

Creating Futures

University of Colorado *Anschutz Medical Campus*

*University of Colorado
Cancer Center*

Leading the Fight Against Breast Cancer



Momentum in Breast Cancer Research Is Building



Nearly every family in America is affected by breast cancer at some point. Breast cancer is the most common type of cancer among women and the second most common cause of cancer death in women of all ethnic origins. At present rates, 1 in 8 American women will get breast cancer, and 1 in 35 will die of it.

Doctors and researchers at the University of Colorado Cancer Center are among the leaders of a tremendous surge in research contributing new knowledge about diagnosis, treatment and prevention of breast cancer in women of all ages.

We are working to ensure that fewer women develop breast cancer, and that those who do are diagnosed earlier and have more and better treatment options.

The News is Growing Brighter

- Since 1990, the incidence of breast cancer has been relatively constant, but the survival rate has increased 30 percent.
- Screening is more effective than ever, enabling earlier and more accurate diagnosis.
- New therapies are saving lives and improving long-term outcomes.

Scientists have identified many subtypes of breast cancer, each with its own fingerprint that defines the genetic and cellular processes at play in its formation. These fingerprints are guides to therapies that target each patient's particular tumor cells without harming healthy cells.

The time to ramp up efforts in breast cancer research and treatment is now. And the University of Colorado Cancer Center is leading the way.



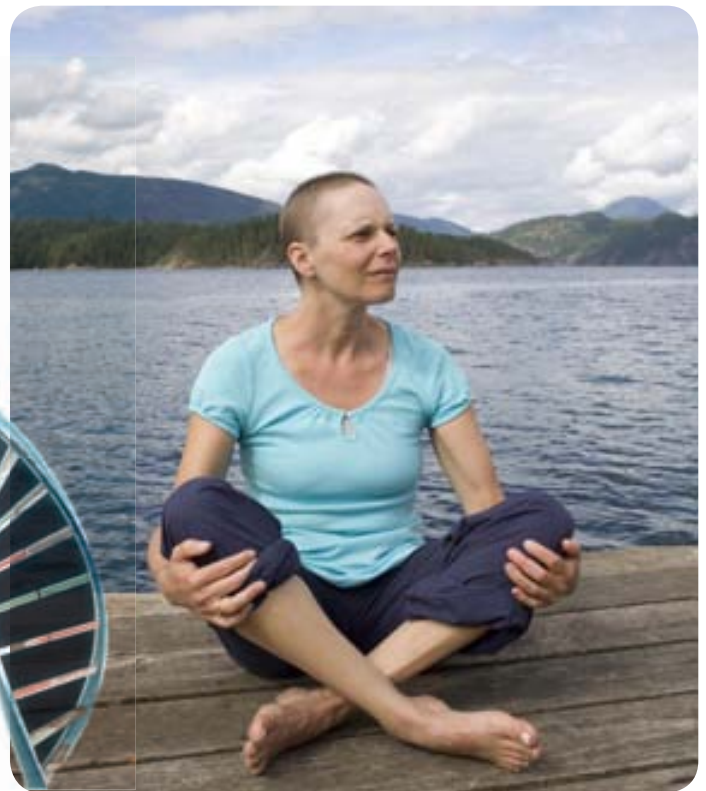
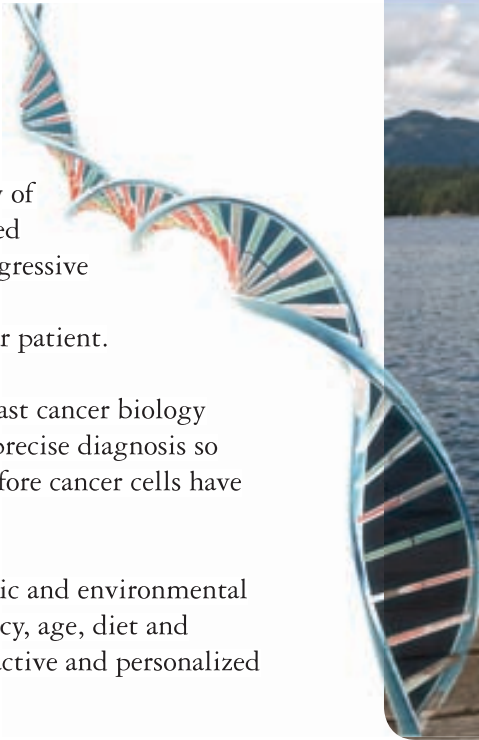
Anthony Elias, MD, Martha Cannon Dear Chair of Breast Cancer Research, is associate director for clinical research and professor of medical oncology at the University of Colorado Anschutz Medical Campus.

