

2022 Lung Cancer Initiative Program Impact Highlights

ABOUT US

Our Mission

Our mission is to advance survivorship and provide support to those affected by lung cancer through research, education and access programs.

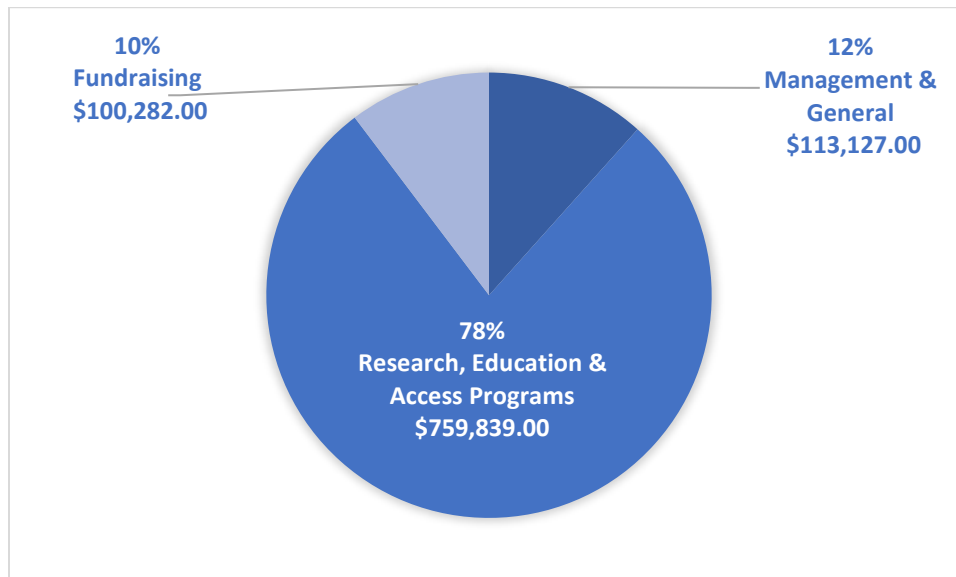
Our Vision

To improve life for everyone affected by lung cancer.

Our Core Values

- Passionate support of survivorship
- Building Community
- Compassion
- Empathy
- Transparency
- Integrity
- Professionalism
- Responsible stewardship

Expenses for Fiscal Year 2021



**2021 Audited Financials*

View our [audited financials](#) and [990](#) online.

RESEARCH

In 2022, LCI awarded \$375,000 in lung cancer research through our Research Fellowships, Career Development Award, Vicky Amidon Innovation in Lung Cancer Research Award and a special Alumni Supplemental Grant. Since 2008, LCI has funded more than \$3 million in lung cancer research to 58 researchers with the majority of the funding remaining in North Carolina.

2022-23 Research Fellowship Program

The purpose of the Research Fellowship program is to further the development of local lung cancer care and research programs across the state of North Carolina. By funding research activities of fellows, our goal is to help to further their careers and encourage their continued involvement in the field of lung cancer.

2022-23 Research Fellows



Sara R. Cowles, DO, East Carolina University

Project: An Investigation of Inflammasome Markers in non-small cell lung cancer treated with immune checkpoint inhibitors (Mentor: Li Yang, PhD)



Shivani Sud, MD, University of North Carolina at Chapel Hill

Project: Circulating tumor cell kinetics during radiation therapy and post-treatment surveillance in non-small cell lung cancer (Mentor: Ashley Weiner, MD, PhD)

Career Development Award

Through the \$150,000, two-year Career Development Grant, LCI supports emerging research leaders who plan to continue their career in the field of lung cancer. The researcher's project must be focused on basic scientific research with the goal of impacting lung cancer care, including lung cancer prevention, diagnosis, treatment, or survivorship.

RESEARCHER SPOTLIGHT



**UNC Lineberger
Comprehensive
Cancer Center**

**2021 Career
Development Award**

Dr. Emily Ray is a medical oncologist with a clinical practice caring for patients and a cancer researcher with a strong interest in finding ways to "improve health systems to improve outcomes for patients."

As a part of her work funded by the LCI Career Development grant, Dr. Ray is focused on patients with newly diagnosed advanced lung cancer. About one-third of these patients are hospitalized within 7 days of diagnosis.

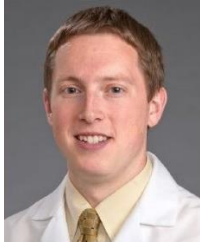
This goal of this study is to identify ways to predict which of these patients, following their initial hospitalization, are at highest risk for further hospitalization.

According to Dr. Ray, "This work is actually going to allow us to implement a risk stratification system...where we identify those who are highest risk for coming back to the hospital, and then put some additional supports around those patients to try and lower their downstream risk."

Hear more from Dr. Ray in the below video.



