



Director's Overview

The view from over here...

Erin Schenk, MD, PhD

Traditions were started again for the Thoracic Oncology program as we welcomed, in person, our patients and their loved ones to the 2023 Lung Cancer Survivorship Celebration. This event recognizes the increasingly common reality that patients with a diagnosis of lung cancer can survive for years. What I learned this year is that this celebration with our patients and their loved ones goes beyond that single day. As I walked with a new patient after our appointment, she stopped in front of the photos from a previous survivorship celebration. She asked where the photos were taken and after hearing about the event said, "I'm going to make it to one." She left that day with a new hope she couldn't dare to feel before. This hope was a gift.

The Thoracic Oncology program across the University and UHealth is dedicated to continuously improve on this hope. Our program produces the highest survival rates for patients diagnosed with lung cancer in the state of Colorado thanks to our multidisciplinary approach, deep specialization in all types of thoracic cancer, robust availability of clinical tri-

als, and support for scientists exploring new treatment avenues for lung cancer.

The Lung Cancer Colorado Fund (LCCF) was founded to help us deliver on this hope. For this year's LCCF newsletter I selected just a few stories that highlight our dedication to deliver the best care now and develop better approaches for the future. If you or a loved one is impacted by a thoracic cancer, please support the LCCF. Your donation of any amount is a gift of hope for our patients today and tomorrow. Our LCCF website includes an archive of all the past newsletters and details of where every dollar has gone. What will the future hold for those affected by thoracic cancers?

You get to decide.



2023 5+ Years Lung Cancer Survivor Celebration



After Lung Cancer Clinical Trial, Betty and Bill Moren Give Back as Patient Advocates for Thoracic Oncology Research Group

The couple shares Betty's lung cancer experience with CU Cancer Center investigators.

By Greg Glasgow on November 2, 2023

A clinical trial for lung cancer at the University of Colorado Cancer Center saved Betty Moren's life. Now Betty and her husband, Bill, are giving back as patient advocates for the Thoracic Oncology Research Initiative (TORI), which brings together physicians and scientists across the CU Anschutz Medical Campus and Cancer Center to advance lung cancer research.

"Bill and Betty remind us what we are fighting for, since Betty is still dealing with the daily life of treatment," says TORI director Sharon Pine, PhD. "Our patient advocates help us to understand the patient perspective how what we are doing might be perceived by patients or how it might impact them."

The Morens joined the TORI meetings at the beginning of 2023, putting a human face on lung cancer treatment and providing patient perspective. Early on Bill about Betty's lung cancer experience for the researchers.

"After he did the presentation, a lot of researchers came up to me and said, 'Wow, we didn't

know everything you've been through," Betty says. "It was really good for them to hear about my story and get some perspective as to why they're doing what they're doing."

A stage 4 diagnosis

Betty's lung cancer journey began early in 2017, soon after the couple moved from Massachusetts to Colorado. Painful chest and back spasms took her to the emergency room, where a CT scan revealed a mass in her right lung. A few days later she got the diagnosis: stage 4 non-small cell lung cancer. She was told she had six to nine months to live.

The Morens came to the CU Cancer Center for treatment and Betty started chemotherapy in hopes of shrinking the tumor and stopping the disease's progression.



Betty Moren had a surprise birthday party at the UCHHealth infusion center in Lone Tree.

Clinical trial to the rescue

Betty stayed on a maintenance dose of chemotherapy for another year and then an immunotherapy drug worked for 2 years, until it began losing its effectiveness. Betty's oncologist began looking for clinical trials and found one — a drug called sacituzumab govitecan (Trodely) that was being investigated by CU Cancer Center member and thoracic oncologist, Ross Camidge, MD, PhD.



Betty Moren with her dog Bailey.

"Trodely was plan B," Bill says. "We had to quickly pivot to plan B, which in retrospect was a blessing, because it's done so well."

That plan B has now kept Betty's disease under control for more than 2 years. She gets an infusion 2 out of every 3 weeks, dosed with a targeted chemotherapy drug that works by delivering a big dose of the chemotherapy to cancer cells that express a specific marker and a much lower dose to normal cells that don't have the marker.

"It's what you might call smart chemotherapy," says Camidge, who is now Betty's oncologist. "It's the kind of chemo we've wanted, as opposed to the chemo we've had for decades."

Betty benefited from receiving her care at the CU Cancer Center, Camidge says, where clinical trials are a major part of the treatment arsenal.

"There are a gazillion clinical trials out there, and not all of them make sense for a specific patient," Camidge says. "But over the past two decades, we've learned how to pick the winners early. We're offering people access to treatments we think have a reasonable chance of being the new standard of care, years before they're widely available."

'The happiest I've ever been'

Betty's new treatment is not without its side effects — it turns out the drug can also affect the hair follicles. She also deals with nausea, fatigue, and vertigo, but paradoxically, she says she's the happiest she's ever been.

She's being treated by a dedicated team that includes one of the most-respected lung cancer doctors in the world, she has a new appreciation for her good health, and she has an important role representing other lung cancer patients. She has even created a line of greeting cards for people with serious cancer diagnoses. They are sold at businesses in Castle Rock, and Betty sells them online as well. Proceeds go to fund lung cancer research at the CU Cancer Center.

"Betty and Bill are an inspiring couple, devoted to each other," Pine says. "They remind us of the importance of hope, the need to see each patient individually, and that we should be more transparent about the research being done on our campus."

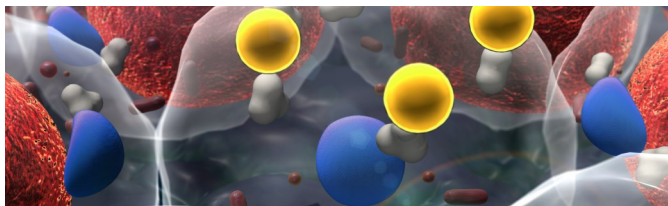


Betty in the studio where she creates greeting cards.

CU Cancer Center Researcher Receives Gilead Grant to Study Persister Cells in Lung Cancer

Tejas Patil, MD is researching how persister cells evade treatment

By Greg Glasgow on June 19, 2023



Cancer researchers have long been interested in how resistance develops to targeted therapies aimed at specific mutations. Though the therapies provide significant remission at first, the cancer eventually finds a way to return.

A related but less studied phenomenon in lung cancer is that of “persister cells” — cancer cells that never respond to targeted therapies and are still visible on scans even after treatment has begun. Though persister cells are dormant at first, they can eventually adapt to therapy and start growing again.

The role of MET

Thanks to a grant from the Gilead Sciences Research Scholars Program, University of Colorado Cancer Center member Tejas Patil, MD, is launching a study to better understand how persister cells survive in the presence of targeted therapy and what methods might be used to target them to improve patient survival.

“Our thought is that these cancer cells that are still around have an adaptation that allows them to survive despite drug,” says Patil. “We’re really interested in understanding what’s happening on a single-cell level with those cancer cells. We’re specifically interested in a signaling pathway called the MET pathway and how that may play a role in allowing these cells to survive in the presence of targeted therapy.”

Using RNA sequencing and spatial multiomics, Patil and his team will compare tissue samples

taken when the patient is first diagnosed and at 8 weeks after treatment begins. They will be looking for increased expression of MET and other proteins that could be targeted to eliminate persister cells.

Improving outcomes

MET is a common pathway used by cancer cells to escape the effects of treatment. That history gives Patil confidence that MET is also being used by persister cells to evade therapy. If his hypothesis is correct, a MET inhibitor, given early in the treatment process, could destroy persister cells and prevent them from contributing to treatment resistance down the line.

“Based on our data, we can look at developing a consolidation strategy,” he says. “If MET is highly activated 8 weeks after therapy begins, we can consider adding in a MET inhibitor to try to eliminate the persister cell population. Hopefully that approach will allow a patient to remain on their targeted therapy for even longer.”

“This award will allow us to start asking important questions about these persister cell populations and seeing if there are any therapeutic vulnerabilities we can potentially target,” he says. I’m really honored to have received it.”