You Can Help Us Change the Future

With greater investment, the University of Colorado Cancer Center can accelerate its progress in the fight against breast cancer—progress that will also benefit patients with other forms of cancer.

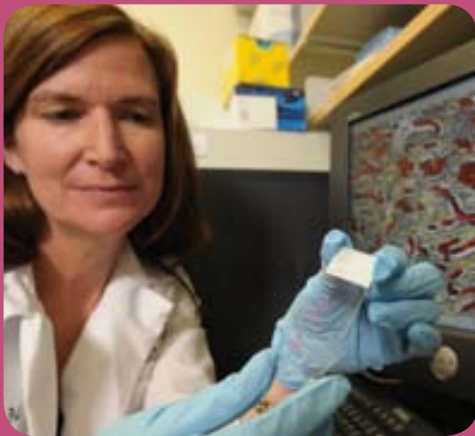
Imagine a future where:

- The ability to analyze the genetic makeup and biology of a tumor allows individualized therapies that are only as aggressive and invasive as necessary to successfully treat a particular patient.
- Better understanding of breast cancer biology is translated into early and precise diagnosis so that treatment can begin before cancer cells have spread.
- A deeper awareness of genetic and environmental risk factors, such as pregnancy, age, diet and exercise, is the basis for proactive and personalized prevention counseling.



With your help, we can make this future a reality.

Tomorrow's Cancer Treatments



Jennifer Richer, PhD, assistant professor of pathology at the University of Colorado Anschutz Medical Campus.

To those outside medicine, breast cancer seems like one disease. But scientists believe that breast cancer may contain as many as 40 subtypes, each with its own fingerprint that may reveal exactly what genetic mutations, receptors, signaling pathways or other cellular processes may be at play in their formation.

If different tumor types have different fingerprints, that rules out a magic bullet to treat everyone. But it also points the way to tests and treatments based on individual tumor types. Those treatments will rely on targeted therapies that attack the cancer cells and nothing else—a shift from traditional therapies that are broadly used and that wipe out all fast-dividing cells. Tomorrow's cancer treatments will hone in on the genetic mutations or mistakes in cancer cells, fix them or render them irrelevant.

"It's all geared towards more individualized therapy," Richer added. "What is your tumor, what are its characteristics and what type of therapy would work best for you?"

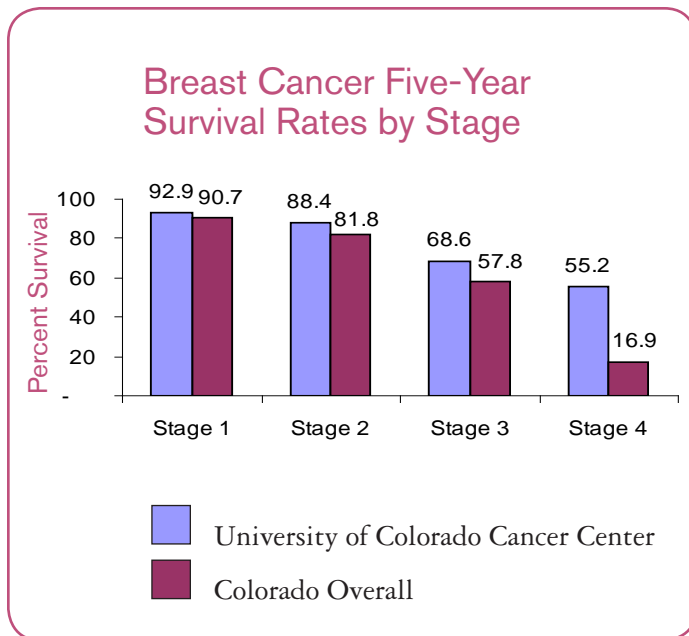
We Are Ideally Positioned to Lead the Way

The University of Colorado Cancer Center is Among the Best

Among the cancer centers that have earned designation by the National Cancer Institute, we are one of just 41 in the country, and the only one in a 10-state area, classified as comprehensive—demonstrating equal strength in research, patient care, and education. The breast cancer program is poised for additional recognition for special excellence in research.