2023 Career Development Award Recipient



Thomas Lycan, DO, MHS, Wake Forest University Health Sciences
Project Title: Phase II pilot study of quick start durvalumab following chemoradiation for stage III non-small cell lung cancer

Dr. Thomas Lycan and his research team at **Wake Forest Baptist Health** will conduct a clinical trial to test the quick start of durvalumab immediately after chemoradiation. Although the standard treatment includes a rest period of three to six weeks before starting durvalumab, more evidence suggests that quickly starting immunotherapy immediately after chemoradiation may increase the chance of a cure. Dr. Lycan and his team will measure how many patients have different barriers to quickly starting immunotherapy after chemoradiation and will start collecting information on how well this approach works. This pilot study of a small number of patients will gather critical information on implementing this approach and collect blood tests on how the immune system behaves differently.

“The information from this pilot study is necessary to plan a future clinical trial that will enroll hundreds of patients to test whether an early first dose of durvalumab works better than a placebo,” said Lycan. “Whether positive or negative, this line of research will change the care for many patients by providing guidance on the best time to start durvalumab, which is not currently known.”

Vicky Amidon Innovation in Lung Cancer Research Award

The Vicky Amidon Innovation in Lung Cancer Research Award is named in memory of Vicky Amidon a beloved wife, mother, and friend who lost her battle with lung cancer at the age of 44 and whose memory is furthered through her family’s advocacy and support for the advancement of lung cancer research and awareness. The one-year, \$25,000 award recognizes and supports researchers who are developing innovative lung cancer projects that will improve the lives of those at risk of or living with lung cancer.

Limei Shen, PhD, UNC Chapel Hill



Dr. Limei Shen plans to engineer modulators that can normalize immunosuppressive environments to enable enhanced therapy for non-small cell lung cancer (NSCLC), while also creating a microenvironment suited for suppressing tumors. These are known as biTEM or bispecific tumor-microenvironment modulators. Shen will also design antibodies which help evaluate whether these biTEMs would be more effective at suppressing tumors with the addition of a bispecific antibody.

For the future of her work, Shen is optimistic. “I hope my study and strategy could someday benefit clinic patients,” she said.

Cody McHale, PhD and Anna Ivanina Foureau, PhD, Atrium Health



Epidermal growth factor receptor (EGFR) mutations are one of the most common molecular subtypes of non-small cell lung cancer and can be treated with EGFR targeted therapy, tyrosine kinase inhibitors (TKI). While EGFR targeted therapy generates good response rates, patients inevitably develop resistance to these treatments. Mechanisms of resistance to EGFR TKI are poorly understood, but it's known that drug-induced changes to tumor metabolism, tumor signaling, and local immune cell function are major contributors. In this study, Drs. Cody McHale and Ivanina Foureau propose to use their novel dual-target drug, LCI28, to disrupt drug-induced NSCLC reprogramming and stimulate anti-tumor immunity.

“By equipping a single drug with multiple warheads against cancer, this research may pave the way to limiting such side effects while maintaining high potency against cancer,” McHale said.

Alan Chen, PhD, Duke University



Checkpoint inhibition therapy has proven to be effective in combating NSCLC by reversing inhibition of T cells. B cells that make antibody immune proteins are also important for the anti-tumor response of the body. In patients who respond well to the checkpoint therapy, there are proteins on the tumor cell surface recognized by the patient's own B cell immune system as part of the anti-tumor response. By designing antibodies that target these tumor proteins, Dr. Alan Chen hopes to boost the effectiveness of checkpoint inhibition therapy, especially in post-treatment patients whose cancer continues to progress.

“This award will allow me to continue the discovery of novel tumor-associated antigens recognized by plasma cells in checkpoint inhibitor-treated NSCLC,” said Chen.

Alumni Supplemental Grant

LCI's Alumni Supplemental Grant celebrates the organization's 15th year as a 501 (c)3 by helping lung cancer researchers who have previously been funded by LCI to advance studies that are already underway and where additional funding is necessary to cover the cost of unanticipated time or resources needed to further the study or expand the original aims of the study.

Alumni Supplemental Grant Recipient



Chad Pecot, MD, Lineberger Comprehensive Cancer Center
Project Title: Mechanistic and therapeutic implications of co-targeting KRAS and MYC in lung cancer

Use of treatments that block mutated cancer genes has resulted in huge improvements in cancer care. Despite this progress, two well-known genes, called KRAS and MYC, which have important roles in lung cancer, have been elusive for drug makers. **Dr. Chad Pecot** and his team at **UNC Lineberger Comprehensive Cancer Center** have developed a new RNA-based drug that is targeted to the tumor cells and can simultaneously silence both KRAS and MYC. This project seeks to determine how a tumor may respond to this aggressive treatment.

“This work will help us understand the complex environment that supports tumor growth and can help pave the way to newer medicines for lung cancer care,” said Pecot.