Tejas Patil, MD

New Treatment Paradigm Helps Lung Cancer Patient Thrive at CU Cancer Center

Erin Schenk, MD, PhD, used a neoadjuvant approach to shrink Kathy Ballard's tumors prior to surgery.

By Greg Glasgow on July 20, 2023

There's no such thing as perfect timing when it comes to lung cancer, but Kathy Ballard got pretty close.

Ballard was diagnosed with stage III lung cancer in early 2022, soon after the U.S. Food and Drug Administration approved a new course of treatment for patients in her situation. A "neoadjuvant" or presurgical course of immunotherapy and chemotherapy had recently been found in clinical trials to give patients with lung cancer a better chance of survival.

"There is data that suggests this approach works better because there are tumor cells to target," says University of Colorado Cancer Center member Erin Schenk, MD, PhD, Ballard's medical oncologist. "That means that when the immunotherapy is given, there's fuel supporting the immune system attacking the cancer."

Ballard bore out the promise of the clinical trials perfectly — after chemotherapy and immunotherapy, the tumor in her lung and lymph nodes shrunk considerably even before surgery.



CU Thoracic Multidisciplinary Clinic



Kathy Ballard and her husband, Jim.

"I could tell the treatment was working because her breathing got significantly better," Schenk says. "She needed oxygen before starting treatment, but after her first course she noticed her breathing was great without the oxygen and that's an incredible, positive sign."

It started with a cough

For Ballard, now 77, the ordeal began with a persistent cough that kept coming back. She went to urgent care and even the ER, but it wasn't until the third X-ray that her primary care physician saw cause for concern. A follow-up CT scan at UCHHealth, the clinical partner of the CU Cancer Center, revealed a tumor in her lung that had spread to a nearby lymph node.

"Kathy came to us through our thoracic multidisciplinary clinic, where surgeons, radiation oncologists, medical oncologists, radiologists, pathologists, pulmonologists — everyone who touches a patient who has a new diagnosis of lung cancer and potentially treats them in some way — are all part of this group," Schenk says. "At these meetings we look at a patient's images, hear their history, and discuss how we can best help the patients that we're seeing that day."

In Ballard's case, that meant the presurgical combination of chemotherapy and immunotherapy that, by the time her surgery rolled around in August 2022, made the procedure less complicated than her surgeon, CU Cancer Center member John Mitchell, MD, originally predicted.

“At one point in the beginning, the surgeon said the cancer was in the lower lobe of my right lung, but he might need to remove the rest,” Ballard says. “As it turned out, because of the chemotherapy, they only needed to take the bottom lobe and the middle lobe of my lung. The top was clear. That made a big difference.”

Coming back to myself

Recovering from her treatment, as well as the surgery, was a long road, but it was worth it to be cancer-free, says Ballard, who still comes to the CU Cancer Center regularly for follow-up CT scans to make sure the cancer hasn't spread.

“I am starting to feel like I'm coming back to myself,” she says. “The last time I saw Dr. Schenk, I came out, for the first time, feeling like I had a clear future. And I'm optimistic. It's taken me that long afterward even to absorb it. I didn't want to believe I was cured if it wasn't going to happen.”

Through it all, she says, the support of her husband and children gave her the strength she needed to carry on.

“The depth of the support they gave me made me much more appreciative of the love that I have in my world,” she says. “I hope I don't ever take any of this for granted. I hope I can always remember how we got through this together.”

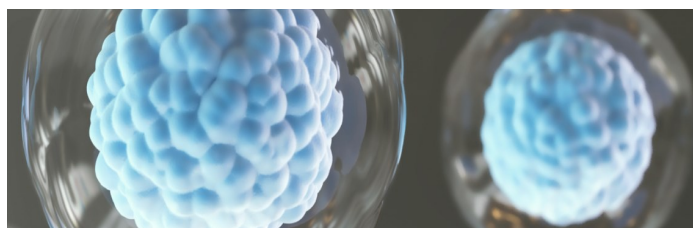
The importance of an academic cancer center

Ballard had many options for her cancer treatment, but the fact that she came to the CU Cancer Center made a huge difference in her care, Schenk says.

“We're an academic center that's really involved in lung cancer therapy developments. We were all very up to date on the newest therapies for patients and the instant this treatment approach was approved, truly, as a group, we shifted our practice overnight,” she says. “We had this new information that told us we're going to do better by our patients if we give treatment upfront before surgery. Kathy benefited because she met

with a group that knew their stuff and was ready to change the instant the data told us there was a better way to go about treatment.”

If there's one message Schenk wants to get out to people with lung cancer, as well as their families, it's that there is hope when it comes to the disease. Ballard's case is a great illustration of the ways in which treatments are changing and improving all the time.



Studying the Role of Sox9 in Lung Cancer

CU Cancer Center researcher Sharon R. Pine, PhD, showed that overexpression of the transcription factor results in resistance to immunotherapy.

By Greg Glasgow on July 24, 2023

New research led by Sharon R. Pine, PhD, director of the University of Colorado Cancer Center's Thoracic Oncology Research Initiative, may help doctors understand why some lung cancer patients don't respond to immunotherapy.

The paper, in the journal *Oncogene*, examines the role of the transcription factor Sox9 in lung cancers with the KRAS mutation. An error in a protein responsible for normal cell growth, KRAS occurs in around 25% of all lung cancers.

Creating a cold environment

Using animal models and human lung tumors, Pine and her team found that the overexpression of Sox9 in KRAS-positive lung cancer creates an “immune cold” condition in the tumor, meaning the immune system is not doing a good job of controlling the cancer. This may be why some patients with this mutation don't respond to immunotherapy, which harnesses the immune system to fight cancer.

Potential immunotherapy biomarker

Sox9 is a developmental protein that is usually downregulated at birth, but some cancer cells learn how to turn the pathway back on and use it to evade immunotherapy. Eventually, Pine says, lung tumors could be tested for high levels of Sox9 so oncologists could add a immunotherapy drug to counteract its effects.

The first step is to explore datasets from immunotherapy trials to see how Sox9 expression is associated with response to immunotherapy.

“Our hypothesis is that it offsets the normal process of anti-tumor immunity,” Pine says. “Maybe there’s something in that pathway that we can find a new therapy for, to turn the immune system back on.”

More options for patients

“Not every patient responds to immunotherapy,” Pine says. “By further studying Sox9 we may have a test to identify good candidates for the currently available immunotherapy, or if we could give them another therapy that might work better. There’s a lot of interest in finding accurate biomarkers to guide decisions about immunotherapy.”



Sharon Pine, PhD



Lung Cancer Survivorship Celebration Emphasizes Hope and Optimism

Event honoring those at least five years into their lung cancer survivorship highlights research and innovation happening at CU.

By Rachel Sauer on May 5, 2023

Paul Herzegh’s lung cancer story began six years ago on a beautiful April morning, roadtripping back home to Boulder from visiting friends in Virginia. He was 68, in otherwise good health,

and felt some small kinks in his chest.

Hardly any time later, he had a diagnosis: stage 4 lung adenocarcinoma. At that point, he didn’t know much beyond “the conventional wisdom that ‘lung cancer is a killer,’” he explained Saturday evening, emphasizing the air quotes because, well, the conventional wisdom was wrong.

Like others at the Lung Cancer Survivorship Celebration 2023, he was at least five years beyond his diagnosis, having found a way to confidence and optimism on his survivor journey.

“Because of the innovation happening on this campus, people who aren’t here yet – who are going through treatment – can feel hope that one day they will join us at this event,”

said University of Colorado Cancer Center member Erin Schenk, MD, PhD, assistant professor of medical oncology in the CU School of Medicine and event organizer. “We hope to be able to fill many rooms like this with survivors.”



Erin Schenk, MD, PhD, speaks at the Lung Cancer Survivorship Celebration 2023

Innovation and patient care

The Lung Cancer Survivorship Celebration, held for the first time since 2019, honored not only those who were at least five years into their lung cancer survivorship, but the caretakers, clinicians, researchers, and many others who have helped the CU Thoracic Oncology Program develop into a lung cancer leader in which survival and clinical trial participation rates are well above national averages.

