminologies for Clinical and Translational<br>Research | \$130,000   |
| Recruitment          | Pfaff          | Emily      | NYU School of<br>Medicine                                                             | EHR-04-24                    | 3/1/24  | 11/30/25 | The RECOVER Post-Acute Sequelae of SARS-CoV-2 (PASC) Electronic Health Record (EHR) Cohort Study                                                                       | \$5,770,258 |
| Recruitment          | Pfaff          | Emily      | Axle Informatics,<br>LLC                                                              | SUBK_UNC_OTSS_TO-<br>014     | 9/30/24 | 9/29/25  | Subcontract with Axle Informatics, LLC National<br>Clinical Cohort Collaborative (N3C-Clinical) for<br>2024-2025                                                       | \$580,476   |
| Recruitment          | Phanstiel      | Douglas    | NIH National<br>Institute of<br>Arthritis and<br>Musculoskeletal<br>and Skin Diseases | 5-R01-AR079538-01-<br>03     | 9/20/22 | 8/31/27  | Identifying novel osteoarthritis risk genes using GWAS, chondrocyte genomics, and genome editing                                                                       | \$484,189   |
| Recruitment          | Phanstiel      | Douglas    | NIH National<br>Institute on Aging                                                    | 5-F31-AG084224-02            | 8/4/23  | 8/3/26   | Cell-type Specific Interrogation of Variant Function in Alzheimer's Disease                                                                                            | \$40,791    |
| Recruitment          | Phanstiel      | Douglas    | Duke University                                                                       | 303002773                    | 9/4/23  | 6/30/27  | The role for phase separation in oncogenesis and aberrant chromatin looping formation                                                                                  | \$286,900   |
| Recruitment          | Phanstiel      | Douglas    | NIH National<br>Institute of General<br>Medical Sciences                              | 5-R35-GM128645-06-<br>07     | 7/19/18 | 12/31/28 | Mechanisms and impacts of chromatin looping                                                                                                                            | \$410,940   |
| Recruitment          | Phanstiel      | Douglas    | NIH National<br>Institute on Aging                                                    | 5-K00-AG068509-03-<br>04     | 9/1/20  | 1/31/28  | Elucidating Immune and Microglial Dynamics in<br>Alzheimer's Disease with Advanced Organoid<br>Models                                                                  | \$76,502    |
| Recruitment          | Phanstiel      | Douglas    | Howard Hughes<br>Medical Institute                                                    | GT16825                      | 9/1/24  | 8/30/27  | The role of 3D chromatin structure in response to environmental stress                                                                                                 | \$173,000   |
| Recruitment          | Phanstiel      | Douglas    | NIH National<br>Institute of<br>Arthritis and<br>Musculoskeletal<br>and Skin Diseases | 1-F31-AR083722-<br>01A1      | 8/1/24  | 7/31/27  | Fellow: Seyoun Byun The effect of genetic variation on mRNA splicing in chondrocytes responding to cartilage matrix damage                                             | \$40,418    |
| Recruitment          | Pinton         | Gianmarco  | NIH National<br>Institute of<br>Biomedical Imaging<br>and Bioengineering              | 5-R01-EB036295-02            | 8/20/24 | 4/30/28  | Ultra-high precision image-guided incisionless transcranial ultrasound surgery                                                                                         | \$750,055   |
| Recruitment          | Pinton         | Gianmarco  | North Carolina<br>State University                                                    | 501517                       | 9/17/24 | 6/30/28  | Quantitative Ultrasound for Interstitial Lung Diseases                                                                                                                 | \$74,337    |
| Recruitment          | Pinton         | Gianmarco  | Once Upon a Time<br>Foundation                                                        |                              | 2/20/25 | 2/19/27  | Ultrasound for Combined Non-invasive Functional Volumetric Imaging and Circuit-Level Neuromodulation                                                                   | \$125,000   |
| Investment<br>(HTSF) | Polacheck      | William    | NIH National<br>Institute of General<br>Medical Sciences                              | 5-R35-GM142944-01-<br>04     | 9/23/21 | 7/31/26  | Integrative Approaches for the Study of the Fluidic<br>Cellular Microenvironment                                                                                       | \$375,364   |
| Recruitment          | Purvis         | Jeremy     | National Science<br>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<br>Cancer Institute                                                      | 5-R01-CA280482-01-<br>02     | 2/1/24  | 1/31/29  | Cell cycle paths as a framework for understanding drug resistance in tumor cell subpopulations                                                                         | \$621,861   |
| 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<br>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                                                         | 5-F31-CA278589-02            | 7/12/23 | 7/11/25  | Fellow: W Bell Role of Gastrokine 2 in pancreatic cancer development                                                                                                   | \$40,491    |
| Retention            | Pylayeva-Gupta | Yuliya     | NIH National Cancer Institute                                                         | 5-R37-CA230786-06-<br>07     | 4/1/24  | 3/31/26  | Function of IL35+ B cells in pancreatic cancer                                                                                                                         | \$417,022   |
| Recruitment          | Raab           | Jesse      | NIH National<br>Institute of General<br>Medical Sciences                              | 3-R35-GM147286-              | 8/15/22 | 7/31/27  | Mechanisms of SWI/SNF complex assembly and function                                                                                                                    | \$471,190   |
| Recruitment          | Raab           | Jesse      | American Cancer<br>Society                                                            | PF-24-1247688-01-<br>DMC     | 1/1/25  | 12/31/27 | Identification of epigenetic therapies for liver cancer                                                                                                                | \$108,750   |
| Retention            | Rashid         | Naim       | Johns Hopkins<br>University                                                           | TBCRC059 STATS<br>2006342060 | 4/22/24 | 4/21/27  | TBCRC-059_STATS / DF-HCC-22-225: ETHAN: A phase II study comparing different Endocrine THerapies for mAle breast caNcer                                                | \$23,245    |

| Category                 | Last Name    | First name | Sponsor                                                  | Sponsor Award No                 | Begin    | End      | Title                                                                                                                                                                                                                                                               | Total Award |
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| Retention                | Rashid       | Naim       | Department of<br>Defense                                 | HT94252411031<br>0012116832      | 11/1/24  | 10/31/26 | Enhancing clinical trial discovery, matching, and enrollment in PDAC using fine-tuned large language models                                                                                                                                                         | \$155,500   |
| Recruitment              | Rauf         | Yas meen   | lmvax, 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 | \$20,817    |
| Recruitment              | Ray          | Emily      | Conquer Cancer<br>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<br>Initiative of North<br>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    |
| Recruitment              | Ray          | Emily      | Agency for<br>Healthcare<br>Research and<br>Quality      | 5-K08-HS028862-01-<br>02         | 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                                                                                                 | \$160,109   |
| Innovation<br>Award      | Redinbo      | Matthew    | NIH National<br>Institute of General<br>Medical Sciences | 5-R35-GM152079-01-<br>02         | 3/1/24   | 2/28/29  | Gut Microbial Enzymes and Human Disease                                                                                                                                                                                                                             | \$482,601   |
| 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<br>Society                               | PASD-TEAM-23-<br>1076363-01-PASD | 1/1/24   | 12/31/28 | Geographic Small Area Estimation of Cancer<br>Screening Rates: Precision Approaches to Inform<br>Screening Equity, Outreach, and Interventions                                                                                                                      | \$300,000   |
| Recruitment              | Reeder-Hayes | Katie      | Pfizer Inc.<br>(Connecticut)                             | 88230111                         | 11/15/23 | 8/31/25  | Promoting Resilience in Stress Management for<br>Metastatic Breast Cancer (PRISM-MBC)                                                                                                                                                                               | \$249,988   |
| Recruitment              | Reeder-Hayes | Katie      | Alliance<br>Foundation Trials,                           |                                  | 7/1/23   | 6/30/28  | AFT-25 COMET study service agreement for patient survey data collection                                                                                                                                                                                             | \$429,672   |
| Recruitment              | Reeves       | Brandi     | Janssen Research<br>& Development,<br>LLC                |                                  | 8/29/19  | 2/3/26   | 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.                 | \$13,007    |
| Recruitment              | Reeves       | Brandi     | PharmaEssentia<br>USA                                    | A22-301                          | 7/25/23  | 7/9/33   | A Single-arm, Multicenter Study to Assess the Efficacy, Safety, and Tolerability ofRopeginterferon alfa-2b-njft (P1101) in Adult Patients with EssentialThrombocythemia                                                                                             | \$392,767   |
| Recruitment              | Reeves       | Brandi     | NIH National Heart,<br>Lung, and Blood<br>Institute      | 5-K08-HL163485-01-<br>02         | 8/1/23   | 7/31/28  | Hypoxia-Inducible Factors and Neutrophil<br>Heterogeneity in Myeloproliferative Neoplasm-<br>Associated Venous Thrombosis                                                                                                                                           | \$141,211   |
| Recruitment              | Reeves       | Brandi     | PharmaEssentia<br>Corporation                            | A22-203                          | 1/31/24  | 12/15/33 | A Phase IIIb, Randomized, Open-Label, Parallel<br>Group, Multicenter Study to Assess Efficacy, Safety,<br>and Tolerability of Two Dosing Regimens of<br>Ropeginterferon Alfa-2b-njft (P1101) in Adult<br>Patients With Polycythemia Vera (PV)                       | \$139,523   |
| Recruitment              | Reeves       | Brandi     | MPN Research<br>Foundation                               |                                  | 8/15/24  | 8/14/26  | Chronic Kidney Disease in Myeloproliferative<br>Neoplasms                                                                                                                                                                                                           | \$100,000   |
| Retention                | Reuland      | Dan        | Wake Forest<br>University                                | 497-32751-<br>10000550124        | 1/1/20   | 6/30/25  | A Personalized Digital Outreach Intervention for<br>Lung Cancer Screening                                                                                                                                                                                           | \$166,053   |
| Retention                | Reuland      | Dan        | NIH National<br>Cancer Institute                         | 3-UG1-CA286949-<br>02S1          | 2/15/24  | 12/31/27 | Cancer Screening Research Network - North Carolina Hub (CSRN-NC HUB)                                                                                                                                                                                                | \$1,331,844 |
| Retention                | Ribisl       | Kurt       | Cumberland<br>County<br>Department of                    | 25000708                         | 7/1/24   | 5/31/25  | Fort Bragg Tobacco Control: Military Health and Readiness Initiative                                                                                                                                                                                                | \$31,077    |
| Investment<br>(Training) | Ribisl       | Kurt       | NIH National<br>Cancer Institute                         | 5-T32-CA057726-33                | 7/1/17   | 6/30/27  | Cancer Control Education Program                                                                                                                                                                                                                                    | \$369,409   |
| Retention                | RibisI       | Kurt       | NIH National<br>Institute on Drug<br>Abuse               | 5-U54-DA060049-02                | 9/30/23  | 8/31/28  | Advancing Tobacco Regulatory Science to Reduce<br>Health Disparities                                                                                                                                                                                                | \$3,855,746 |
| Retention                | RibisI       | Kurt       | Cumberland<br>County<br>Department of                    | 25001055 2025606                 | 1/1/25   | 5/30/25  | WIC CIAO Contract with Cumberand County                                                                                                                                                                                                                             | \$14,991    |

| Category            | Last Name  | First name | Sponsor                                               | Sponsor Award No         | Begin    | End      | Title                                                                                                                                                                                                                                                                                                                                                      | Total Award |
