University of Colorado Hospital FOUNDATION

University of Colorado Cancer Center

Building lung cancer support, research and… bigger buildings with the LCCF

2012 Fund Director's Introduction

Once again, thank you for your continued commitment to the Lung Cancer Colorado Fund (LCCF). This is only our second year, but we have already increased our annual donations beyond those of 2011. In this newsletter we will tell you about some of the things your contributions have supported to date, we will highlight some of the progress going on at UCH/UCCC in one of the world's top lung cancer programs, and we will showcase how some of you have found your own creative ways to raise money for the LCCF. On behalf of the entire program at the University of Colorado - all the basic scientists, physicians and the clinical support team together – I would like to thank you for making a difference in the lives of those affected by lung and other thoracic cancers.

D. Ross Camidge, MD PhD

Cancer Pavilion Growth Means Better Care for Patients

LCCF donation helps expand Cancer Pavilion at the Anschutz Medical Campus

Just over a year and a half after the groundbreaking for an ambitious expansion project, staff and patients last week began moving into and through the vastly enlarged Anschutz Cancer Pavilion.

The renovated pavilion opened to most patients May 14 where gleaming new exam rooms stood ready to receive patients, and providers stretched out in enlarged team rooms with enough computer screens to accommodate everyone.

The $20 million investment bought an array of gaudy statistics: 42,000 square feet of new space and another 14,000 square feet of renovated space; dozens of additional exam rooms; larger infusion areas with additional bays and chairs; an expanded pharmacy; and more.

The hospital undertook the expansion to meet soaring patient volume. The number of new and repeat patient visits to Oncology clinics climbed 46 percent between fiscal year 2007 and fiscal year 2011, which ended June 30, 2011.

But the price of the success was squeezed space and schedules and pinched capacity. The Cancer Center had outgrown its shell, and the numbers were starting to reflect that. Between fiscal years 2010 and 2011, the total number of clinic visits rose just 1.6 percent.

Breaking barriers. The additional space means providers will be able to treat more patients more efficiently, said UCH Cancer Center Practice Manager Cindy Milazo, RN.

Prior to the expansion, she said, providers were frequently limited to a single exam room to see patients. That, in turn, created bottlenecks and delays. More rooms should break the logjam.

"We've been in a rut because of lack of space," said Milazo. "Providers had to wait for a room to be cleaned before they could see another patient. The additional space should decrease patient wait times."

The additional capacity will also mean more patients will get care when they need it.

Continued...

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"This issue was clearly about service: treating more patients who need it more quickly and efficiently," said Medical Oncologist Ana Oton, MD, a thoracic cancer specialist. "When a person is diagnosed with cancer, the last thing he or she wants is to wait."

The same holds true for follow-up appointments, which very ill cancer patients sometimes need on a same-day basis. Schedulers now stand a better a chance of squeezing a patient in on short notice, possibly saving a trip to the Emergency Department.

"Many of our patients are at high risk for infection. The ED is not the ideal place for them, and this expansion helps us keep our patients where they should be—in our clinics."

An infusion of capacity. The expanded second-floor infusion area adds 18 new bays and four private rooms, promising more timely service for bone marrow transplant and other patients who need critical intravenous therapy. From January through April of this year, Milazo reported, the infusion area frequently had to close its schedule, accepting no new appointments on 14 business days. With volumes rising, it had already closed the schedule another nine days in May.

Milazo said the Cancer Center is now staffing up to meet the infusion area's increased capacity. Currently, the typical patient load is 55, which can be increased to a maximum of 60 if it's safe to do so. Adding one nurse to the staff – the position is now posted – will increase the capacity to 65.

"Our goal is never to say no," Milazo said.

Intelligent design. The benefits of the renovation lie not only in adding space but also in using it more wisely. The new fourth and fifth floors, for example, hold administrative and office space, while clinical care holds sway on the first three floors.

The new design on the upper floors also looks to the future with extra space to accommodate increases in patient volume. Eleven offices are empty now; if all goes as planned, they'll eventually be occupied by additional clinicians.

"We expect many cancer services to grow over the next few years," said Tom Purcell, MD, the executive director for oncology clinical services. "That's true both in terms of patients, volume, new faculty recruits and clinical trials."

By adding space, clinics can be reorganized to allow better multidisciplinary collaboration. Dr. Purcell, who recently joined the thoracic oncology team at the Cancer Center, reports seeing the immediate benefits of this forethought. "I don't have to wonder where the thoracic or gastrointestinal surgeons are, I can just walk down the corridor and find them."

Multidisciplinary care is especially beneficial to cancer patients who often require complex treatment plans, Purcell said. A patient with a particular stage of lung cancer, for example, might benefit from chemotherapy, radiation therapy and then surgical resection of their lung tumor.