“The Anschutz Medical Campus has an amazing level of support and infrastructure,” said Sharon Pine, PhD, director of the Thoracic Oncology Research Initiative. “This is a place where we can take the most important, unmet clinical needs directly to the laboratory. There’s a can-do attitude where you have an idea and everyone says, ‘Wow, go for it.’”

Wells Messersmith, MD, associate director of clinical services in the CU Cancer Center, emphasized that even as the CU Cancer Center grows, clinicians and researchers remain committed to advancing science and treatment to benefit patients throughout the region. “We are

well-positioned to take advantage of novel therapies such as genetically engineered CAR T-cell infusions,” Messersmith said. “Every day, we’re trying to hold ourselves to the highest standards for our patients.”

It was that continual striving for excellence that helped Herzegh, in part, emerge from a mindset of everything being wrong – prompted by “some inadvisable time Googling,” he said – to a place of confidence in the medical resources available to him and “optimism that I could find a way through my state of disease.”

His multidisciplinary treatment team found Herzegh’s cancer had a high expression of PD-L1, and for three years he responded well to the immunotherapy pembrolizumab. Then the cancer that spread to some lymph nodes was successfully treated with radiation, and when new tumors were discovered in his lungs during the third year of his lung cancer journey, four cycles of chemotherapy quieted “the civil war that had been going on in my chest,” Herzegh said.



Tejas Patil MD, performs at the Lung Cancer Survivorship Celebration 2023

Living bigger and bolder

For Heather Smith, who flew in from Wisconsin for the celebration Saturday, being diagnosed seven years ago with stage 4 ALK-positive lung cancer forced her to realize that living for her

had to mean more than just “moving my human meat suit through the day, not knowing if I was living or dying, telling myself I was never going to hear the coveted words ‘you are in remission,’” she said.

After reaching a very low point in August 2019, when her brain metastases were racing almost out of control and she had multiple seizures while walking her dogs one evening, she heard the voice of her aunt, a two-time cancer survivor. In her head, Smith heard her aunt say, “You are doing this wrong.”

She had gone from a bright, bubbly ray of sunshine to a sad woman whose thoughts created a life of drudgery, and she was done being that sad woman.

To her fellow survivors, she said, “Despite perpetual reminders of your own mortality, you’re here living a bigger, bolder, more beautiful life because of cancer. Focus on the life that feels amazing to you. I live with my diagnosis more

peacefully now than I did in year one, because it does not live my life for me. I do.”

Herzegh, who has learned to wake surf and trained as a pilot since his diagnosis, echoed the sentiment: “Just keep up the damn good fight. Enjoy every day, enjoy every year that your success brings. I look forward to seeing each and every one of you here again next year.”

SAVE THE DATE

2024 5+ Years Lung Cancer Survivor Celebration

- **Date:** May 11, 2024
- **Time:** 1–3pm
- **Location:** Donald M. Elliman Conference Center in the Health Sciences Building

Putting kindness first as she copes with lung cancer

Melissa Turner has coped with Stage IV lung cancer and the loss of a sister to COVID-19. Still, no matter how poorly she feels, she's been bringing creative treats to hospital staffers for more than two years.

By Katie Kerwin McCrimmon, UCHealth

Unimaginable sorrow in Melissa Turner’s life led her to be unimaginably kind to health care heroes.

Melissa has been coping with Stage IV lung cancer since 2018.

By chance, at a fundraising event just before the pandemic began, Melissa met Dr. Marc Moss, a pulmonologist and critical care doctor at UCHealth University of Colorado Hospital.

Moss and his colleagues have worked on the front lines of the pandemic. They tend to the sickest patients who need care in special COVID-19 Intensive Care Units (ICUs).



Cancer patient, Melissa Turner, has brought treats to health care heroes every couple of weeks for more than two years. As Turner has coped with Stage IV lung cancer, she has focused on hope and kindness. She also got to fulfill a dream and travel with her husband, Jim, to Africa.

In December 2020, Melissa reached out to Moss and offered to bring treats. “I wanted to say thanks to the ICU team and to my lung cancer team, who were keeping me alive,” Melissa said.

Melissa’s kindness to health care heroes in Colorado became even more poignant after the tragic loss of her sister. While the California team could not save her sister, nurses and doctors spent hours talking to Melissa and put the phone to her sister’s ear so she could hear her voice. Melissa felt all the more motivated to keep the treats coming. And the UCHHealth doctors and nurses were in awe of the kindness that sprang from both a lung cancer journey and personal loss.

During a recent infusion appointment, Melissa’s care team decided to turn the tables and do something kind for her.

So, they organized a tea party.



Barbara Wenger, left, and Traci Priebe, right, helped throw a tea party for Melissa Turner, center, who has been living with lung cancer since diagnosed in 2018. Photo by Katie McCrimmon.

Tea party gratitude

Before the pandemic, Melissa often brought friends and shared tea with them during her infusion appointments.

When Melissa arrived for an infusion appointment in early December of last year, she walked into a small treatment room and was stunned to

find a group of nurses and doctors who created a celebration for her.

They decorated the room. A comfy blanket and a backpack full of goodies sat on the hospital bed. A cheery tray of tea wrapped in spiffy yellow boxes greeted her.

When Melissa walked in to find a surprise tea party, she was shocked and felt like a VIP.

“You took my breath away in a good way,” she told a room full of caregivers at the cancer center. “I was having a hard time. I was feeling low-energy today, and the thought of doing an infusion again was tough. Thank you.”

Treats lifted the spirits of weary health care workers

The nurses and doctors who have received Melissa’s gifts all have been deeply touched.

“As the pandemic went on, things got harder for those working at the bedside,” said Olivia Thornton, a nurse manager who used to head COVID-19 ICUs.

Yet, every couple of weeks, treats from Melissa would arrive and hospital workers felt the love, Thornton said.



Melissa Turner loves being creative. When she travels, she looks for fun treats to bring to hospital heroes. She recently brought fun gummy lobsters from Massachusetts and special bread a friend makes to support Ukrainian people. Photo by Traci Priebe for UCHHealth

A terrible diagnosis of lung cancer; a wonderful team and support group

Melissa first learned that she had lung cancer back in 2018. She had never smoked, but still faced a frightening prognosis since her cancer already had spread.

A cousin of Melissa's in Washington, D.C. put her in touch with an endocrinologist who recommended a Colorado lung cancer expert, Dr. Ross Camidge. At the time, Melissa was getting care elsewhere.

Camidge's team reached out almost immediately. Melissa nearly skipped returning the call.

"I was ignoring him," Melissa said with a laugh.

Little did she know that Camidge is one of the top lung cancer experts in the world and that innovations in cancer care and treatments have dramatically prolonged life for people like Melissa.

Finally, she decided to see Camidge for what she thought would be a quick, 15-minute second opinion. Instead, she spent hours with Camidge, who recommended a clinical trial.

"That's why I'm still alive," Melissa said.



Melissa Turner has been bringing treats to hospital heroes every couple of weeks for more than two years. Here, she poses with her husband, Jim, during a safari in Africa. Photo courtesy of Melissa

Staying alive to bring kindness to others, visit Africa and welcome new grandbabies

Camidge and his team have tried to help Melissa stay one step ahead of her cancer. (She is also a breast cancer survivor.) The clinical trial drugs, which included one immunotherapy medication and two chemotherapy drugs, worked for her. But it wasn't working for everyone on the trial, so the drug company canceled the trial. Camidge duplicated the therapies for Melissa, and has continued to modify her treatments over the years.

The time she has gained has allowed Melissa and her husband to fulfill big dreams.

"We got to go to South Africa, Zimbabwe and Tanzania in April of 2019. We timed the trip around my treatments. Going there was a dream of mine since I was really little," Melissa said.

Becoming grandparents has brought great joy too.

Jim Turner said his wife has a gift of bringing joy wherever she goes.

"She's amazingly positive with everyone we meet. She's got a ton of great friends. We've been married going on 39 years," Jim said.

Facing health challenges has been difficult, of course, but lung cancer also clarifies the meaning of life.

"I would not choose to be here," Melissa says of enduring chemotherapy infusions.