|---------------------|------------|------------|-------------------------------------------------------|--------------------------|----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 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                                                                                                                                                                                                                                             | \$50,000    |
| Recruitment         | Richardson | Daniel     | NIH National<br>Cancer Institute                      | 5-K08-CA273684-01-<br>02 | 6/11/24  | 5/31/29  | Developing a Values Elicitation Tool to Improve<br>Treatment Decision-Making in Acute Myeloid<br>Leukemia                                                                                                                                                                                                                                                  | \$285,049   |
| Recruitment         | Roberson   | Муа        | American Association for Cancer Research              | 22-20-73-ROBE            | 3/1/23   | 2/28/25  | Centering Equity in HBOC Genetic Testing: A Mixed Methods Study                                                                                                                                                                                                                                                                                            | \$97,734    |
| Recruitment         | Roberson   | Муа        | Prevent Cancer<br>Foundation                          |                          | 1/15/24  | 1/14/26  | We Got Us: Promoting Cancer Family History<br>Sharing Among Black Americans                                                                                                                                                                                                                                                                                | \$50,000    |
| Recruitment         | Roberts    | Megan      | University of Texas<br>Southwestern<br>Medical Center | 0000002723 220726        | 8/15/21  | 8/14/25  | Familial hypercholesterolemia in the United States: evaluating a centralized cascade screening model to improve early diagnosis                                                                                                                                                                                                                            | \$24,821    |
| Recruitment         | Roberts    | Megan      | NIH National<br>Cancer Institute                      | 5-R13-CA261073-02-<br>03 | 7/16/21  | 5/31/26  | Transdisciplinary Conference for Future Leaders in Precision Public Health                                                                                                                                                                                                                                                                                 | \$33,000    |
| Recruitment         | Roberts    | Megan      | NIH National<br>Human Genome<br>Research Institute    | 1-R21-HG013417-01        | 9/20/24  | 8/31/26  | Let's Talk: Overcoming barriers to the uptake of cascade screening through a stakeholder-informed online intervention                                                                                                                                                                                                                                      | \$575,098   |
| Recruitment         | Roberts    | Megan      | Medical University<br>of South Carolina               | A25-0113-S001            | 7/1/24   | 4/4/25   | Facilitating the implementation of population-wide genomic screening across diverse populations and settings (FOCUS)                                                                                                                                                                                                                                       | \$205,578   |
| Recruitment         | Rose       | Tracy      | Duke University                                       | Pro00107408<br>ODYSSEY   | 4/16/24  | 3/28/34  | Outcomes Database to Prospectively Assess the<br>Changing Therapy Landscape in Renal Cell<br>Carcinoma (ODYSSEY RCC)                                                                                                                                                                                                                                       | \$11,900    |
| Recruitment         | Rose       | Tracy      | Regeneron<br>Pharmaceuticals<br>Inc.                  | R10597-ONC-22114         | 2/20/25  | 2/20/30  | A Phase 1/2A, Open Label, Dose Escalation and<br>Dose Expansion First in Human Study of the Safety,<br>Tolerability, Activity, and Pharmacokinetics of<br>REGN10597 (ANTI PD-1-IL2RA-IL2 FUSION<br>PROTEIN) in Patients with Advanced Solid Organ<br>Malignancies                                                                                          | \$57,212    |
| Recruitment         | Rosenstein | Donald     | Duke Endowment                                        | 7254-SP                  | 7/1/24   | 6/30/27  | Statewide Expansion and Spanish Cultural<br>Adaptation of Get REAL and HEEL: A Tailored<br>Exercise Program for People Affected By Cancer                                                                                                                                                                                                                  | \$248,667   |
| Recruitment         | Rosenstein | Donald     | American Cancer<br>Society                            | 107485                   | 4/1/25   | 3/31/26  | 2025 Patient Lodging Grant                                                                                                                                                                                                                                                                                                                                 | \$50,000    |
| Theme<br>Investment | Rowe       | Steven     | Johns Hopkins<br>University                           | 2006424309               | 7/4/23   | 5/31/25  | Clinical translation of a PD-L1 PET tracer to optimize immune checkpoint therapy in patients with non-small cell lung cancers                                                                                                                                                                                                                              | \$89,659    |
| Recruitment         | Rubinstein | Samuel     | Rhode Island<br>Hospital                              | 7137836                  | 9/15/22  | 8/31/27  | Enhancing the HemOnc Knowledgebase of<br>Chemotherapy Drugs and Regimens                                                                                                                                                                                                                                                                                   | \$18,411    |
| Recruitment         | Rubinstein | Samuel     | American Society of Hematology                        | D0983564-2               | 7/1/22   | 6/30/26  | ASH Research Collaborative Data Hub Protocol: A multicenter data hub of individuals living with hematologic disease                                                                                                                                                                                                                                        | \$105,000   |
| Recruitment         | Rubinstein | Samuel     | Janssen Research<br>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 | \$482,775   |
| Recruitment         | Rubinstein | Samuel     | Regeneron<br>Pharmaceuticals<br>Inc.                  | R5458-ONC-2012           | 11/29/23 | 12/10/33 | Phase 1b Study of REGN5458 (Anti-BCMA x Anti-<br>CD3 Bispecific Antibody) Plus Other Cancer<br>Treatments for Patients With Relapsed/Refractory<br>Multiple Myeloma                                                                                                                                                                                        | \$688,581   |
| Recruitment         | Rubinstein | Samuel     | Janssen Research<br>Development, LLC                  | 54767414NAP4001          | 6/13/24  | 12/31/25 | A Post-authorization Safety Study to Evaluate the Incidence of and Risk Factors for Severe and Fatal Infusion-related Reactions in Participants Treated with Daratumumab (Intravenous or Subcutaneous)                                                                                                                                                     | \$25,704    |
| Recruitment         | Rubinsteyn | Alexander  | Rare Cancer<br>Research<br>Foundation                 | 24-0888                  | 11/5/23  | 11/4/25  | Neoantigen identification from long-read sequencing                                                                                                                                                                                                                                                                                                        | \$420,672   |
| Recruitment         | Rubinsteyn | Alexander  | Victor Family Foundation                              |                          | 4/1/24   | 4/1/26   | Preclinical development of a shared antigen therapeutic vaccine for NUT carcinoma                                                                                                                                                                                                                                                                          | \$180,000   |
| Recruitment         | Rubinsteyn | Alexander  | Natera, Inc                                           | 24-3809                  | 6/25/24  | 9/1/25   | Comparison of T-cell responses in mice from different vaccine formulations, adjuvants, and routes of administration                                                                                                                                                                                                                                        | \$134,012   |

|                          | Last Name   | First name | Sponsor                                                                        | Sponsor Award No               | Begin   | End      | Title                                                                                                                                                                                                                                                                    | Total Award       |
|--------------------------|-------------|------------|--------------------------------------------------------------------------------|--------------------------------|---------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Recruitment              | Rubinsteyn  | Alexander  | Jaime Leandro<br>Foundation                                                    | 25-2713                        | 2/18/25 | 2/17/27  | Optimization of personalized cancer immunotherapeutic approaches                                                                                                                                                                                                         | \$885,499         |
| Investment<br>(CC)       | Samulski    | Richard    | AskBio, Inc                                                                    | 22-5401                        | 8/2/22  | 8/1/27   | AAV Gene Delivery in Collaborative Cross Mice                                                                                                                                                                                                                            | \$400,000         |
| Investment<br>(HTSF)     | Sancar      | Aziz       | NIH National<br>Institute of General<br>Medical Sciences                       | 5-R35-GM118102-06-<br>09       | 4/1/16  | 8/31/26  | Molecular Mechanism of Mammalian DNA Excision<br>Repair and the Circadian Clock                                                                                                                                                                                          | \$1,002,711       |
| Investment<br>(HTSF)     | Sancar      | Aziz       | NIH National<br>Institute of<br>Environmental<br>Health Sciences               | 5-R01-ES033414-01-<br>04       | 9/17/21 | 6/30/26  | DNA Adduct Detection and Repair in Mammalian<br>Cells                                                                                                                                                                                                                    | \$556,623         |
| Investment<br>(Protocol) | Sanoff      | Hanna      | University of Iowa                                                             | S02645-01                      | 7/1/21  | 6/30/25  | Comparative Effectiveness Research for<br>Neuroendocrine Tumors                                                                                                                                                                                                          | \$25 <i>,</i> 550 |
| Investment<br>(Protocol) | Sanoff      | Hanna      | Janssen Research<br>Development, LLC                                           | 61186372COR3001                | 1/27/25 | 12/17/32 | A Randomized, Open-label Phase 3 Study of<br>Amivantamab and mFOLFOX6 or FOLFIRI Versus<br>Cetuximab and mFOLFOX6 or FOLFIRI as First-line<br>Treatment in Participants With KRAS/NRAS and<br>BRAF Wild-type Unresectable or Metastatic Left-<br>sided Colorectal Cancer | \$69,550          |
| Investment<br>(Protocol) | Sanoff      | Hanna      | AbbVie, Inc.                                                                   | M24-064                        | 1/24/25 | 1/24/28  | AndroMETa-CRC-064: An Open Label, Randomized,<br>Controlled, Global Phase 3 Study Comparing ABBV-<br>400 Monotherapy to LONSURF (Trifluridine and<br>Tipiracil) plus Bevacizumab in Subjects with c-Met<br>Over-Expressed Refractory Metastatic Colorectal<br>Cancer     | \$66,434          |
| Recruitment              | Savoldo     | Barbara    | Department of<br>Defense                                                       | W81XWH2010890<br>0011479913    | 9/15/20 | 9/14/25  | Phase I Study of Autologous Activated T-cells<br>Transduced With a 3rd Generation GD2 Chimeric<br>Antigen Receptor, Co-expression of IL-15 and<br>iCaspase9 Safety Switch.                                                                                               | \$161,852         |
| Recruitment              | Savoldo     | Barbara    | NIH National<br>Cancer Institute                                               | 5-R01-CA247497-01-<br>05       | 7/1/20  | 6/30/26  | Tailoring CAR T cell therapy for Hodgkin Lymphoma                                                                                                                                                                                                                        | \$599,281         |
| Recruitment              | Savoldo     | Barbara    | DOD DA Army<br>Medical Research<br>Acquisition Activity                        | W81XWH2211111<br>0011753836    | 9/30/22 | 9/29/26  | GD2 CASRT for Lung Cancer                                                                                                                                                                                                                                                | \$316,459         |