"Getting everyone on the same page for what is essentially a team game is vital," he explained. "With close relationships within that team and with regular multidisciplinary meetings, we can ensure every thing

happens with the minimum of delay and the maximum effectiveness."

Recognizing this need, the expansion also increases the space and upgrades the equipment used for multidisciplinary Tumor Board meetings. The new tumor board room, which has a movable partition, can accommodate 20 or more people easily. A bank of microscopes for pathologists stands in one corner; large screens for audiovisual presentations hang on the walls. Telecommunications equipment will allow campus providers to work with far-flung Cancer Center affiliates who want to present cases to the board.

Let there be light. But beyond the glittering new equipment and technology, the renovation benefits patients in surprisingly simple but no less important ways, Milazo says. To illustrate, she points to the window-lined third floor, where natural light floods new exam rooms. They replace dark, internal rooms that offered little to uplift the spirits of patients enduring difficult times, she said.

"We all pushed for exam rooms with windows that provide the maximum openness and brightness and a welcoming atmosphere," Milazo said.

Her commitment to letting the light in is no whim. Milazo was diagnosed in 2006 with stage 3 thyroid cancer and had a recurrence in 2007. She lives today with a 20 percent chance of the cancer returning.

"When you sit in a doctor's office waiting to see an oncologist," she said, "you are stuck in the darkness that is the fear in your mind. Anything beautiful is a positive distraction. As a cancer patient, your life is changed in ways that you will never know. The statistics don't mean anything. To remain positive is the greatest challenge. An uplifting, positive care environment contributes to a healing experience."

ALK-positive lung cancer develops crizotinib resistance – now what?

By Joan Suzuki Hart

In 2011, the drug crizotinib was approved for use with the subset of non-small cell lung cancer (NSCLC) patients with chromosomal rearrangements involving the ALK gene, or simply "ALK-positive" patients. Unfortunately (as with many drugs) ALK+ NSCLC tends to develop resistance to crizotinib.

A University of Colorado Cancer Center study presented this past summer at the American Society of Clinical Oncology annual meeting in Chicago, Ill. uses human tumor samples to show the mechanisms of this resistance.

When ALK is targeted, human tumors can switch their dependence from ALK to either KRAS or EGFR mutations.

"At the time of crizotinib resistance, doctors might recommend a clinical trial with a second-gen ALK inhibitor – that is, unless we discover via biopsy that the tumor has shifted its dependence to, for example, KRAS or EGFR. In that case, a second-gen ALK inhibitor is unlikely to do as much good as a drug that targets one of these other mutations," says Robert Doebele, MD, PhD, investigator at the CU Cancer Center and assistant professor of medical oncology at the CU School of Medicine.

Robert Doebele, MD, PhD, investigator at the CU Cancer Center and assistant professor of medical oncology at the CU School of Medicine

"It's likely these findings point toward the heterogeneity of tumors that hold within them pockets of ALK+ and perhaps also pockets harboring EGFR or KRAS mutations. When we target ALK, we allow EGFR or KRAS to outcompete the ALK-dependent cells, leading to a replacement of the ALK+ cells by cells primarily driven by cells dependent on one of these other mutations," Doebele says.

Biopsying ALK+ NSCLC tumors at time of crizotinib resistance could help match patients with successful next-line treatments or clinical trials.

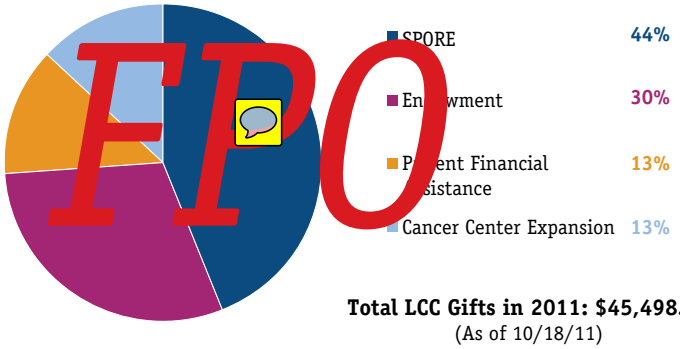
Progress on SPORE project using Lung Cancer Colorado Funds from 2011

Over the past 5 to 10 years, the lung cancer research community has grown to appreciate the immense heterogeneity of this disease. A growing number of mutated genes (>20) are now known to exist in lung tumors, with different ones 'driving' different people's cancers. Based on this heterogeneity, the modern approach to selecting therapy for lung cancer patients within the University Hospital Thoracic Oncology clinic requires pre-testing biopsies of a patient's cancer for the presence of these gene mutations and then using that information to select the appropriate "targeted therapy" for the patient.