"But, I would choose to be here," she says, gesturing to a team of health care workers who all appreciate her deeply.

"She reminds us why we went into health care," said Traci Priebe, an ICU nurse who has loved Melissa's treats and helped throw the tea party.

Said Priebe to Melissa: "By being the person you are, through your kindness and compassion, you make us better health care providers."

TORI's Scientific Expedition: Trailblazing the Future with LCCF-Funded Research

By Sharon R. Pine, PhD

The Thoracic Oncology Research Initiative (TORI) is a cornerstone program at CU, bringing together the full range of basic science to clinical projects investigating lung cancer and other thoracic cancers. Clinicians and scientists from diverse medical disciplines, departments and centers across the campus collaborate to conduct important, cutting-edge lung cancer research in areas including lung cancer prevention, smoking cessation, treatment of pre-cancerous lesions, and improving current clinical therapies like targeted therapies and immunotherapy. Programmatic decisions are discussed with the TORI Executive Committee which includes faculty specializing in all aspects of lung cancer research and are dedicated to the success of TORI. Monthly Research in Progress meetings encourage even more lung cancer research on campus and allows us to dive deep into each other's projects and provide valuable feedback. TORI hosts an annual retreat and invites the entire CU community to learn about the latest breaking research and plan our next steps for the following year.

Through the generosity of the LCCF, TORI has received nearly \$700,000 in the past year \$500,000 of which was provided through the ALK+ LCCF, for breakthrough research projects highlighted below.

1. TORI Career Enhancement Program

Awarded to Dr. Tejas Patil to study cancer cells that survive the early stages of targeted therapy, called "drug-tolerant persistent cells." Dr. Patil will investigate what mechanisms are used to evade the treatment.

2. TORI Developmental Research Program

Awarded to Dr. Peter Kabos and Dr. Srinivas Ramachandran to utilize their recently developed cutting-edge technology to analyze cell

free DNA from the blood of patients diagnosed with ALK+ lung cancer to enable better tracking of treatment response and prediction of response to their therapy.

3. TORI Seed Grant Awarded to Dr. Erin Schenk and Dr. Eduardo Davila to develop novel, genetically modified T cells for the treatment of ALK+ lung cancers.

These grants in total provide the necessary funds for researchers to explore new ideas and generate preliminary data that are fundamental to kick-starting sustained, long-term and highly productive research programs in their laboratories. The pilot projects not only help establish these programs, but they also contribute toward training the next generation of researchers who focus their careers on lung cancer.

Thank you to all who have donated to the LCCF and supported cutting edge research at CU



2023 Annual TORI Retreat Attendees

Creation of the Jacqueline E. Harris, MD, ALK+ Lung Cancer Research Fund

By Ross Camidge MD, PhD

Jacqueline E. Harris, MD (1961-2023) was a highly accomplished physician, and later lung cancer patient who sought out a second opinion from the University of Colorado. Jacquie was a uniquely caring, giving, and loving person sorely missed by her family and friends. She devoted her medical career to caring for severely debilitated patients suffering from brain and spinal cord disease. A former championship figure skater and non-smoker, Jacquie was a staunch proponent for and adherent to leading a healthy lifestyle. The picture of health throughout her life, at age 58, she tragically developed ALK+ (anaplastic lymphoma kinase) lung cancer, a disease which disproportionally strikes younger, healthy, non-smoking women. Jacquie's cancer did not respond well to currently available therapies, and she passed after an arduous 3-year battle. It was her hope that better therapies and outcomes might soon come to others. It is in that spirit that the Jacquie Harris ALK+ Fund was created and supported by Jacquie and her family. The fund, activated in January 2024, will provide support for ALK+ lung cancer research, under the direction of Dr. Ross Camidge at the University of Colorado Anschutz Medical Campus.



Dr. Jacqueline E. Harris

Estate Planning

Making a huge difference for LCCF and its mission can be made simple with help! Please review the Special Estate Planning LCCF Newsletter Edition ([‘Ben and Ellen’s Adventures in Estate Planning’](#)) available in the clinic rooms, on-line, or call The Office of Advancement at CU at 303-724-8227



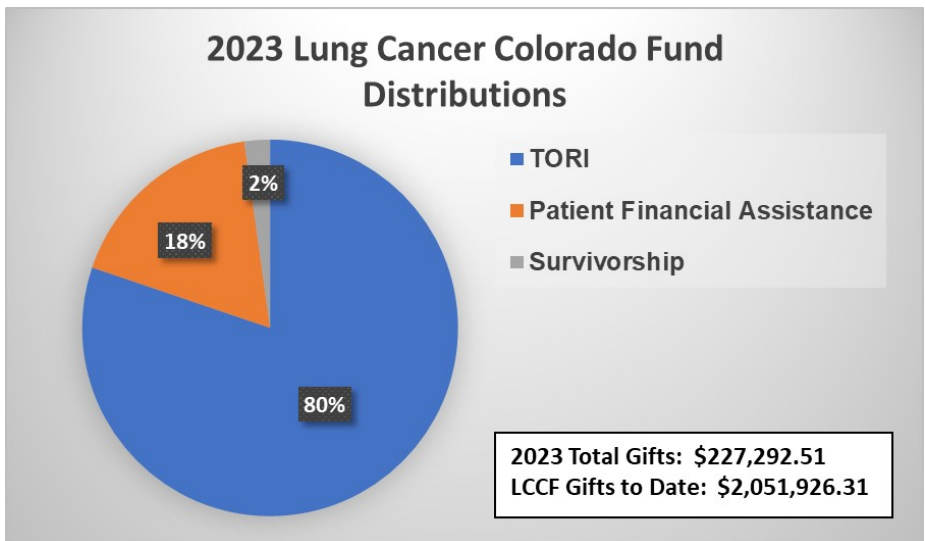
LCCF Overview

By D. Ross Camidge, MD, PhD

Since its inception in May 2011, the LCCF has taken in and distributed \$2,051,926.3 since its creation. Listing the total down to penny may seem silly, but it is not. It many

senses it embodies the funds' founding principle - everyone working together, in no matter how large or small a way, will change the world for the better. However, the

value of the LCCF can also be measured indirectly. Quasi-endowments and other large funds are invested to earn interest until their dollars are needed. The environment of the LCCF also encourages philanthropy through other avenues. The LCCF's transparency and its commitment to help support all aspects of the program has led to multiple other donations separate from the general LCCF. These include endowed professorships for retaining and recruiting the best faculty, project specific funds focused on subtypes of a disease, and general program development funds. Sometimes, major donor's names are attached to specific projects, sometimes they are not. It is entirely up to the donor. Sometimes donors give all at once, or they stagger their donations. A gift of 200,000 a year for five years is a million dollars. If you decide to make a difference and give what you can, when you can, whether 1 or 1 million dollars, we are grateful for your support.



Quasi-endowments, current monies, and endowments:

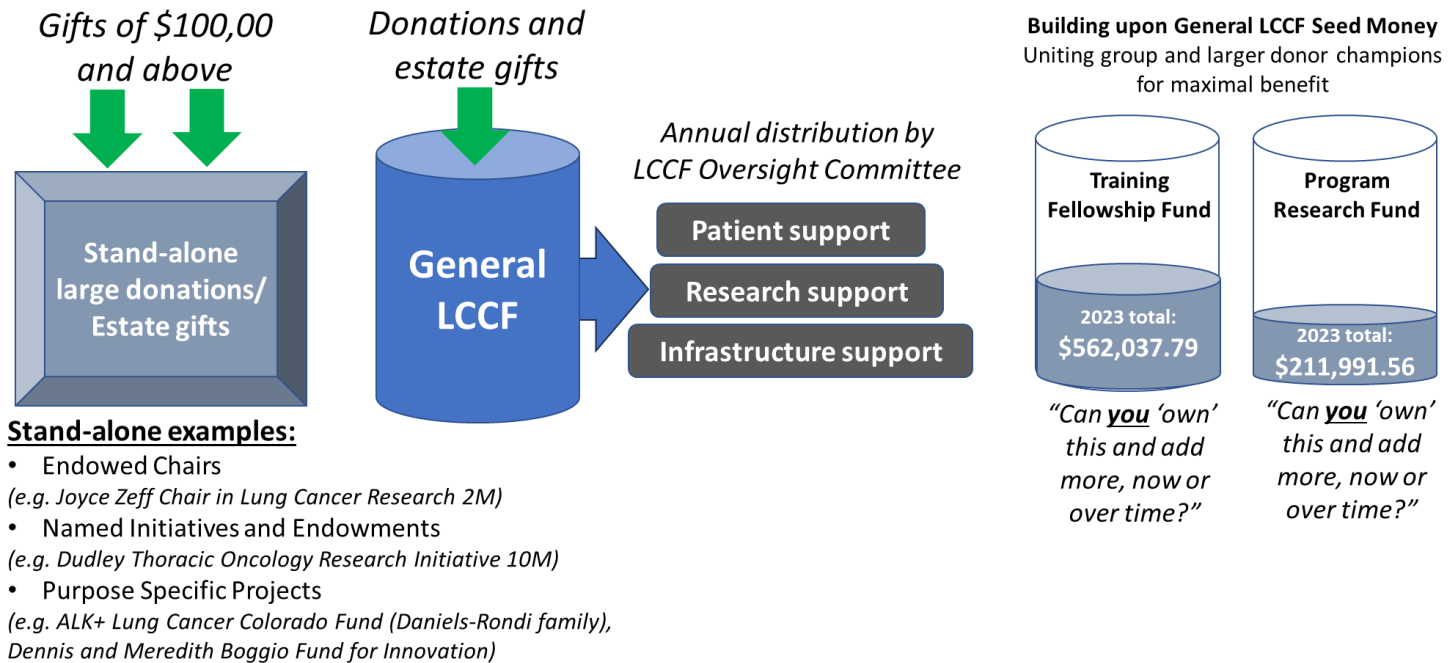
Beyond the immediate use of funds that the LCCF committee distributes annually, larger donations can sometimes have defined purposes all by themselves. Perhaps you had a windfall that you want to put to good use. Perhaps you want to plan to include support of the LCCF in your will. Perhaps you want to stagger your donations over a few years – \$200,000 a year for five years is a million dollars. The Office of Advancement at CU (contactable through 303-724-8227 or [online](#)) can help with such plans. Discuss your plans with your physician and/or the LCCF to craft something that you and the program are really passionate about together. Sometimes the monies are for immediate use, sometimes they are permanent funds where the principal gift cannot be touched but the interest can be (endowments), or a mix of the two (quasi-endowments, that generate interest but the principal amount can also be used). The LCCF has had a vision to prime the pump on several quasi-



completed with at least \$1-2M by a larger donor/group who would also be able to name the fund, if they so wish. Please speak to your MD, ross.camidge@cuanschutz.edu, or erin.schenk@cuanschutz.edu if you are interested in these or other opportunities.

University of Colorado Thoracic Oncology Program

Philanthropic Support Overview



LCCF Distributions 2023

By Erin Schenk, MD, PhD

In October 2023, the LCCF Oversight Committee met to review the distribution of the funds raised for the LCCF in 2023. The amount raised from the last meeting in 2022 was \$104,759.74.

We agreed to give \$40,000 to our social work department for patient assistance and outpatient drug support for patient's with thoracic cancers who are below the poverty line or uninsured. No specific infrastructure projects were identified for support. We agreed to give \$5,000 to Jamie Studts, PhD for the creation of training manuals for lung cancer survivorship care specialists and workbooks for lung cancer survivors and their caregivers. In support of ongoing, innovative thoracic cancer research, \$59,759.74 was given to the CU Thoracic Oncology Research Initiative (TORI).

The ALK+ LCCF is now overseen by the LCCF Oversight Committee. In 2023, two projects were funded. One brought in two investigators new to lung cancer research, Drs. Peter Kabos and Srinivas Ramachandran, who will evaluate a new circulating biomarker technology in patients with ALK+ lung cancer. The other award to Drs. Eduardo Davila and Erin Schenk will test a novel T cell therapy in ALK+ lung cancer. The remainder of the fund will be held for future, promising studies in ALK+ lung cancer and faculty recruitment.

Future goals are to identify a single donor or group who will champion our Advanced Thoracic Oncology Fellowship fund. To ensure the CU Thoracic Oncology program can train the future Lung Cancer Leaders, an additional 1 to 2 million dollars are needed. The Thoracic Oncology Program Support 'Innovation Fund', is looking for a champion single donor or group to complete the fund. An additional 1 to 2 million dollars are needed to support innovate research efforts in the CU Thoracic Oncology Program. Contact erin.schenk@cuanschutz.edu or ross.camidge@cuanschutz.edu if interested.



CU Cancer Center Involved in Effort to Build Research Group of Lung Cancer Survivors

Jamie L. Studts, PhD, is helping to build a coalition of survivors and identify their research priorities.

By Greg Glasgow, November 9, 2023

Jamie L. Studts, PhD, co-leader of the Cancer Prevention and Control Program at the University of Colorado Cancer Center, is part of a research team that received a \$250,000 award to build a coalition of lung cancer survivors and caregivers. Studts and colleagues at Memorial Sloan Kettering Cancer Center and GO2 for Lung Cancer will work with the coalition to develop research priorities focused on improving health outcomes.

Studts is working with the GO2 for Lung Cancer advocacy group, which received the funding through the Eugene Washington PCORI Engagement Award Program, an initiative of the Patient-Centered Outcomes Research Institute (PCORI). The independent nonprofit organization was authorized by Congress in 2010 to fund comparative clinical effectiveness research to provide patients, their caregivers, and clinicians with the evidence needed to make better-informed health and health care decisions.

“Our goal is to identify and engage 1,000 lung

cancer survivors from across the country,” says Studts, professor of medical oncology at the CU School of Medicine. “We want to elicit people’s priorities for research, then accumulate all those ideas together and analyze them to present a holistic perspective of what the lung cancer community wants to see in terms of future research.”

Research to improve the lives of survivors

That lung cancer survivors — defined as anyone from diagnosis forward — want a cure or better treatments for the disease is a given, Studts says; what this project aims to discover is how research can help to improve their lives during or after diagnosis and treatment.

“We’re trying to get to those things we need to know in order to improve their lives, their survivorship, their quality of life, and their well-being,” he says. “It could be better health care delivery; it could be better palliative care or better access to services. We won’t know until we ask.”

Unlike groups such as breast cancer survivors, whose unified voices have helped to drive research forward, lung cancer survivors have been historically reluctant to speak up, Studts says, due to the stigma around lung cancer as it relates to the perceived “choice” of smoking and the nihilism that has typically surrounded a diagnosis likely to result in death.

“You also have a community of individuals that struggles more with social drivers of health,” Studts says. “For a long time, the only strategy we had to support them was smoking cessation. But in the past 10 to 15 years, that has dramatically changed. There's a lot of reason for hope and optimism thanks to new immunotherapies, targeted therapies, surgeries, radiation approaches, and survivorship and palliative care interventions that have proven to be very effective.”

Groups and subgroups

Studts and his fellow researchers plan to spend about a year conducting outreach to assemble the coalition of survivors, who will meet digitally to talk about their concerns and priorities and answer questions. Among the researchers' priorities is putting together a group of survivors that reflects the demographics of people in the U.S. who are diagnosed with lung cancer.

“We want to make sure that we are engaging with Black and Hispanic communities and including their voices,” he says. “The LGBTQ community is commonly underrepresented in surveys as well, so we want to have their voice. We want to be able to say that this is a truly representative group.”



Jamie Studts, PhD

Studts also foresees making members of the coalition available to other researchers who may be looking for ways to reach specific subgroups of lung cancer survivors.

“They could potentially say, ‘I’d love to talk to 10 people who identify as trans who have been diagnosed with lung cancer to talk about their experience,’ and we can say that we have 15 or 20 trans folks on our panel who have agreed to be contacted about future research opportunities,” he says. “If somebody wants to talk to rural or urban populations about their challenges, we will have people from those groups on the panel as well.”