| Recruitment              | Savoldo     | Barbara    | Arovella<br>Therapeutics<br>Limited                                            |                                | 2/10/25 | 2/9/26   | NKTs expressing anti Claudin 18.2 CAR and IL12                                                                                                                                                                                                                           | \$280,836         |
| Recruitment              | Savoldo     | Barbara    | Department of<br>Defense                                                       | HT9425-25-1-0301<br>0012277278 | 7/1/25  | 5/31/27  | Revlutionizing Pediatric Brain Tumor Treatment with Off-the-Shelf CAR-NKT Cells                                                                                                                                                                                          | \$310,960         |
| Retention                | Schoenfisch | Mark       | NIH National<br>Institute of<br>Diabetes, Digestive,<br>and Kidney<br>Diseases | 5-R01-DK132778-01-<br>03       | 1/1/23  | 12/31/26 | Nitric Oxide-Releasing Glycosaminoglycans for<br>Treating Complex Wounds                                                                                                                                                                                                 | \$394,372         |
| Retention                | Schoenfisch | Mark       | NIH National<br>Institute of Dental<br>and Craniofacial<br>Research            | 5-R01-DE032060-01-<br>03       | 5/1/23  | 4/30/28  | Nitric oxide-releasing hyaluronic acid therapeutics for treating periodontal disease                                                                                                                                                                                     | \$617,473         |
| Recruitment              | Schrank     | Travis     | NIH National<br>Institute of Dental<br>and Craniofacial<br>Research            | 5-K08-DE029241-01-<br>05       | 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<br>Wisconsin at<br>Madison                                       | 3615                           | 4/5/24  | 3/31/25  | Understanding patient-surgeon interactions to support deimplementation of preference-sensitive low value care                                                                                                                                                            | \$46,823          |
| Recruitment              | Schumacher  | Jessica    | University of<br>Wisconsin at<br>Madison                                       | 3719                           | 9/1/23  | 12/1/25  | Modality-specific interval colorectal cancer rates                                                                                                                                                                                                                       | \$45,263          |
| Investment<br>(Training) | Sekelsky    | Jeff       | NIH National<br>Institute of General<br>Medical Sciences                       | 5-T32-GM135128-05              | 7/1/20  |          | NRSA in Genetics                                                                                                                                                                                                                                                         | \$769,103         |
| Innovation<br>Award      | Sekelsky    | Jeff       | NIH National<br>Institute of General<br>Medical Sciences                       | 5-R35-GM118127-06-<br>10       | 6/1/16  | 3/31/26  | Mechanisms of meiotic and mitotic recombination                                                                                                                                                                                                                          | \$544,786         |
| Innovation<br>Award      | Sekelsky    | Jeff       | NIH National<br>Institute on Aging                                             | 5-F31-AG079626-03              | 9/1/22  | 8/31/25  | Fellow: N Pazhayam Preventing Age-Associated<br>Oocyte Aneuploidy: Mechanisms Behind the<br>Drosophila melanogaster Centromere Effect                                                                                                                                    | \$40,721          |

| Category                 | Last Name          | First name           | Sponsor                                                              | Sponsor Award No            | Begin    | End      | Title                                                                                                                                                                                                                    | Total Award           |
|--------------------------|--------------------|----------------------|----------------------------------------------------------------------|-----------------------------|----------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Investment<br>(Training) | Sekelsky           | Jeff                 | NIH National<br>Institute of General<br>Medical Sciences             | 2-T32-GM135128-06           | 7/1/20   | 6/30/30  | NRSA in Genetics                                                                                                                                                                                                         | \$747,631             |
| Recruitment              | Sellers            | Rani                 | North Carolina<br>Biotechnology<br>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                 | Shuttle<br>Pharmaceuticals,<br>Inc.                                  | S22-11168                   | 11/5/24  | 10/24/34 | Phase 2 Study of Ropidoxuridine as a Radiation<br>Sensitizing Agent During Radiotherapy in Patients<br>with Newly Diagnosed IDH-Wildtype Glioblastoma<br>with Unmethylated MGMT Promoter                                 | \$59,626              |
| Recruitment              | Sengupta           | Soma                 | lan's Friends<br>Foundation                                          |                             | 9/15/24  | 12/31/25 | Feasibility of a Digital Art Therapy Application Designed to Improve Quality of Life in Young Cancer Survivors                                                                                                           | \$22,443              |
| Retention                | Serody             | Jonathan             | Merck Sharp and<br>Dohme Corp.                                       | 54829                       | 12/15/16 | 12/31/25 | 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 | 12/31/25 | Immune Biomarker Analysis of Pembrolizumab in AML                                                                                                                                                                        | \$105,491             |
| Retention                | Serody             | Jonathan             | NIH National Heart,<br>Lung, and Blood<br>Institute                  | 5-R01-HL155098-01-<br>04    | 9/1/21   | 6/30/25  | Enhancing Innate Immune Reconstitution Post Allogeneic HSCT.                                                                                                                                                             | \$679,845             |
| Investment<br>(Training) | Serody             | Jonathan             | NIH National<br>Cancer Institute                                     | 5-T32-CA285257-02           | 9/15/23  | 8/31/28  | UNC Immunotherapy Training Grant (IM-TAG)                                                                                                                                                                                | \$181,622             |
| 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<br>Cancer Institute                                     | 1-F31-CA288161-<br>01A1     | 7/10/24  | 7/9/27   | Function of PD-1 Signaling on the Activity of B cells in the Tumor Microenvironment in Breast Cancer                                                                                                                     | \$47,153              |
| Recruitment              | Serrano            | Natalicio            | Robert Wood<br>Johnson<br>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                                                                                    | \$130,000             |
| Retention                | Shaheen<br>Shaheen | Nicholas<br>Nicholas | CDx Diagnostics                                                      |                             | 8/8/16   |          | CDX 707 WATS Registry Services Agreement Safety and Efficacy of the CryoBalloon Ablation for                                                                                                                             | \$60,800<br>\$192,114 |
| Retention                | Silaneen           | Niciiolas            | C2 Therapeutics                                                      |                             | 12/29/17 | 12/31/20 | Treatment of Patients with Resistant Barrett's Esophagus (BE) - The Resistant BE Trial (ReBET)                                                                                                                           | \$192,114             |
| Retention                | Shaheen            | Nicholas             | University of<br>Colorado Denver                                     | FY22.1035.015               | 5/15/22  | 4/30/25  | A Multicenter Randomized Controlled Trial of<br>Surveillance vs. Endoscopic Therapy for Barrett's<br>Esophagus with Low-grade Dysplasia: The SURVENT<br>Trial                                                            | \$151,409             |
| Retention                | Shaheen            | Nicholas             | GIE Medical, Inc.                                                    | PR2052                      | 1/23/23  | 2/28/29  | PATENT-E: Paclitaxel Coated balloon for the<br>Treatment of chronic bEnigN sTricture- Esophagus                                                                                                                          | \$145,567             |
| Retention                | Shaheen            | Nicholas             | Case Western<br>Reserve University                                   | RES603675                   | 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.                                                                               | \$108,283             |
| Retention                | Shaheen            | Nicholas             | NIH National<br>Center for<br>Advancing<br>Translational<br>Sciences | 5-UM1-TR004406-02           | 4/28/23  | 3/31/30  | 1/3 North Carolina Translational and Clinical<br>Sciences Institute (NC TraCS)                                                                                                                                           | \$989,710             |
| Retention                | Shaheen            | Nicholas             | Mayo Clinic in<br>Rochester                                          | THE-319907-02<br>P001764264 | 9/30/23  | 9/29/26  | External Validation and Evaluation of a Novel Deep<br>Learning Platform for the Diagnosis and Risk<br>Stratification of Dysplasia in Barrett's Esophagus<br>Histology                                                    | \$57,226              |
| Retention                | Shaheen            | Nicholas             | Case Western<br>Reserve University                                   | RES604259                   | 1/3/25   | 12/31/29 | A Clinical Trial of Cancer Prevention by Biomarker Based Detections of Barrett's Esophagus and Its Progression                                                                                                           | \$45,127              |
| Retention                | Shaheen            | Nicholas             | Fred Hutchinson<br>Cancer Center                                     | 1221020                     | 1/1/25   | 12/31/26 | Novel methylated HGD and early EAC early detection markers: discovery and validation studies                                                                                                                             | \$34,210              |
| Recruitment              | Shea               | Thomas               | Alliance for Clinical<br>Trials in Oncology                          |                             | 9/11/13  | 3/5/30   | Alliance Prime elPF                                                                                                                                                                                                      | \$59,105              |
| Recruitment              | Sheeran            | Paschal              | University of                                                        | 1564540<br>1001918652       | 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              |

| Category                 | Last Name | First name | Sponsor                                                                  | Sponsor Award No           | Begin    | End     | Title                                                                                                                                                                                                                                                                                                         | Total Award |
|--------------------------|-----------|------------|--------------------------------------------------------------------------|----------------------------|----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment              | Sheeran   | Paschal    | North Carolina<br>State University                                       | PAM-P23-003103-<br>SA01    | 9/1/23   | 8/31/26 | IHBEM: Data-driven integration of behavior change interventions into epidemiological models using equation learning                                                                                                                                                                                           | \$58,745    |
| Recruitment              | Shen      | Colette    | Nanobiotix S.A.                                                          |                            | 3/14/19  | 3/20/29 | A Phase I/II Study Of NBTXR3 Activated By Radiation<br>Therapy (SABR) For Patients With Advanced HNSCC<br>or NSCLC Treated with an Anti-PD1 Antibody                                                                                                                                                          | \$283,029   |
| Recruitment              | Shen      | Colette    | Hoosier Cancer<br>Research Network                                       | BRE18-360                  | 4/1/21   | 4/11/31 | BRE18-360: Phase I/II Study of Stereotactic<br>Radiosurgery with Concurrent Administration of<br>DNA Damage Response (DDR) Inhibitor (Olaparib)<br>Followed by Adjuvant Combination of Durvalumab<br>(MEDI4736) and Physician s Choice Systemic<br>Therapy in Subjects with Breast Cancer Brain<br>Metastases | \$19,343    |
| Recruitment              | Shen      | Colette    | University of<br>Michigan                                                | SUBK00014248               | 8/1/21   | 7/31/26 | A clinical tool for automated detection and delineation of intracranial metastases from MRI                                                                                                                                                                                                                   | \$47,550    |