Since the original funding of the University of Colorado Lung SPORE (Specialized Program of Research Excellence) by the National Cancer Institute in 1992, over 300 lung tumor specimens have been collected for research purposes. To most effectively use this resource to ask questions about how distinct gene mutations dictate a lung cancer's response to therapy, it is critical to know the repertoire of gene mutations in these specimens, just as we routinely do in patients. From the funds donated in 2011, the LCCF provided $20,000 to the SPORE program to initiate widespread mutational analysis of the specimens in their tumor bank. Dr. Dan Merrick (Director of the Tissue Bank and Biomarkers Core within the Lung SPORE program) and his group have already completed the mutational analysis of 60 lung tumors, with plans to eventually analyze all the specimens within the SPORE tissue bank. This new information is now being included in ongoing investigations using these specimens, greatly increasing the chances of investigators successfully developing novel experimental therapies for lung cancer patients.

Lung Cancer Colorado Fund

Support to the Thoracic Oncology Program



Total LCC Gifts in 2011: $45,498.65
(As of 10/18/11)

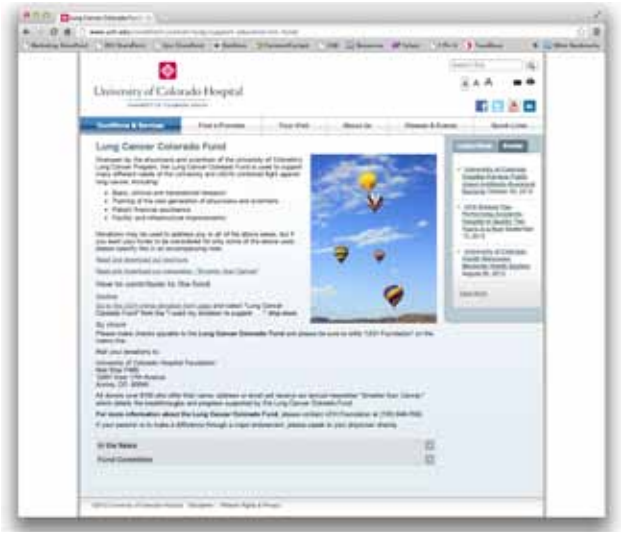
Lung Cancer Endowment Drive

This fund has been created to endow a training fellowship to educate the next generation of physicians and scientists working on lung cancer at the Cancer Center.

Lung Cancer Colorado Fund Online

Be sure to check our Lung Cancer Colorado Fund page for frequent updates and the latest related stories in the media.

www. uch.edu/lcc-fund



A Party to Celebrate a Life

By Todd Neff

It was a party Debbie McDonald would have loved.

Debbie succumbed to lung cancer on July 2, 2011, a year after she was diagnosed. As the anniversary of her passing approached, her family considered how they might honor her memory.

Spending the day in quiet meditation wasn't in the cards – Debbie had a zest for life all her 64 years, a former Kindergarten teacher whose enthusiasm carried on to her grandmothering of Emerson, now 4, and William Fletcher, 2.

Grown son Brad suggested a summer party. Husband Graham, sister Betty-Ann, daughter Laura, daughter-in-law MacKenzie and the rest of the family liked the idea. The celebration would honor Debbie while raising money for the Lung Cancer Colorado Fund, which had been close to her heart.

There was one small issue, though: July 2 was just a week away.

Given the short notice and the holiday-weekend conflict, they pushed the party back a few days, to July 7 – still a tight turn during the summer vacation season. They booked a caterer, a margarita machine, a bouncy castle, and a cotton candy machine. They teed up the Jimmy Buffett. They crafted a contributions box. And they sent out invites for a party at Graham's Castle Pines home.

"Given the short notice, we weren't sure what to expect," Graham admitted.

The invitation reflected those expectations: "This marks the beginning of an annual cancer awareness event and fund-raiser, which will honor Grammy's spirit and ensure that her memory lives on forever," it read. "This year we're starting small, but as the years go on, we envision the event getting bigger and better until it becomes the party of the summer."

The turnout blew them away: 150 people showed up – family, former co-workers (Graham had recently retired), and many friends of Debbie and Graham.

"It was great to see people I hadn't seen for a long time," Graham said.

The contributions box filled up. By the time the night was over (after 22 bottles of wine and some adventurous grownups in the bouncy castle), the party had raised some $12,000 for the Lung Cancer Colorado Fund, including matching funds from Graham's former employer, Great-West Life, Brad's employer, Aon Financial Services Group, and others.

The party won't be the McDonalds' last.

"We've decided to have a July party every year to raise money for the fund," Graham said.

To contribute:
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