Research priorities and engagement opportunities

Once the researchers have worked with the coalition to put together a list of research priorities, Studts envisions researchers and funding organizations getting involved as well, using the list as a starting point for identifying projects that will have the most impact.

“It’s a better justification for their grant applications that are being submitted to organizations, and it’s a helpful callout to say that a patient group says they want this type of research,” he says. “That’s a pretty powerful argument that we probably should be doing something.”

For Studts, a longtime lung cancer researcher who has worked on several projects to eliminate stigma and nihilism in the survivor community, the new GO2 project — dubbed “Building Capacity and Patient Engagement Within a Stigmatized Lung Cancer Community” — is an exciting opportunity to increase engagement and a feeling of connection among a group that historically has suffered alone in silence.

“It’s a step toward engaging this community in a bigger way,” he says, “telling them that they have as much of a right to express their voices as someone who has been diagnosed with esophageal cancer or breast cancer, or any other malignancy.”



How Unusual is ‘Big Bang Theory’ Actress Kate Micucci’s Lung Cancer?

CU Cancer Center member Tejas Patil, MD, says lung cancer in people who have never smoked is more common than you think.

By Greg Glasgow, December 15, 2023

Actress and musician Kate Micucci, best known as Lucy on CBS sitcom “The Big Bang Theory,” recently underwent surgery for lung cancer.

Micucci, 43, revealed the news on TikTok on December 8. “It’s really weird, because I’ve never smoked a cigarette in my life,” Micucci said. “So, it was a surprise. But it happens and the greatest news is they caught it early, and I’m all good.”

According to University of Colorado Cancer Center member Tejas Patil, MD, assistant professor of Medical Oncology, around 20% of people diagnosed with lung cancer have never smoked.

Micucci said an abnormal blood test prompted doctors to perform a heart scan that found a spot on her lung. This type of “incidental diagnosis,” Patil says, is a common occurrence in younger people and those who have never smoked.

We talked more with Patil about lung cancer screening, treatment, and diagnosis.

Q&A

In general, how common is lung cancer?

In men and women, it is the 2nd most common cancer and the most common cause of cancer death.

How common is it in people who have never smoked?

Around 15%-20% of patients who get lung cancer have never smoked a cigarette in their life. A story like Kate Micucci’s — “I never smoked, but I got lung cancer” — is more common than people suspect. One of the tragedies is that patients who never smoke tend to show up to the doctor with metastatic disease.

Micucci is 43; is that relatively young for a lung cancer diagnosis?

Lung cancer patients who never smoked tend to be younger and tend to be women, so that is fairly common.

What are other causes of lung cancer, besides smoking?

It’s one of the big unanswered questions in the field, and we need to do more research in that space. Radon and air pollution have been linked to an increased risk of lung cancer — that’s something we’ve been paying more attention to recently. Other factors that increase the risk of lung cancer are patients who’ve had solid organ transplants receiving immunosuppression or people who are living with chronic HIV.

In Micucci's case, the cancer was caught early and was able to have surgery. Is that the ideal scenario?

That's exactly what you want, but it is important to note that her cancer was discovered incidentally. They didn't go in looking for it, and she may not have had any symptoms.

Is there screening for lung cancer?

There is, but right now it's for patients who are or were heavy smokers. The American Cancer Society recently updated its guidelines for who should be screened. The screening test is a low-dose CT scan, to look for nodules.

How long does that scan take to perform?

The actual scan itself is fast, a few minutes.

Any common symptoms of lung cancer?

Among the most common are shortness of breath, a persistent cough, voice changes, and unexplained weight loss.

How is lung cancer typically diagnosed?

Usually patients develop symptoms that lead

them to their doctor. Once lung cancer is suspected, scans help figure out if cancer has spread. The next step is getting a biopsy to confirm the type of lung cancer.

What is the treatment for lung cancer? Have there been any developments in the past few years?

There's a lot happening in lung cancer. Most patients now should undergo biomarker testing to personalize therapy. These biomarkers predict response to targeted treatments that usually are pills. The other big advance in lung cancer is using immunotherapy, which leverages your own immune system to fight cancer. There's still a role for chemotherapy in the modern era! Most patients will either receive chemotherapy with immune therapy, or treated with targeted therapy.

Where does surgery fall on the treatment spectrum? Micucci posted that she had surgery to treat her lung cancer.

Surgery only makes sense if someone has early-stage cancer. Once the cancer has spread outside the chest, surgery is no longer helpful.



Millions More with Smoking History are Recommended for Lung-Cancer Screening in New Guidance

Despite improved lung cancer treatments, only a fraction of eligible Americans get screened.

By Mark Harden on November 3, 2023

The American Cancer Society (ACS) this week called for millions more people who formerly smoked to be screened for lung cancer than it previously recommended. But while a University of Colorado Cancer Center member calls the news “exciting,” she said the challenge is to get more people already eligible to be screened.

Nina Thomas, MD, Assistant Professor of pulmonary and critical care medicine at the CU School of Medicine and Director of the Lung Nodule and Lung Cancer Screening Program, says that even with advances in lung cancer treatment, early detection is vital. Yet most people who should be screened aren't for a variety of reasons.

The ACS' updated screening guidelines say that how long ago someone quit should not be a factor in screening eligibility. The ACS also said people who smoked 20 pack-years (average packs smoked per day multiplied by total number of years smoked) or more should be screened. The society also expanded its advised changing the age range for screening to ages 50 to 80.

Thomas walks us through the new ACS guidance and the need for screening in an interview.

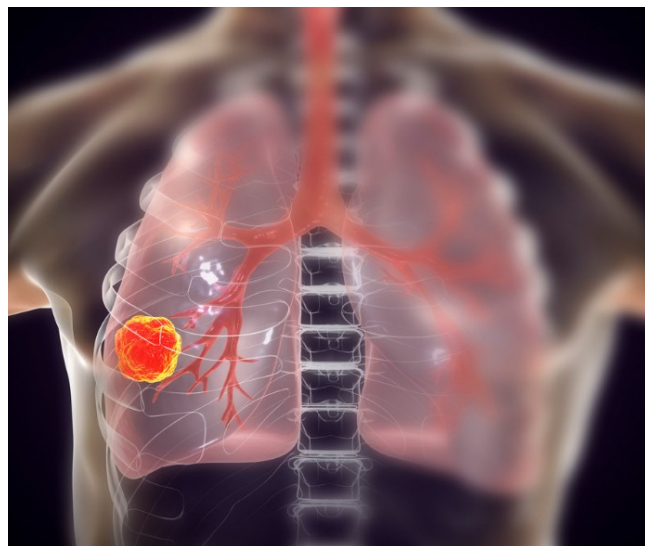
Q&A

What are your thoughts on the new ACS guidelines for lung cancer screenings?

They reflect the update that we saw with the 2021 guidelines from (the U.S. Preventive Services Task Force or USPSTF), because screening now starts at younger ages and a lower pack-year smoking history. But the one major difference is that ACS is removing the years-since-quitting criteria. That's based on data that showed that even after 15 years of quitting smoking, people still had some risk to develop lung cancer.

Lowering the age and smoking history criteria reflect new data from patients who were under-represented in the original screening trials: Black, Asian, and Hispanic populations. They are at higher risk to develop lung cancer. Women and Black people are more likely to be diagnosed with lung cancer at younger ages and with a lower pack-year smoking history.

The hard part is that only 5% to 6% of people who qualify for lung cancer screening actually get screened, and in Colorado it's 3%-4%. While



these changes in guidelines expand screening eligibility, if we don't actually improve the implementation of screening, it's hard to have a clear impact

So what should happen next?

One hope is that the USPSTF and (the Centers for Medicare & Medicaid Services) look at these data and update their criteria as well, because that's going to be the difference for insurance companies covering lung cancer screening.

Barriers remain besides insurance that affect the screening rate. This includes helping primary-care physicians, who have the closest contact with these patients, to recognize who qualifies for lung cancer screening and get them screened. There are also community efforts that need to be done to educate people and their communities on the benefits and process. Then, it's getting them in the door. People may need to take off work, get child care and may not even have access to care and lung cancer screening centers. So how do we incentivize it and help patients get those screenings on a regular basis?