| Recruitment              | Sheth     | Sid        | Merck Sharp<br>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  | 7/31/24 | Phase 1-2 Study Investigating Safety, Tolerability, Pharmacokinetics and Preliminary Antitumor Activity of Anti-TIM-3 MonoclonalAntibody BGB- A425 in Combination with Anti-PD-1 Monoclonal Antibody Tislelizumab in Patients with Advanced Solid Tumors                                                      | \$24,221    |
| Recruitment              | Sheth     | Sid        | Merck Sharp and<br>Dohme Corp.                                           | LCCC 2047                  | 8/10/21  | 4/12/32 | A Phase II Trial of Induction and Maintenance<br>Pembrolizumab and Olaparib in Locally-Advanced<br>Head and Neck Squamous Cell Carcinoma (HNSCC)                                                                                                                                                              | \$150,000   |
| Recruitment              | Sheth     | Sid        | IconOVir Bio, Inc                                                        | 1042-CLN01                 | 1/26/24  | 2/1/34  | Phase 1 First-in-Human Dose Escalation and<br>Expansion Study to Assess Safety and Tolerability of<br>Intravenous Administration of ICVB-1042 in<br>Patients with Advanced Solid Tumors                                                                                                                       | \$252,684   |
| Recruitment              | Sheth     | Sid        | VCU Medical<br>College of Virginia                                       |                            | 10/16/24 | 1/15/27 | Phase 1 First-in-Human Dose Escalation and<br>Expansion Study to Assess Safety and Tolerability of<br>Intravenous Administration of ICVB-1042 in<br>Patients with Advanced Solid Tumors                                                                                                                       | \$80,000    |
| Recruitment              | Sheth     | Sid        | Janssen Research<br>Development, LLC                                     | 61186372HNC2002            | 10/22/24 | 2/17/27 | A Phase 1b/2, Open-label Study of Amivantamab<br>Monotherapy and Amivantamab in Addition<br>toStandard of Care Therapeutic Agents in<br>Participants with Recurrent/Metastatic Head and<br>Neck Squamous Cell Carcinoma                                                                                       | \$20,281    |
| Recruitment              | Sheth     | Sid        | Inhibrx                                                                  | INBRX106-01-201            | 8/20/24  | 8/20/29 | A Phase 2/3, Randomized Study of INBRX-106<br>Combined With Pembrolizumab Versus<br>Pembrolizumab as First-Line Treatment for Patients<br>With Recurrent or Metastatic (R/M) Head and Neck<br>Squamous Cell Carcinoma (HNSCC) Expressing PD-<br>L1 (CPS greater than or equal to 20) (HexAgon-HN)             | \$65,349    |
| Recruitment              | Sheth     | Sid        | Replimune, Inc.                                                          | RPL-003-19                 | 1/15/25  | 1/15/30 | An Open-Label, Multicenter, Phase 1B/2 Study of<br>RP1 in Solid Organ and Hematopoietic Cell<br>Transplant Recipients With Advanced Cutaneous<br>Malignancies [ARTACUS]                                                                                                                                       | \$56,660    |
| Retention                | Shih      | Yen-Yu     | NIH National<br>Institute of Mental<br>Health                            | 5-R01-MH126518-01-<br>05   | 4/1/21   | 3/31/26 | Neural circuit mechanisms governing default mode network dynamics                                                                                                                                                                                                                                             | \$641,842   |
| Retention                | Shih      | Yen-Yu     | University of<br>California at Santa<br>Barbara                          | KK2357                     | 3/15/23  | 2/29/28 | Metal-free, genetically encoded reporters for calcium recording with MRI                                                                                                                                                                                                                                      | \$122,368   |
| Retention                | Shih      | Yen-Yu     | NIH National<br>Institute of<br>Biomedical Imaging<br>and Bioengineering | 5-R01-EB033790-01-<br>02   | 8/1/23   | 7/31/27 | SORDINO-fMRI for mouse brain applications                                                                                                                                                                                                                                                                     | \$609,429   |
| Investment<br>(Protocol) | Smith     | Angie      | University of<br>Washington                                              | PO#BPO38451                | 2/1/19   |         | Comparison of Intravesical Therapy and Surgery as<br>Treatment Options (CISTO) for Recurrent Bladder<br>Cancer                                                                                                                                                                                                | \$74,759    |
| Investment<br>(Protocol) | Smith     | Angie      | University of<br>Washington                                              | UWSC16042 PO<br>0100155424 | 7/1/24   | 6/30/29 | BEST CARE for Recurrent NMIBC: BladdEr-Sparing<br>Therapy and Cystectomy As TREatments                                                                                                                                                                                                                        | \$53,333    |

| Category                         | Last Name    | First name | Sponsor                                                                      | Sponsor Award No                       | Begin    | End      | Title                                                                                                                                                                                                                                                                                                                | Total Award |
|----------------------------------|--------------|------------|------------------------------------------------------------------------------|----------------------------------------|----------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment                      | Smith        | Jennifer   | DL Analytics, LLC                                                            | 1                                      | 5/1/22   | 8/31/24  | SBIR: Validation of a low-cost lab-free screening test for prevention of cervical cancer: automatic visual evaluation                                                                                                                                                                                                | \$79,450    |
| Recruitment                      | Smith        | Jennifer   | Cleveland Clinic<br>Lerner College of<br>Medicine                            | CCF23209065                            | 9/1/22   | 3/31/27  | SCALE: Single Visit Clinical Validation of Ampfire, a Low Cost HPV Test: Efficacy and Cost Effectiveness                                                                                                                                                                                                             | \$42,560    |
| Recruitment                      | Smith        | Jennifer   | NIH National<br>Cancer Institute                                             | 5-UG1-CA275403-03                      | 9/2/22   | 5/31/27  | UNC CASCADE Network Research Base                                                                                                                                                                                                                                                                                    | \$615,041   |
| Recruitment                      | Smitherman   | Andrew     | The Board of<br>Trustees of the<br>University of<br>Alabama                  | 000527577-SC008                        | 3/24/21  | 2/28/26  | Predictors of Systemic Exposure to Oral 6MP<br>During Maintenance in Adolescents and Young<br>Adults with Acute Lymphoblastic Leukemia                                                                                                                                                                               | \$32,319    |
| Recruitment                      | Smitherman   | Andrew     | Georgetown<br>University                                                     | SUP-0002150<br>425038_GR424901-<br>UNC | 9/21/21  | 8/31/25  | Randomized Trial of a Multilevel Intervention to<br>Improve Adherence to Childhood Cancer<br>Survivorship Guidelines                                                                                                                                                                                                 | \$88,437    |
| Recruitment                      | Somasundaram | Ashwin     | NIH National<br>Cancer Institute                                             | 5-K08-CA259342-01-<br>02               | 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                      | Somasundaram | Ashwin     | AbbVie, Inc.                                                                 | M24-147                                | 6/10/24  | 6/30/25  | A Phase 2, Randomized Study to Evaluate the Optimized Dose, Safety, and Efficacy of Livmoniplimab in Combination with Budigalimab for Locally Advanced or Metastatic Hepatocellular Carcinoma (HCC) Patients who Have Progressed After an Immune Checkpoint Inhibitor Containing Regimen in First-Line HCC-LIVIGNO-1 | \$60,602    |
| Recruitment                      | Sondek       | John       | NIH National<br>Institute of General<br>Medical Sciences                     | 5-R35-GM149299-01-<br>03               | 5/1/23   | 3/31/28  | Phospholipase C Isozymes                                                                                                                                                                                                                                                                                             | \$384,915   |
| Recruitment                      | Spanheimer   | Philip     | NIH National<br>Cancer Institute                                             | 5-K08-CA280388-01-<br>03               | 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  | 12/31/25 | Posttranslational Regulation of FOXA1 in Breast Cancer                                                                                                                                                                                                                                                               | \$22,090    |
| Recruitment                      | Spanheimer   | Philip     | Gilead Sciences,                                                             | 24-2768                                | 4/29/24  | 4/28/26  | Targeting Reprogrammed Kinase Signaling Networks in Endocrine Therapy Resistant ER+ Breast Cancer                                                                                                                                                                                                                    | \$90,000    |
| Recruitment                      | Spanheimer   | Philip     | NIH National<br>Cancer Institute                                             | 1-R37-CA292075-01                      | 7/1/24   | 6/30/29  | Predicting Endocrine Therapy Response in Male<br>Breast Tumors                                                                                                                                                                                                                                                       | \$604,746   |
| Recruitment                      | Spees        | Lisa       | NIH National<br>Institute on<br>Minority Health<br>and Health<br>Disparities | 5-K01-MD016989-01-<br>03               | 9/25/22  | 12/31/26 | Patient Navigation in Gynecologic Oncology:<br>Improving Care among Rural Endometrial Cancer<br>Patients                                                                                                                                                                                                             | \$134,829   |
| Recruitment                      | Stanley      | Natalie    | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases           | 5-R21-Al171745-01-<br>02               | 8/3/23   | 7/31/26  | Automating the Discovery of Clinically-Relevant<br>Intracellular Signaling Responses in Immune Cell-<br>Types                                                                                                                                                                                                        | \$219,336   |
| Recruitment                      | Starbird     | Chrystal   | NIH National<br>Institute of General<br>Medical Sciences                     | 5-R00-GM144683-02-<br>04               | 2/24/23  | 1/31/26  | The Structural Basis of TAM Receptor Oligomerization and Co-receptor Interactions                                                                                                                                                                                                                                    | \$224,085   |
| Recruitment                      | Stover       | Angela     | UroGen Pharma<br>Ltd.                                                        | 22.2019                                | 12/1/21  | 11/30/24 | A mixed methods study of side effects and adverse events in a phase 3 trial of a medication gel for bladder cancer                                                                                                                                                                                                   | \$267,002   |
| Recruitment                      | Stover       | Angela     | Pfizer Inc.<br>(Connecticut)                                                 | 73592487                               | 12/12/22 | 2/28/26  | Oncology pharmacist-facilitated PROM monitoring at UNC cancer clinics                                                                                                                                                                                                                                                | \$50,000    |
| Innovation<br>Award              | Strahl       | Brian      | NIH National<br>Institute of General<br>Medical Sciences                     | 5-R35-GM126900-06-<br>08               | 5/1/18   | 4/30/28  | Mechanisms of chromatin and transcriptional regulation                                                                                                                                                                                                                                                               | \$586,513   |
