Colorado State People & Programs

Two Great Universities United Against Cancer

CSU, CU powerhouses in cancer research for over 20-years

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One enemy, one goal, to get rid of cancer. And we do it better as a team. Colorado State University and University of Colorado may be rivals on the football field, but when it comes to breakthroughs in cancer treatment, these two world-class universities are on the same team.

Cancer breakthroughs

Earlier this year, leaders and researchers from two of the nation's top cancer research centers celebrated more than 20 years of collaboration. For at least the past two decades, the researchers from the Colorado State University Cancer Supercluster and University of Colorado have partnered on research that has lead to breakthroughs in cancer treatment for humans and companion animals.

The University of Colorado's cancer research enterprise includes more than 325 scientists and clinicians from UC Denver, University of Colorado-Boulder and University of Colorado-Colorado Springs. The CSU Cancer

http://superclusters.colostate.edu/index.aspx and University of Colorado (https://www.cu.edu) have partnered on research that has lead to breakthroughs in cancer treatment for humans and companion animals.

The University of Colorado Cancer Center (http://www.uccc.info/for-healthcare-professional/cancer-center/index.aspx), or UCCC, is the Rocky Mountain region's National Cancer Institute (http://www.cancer.gov)-designated comprehensive cancer center, one of just 40 in the United States. UCCC, a consortium of six member institutions and eight affiliated organizations, exists to allow Colorado cancer scientists and clinicians to share equipment, faculty, technicians and expertise with one another, rather than duplicating efforts.

More than 325 scientists & clinicians

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Supercluster consists of more than 70 cancer-research members from five colleges and 12 departments, including the Animal Cancer Center (http://www.csuanimalcancercenter.org) - the largest companion animal cancer research center in the United States. Other programs at CSU also research various areas of human cancers.

"The collaboration between our institutions has led to some exciting discoveries," said Robert Ullrich, Ph.D., UCCC Carcinogenesis Program (http://www.uccc.info/for-healthcare-professional/cancer-center/research/research-by-program/cc-cp/index.aspx) director and chief research officer of the Colorado State University Cancer Supercluster. "Our members have worked together to develop new ways to identify and characterize cancers, which we can use for better diagnosis, better treatments, and better monitoring of how effective the treatments are. Together, we've also developed a graduate training program in cancer biology."

**Human and companion animal genes similar**

The genes of dogs, cats and horses more closely resemble human genes than do genes of mice typically used in medical research. The Animal Cancer Center offers many clinical trials that help companion animals while answering questions that may lead to human benefit.

"This collaboration between human and animal cancer centers has been going on for more than 20 years, and it is unprecedented in the United States," said Paul A. Bunn, Jr., M.D., director of the University of Colorado Cancer Center and professor of Medical Oncology at the University of Colorado-Denver (http://www.ucdenver.edu). "We are very distinct universities, located miles apart, who have decided that our cancer research collaboration will not only benefit the people of Colorado, but all Americans. We are making great strides in cancer research together."

**Saving lives**

Emily Brown is proof of this point. Now 21, the Colorado Springs native was diagnosed with osteogenic sarcoma in her mid-spine when she was 10. Emily went to Sky High Hope Camp (http://www.ronaldhouse.org/camp.html), a camp for kids with cancer outside of Fort Collins, and met Dr. Steve Withrow (http://www.cvmbs.colostate.edu/clinsci/faculty/withrow.htm), director of the CSU Animal Cancer Center and the chief scientific officer of the university's Cancer Supercluster, who volunteers there.

"He knew of a study for dogs that involved implanting these radioactive seeds near the tumor," said Brown, who is now a student at UCCS. "It was the seeds that saved my life the first time. Later, they found a metastatic tumor in my right lung. At CSU they had done research on an immune
booster, and my doctor, Lia Gore, put me on the clinical trial. They think that's a reason my metastasis went away.

Cancer Supercluster at Colorado State

The Cancer Research and Treatment Supercluster, and its companion private enterprise NeoTREX (http://www.neotrex.org), build on cancer research currently funded by organizations such as NASA (http://www.nasa.gov), the National Institutes of Health (http://www.nih.gov), the National Cancer Institute (http://www.cancer.gov), Morris Animal Foundation (http://www.morrisanimalfoundation.org) and U.S. Department of Energy (http://www.doe.gov). Research and training within the program includes carcinogenesis, chemoprevention, cancer risk assessment, cancer diagnosis, experimental therapeutics, medical oncology, radiation oncology, surgical oncology, and core related sciences including genomics, proteomics, metabolomics, bioinformatics and pharmacokinetics.

The Animal Cancer Center, the largest center of its kind in the world, is devoted to caring for animals with cancer and researching cures and preventive medical interventions. The Animal Cancer Center has an international reputation for its collaborations with human cancer institutions such as the Mayo Clinic (http://www.mayoclinic.com), the National Cancer Institute (http://www.cancer.gov) and the M.D. Anderson Cancer Center (http://www.mdanderson.org).