Our faculty are innovators in investigations that evolve into clinical advances, whether developing new drugs or gathering statistics about cancer prevention and control. Their work influences science and practice internationally, nationally, and right here in Colorado where our patients have access to cutting-edge treatments, many of them still experimental and not widely available.

The result is that five-year survival rates for our breast cancer patients are higher than Colorado averages and dramatically higher for late-stage cancer.



The five-year survival rates for breast cancer patients treated at the Anschutz Medical Campus exceed the overall statewide survival rates.



A young breast cancer researcher in the lab.

We Are Capable of Breaking New Ground

- The Anschutz Medical Campus, one of the newest academic health centers in the world, has outstanding facilities with state-of-the-art research and clinical technology for our scientists, clinical caregivers, patients and students.
- From the first visit to long-term follow-up, our cancer patients are treated by multidisciplinary teams of experts that include oncologists, pathologists, geneticists, surgeons, radiation therapists, counselors and nurse navigators who serve as a patient's contact coordinator.
- Our experts are scientists as well as caregivers, applying their clinical insights to the laboratory search for knowledge about the origins and treatment of cancer, and bringing emerging information and capabilities back to the clinic.
- Our pacesetter programs in nutrition and physiology significantly further general understanding of cancer prevention, control and survivorship.
- These assets attract top cancer specialists to our staff and keep the University of Colorado Cancer Center the most active cancer treatment and referral site in the region.

The Return on Your Investments

Our ability to accelerate our research program depends upon growth—in the clinics and in the laboratories—that will be achieved with investments in:

Talent. Current and endowment funds will enable us to recruit more professionals to investigate and treat breast cancer, including five medical oncologists, two radiation oncologists, two surgeons, two pathologists and three imaging specialists.

Infrastructure. Current and capital funds will build and equip new laboratories for our innovative research to speed the transition from thought to therapy; build and equip new clinical facilities to continue growing the number of patients we can see, treat and follow-up; and allow expansion of data collection and processing to support our Breast Cancer Tissue Bank and epidemiologic studies.

Research. Current and endowment funds will provide collaborative grants to promote interdisciplinary initiatives, seed grants to get ideas into action and development grants to move ideas from the laboratories to the clinic.

Patient Resources. Current, capital and endowment funds will ensure the best possible support services and environment for the thousands of breast cancer patients in the state, the Rocky Mountain region and the country who look to and rely on the University of Colorado Cancer Center for the best possible care.



TALENT

INFRASTRUCTURE



RESEARCH

PATIENT RESOURCES



Help Advance the Fight Against Breast Cancer

With your meaningful investment, we can:

Increase Our Capacity to Serve Patients

Our team approach ensures better outcomes and a better experience for our patients, but it also requires an unusual commitment of time and space. Because of our superior results, our patient volume is growing by as much as 15 percent per year, and we will outgrow our present facilities in as little as a year. With additional resources, we will expand our clinical facilities and equipment and recruit 14 new breast cancer specialists, making it possible for us to treat more patients and provide more hope.

Reduce the Incidence and Impact of Breast Cancer

We have one of the most complete and comprehensive programs in the nation addressing issues of epidemiology, prevention, control and survivorship. With additional resources, we will extend our ability to collect and disseminate information vital to the caregivers treating breast cancer patients, more intensively follow-up with patients and advise women seeking knowledge about the disease.

Accelerate the Pace of Basic and Translational Research

More than 40 members of the University of Colorado Cancer Center are focused on understanding the genetic, biological and biochemical mechanisms of breast cancer. With additional resources, we will expand our laboratory facilities and equipment to accommodate the new specialists whose work can speed the process from discovery to testing to clinical application.



Kate Horwitz, PhD, distinguished professor of endocrinology, diabetes and metabolism, was the first person to identify the role of progesterone receptors—another female hormone—in breast cancer.