| Innovation<br>Award              | Strahl       | Brian      | American Cancer<br>Society                                                   | DGB-24-1241663-01-<br>DMC              | 1/1/25   | 12/31/26 | Unlocking the function and histone-interaction landscapes of oncohistones                                                                                                                                                                                                                                            | \$300,000   |
| Investment<br>(Chair<br>Package) | Stürmer      | Til        | NIH National<br>Institute on Aging                                           | 5-R01-AG056479-05-<br>07               | 9/15/17  | 5/31/27  | Propensity scores and preventative drug use in the elderly                                                                                                                                                                                                                                                           | \$614,717   |
| Investment<br>(Chair<br>Package) | Stürmer      | Til        | Wake Forest<br>University Health<br>Sciences                                 | 1832-45828-<br>11000002703             | 4/1/23   | 3/31/26  | NCDRC Human Studies Consultation Core                                                                                                                                                                                                                                                                                | \$100,395   |
| Investment<br>(Chair<br>Package) | Stürmer      | πІ         | American Diabetes<br>Association                                             | 1-25-PDF-96                            | 1/1/25   | 12/31/27 | Comparative safety of insulin glargine-yfgn (a biosimilar insulin) in a real-world population with novel pharmacoepidemiology methods: prevalent new-user study and clone-censored weight approach                                                                                                                   | \$71,008    |

| Category                  | Last Name | First name | Sponsor                                                                        | Sponsor Award No            | Begin    | End      | Title                                                                                                                                         | Total Award |
|---------------------------|-----------|------------|--------------------------------------------------------------------------------|-----------------------------|----------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Investment<br>(HTSF)      | Sullivan  | Patrick    | NIH National<br>Institute of Mental<br>Health                                  | 5-R01-MH123724-01-<br>05    | 6/10/20  | 3/31/26  | A Trans-Nordic Study of Extreme Major Depression                                                                                              | \$79,519    |
| Investment<br>(HTSF)      | Sullivan  | Patrick    | NIH National<br>Institute of Mental<br>Health                                  | 5-R01-MH124871-01-<br>04    | 4/14/21  | 2/28/26  | 1/7 PGC: Advancing Discovery and Impact                                                                                                       | \$71,912    |
| Investment<br>(HTSF)      | Sullivan  | Patrick    | Duke University                                                                | A034582                     | 4/1/21   | 1/31/26  | Beyond GWAS: High Throughput Functional<br>Genomics & Epigenome Editing to Elucidate the<br>Effects of Genetic Associations for Schizophrenia | \$363,208   |
| Investment<br>(HTSF)      | Sullivan  | Patrick    | NIH National<br>Institute of Mental<br>Health                                  | 5-R01-MH130671-01-<br>02    | 9/1/22   | 6/30/28  | 1/3 Sequencing and Trans-Diagnostic Phenotyping of Severe Mental Illness in Diverse Populations                                               | \$760,305   |
| Investment<br>(HTSF)      | Swanstrom | Ronald     | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases             | 3-P30-Al050410-27S1         | 8/20/01  | 5/31/26  | The University of North Carolina Center for AIDS Research                                                                                     | \$3,474,152 |
| Investment<br>(HTSF)      | Swanstrom | Ronald     | NIH National<br>Institute of Mental<br>Health                                  | 1-R01-MH138157-<br>01A1     | 1/1/25   | 10/31/29 | Evolution and Latency of T-Tropic and M-Tropic HIV in People Infected with Subtype C                                                          | \$881,439   |
| Recruitment               | Tamir     | Tigist     | Burroughs<br>Wellcome Fund                                                     | G-1021658-01                | 1/1/25   | 12/31/25 | Postdoctoral Diversity Enrichment Program Transition to Faculty Award                                                                         | \$32,128    |
| Recruitment               | Tan       | Ray        | Department of Defense                                                          | W81XWH2110775<br>0011654672 | 9/1/21   | 8/31/25  | Personalizing kidney cancer communication to support patient-centered decision-making                                                         | \$232,405   |
| Recruitment               | Tan       | Ray        | Department of Defense                                                          | HT94252410386<br>0012085740 | 7/1/24   | 6/30/28  | Virtual Testis Cancer Lay Support and Survivorship (VITALSS Study)                                                                            | \$377,884   |
| Recruitment               | Tan       | Ray        | American Urological Association Education and Research, Inc.                   |                             | 9/1/24   | 10/31/25 | The Effect of Environmental Quality on Prostate<br>Cancer-Specific and Overall Mortality                                                      | \$40,000    |
| Theme<br>Investment       | Tarantino | Lisa       | Jackson Laboratory                                                             | 210247-0625-07              | 9/1/22   | 6/30/27  | Center for Systems Neurogenetics of Addiction                                                                                                 | \$236,653   |
| Investment<br>(CHAI Core) | Tate      | Deborah    | NIH National<br>Institute of<br>Diabetes, Digestive,<br>and Kidney<br>Diseases | 5-R01-DK125779-01-<br>05    | 7/10/20  | 6/30/26  | Optimization of a mHealth Behavioral Weight Loss<br>Intervention                                                                              | \$534,293   |
| Investment<br>(CHAI Core) | Tate      | Deborah    | NIH National Heart,<br>Lung, and Blood<br>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<br>(CHAI Core) | Tate      | Deborah    | University of Connecticut                                                      | 160009447/KFS#5673<br>160   | 5/15/22  | 4/30/27  | Optimizing a couples-based behavioral intervention for weight management                                                                      | \$157,004   |
| Investment<br>(CHAI Core) | Tate      | Deborah    | George<br>Washington<br>University                                             | 23-M42                      | 11/15/22 | 11/14/25 | Effectiveness study of a lifestyle intervention versus metformin in mothers with recent gestational diabetes                                  | \$172,217   |
| Recruitment               | Thaxton   | Jessica    | Brigham and<br>Womens Hospital                                                 | 127349                      | 7/1/22   | 6/30/27  | Immunometabolic pathways enabled by PARP inhibition in breast cancer                                                                          | \$27,323    |
| Recruitment               | Thaxton   | Jessica    | NIH National<br>Cancer Institute                                               | 3-R01-CA244361-<br>06S1     | 7/1/20   | 6/30/25  | Targeting Chronic ER Stress in T Cells to Improve Cancer Immunotherapy                                                                        | \$415,535   |
| Recruitment               | Thaxton   | Jessica    | NIH National<br>Cancer Institute                                               | 1-R01-CA288976-<br>01A1     | 12/3/24  | 11/30/29 | Manipulating Lipid Metabolism to Reverse Immune<br>Dysfunction in Solid Cancers                                                               | \$496,391   |
| Recruitment               | Thom      | Bridgette  | Pfizer Inc.<br>(Connecticut)                                                   | 93233149                    | 7/8/24   | 12/31/25 | A patient-level intervention to reduce financial toxicity among young adult cervical patients and survivors                                   | \$150,000   |
| Recruitment               | Thompson  | Caroline   | NIH National<br>Cancer Institute                                               | 5-R01-CA264176-02-<br>05    | 7/1/21   | 6/30/26  | Diagnosis of Cancer in the Emergency Room -<br>Explaining Persistent Disparities (Grant Transfer)                                             | \$587,823   |
| Recruitment               | Thompson  | Caroline   | University of<br>California at San<br>Francisco                                | 13498SC                     | 8/1/21   | 7/31/25  | Understanding the Multilevel Drivers of Liver<br>Cancer Disparities                                                                           | \$19,993    |
| 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                                                            | \$33,075    |
| Recruitment               | Thompson  | Caroline   | Baylor College of<br>Medicine                                                  | P700001073                  | 7/1/24   | 6/30/25  | Clinical Quality Measures to Improve the Diagnosis for GI Cancers                                                                             | \$60,000    |
| Recruitment               | Thompson  | Caroline   | Ovarian Cancer<br>Research Fund<br>Alliance                                    | HEG-2025-2-1900             | 3/1/25   | 2/28/27  | A Mixed Methods Study of Diagnostic Delay in<br>Ovarian and Uterine Cancer                                                                    | \$50,000    |
| Recruitment               | Thompson  | Tess       | NIH National<br>Cancer Institute                                               | 5-R37-CA277778-02-<br>04    | 1/19/23  | 12/31/27 | Dyadic Analysis of Unmet Social Needs Among<br>Breast and Gynecologic Patients and Their Informal<br>Caregivers                               | \$136,605   |

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|-------------|------------|------------|--------------------------------------------------------------------|-----------------------------|----------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment | Thompson   | Tess       | American Cancer<br>Society                                         | MRSG-19-086-01              | 7/1/23   | 6/30/25  | Mentored Research Scholar Grant (MRSG-19-086-01)                                                                                                                                                                                                          | \$96,359    |
| Retention   | Ting       | Jenny      | NIH National<br>Cancer Institute                                   | 5-R35-CA232109-06           | 9/17/19  | 8/31/26  | Intracellular Innate Immune Receptors in Cancer<br>Suppression and Immunotherapy                                                                                                                                                                          | \$879,456   |
| Retention   | Ting       | Jenny      | Duke University                                                    | 303003694                   | 8/1/20   | 7/31/25  | Innate Immune Receptor Ligand and the Microbiota as Countermeasures for Radiation                                                                                                                                                                         | \$337,141   |
| Retention   | Ting       | Jenny      | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 5-R01-Al158314-01-<br>03    | 7/15/22  |          | Role and Mitigation of Inflammasomes and Inflammation During COVID-19                                                                                                                                                                                     | \$619,067   |
| Retention   | Ting       | Jenny      | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 5-K99-Al175479-01-<br>02    | 5/23/24  | 4/30/26  | Regulation of Pathologic Inflammasome Responses to SARS-CoV-2                                                                                                                                                                                             | \$104,722   |
| Retention   | Ting       | Jenny      | National Multiple<br>Sclerosis Society                             | FG-2307-41780               | 7/1/24   | 6/30/27  | Investigating a Novel Beneficial Gut Microbe for Potential MS Therapy                                                                                                                                                                                     | \$210,938   |
| Retention   | Ting       | Jenny      | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 5-R01-Al029564-31-<br>32    | 7/1/91   | 4/30/29  | Molecular and Functional Analysis of Innate<br>Immune Receptors                                                                                                                                                                                           | \$571,581   |
| Retention   | Troester   | Melissa    | American Cancer<br>Society                                         | 48195                       | 8/23/17  | 12/31/27 | Gene Expression Profiling of Breast Tumors from Cancer Prevention Study 3                                                                                                                                                                                 | \$54,553    |
| Retention   | Troester   | Melissa    | ECOG-ACRIN<br>Medical Research<br>Foundation                       | UG1CA189828-06-<br>UNC1     | 8/1/18   | 7/31/25  | ECOG-ACRIN NCORP Research Base                                                                                                                                                                                                                            | \$150,000   |
| Retention   | Troester   | Melissa    | NIH National<br>Institute of<br>Environmental<br>Health Sciences   | 5-P30-ES-010126-24          | 4/1/21   | 2/28/26  | UNC Center for Environmental Health and Susceptibility                                                                                                                                                                                                    | \$1,506,234 |
| Retention   | Troester   | Melissa    | NIH National<br>Cancer Institute                                   | 5-R01-CA253450-01-<br>05    | 4/6/21   | 3/31/26  | P53, DNA Repair, and Immune Response in Breast<br>Cancer Mortality Disparities                                                                                                                                                                            | \$581,738   |
| Retention   | Troester   | Melissa    | Susan G Komen for the Cure                                         | TREND21686258               | 12/3/21  | 12/2/25  | Breast Cancer Mortality Disparities: Integrating Biology and Access                                                                                                                                                                                       | \$101,250   |