So what happens when someone gets screened for lung cancer?

It involves a low-dose CT, like a regular CT scan, but with lower radiation exposure. It's about a 10-15 minute scan where you lie on a table with and travel through the scanner.



Nina Thomas, MD

What's more important is making sure we follow up on the results and findings. The most common thing that we find is lung nodules, or spots on the lung. The majority of the nodules we find are not cancerous. Usually patients need following up with additional CTs, or seeing a pulmonologist to determine if a biopsy is needed.

What would you say to someone who's reluctant to get screened?

There's a lot of fear and stigma around lung cancer screening. But the treatment of lung cancer has drastically changed over the last 15 to 20 years. Where 20 years ago, people thought lung cancer was a death sentence, it's a much more manageable disease now. The benefit of lung cancer screening is diagnosing people at earlier stages before symptoms occur. The earlier the stage, the more likely we are to cure patients.

The stigma of smoking is another part of it. A lot of patients don't want to talk about their smoking past or their current smoking. But our role as physicians is not to scold or wag our fingers at these patients. Our role is to collaborate with them in a non-judgmental way and support them to help them quit, but also to get them eligible screening.



New Research from the University of Colorado Cancer Center Explores Options for Motherhood in Lung Cancer Patients

With increasing survival, new challenges and new opportunities are arising at the intersection of targeted cancer

treatment and motherhood for women

By Laura Kelley , December 2, 2022

New research from the University of Colorado (CU) Cancer Center highlights the need for additional data collection for women hoping to have successful pregnancies while undergoing treatment for lung cancer. Specifically, they focus on the diagnosis of advanced oncogene-driven non-small cell lung cancer (NSCLC) that disproportionately affects women of reproductive age.

In a new paper published in *Clinical Lung Cancer*, investigators at the CU Cancer Center share their experience with pregnancies and other pathways to motherhood in women with onco-gene-driven NSCLC. The Center, located on the University of Colorado Anschutz Medical Campus, is one of the most sought after centers in the world for patients receiving targeted therapy for lung cancer, including those interested in pursuing motherhood.

“If a young woman is diagnosed with metastatic lung cancer, she is very likely to have an onco-gene driver that can be turned off with targeted therapy. Such therapies allow the possibility of many years of cancer control, often without any cancer symptoms and minimal side effects,” said lead author Emily Simons, MD, MPH, a senior fellow at the University of Colorado.



Emily Simons, MD, MPH,

The authors say since targeted therapy is showing promise and extending the lives of women of reproductive age with NSCLC, practical pathways to motherhood can now be considered. While such approaches were once thought taboo, the promising reality for some patients with lung cancer has brought this back up for debate.

Motherhood issues grow with treatment advancements

“Women from our clinic and around the world have begun to ask how they can have the family they want after their lung cancer diagnosis. This isn’t a straightforward or easy answer, so we

wanted to share our experience of providing pregnancy, surrogacy and adoption advice to patients in the lung cancer community. We hope this study will help others give women the most updated information as possible so that patients can make informed decisions,” Simons adds.

Co-author D. Ross Camidge, MD, PhD, CU Cancer Center member and a professor in medical oncology at the CU School of Medicine, has seen the motherhood issue grow in importance.

Camidge says, “If the ideal goal of therapy in lung cancer is ‘perfect control of cancer and perfect quality of life,’ maybe we don’t always achieve that but for women who were contemplating motherhood before their diagnosis, the conversation has to be there. These people can live for decades, more than long enough to create a family through one means or another. It is not without controversy and not without many unknowns for each individual, but it shouldn’t be wrong to at least discuss motherhood now.”

Some women on targeted therapies have chosen to carry their own children, but Simons says more data needs to be collected to determine the overall safety of individual drugs in this setting. Simons hopes more data regarding pregnancy and targeted therapy will be collected. At present, the safest routes are surrogacy or adoption for those wishing to become parents while receiving the treatment. “Unfortunately, a diagnosis of advanced cancer can block some of these approaches, but again a modern, up-to-date discussion of the facts is needed,” says Camidge.

“Our study highlights that more research needs to be done on the safety of targeted cancer therapies in pregnancy as well as the management of gestational surrogacy. Women make their own choices in the face of almost no data on pregnancy and surrogacy while on targeted therapies for lung cancer. We do not know the impact of all targeted therapies on mothers and fetuses in pregnancy and desperately need the information to counsel these women adequately,” Simons concludes.



CU Cancer Center Offers Free Radon Testing Kits to the Colorado Community

The Office of Community Outreach and Engagement hands the kits out at health fairs and follows up to make sure they are being used properly.

By Greg Glasgow, August 1, 2023

The statistics about radon exposure and lung cancer in Colorado are sobering: Lung cancer is the leading cause of cancer-related deaths in the state, and radon exposure is the second leading cause of lung cancer, after tobacco smoke.

“Colorado is among the top 10 states with the highest radon levels across the country, and about 50% of homes in Colorado have radon levels that are higher than the recommended level set by the Environmental Protection Agency,” says Jan Lowery, PhD, assistant director for dissemination and implementation in the University of Colorado Cancer Center’s Office of Community Outreach and Engagement (COE).

Exposure is everywhere

Radon — an invisible, odorless, radioactive gas that is naturally produced by the breakdown of uranium — is particularly prevalent in Colorado because of the amount of uranium in the soil. In the 1940s and ’50s, Colorado was a key site for uranium mining. Today, any house built on soil — particularly houses with basements — are vulner-

able to radon exposure that could potentially cause lung cancer.

“My house is built on a basement, and radon can seep in through the sump pump or any small breaks or cracks in the walls,” says José Barrón, senior community outreach and engagement coordinator in COE. “When it gets stuck in our homes and we constantly breathe it in, it can get lodged in the cells in our lungs and release radioactive energy into the cells. That eventually causes them to mutate and develop cancer.”



José Barrón

Addressing the problem

To raise awareness of the issue and help economically disadvantaged Coloradans begin the process of testing for radon and mitigating their exposure, if necessary, the COE in spring 2023 began distributing free radon test kits at 365 Health Fairs around the state. Participants place the kits in their homes for 90 days, then mail them to a lab for analysis.

Outreach to reduce cancer

The COE over the past year has given out stool-based colorectal cancer detection kits at health fairs and similar events; adding the radon kits is just another prevention measure the office is using to lower the cancer burden in Colorado, Lowery says.

“Most people that we speak to at fairs are curious about radon levels in their homes, but they have never taken action to complete a test,” she says. “It’s good to give them those resources.”

It’s important to educate the public on the risks of radon exposure, Lowery says, because of the high prevalence of radon in Colorado and the associated cancer risk, and because we can do something about it.

“We can’t always control risk,” she says. “A lot of things in our environment cause cancer, but this is something we can actually mitigate. There are



Jan Lowery, PhD

ways to do it, and it’s relatively affordable. Our team is trying to assist people who can’t afford it to test for radon and find resources to reduce exposure in their homes.”

CU Cancer Center’s Ross Camidge, MD, PhD, Honored By the International Association for the Study of Lung Cancer

Camidge received the organization’s Daniel C. Ihde Lectureship Award for Medical Oncology in September.

By Greg Glasgow on October 3, 2023

University of Colorado Cancer Center member Ross Camidge, MD, PhD, has seen huge advances in lung cancer treatment during his years in the field.

As he put it in a recent address, “not that long ago, and still for many with lung cancer, their new diagnosis feels like looking down the barrel of a gun. Yet at the same time we can also fill a room with select long-term survivors of the disease.”

Camidge delivered that speech, titled “Evolving

Expectations,” in Singapore in September at the annual World Conference on Lung Cancer. The event is hosted each year by the International Association for the Study of Lung Cancer (IASLC), which this year honored Camidge with its Daniel C. Ihde Lectureship Award for Medical Oncology. The award is named for the influential lung cancer researcher and former longtime deputy director of the National Cancer Institute.

“I’m just now finishing a labor of love, writing a book about the discovery of targeted therapy in lung cancer, and Daniel Ihde plays a role in that,” says Camidge, the Joyce Zeff Chair in Lung Cancer Research in the CU School of Medicine. “To get an award named after a person who did such important work in the field felt very special.”