ACCESS

LCI is dedicated to assisting those affected by lung cancer through our access programs, designed to support patients in accessing appropriate education, screening, biomarker testing, treatment and clinical research.

Access to Care Gas Card Program

The Access to Care Gas Card Program supports patients in accessing appropriate care and treatment, including clinical trials. Patients may receive up to three \$50 gas cards annually. In 2022:

- **461 \$50 gas cards were provided to 355 patients.**
- **Patients resided in 78 counties in North Carolina.**

Patient Emergency Fund

To support lung cancer patients who were financially impacted by the coronavirus pandemic, LCI established the Patient Emergency Fund in 2020 to help lung cancer patients stay healthy and to meet their basic needs. Recognizing the continued financial burden of a cancer diagnosis, LCI continued the program into 2022:

- **105 patients each received a \$200 stipend for a total of \$21,000 in funding.**
- **98.1% of recipients indicated an annual household income of \$49,000 or less.**
- **61.8% of recipients identified as White/Caucasian and 30.9% as Black or African American.**

REACH Community Grant Program

The Lung Cancer Initiative’s REACH Community Grant Program aims to empower and support community organizations to fill a gap in lung cancer care within their local communities. This program awards funding of up to \$10,000 to support community-based organizations and non-profit institutions in their collaborative efforts to holistically assist the entire lung cancer community, particularly those who are uninsured, underinsured, and most impacted. Formerly the Access Grant program, this program began in 2016 and has collectively awarded **\$135,000 to 13 community organizations** across North Carolina.

In 2022, LCI awarded two \$10,000 grants to **Healing Pines Respite** and to **Outer Banks Health**.

FROM A RECIPIENT

“This program has been a great blessing for me. I’m a senior on a low fixed income. So, when I was told about the gas card program I was thrilled. It really is a big help, especially with gas prices. I’m able to drive myself to the cancer center for doctor appointments, for labs and CT and Pet scans. I don’t have to rely on finding someone available to take me here and back. As I live about 30 minutes from the facilities which makes it harder on finding the extra cash for gas.... It is a nightmare when anyone is diagnosed with any kind of cancer. But, it’s great to know resources like your program can offer some help and support so we can focus on the treatment we need to deal with.”

EDUCATION

LCI is dedicated to furthering education about lung cancer through community and provider education initiatives. Throughout 2022, educational opportunities were designed to be accessible to all of those who were seeking it and to focus on timely topics including clinical trials and comprehensive biomarker testing.

Community Education Series

LCI relied on partners across the state to deliver community education to 126 participants through five community education programs including treatment updates and challenges, comprehensive biomarker testing and clinical trials. This year's series was tailored to meet specific interests and needs of participants and topics. All programs were offered virtually and can be [viewed online](#).

2022 Lung Cancer Initiative Advocacy Summit



From hearing about the power of our own personal stories, to discussing the importance of taking care of our mental health, to learning about updates in lung cancer treatments and statistics in NC, this year's Advocacy Summit provided important tools, information and networking for participants.

The video recordings of this year's presentations are available on our You Tube channel: [Watch Now](#)

Provider Education Summit

In August, 24 providers came together for a virtual summit all about "A Comprehensive Approach to Treating Lung Cancer." Thought leaders from across North Carolina presented information to community oncologists on topics including lung cancer screening, disparities in lung cancer care, advancements in treatment, surgical treatment of lung cancer and comprehensive biomarker testing.

Lung Cancer Screening

In December, LCI sponsored the annual **North Carolina Academy of Family Physicians Conference** including a keynote presentation about lung cancer screening to more than 700 registered participants by Dr. Michael Gieske. LCI also organized a break-out session for 60 registered participants about “A Small Community Perspective on Lung Cancer Screening” led by Dr. Trey Shelton and Dr. Thomas Crabtree from the Outer Banks Hospital.



LCI additionally partnered on a number of screening community awareness events including one at UNC Chapel Hill and one at Onslow Memorial Hospital.

SURVIVORSHIP



Throughout the year, we remained focused on looking for ways to keep lung cancer survivors and their loved ones connected across North Carolina. One-hundred twenty-three survivors engaged with us through a variety of opportunities throughout the year including our weekly luncheons and annual Survivor’s Day Celebration in June.

Survivors’ Luncheon Series

This series was originally developed out of necessity when in-person meetings became difficult early in the pandemic. This series has continued to evolve and is an opportunity for survivors to meet and network with other survivors. The group meets the first Wednesdays of every month and includes opportunities to socialize as well as topics of interest to attendees including exercise, nutrition and mindfulness-based stress reduction.

Wellness Retreat

Wind River Cancer Wellness Retreats led the fifth annual Lung Cancer Survivor Wellness Retreat funded by LCI in coordination with the Triangle LUNGe Forward in September. Ten lung cancer survivors and an all-survivor led team participated in this event to teach wellness and stress reducing techniques as well as to foster a network among survivors.

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