| Retention   | Troester   | Melissa    | Susan G Komen for the Cure                                         | SAC210102                   | 12/23/21 | 12/22/26 | Impact of spatial heterogeneity in tumor and microenvironment on recurrence                                                                                                                                                                               | \$400,000   |
| Retention   | Troester   | Melissa    | North Carolina<br>State University                                 | PAM-P24-001939-<br>SA02     | 9/21/21  | 8/31/27  | Southern Liver Health Cohort                                                                                                                                                                                                                              | \$564,999   |
| Retention   | Troester   | Melissa    | Susan G Komen for the Cure                                         | OG22873776                  | 5/18/22  | 5/17/25  | Integrating Biology and Access to Understand<br>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                                                                                                                                                                                                                     | \$351,667   |
| Retention   | Troester   | Melissa    | Department of<br>Defense                                           | HT94252310235<br>0011903639 | 9/15/23  | 9/14/27  | Integrating Molecular Pathology, Radiology and<br>Genetics to Improve Breast Cancer Risk Prediction                                                                                                                                                       | \$965,973   |
| Retention   | Troester   | Melissa    | Breast Cancer<br>Research<br>Foundation                            | HEI-24-003                  | 10/1/24  | 9/30/25  | Breast Cancer Drivers in Black Women: Society to Cells                                                                                                                                                                                                    | \$974,720   |
| Retention   | Troester   | Melissa    | University of California at San Francisco                          | 15801SC                     | 9/11/24  | 8/31/29  | WISDOM: A platform to optimize subtype-specific screening and prevention                                                                                                                                                                                  | \$116,143   |
| Recruitment | Trogdon    | Justin     | NIH National<br>Cancer Institute                                   | 5-F30-CA254064-04           | 7/9/20   | 7/7/25   | Fellow: Nul L Oh Cancer detection and care for dual-<br>eligible beneficiaries in Medicare Shared Savings<br>Program                                                                                                                                      | \$53,974    |
| Recruitment | Tsagaratou | Ageliki    | NIH National<br>Institute of General<br>Medical Sciences           | 5-R35-GM138289-01-<br>05    | 7/1/20   | 6/30/25  | Epigenetic Regulation of Lineage Specification                                                                                                                                                                                                            | \$378,288   |
| Recruitment | Tuchman    | Sascha     | Karyopharm<br>Therapeutics Inc                                     |                             | 7/25/18  | 8/17/28  | A Phase 1b/2 Study of Selinexor (KPT-330) in<br>Combination with Backbone Treatments for<br>Relapsed/Refractory Multiple Myeloma                                                                                                                          | \$13,268    |
| Recruitment | Tuchman    | Sascha     | Alexion<br>Pharmaceuticals,<br>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 with Mayo Stage Illa AL Amyloidosis. | \$202,839   |
| Recruitment | Tuchman    | Sascha     | TeneoBio, Inc                                                      | TNB383B-0001                | 6/1/21   | 6/30/31  | A Multicenter, Phase 1, Open-label, Dose-escalation<br>and Expansion Study of TNB-383B, a Bispecific<br>Antibody Targeting BCMA in Subjects with Relapsed<br>or Refractory Multiple Myeloma                                                               | \$19,418    |

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|----------------------------|-----------|----------------|-----------------------------------------------------------------------|--------------------------|-------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Recruitment                | Turner    | Kea            | H Lee Moffitt<br>Cancer and<br>Research Institute                     | 10-22879-99-01-G3        | 11/4/24           | 8/31/29  | A Hybrid Effectiveness-implementation Trial to<br>Integrate Precision Skin Cancer Risk Feedback in<br>Federally Qualified Health Centers          | \$16,708             |
| Recruitment                | Turner    | Kea            | University of Florida                                                 | SUB00004772              | 11/4/24           | 8/31/25  | De-Implementing Fall Prevention Alarms in<br>Hospitals                                                                                            | \$16,800             |
| Recruitment                | Turner    | Kea            | Department of<br>Defense                                              | HT94252410495            | 9/12/24           | 5/31/28  | Support Through Remote Observation and<br>Nutrition Guidance (STRONG) Program to Reduce<br>Malnutrition Among Gastroesophageal Cancer<br>Patients | \$275,158            |
| Recruitment                | Turner    | Kea            | University of<br>Oklahoma Health<br>Sciences Center                   | RS20250060-02            | 11/4/24           | 7/31/29  | Implementing Sustainable mobile health Technology to Optimize smoking cessation Program for Lao people with HIV (I-STOP)                          | \$27,765             |
| Investment<br>(Training)   | Valdar    | William        | NIH National<br>Institute of General<br>Medical Sciences              | 5-T32-GM135123-04        | 7/1/21            | 6/30/26  | Predoctoral Training Program in Bioinformatics and Computational Biology                                                                          | \$274,680            |
| Recruitment                | Valdar    | William        | NIH National<br>Institute of General<br>Medical Sciences              | 5-R35-GM127000-06-<br>07 | 4/1/18            | 8/31/28  | Statistical Modeling of Multiparental and Genetic<br>Reference Populations                                                                        | \$364,715            |
| Investment<br>(CC)         | Valdar    | William        | NIH National<br>Institute of<br>Diabetes, Digestive,<br>and Kidney    | 1R01DK130333-04          | 7/1/21            | 3/31/26  | Foundational Studies for Precision Nutrition                                                                                                      | \$61,030             |
| Recruitment                | Valle     | Carmina        | NIH National Heart,<br>Lung, and Blood<br>Institute                   | 5-R01-HL161373-01-<br>04 | 1/15/22           | 12/31/25 | A micro-randomized trial of JITAI messaging to improve adherence to multiple weight loss behaviors in young adults                                | \$516,437            |
| Recruitment                | Valle     | Carmina        | NIH National<br>Cancer Institute                                      | 5-R01-CA270111-01-<br>03 | 4/1/23            | 3/31/28  | Using Tailored mHealth Strategies to Promote<br>Weight Management among Adolescent and Young<br>Adult Cancer Survivors                            | \$633,544            |
| Recruitment                | Van Duin  | David          | Duke University                                                       | 303004308                | 12/1/20           | 11/30/25 | Antibacterial Resistance Leadership Group COC                                                                                                     | \$114,921            |
| Recruitment                | Van Duin  | David          | Houston<br>Methodist                                                  | AGMT00008232             | 6/1/22            | 5/31/25  | VENOUS: A translational study of enterococcal bacteremia                                                                                          | \$19,999             |
| Recruitment                | Van Duin  | David          | Houston<br>Methodist<br>Research Institute                            | AGMT00008429AM3          | 8/1/22            | 7/31/25  | Dynamics of Colonization and Infection by<br>Multidrug-Resistant Pathogens in<br>Immunocompromised and Critically III Patients                    | \$14,993             |
| Recruitment<br>Recruitment |           | David<br>David | Duke University<br>Merck Sharp<br>Dohme LLC                           | 303004315<br>MISP 102719 | 12/1/22<br>4/2/25 |          | Antibacterial Resistance Leadership Group COC<br>Antimicrobial Resistance in North Carolina: a One<br>Health Approach                             | \$76,646<br>\$74,845 |
| Recruitment                | Vincent   | Benjamin       | NIH National<br>Cancer Institute                                      | 5-R37-CA247676-01-<br>05 | 7/1/20            | 6/30/25  | GVI mHA Specific T Cell Responses Prevent AML<br>Relapse Following Allogeneic Stem Cell<br>Transplantation.                                       | \$498,982            |
| 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                |           | Benjamin       | NIH National<br>Cancer Institute                                      | 5-F30-CA268748-03        | 8/1/22            |          | Fellow: K Olsen Minor Histocompatibility Antigen T<br>Cell Targeting in Acute Myeloid Leukemia                                                    | \$53,974             |
| Recruitment                |           | Benjamin       | NIH National<br>Cancer Institute                                      | 5-F30-CA278317-02        | 8/1/23            |          | Effects of entinostat and neoantigen vaccination on bladder cancer                                                                                |                      |
| Recruitment                | Vincent   | Benjamin       | Conquer Cancer<br>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                |           | Benjamin       | Sage Bionetworks                                                      |                          | 7/1/24            |          | CRI iAtlas Development                                                                                                                            | \$195,038            |
| Recruitment                | Virkud    | Yamini         | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases    | 5-R21-Al185550-01-<br>02 | 6/3/24            | 4/30/26  | Metabolomics of Food Allergen Immunotherapy                                                                                                       | \$147,725            |
| Investment<br>(HTSF)       | Vogt      | Matthew        | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases    | 5-R01-Al169461-01-<br>04 | 3/1/22            | 2/28/27  | Human Antibody Cross-Reactivity in Non-Polio<br>Enteroviruses                                                                                     | \$611,746            |
| Investment<br>(HTSF)       | Vora      | Neeta          | NIH National<br>Institute of Child<br>Health and Human<br>Development | 5-R01-HD105868-01-<br>04 | 8/12/21           | 6/30/26  | Genomics and functional dissection of fetal brain abnormalities using a prenatal cohort                                                           | \$633,886            |
| Recruitment                | Wan       | Yisong         | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases    | 5-R01-Al160774-01-<br>05 | 1/16/21           | 12/31/25 | TGF-b superfamily signaling in controlling Th17 cell function in autoimmune neuroinflammation                                                     | \$371,180            |

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|--------------------------|-----------|------------|--------------------------------------------------------------------|-----------------------------|----------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment              | Wan       | Yisong     | NIH National<br>Institute of Allergy<br>and Infectious<br>Diseases | 5-R01-Al123193-06-<br>08    | 12/12/16 | 6/30/27  | Functional protein networks underlying T cell growth, proliferation and differentiation                                                                                                                                                                                                                                                          | \$385,283   |
| Innovation<br>Award      | Waters    | Marcey     | National Science<br>Foundation                                     | CHE-2107685                 | 7/1/21   | 6/30/25  | Cooperativity Driven Communication through<br>Noncovalent Networks in Biomimetic Systems                                                                                                                                                                                                                                                         | \$120,000   |
| Innovation<br>Award      | Waters    | Marcey     | NIH National<br>Institute of General<br>Medical Sciences           | 3-R35-GM145227-<br>03S1     | 9/1/22   | 6/30/27  | Mechanistic Investigation and Engineering of<br>Histone Reader Proteins                                                                                                                                                                                                                                                                          | \$446,554   |
| Innovation<br>Award      | Waters    | Marcey     | National Science<br>Foundation                                     | CHE-2404149                 | 7/1/24   | 6/30/27  | Cooperativity Driven Communication through<br>Noncovalent Networks in Biomimetic Systems                                                                                                                                                                                                                                                         | \$529,988   |
| Investment<br>(Protocol) | Weiner    | Ashley     | Lung Cancer<br>Initiative of North<br>Carolina                     |                             | 7/1/23   | 6/30/25  | Predictive classifier for intensive treatment of locally-advanced non-small cell lung cancer using competing event regression                                                                                                                                                                                                                    | \$25,000    |
| Retention                | Weiss     | Jared      | AstraZeneca<br>Pharmaceuticals LP                                  |                             | 4/28/17  | 11/28/25 | Multimodality Therapy with Induction<br>Carboplatin/nab-Paclitaxel/Durvalumab<br>(MEDI4736) Followed by Surgical Resection and<br>Risk-adapted Adjuvant Therapy for the Treatment of<br>Locally-Advanced and Surgically Resectable<br>Squamous Cell Carcinoma of the Head and Neck                                                               | \$55,868    |