Thinking differently

In his acceptance speech, Camidge focused on the ways in which evolving treatments have extended life for some lung cancer patients.

“There are patients who are still doing very badly — it’s still a very serious disease. But we’ve also got this group of patients who are doing incredibly well,” he says. “Now we have long-term survivors with advanced-stage disease, sometimes for a decade or more. Maybe we haven’t figured out how to make everyone a long-term survivor, but in theory, it’s possible.”

Camidge pointed to a few ways in which the field can think differently about lung cancer treatment including improving detection of cure for early-stage disease, opening clinical trials to a wider population of patients, and getting the balance right between treatment benefit and toxicity.

“To give you an idea of how much management of the disease has changed, in recent years young lung cancer patients are asking, ‘I’m not dying any time soon; can I have kids?’ Before, you couldn’t even have that conversation in regard to lung cancer,” he says. “Now we have patients who have conceived and carried children. We have to start to think in those terms to inspire us with the goal of creating perfect control of cancer and perfect quality of life for our patients.”

Early adopter

Born in England, where he received his medical training at the University of Oxford and began his research career at the University of Cambridge, Camidge arrived at the CU Cancer Center in 2005. In the years that followed, he saw lung cancer treatment transformed by genetic testing.

“We’re fortunate that in Colorado, we were an early adopter of routine molecular testing of our lung cancer patients. That allowed us to say, ‘OK, there are five people with lung cancer but really they have different subtypes and need different treatments.’ When you personalize that treatment, you start to really get transformative control of the cancer.”

Camidge then saw the immunotherapy revolution, which had an immediate dramatic impact on around 10%-20% of lung cancer patients. However, which patients will respond to the treatment remains obscure. For this reason, Camidge ar-



Ross Camidge MD, PhD receiving his award from Dr. Karen Kelly (left) and Dr. Heather Wakelee (right)

gues, the field has still not been able to build on those early immunotherapy successes.

“In contrast to immunotherapy, the advantage of the personalized medicine revolution was that benefit was highly predictable once you knew which mutation was there. With some people, you do a test and they just have to take one pill every day,” he says. “With the best pills, there are almost no side effects; it’s entirely compatible with leading a normal life. And you might control that cancer for years before you have to switch to some other treatment.”

Making it personal

Camidge is now interested in the growing field of personalized immunotherapy. The therapy targets markers specific to the lung cancer, activating the patient’s immune system against the cancer cells. “I think we’re just scratching the surface of what that can do,” he says.

No matter the treatment, Camidge is happy to see how advances in lung cancer research have evolved expectations not just for oncologists, but for their patients as well.

“The classic lung cancer patient, to put it bluntly, would get diagnosed and then wait to die,” he says. “Now, inspired by these successes, other people with lung cancer are getting off the couch and saying, ‘I’m not going to be satisfied with this. I’m going to seek a second opinion. I’m going to enter a clinical trial.’ We are starting to engender hope in the hopeless.”

New Faces and Other Changes



Alexander Watson MD, DPhil, FRCPC
Thoracic Oncology Senior Fellow

Dr. Alexander (Alec) Watson MD DPhil FRCPC is a Thoracic Oncology Senior fellow at CU An-

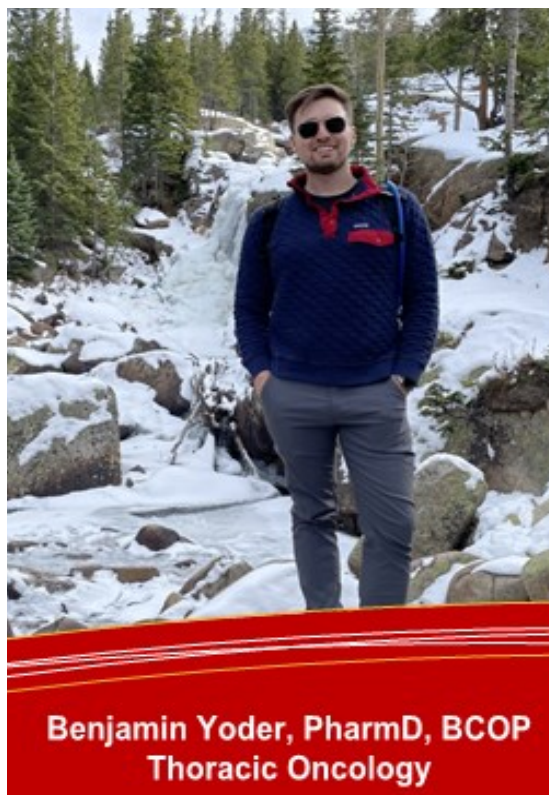
schutz, having joined the lung cancer team October 2023. Dr. Watson grew up in Winnipeg, Canada before completing a BSc with Distinction at the University of Victoria, and a DPhil (PhD) in Clinical Medicine at the University of Oxford, UK. He returned to Vancouver, Canada to obtain his MD, earning the gold medal for his graduating class, and moved to Calgary, Canada for his Internal Medicine and Medical Oncology residencies, serving as chief resident in both programs. His research interests are early-phase clinical trials, in particular improving understanding around responses and toxicities to novel lung cancer therapeutic agents, both immunologic and targeted. He's honored to join the CU team and learn from their outstanding lung cancer expertise.

Outside of the clinic, Alec enjoys trail running, triathlons, and attending concerts.

Benjamin Yoder, PharmD, BCOP **Thoracic Oncology Pharmacy Specialist**

Ben received his PharmD from the University of Pittsburg School of Pharmacy and Pharmaceutical Sciences in Pittsburgh, Pennsylvania. He completed an accredited PGY1 Acute Care Pharmacy Residency and an accredited PGY2 Oncology Pharmacy Residency and Allegheny Health network in Pittsburgh. Upon completion of residency, he accepted a position at the Wexford Health & Wellness Center as an Oncology Clinical Pharmacist where he served as the clinical pharmacist for the ambulatory oncology clinic. He then relocated to Colorado where he serves as the clinical oncology pharmacy specialist for the Thoracic Oncology Clinic at the University of Colorado Hospital, Anschutz Cancer Pavilion.

Out side of work Ben enjoys hiking and skiing (depending on the season). For him, bakeries are a must (favorites include Bakery Four or



Benjamin Yoder, PharmD, BCOP
Thoracic Oncology

Good Bread). He also enjoys fantasy books/movies. So if you like Harry Potter, he's your guy.

New Faces and Other Changes



Elizabeth David, MD, MAS, FACS
Associate Professor
Cardiothoracic Surgery

Dr. Elizabeth David received her medical degree from the Georgetown University School of Medicine in Washington, DC. She completed her

general surgery residency at the Georgetown University Hospital and went on to complete her cardiothoracic surgery residency at the University of Texas M.D. Anderson Cancer Center. After her training, Dr David served in the United States Air Force as a cardiothoracic surgeon. Shortly after this Dr David completed her Masters of Advanced Studies in the Mentored Clinical Research Training Program at UC Davis.

Dr David currently holds leadership positions within the American Association for Thoracic Surgery, Society of Thoracic Surgeons, and Thoracic Surgery Directors Association. She is an Associate Program Director of Cardiothoracic Surgery Residency as well as Co-Director of Faculty Health and Wellbeing here with the University of Colorado.

Dr David is passionate about the care of lung cancer patients and the ways that patient outcomes are influenced by stigma, health system and other human factors. Her clinical interests include surgery for lung cancer and other thoracic malignancies including mesothelioma, thymoma, thymic cancer and esophageal cancer.

Visit us at the [LCCF website](https://medschool.cuanschutz.edu/colorado-cancer-center/internal-pages/lung-cancer-colorado-fund) <https://medschool.cuanschutz.edu/colorado-cancer-center/internal-pages/lung-cancer-colorado-fund>

There you can find all of our previous [newsletters](#), [estate planning brochure](#), or make a [donation](#) directly to LCCF.

Interested in sharing your story about surviving and thriving with lung cancer? Send your pictures to share and your story to erin.schenk@cuanschutz.edu.

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