“I am a daughter, mother, grandmother and breast cancer survivor. I support the need for education and prevention, and especially research. For current survivors as well as those who will be diagnosed, research is the key to earlier detection and new and better treatment of breast cancer and all other types of cancer.

While finding a cure is the future, research is today's best hope for people who are or will be confronting cancer.”

- Firth Waldon

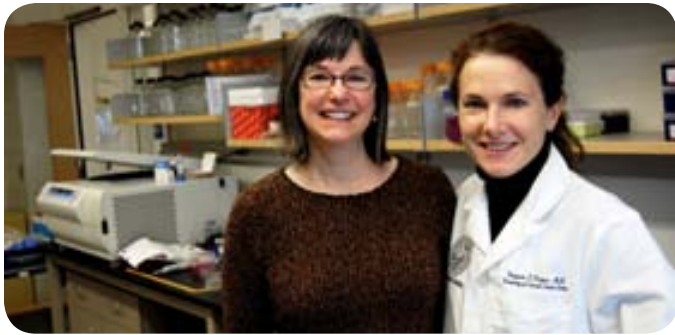


Research is Hope

Donors Will Change the Future

Your Support Will Help Us:

- **Address pregnancy-related breast cancer**
Our researchers are defining the specific characteristics of breast cancers in pregnant women and young mothers. These early onset cancers typically and tragically are aggressive and threaten women at a particularly vulnerable time of life. Greater investment will allow us to treat more patients and provide researchers with more tumor tissue samples for the biological and therapeutic studies that are key to breakthroughs.



Pepper Schedin, PhD, and Ginger Borges, MD, lead research and clinical care efforts in pregnancy-associated breast cancer.

- **Identify risk factors related to lifestyle**
Nutrition and exercise are major factors in the development of breast cancer. Greater investment will augment work to understand fat metabolism and energy utilization in relation to risk and occurrence.
- **Improve drug response, minimize side effects**
We have an outstanding team of medical oncologists, endocrinologists and pathologists collaborating in a world-class developmental therapeutics program. Greater investment will support efforts to identify the pathways causing drug resistance in some patients and decrease unwanted effects of treatment by refining the specificity and delivery of hormone, drug and radiation therapies.

- **Find ways to slow, and even halt, the spread of breast cancer**

The more we understand the genetic mutations that affect aggressiveness and metastasis, the more capably we can move to halt the spread of cancer. Greater investment will promote both basic research and related development and testing of new drug, radiation and surgical treatments.

- **Yield new insight into the benefits of integrative medicine**

With guidance from our caregivers, many patients combine traditional treatments with supplements, herbal remedies, acupuncture, massage, meditation and other alternative approaches. Greater investment will enable us to measure and evaluate the role and effectiveness of these complementary therapies.

Educate the Next Generation of Innovators

The University of Colorado is noted for its exemplary training of doctors, nurses and basic scientists from first-year students to postgraduate fellows. The teaching faculty work closely with students, presenting science in a clinical context. University of Colorado Cancer Center professionals are regarded as among the best in the world, and top students dedicated to careers in cancer care and research are attracted by the prospect of learning from them. With additional resources, we will increase the scholarships and fellowships available to the next generation of breast cancer specialists.

Peter Kabos, MD, assistant professor in medical oncology, trained in the fellowship program at the CU Cancer Center.





To learn about the many ways you can make a gift:

Contact
Brenda Parolini

Associate Vice President
Phone: 303-724-8215
brenda.parolini@cufund.org

or
Libby Printz

Director of Development
Phone: 303-724-3156
libby.printz@cufund.org

University of Colorado Foundation
Anschutz Medical Campus
Mail Stop F434
Aurora, CO 80045-0511
www.cufund.org

All gifts should be payable to the University of Colorado Foundation, specifying the appropriate fund.

Help Us Seize the Moment

Thanks to past support, our many successes have helped generate tremendous momentum in the fight against breast cancer.

The convergence of exceptional expertise and resources at the University of Colorado Cancer Center allows us to be bold and ambitious in maximizing our opportunities for improving diagnosis, treatment, survival and prevention.

Your investment at this time, in this place, will bring the future closer.