| Retention                | Weiss     | Jared      | AstraZeneca<br>Pharmaceuticals LP                                  |                             | 2/8/18   | 4/30/28  | A Phase I Study of Durvalumab with Radiotherapy<br>and Durvalumab Plus Tremilumumab Together with<br>Radiotherapy for the Adjuvant Treatment of High<br>Risk Head and Neck Squamous Cell Carcinoma                                                                                                                                               | \$36,241    |
| Retention                | Weiss     | Jared      | Loxo Oncology,<br>Inc.                                             |                             | 5/29/18  | 6/14/28  | A Phase 1 Study of Oral LOXO-292 in Patients with<br>Advanced Solid Tumors, Including RET-Fusion Non-<br>Small Cell Lung Cancer, Medullary Thyroid Cancer<br>and Other Tumors with Increased RET Activity                                                                                                                                        | \$556,084   |
| Retention                | Weiss     | Jared      | Bluebird bio, Inc.                                                 | BBB47141US MAGE-<br>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<br>Therapeutics, Inc                                        |                             | 7/12/19  | 8/31/29  | A Phase 1/2 Multiple Expansion Cohort Trial of<br>MRTX849 in Patients with Advanced Solid Tumors<br>with KRAS G12C Mutation                                                                                                                                                                                                                      | \$36,342    |
| 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                                                                                                                                  | \$60,286    |
| Retention                | Weiss     | Jared      | PDS Biotechnology<br>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) | \$68,840    |
| Retention                | Weiss     | Jared      | Genmab                                                             | GCT1046-01                  | 1/13/21  | 11/30/30 | GCT1046-01: First-in-Human, Open-Label, Dose-<br>Escalation Trial with Expansion Cohorts to Evaluate<br>Safety of GEN1046 in Subjects with Malignant Solid<br>Tumors                                                                                                                                                                             | \$183,073   |
| Retention                | Weiss     | Jared      | Iovance Biotherapeutics, Inc.                                      | IOV-LUN-202                 | 9/1/21   | 8/29/31  | A Phase 2 Multicenter Study of Autologous Tumor Infiltrating Lymphocytes (LN-145) in Patients with Metastatic Non-Small-Cell Lung Cancer.                                                                                                                                                                                                        | \$28,555    |
| Retention                | Weiss     | Jared      | Department of<br>Defense                                           | W81XWH2211110<br>0011753834 | 9/30/22  | 9/29/26  | GD2 CASRT for Lung Cancer                                                                                                                                                                                                                                                                                                                        | \$145,913   |
| Retention                | Weiss     | Jared      | G1 Therapeutics                                                    | LCCC 2117                   | 5/3/22   | 7/23/26  | Phase II Study of Trilaciclib and Lurbinectedin in Small Cell Lung Cancer                                                                                                                                                                                                                                                                        | \$316,930   |
| Retention                | Weiss     | Jared      | Loxo Oncology,<br>Inc.                                             | LOXO-NGR-21001              | 11/4/22  | 10/11/32 | A Phase 1 Study of Oral LOXO-260 in Patients with<br>RET Fusion-Positive Solid Tumors, Medullary<br>Thyroid Cancer, and Other Tumors with RET<br>Activation Refractory to Selective RET Inhibitors                                                                                                                                               | \$11,937    |
| Retention                | Weiss     | Jared      | Nurix Therapeutics,<br>Inc.                                        | NX-1607-101                 | 4/26/23  | 5/4/34   | A Phase 1a, Dose Escalation, Safety and Tolerability<br>Study of NX-1607, a Casitas B-lineage lymphoma<br>proto-oncogene (CBL-B) inhibitor, in Adults with<br>Advanced Malignancies, with Phase 1b Expansion<br>in Select Tumor Types                                                                                                            | \$123,034   |

| Category             | Last Name | First name | Sponsor                                                                               | Sponsor Award No          | Begin    | End      | Title                                                                                                                                                                                                                                                                    | Total Award |
|----------------------|-----------|------------|---------------------------------------------------------------------------------------|---------------------------|----------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 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                                                                                    | \$310,117   |
| Retention            | Weiss     | Jared      | TScan Therapeutics                                                                    | TSCAN-002                 | 3/1/24   | 2/17/26  | A Phase 1 Basket Study Evaluating the Safety and Feasibility of T-Plex, Autologous Customized T Cell Receptor-Engineered T Cells Targeting Multiple Peptide/HLA Antigens in Participants with Antigenpositive Locally Advanced (Unresectable) or Metastatic Solid Tumors | \$115,633   |
| Retention            | Weiss     | Jared      | Phanes<br>Therapeutics                                                                | PT 217 X1101              | 3/18/24  | 4/17/34  | A Phase 1 Open-label, Multicenter, Dose Escalation<br>and DoseExpansion Study of PT217 in Patients<br>with Advanced RefractoryCancers Expressing DLL3                                                                                                                    | \$63,729    |
| Retention            | Weiss     | Jared      | Janux Therapeutics                                                                    | EGFR-008-001              | 6/6/24   | 6/5/34   | Study of JANX008 in Subjects With Advanced or Metastatic Solid Tumor Malignancies                                                                                                                                                                                        | \$220,183   |
| Retention            | Weiss     | Jared      | Summit<br>Therapeutics Sub,<br>Inc                                                    | SMT112-3003               | 8/27/24  | 8/13/34  | A Randomized, Controlled, Multiregional Phase 3 Study of Ivonescimab Combined with Chemotherapy Versus Pembrolizumab Combined with Chemotherapy for the First-line Treatment of Metastatic Squamous Nonsmall Cell Lung Cancer                                            | \$108,326   |
| Retention            | Weiss     | Jared      | NIH National<br>Cancer Institute                                                      | 1-R01-CA296807-01         | 12/1/24  | 11/30/29 | iC9-CAR.CSPG4 CAR-T Cells for Head and Neck<br>Squamous Cell Carcinoma                                                                                                                                                                                                   | \$627,456   |
| Recruitment          | Wheeler   | Stephanie  | Alliance for Clinical<br>Trials in Oncology                                           | 202010116                 | 9/1/20   | 7/31/25  | Optimizing Endocrine Therapy Adherence - Pillsy Cap Shipping                                                                                                                                                                                                             | \$99,438    |
| Recruitment          | Wheeler   | Stephanie  | Alliance NCTN<br>Foundation                                                           | ANF_A191901_01            | 8/1/23   | 7/31/24  | Optimizing Endocrine Therapy Adherence - Pillsy Cap PURCHASE                                                                                                                                                                                                             | \$50,000    |
| Recruitment          | Wheeler   | Stephanie  | V Foundation for<br>Cancer Research                                                   | GC2025-005                | 6/1/25   | 6/1/26   | Understanding and Addressing Cancer Disparities Among American Indians in North Carolina: Youth and Young Adult Cancer Risk Factors                                                                                                                                      | \$100,000   |
| Investment<br>(HTSF) | Whitmire  | Jason      | Department of<br>Defense                                                              | W81XWH2110919             | 9/30/21  | 9/29/25  | Pathogenic T cells in Guillain Barre Syndrome                                                                                                                                                                                                                            | \$300,118   |
| Recruitment          | Wilkerson | Greg       | University of<br>Colorado Boulder                                                     | 1564563<br>1001916392     | 8/1/23   | 7/31/27  | Characterizing Host-Virus Interactions in a New HIV Model Organism                                                                                                                                                                                                       | \$93,850    |
| Recruitment          | Williams  | Scott      | NIH National<br>Institute of<br>Arthritis and<br>Musculoskeletal<br>and Skin Diseases | 5-R01-AR077591-01-<br>05  | 3/1/21   | 1/31/26  | Intrinsic and extrinsic spindle orientation mechanisms in mammalian epidermis                                                                                                                                                                                            | \$305,509   |
| Recruitment          | Williams  | Scott      | NIH National<br>Institute of Dental<br>and Craniofacial<br>Research                   | 1-F31-DE033915-01         | 12/1/24  | 11/30/26 | Determining the role of cell-cell adhesions in palate closure                                                                                                                                                                                                            | \$41,218    |
| Recruitment          | Willson   | Tim        | Structural Genomics Consortium                                                        |                           | 9/30/18  | 9/30/27  | Structural Genomics Consortium Grant Funding                                                                                                                                                                                                                             | \$116,667   |
| Recruitment          | Willson   | Tim        | Seattle Children's<br>Hospital Research<br>Institute                                  | 12492SUB                  | 9/22/20  | 8/31/25  | Dual targeting of Mtb resistance mechanisms                                                                                                                                                                                                                              | \$155,500   |
| Recruitment          | Willson   | Tim        | Structural Genomics Consortium                                                        |                           | 7/1/21   | 6/30/30  | Structural Genomics Consortium                                                                                                                                                                                                                                           | \$133,333   |
| Recruitment          | Willson   | Tim        | University of<br>Toronto                                                              | 513954 SUBGRANT 1         | 3/22/22  | 2/28/27  | Targeting the casein kinase 1 (CK1)-like kinase Yck2 in fungal pathogenesis                                                                                                                                                                                              | \$310,704   |
| Recruitment          | Willson   | Tim        | Structural Genomics Consortium                                                        | 2024-UNC-1-BMGF           | 9/1/24   | 8/31/26  | Ligandability of Non-Hormonal Contraceptive Drug<br>Targets                                                                                                                                                                                                              | \$287,289   |
| Recruitment          | Wood      | William    | Incyte Corporation                                                                    | MA-GVHD-401               | 5/23/23  | 3/14/29  | A Prospective, Observational Cohort Study of<br>Participants at Risk for Chronic Graft-Versus-Host<br>Disease in the United States (THRIVE)                                                                                                                              | \$60,592    |
| Recruitment          | Wood      | William    | National Marrow<br>Donor Program                                                      | 2207                      | 11/20/24 | 11/18/34 | A Phase II Trial of Non-Myeloablative Conditioning<br>and Transplantation of Haploidentical Related,<br>Partially HLA-Mismatched, or Matched Unrelated<br>Bone Marrow for Newly Diagnosed Patients with<br>Severe Aplastic Anemia                                        | \$11,000    |
| Recruitment          | Yang      | Y. Claire  | The Trustees of<br>Columbia<br>University in the<br>City of New York                  | G19728 1(GG019314-<br>01) | 9/23/24  | 8/31/27  | Engaging aging minds: Labor force participation, stimulating activities, and cognitive aging across diverse international settings                                                                                                                                       | \$45,467    |

| Category                 | Last Name | First name | Sponsor                                                             | Sponsor Award No           | Begin   | End      | Title                                                                                                                                                                                                                                                                                 | Total Award |
|--------------------------|-----------|------------|---------------------------------------------------------------------|----------------------------|---------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment              | Yarbrough | Wendell    | Yale University                                                     | CON-80005428<br>(GR124735) | 7/1/20  | 6/30/25  | Yale SPORE in HN Cancer                                                                                                                                                                                                                                                               | \$155,794   |
| Recruitment              | Yarbrough | Wendell    | NIH National<br>Institute of Dental<br>and Craniofacial<br>Research | 5-U01-DE029754-05          | 7/1/20  | 4/30/26  | 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<br>Institute of Dental<br>and Craniofacial<br>Research | 5-R01-DE031297-01-<br>03   | 3/1/23  | 12/31/27 | Dissecting NF-kB pathway in HPV-associated head and neck cancer                                                                                                                                                                                                                       | \$509,676   |
| Recruitment              | Yates     | Melinda    | University of Texas<br>MD Anderson<br>Cancer Center                 | 3002380000                 | 9/23/23 | 5/31/27  | Overcoming the triple threat to diversity in the health science workforce: empowering the next gen.                                                                                                                                                                                   | \$27,365    |
| Retention                | Yeh       | Jen Jen    | University of<br>Rochester                                          | GR533465<br>SUB000000558   | 2/1/23  | 8/1/25   | A Phase 1b/2 Trial of Immunotherapy With<br>Nivolumab and Pepinemab Combined With First<br>Line Folfirinox For Treating Patients With<br>Unresectable Pancreatic Adenocarcinoma                                                                                                       | \$197,942   |
| Retention                | Yeh       | Jen Jen    | Princeton<br>University                                             | SUB0000542                 | 9/22/21 | 8/31/26  | Pathway, Network and Spatiotemporal Integration of Cancer Genomics Data                                                                                                                                                                                                               | \$87,250    |
| 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   |
| Retention                | Yeh       | Jen Jen    | University of North<br>Carolina at<br>Charlotte (UNCC)              | 20220451-01-UNC            | 8/1/22  | 7/31/27  | Stimuli-responsive mucin1-specific nanoparticles for efficacious combinatorial chemotherapy of pancreatic ductal adenocarcinoma                                                                                                                                                       | \$197,129   |
| Retention                | Yeh       | Jen Jen    | NIH National Cancer Institute                                       | 3-U01-CA274298-<br>03S1    | 9/1/22  | 8/31/27  | Integrating tumor and stroma to understand and predict treatment response                                                                                                                                                                                                             | \$869,831   |
| Retention                | Yeh       | Jen Jen    | NIH National<br>Cancer Institute                                    | 3-P50-CA257911-<br>03S1    | 9/16/22 | 8/31/27  | Selective Targeting of Pancreatic Cancer SPORE                                                                                                                                                                                                                                        | \$2,165,780 |
| Retention                | Yeh       | Jen Jen    | NIH National<br>Cancer Institute                                    | 5-R01-CA288145-01-<br>02   | 2/1/24  | 1/31/29  | Targeting EGFR for basal subtype cancer                                                                                                                                                                                                                                               | \$639,879   |
| Investment<br>(Training) | Yeh       | Jen Jen    | NIH National<br>Cancer Institute                                    | 2-T32-CA244125-06          | 9/20/19 | 6/30/29  | UNC Integrated Translational Oncology Program (UNC-iTOP)                                                                                                                                                                                                                              | \$567,329   |
| Retention                | Yeh       | Jen Jen    | Conquer Cancer<br>Foundation                                        | 24-0994                    | 7/1/25  | 6/30/26  | Liquid biopsy-based molecular subtyping of pancreatic cancers                                                                                                                                                                                                                         | \$50,000    |
| Retention                | Yeh       | Jen Jen    | American College of Surgeons                                        | 25-1121                    | 7/1/25  | 6/30/27  | The role of TNIK (Traf2 and Nck interacting kinase) in pancreatic adenocarcinoma                                                                                                                                                                                                      | \$60,000    |
| Recruitment              | Zaharoff  | David      | North Carolina<br>State University                                  | 501388                     | 9/1/24  | 8/31/25  | Intravesical Immunotherapy of Spontaneous Canine Invasive Urothelial Carcinoma                                                                                                                                                                                                        | \$43,708    |
| Recruitment              | Zamboni   | William    | NIH National<br>Cancer Institute                                    | 5-R01-CA247652-01-<br>05   | 4/1/21  | 3/31/26  | Minibeam Radiation Therapy Enhanced Delivery of<br>Nanoparticle Anticancer Agents to Pancreatic<br>Cancer Tumors                                                                                                                                                                      | \$500,267   |
| Recruitment              | Zamboni   | William    | Wake Forest University Health Sciences                              | 1930-45107-<br>11000001894 | 7/1/23  | 6/30/28  | Nanodelivery of FP polymers to improve treatment of metastatic colorectal cancer                                                                                                                                                                                                      | \$108,013   |
| Recruitment              | Zamboni   | William    | DHHS FDA National Center for Toxicological Research (NCTR)          | 75F40124P00492             | 9/30/24 | 9/29/25  | Evaluating the Effect of Obesity on the<br>Pharmacokinetics and Pharmacodynamics of<br>Monoclonal Antibodies in Pediatric Patients                                                                                                                                                    | \$86,019    |
| Recruitment              | Zeidner   | Joshua     | Beat AML, LLC                                                       |                            | 2/25/19 | 7/21/25  | BAML16-001 (BEAT)_Phase 1/2 Umbrella Study-A<br>Master Protocol for Biomarker-Based Treatment of<br>AML (The Beat AML Trial)                                                                                                                                                          | \$400,255   |
| Recruitment              | Zeidner   | Joshua     | Takeda<br>Development<br>Center Americas,<br>Inc.                   | Pevonedistat-2002          | 1/26/21 | 11/30/24 | A Randomized, Open-label, Controlled, Phase 2<br>Study of Pevonedistat, Venetoclax, and Azacitidine<br>Versus Venetoclax Plus Azacitidine in Adults With<br>Newly Diagnosed Acute Myeloid Leukemia Who Are<br>Unfit for Intensive Chemotherapy.                                       | \$47,383    |
| Recruitment              | Zeidner   | Joshua     | Gilead Sciences,<br>Inc.                                            | GS-US-546-5857             | 11/2/21 | 11/30/24 | 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 MutantAcute Myeloid Leukemia. | \$30,747    |
| Recruitment              | Zeidner   | Joshua     | Newave<br>Pharmaceutical,<br>Inc.                                   | LP-118-US-101              | 5/22/23 | 8/29/31  | A Phase 1/1b Study Evaluating the Safety,<br>Pharmacokinetics, and Preliminary Efficacy of LP-<br>118 in Subjects with Relapsed or Refractory<br>Hematological Malignancies                                                                                                           | \$38,732    |

| Category                              | Last Name | First name | Sponsor                                     | Sponsor Award No       | Begin    | End      | Title                                                                                                                                                                                                                                                                                                                       | Total Award |
|---------------------------------------|-----------|------------|---------------------------------------------|------------------------|----------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Recruitment                           | Zeidner   | Joshua     | Sumitomo Pharma<br>Oncology, Inc.           | DSP-5336-101           | 10/31/22 | 11/6/32  | DSP-5336-101: A Phase 1/2, Open-Label, Dose-<br>Escalation, Dose-Expansion Study of DSP-5336 in<br>Adult Acute Leukemia Patients with and without<br>Mixed Lineage Leukemia (MLL) rearrangement or<br>Nucleophosmin 1 (NPM1) Mutation                                                                                       | \$115,370   |
| Recruitment                           | Zeidner   | Joshua     | Shattuck Labs, Inc.                         | SL03-OHD-104           | 12/24/22 | 1/15/33  | An Open-Label Phase 1a/1b Dose Escalation and ExpansionCohort Study of SL-172154 (SIRP?-Fc-CD40L) in Combination With Azacitidineor With Azacitidine and Venetoclax for the Treatment of Subjects With Higher-Risk Myelodysplastic Syndrome (MDS) or Acute Myeloid Leukemia (AML)                                           | \$330,818   |
| Recruitment                           | Zeidner   | Joshua     | Gilead Sciences,<br>Inc.                    | GS-US-590-6154         | 6/28/23  | 2/28/26  | A Phase 3, Randomized, Double-Blind, Placebo-<br>Controlled Study Evaluating the Safety and Efficacy<br>of Magrolimab versus Placebo in Combination with<br>Venetoclax and Azacitidine in Newly Diagnosed,<br>Previously Untreated Patients with Acute Myeloid<br>Leukemia Who Are Ineligible for Intensive<br>Chemotherapy | \$53,218    |
| 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) innewly diagnosed acute myeloid leukemia (AML) patients ? 60years.                                                                                                                                       | \$82,307    |
| Recruitment                           | Zeidner   | Joshua     | SELLAS Life<br>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                                                                                                                                                             | \$1,210,039 |
| Recruitment                           | Zeidner   | Joshua     | Novartis<br>Pharmaceuticals<br>Corporation  | CABL001AUS08           | 10/23/23 | 12/31/28 | A Phase II Multicenter, Open-label, Single-arm Dose<br>Escalation Study of Asciminib Monotherapy in 2nd<br>and 1st Line Chronic Phase - Chronic Myelogenous<br>Leukemia (ASC2ESCALATE)                                                                                                                                      | \$173,946   |
| 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<br>Inhibitor ZN-d5 and the Wee1 Inhibitor ZN-c3 in<br>Subjects with Acute Myeloid Leukemia                                                                                                                                                                                   | \$35,464    |
| Recruitment                           | Zeidner   | Joshua     | Faron<br>Pharmaceuticals                    | FP2CLI004              | 2/6/24   | 2/23/34  | Phase I/II Open-Label Study to Assess Safety, Tolerability and Preliminary Efficacy of the CLEVER-1 Antibody Bexmarilimab in Combination with Standard of Care Therapy in Patients with Myelodysplastic Syndrome or Chronic Myelomonocytic Leukemia or Acute Myeloid Leukemia                                               | \$60,489    |
| Recruitment                           | Zeidner   | Joshua     | Hoosier Cancer<br>Research Network          | HCRN-AML20-472         | 3/27/24  | 4/7/34   | HCRN AML20-472: Phase II Study of Tagraxofusp in<br>Newly Diagnosed Secondary AML after Previous<br>Exposure to Hypomethylating Agents (TAGALONG<br>Study)                                                                                                                                                                  | \$45,043    |
| Recruitment                           | Zeidner   | Joshua     | Beat AML, LLC                               | T23-03                 | 3/7/24   | 4/3/34   | A comparator study of a Tasso device to traditional venous blood sampling methods for complete blood count (CBC) with 5-part differential in patients with leukemia, lymphoma, and/or other blood cell disorders                                                                                                            | \$101,403   |
| Theme<br>Investment<br>(Biostatistics | Zou       | Fei        | Vanderbilt<br>University Medical<br>Center  | VUMC102856 25-<br>0837 | 12/10/21 | 5/31/25  | Vanderbilt University: Biostatistics Fellowship                                                                                                                                                                                                                                                                             | \$10,513    |
| Investment<br>(HTSF)                  | Zylka     | Mark       | University of<br>California at San<br>Diego | 706661                 | 9/1/23   | 8/31/26  | Testing Optimal Gene Editor for an Alzheimer's CRISPR therapeutic                                                                                                                                                                                                                                                           | \$201,303   |

