



## University of Colorado faculty attract \$1.46 billion in sponsored research funding and gifts<sup>[1]</sup>

[2]

University of Colorado faculty this year attracted \$1.46 billion in sponsored research funding and gifts supporting research. The support powers wide-ranging discovery and impact, ultimately benefiting Colorado, the nation and the world.

This marks the sixth consecutive year that CU's annual sponsored research funding and gifts supporting research have topped \$1 billion. The 2021-22 systemwide total is an increase of 1% over the previous year's \$1.45 billion.

"CU's faculty researchers are exceptional in the many ways they advance research, scholarship and creative work," said CU President Todd Saliman. "Their work improves lives, saves lives and addresses some of the most serious issues facing society. They foster discovery and innovation that benefits Colorado and the world."

Federal agencies award most of CU's sponsored research funding, including \$863.8 million in 2020-21. Non-federal awards accounted for \$484.5 million, while gifts toward research via the CU Foundation totaled \$116.3 million.

Following are the year's totals in sponsored research funding and gifts supporting research at each of the four CU campuses, as well as highlights of the endeavors that are advancing knowledge, inspiring innovation, fostering creativity and improving quality of life for Coloradans:

**University of Colorado Anschutz Medical Campus: \$777.8 million.** The newly formed Department of Biomedical Informatics (DBMI) is putting CU Anschutz on the map as a world leader in using big data and artificial intelligence to improve patient care and health outcomes. Collectively, DBMI faculty were awarded \$30.7 million in new funding in 2021-22, while founding chair Casey Greene, Ph.D., a professor of biomedical informatics at the CU School of Medicine, was awarded nearly \$3 million. Greene's awards during the fiscal year included a \$1.4 million NIH grant from the National Human Genome Research Institute and a \$1 million NIH grant from the National Cancer Institute to study and categorize the cellular composition of ovarian tumor subtypes, which could pave the way for more personalized cancer therapies. **University of Colorado Boulder: \$658 million.** During hypersonic flight, the temperature of air and other gases around a vehicle can reach thousands of degrees, triggering chemical reactions. Research fueled by a \$7.5 million Department of Defense grant at CU Boulder investigates the breakdown and collisions of nitrogen, oxygen, and carbon molecules in this environment using advanced computational modeling and experimental tests with molecular beams, shock tubes and hypersonic wind tunnels. Hypersonics is an active area of research around the world for national defense purposes. The research grant includes multiple universities in the U.S. and around the world, including the University of New Mexico, Ohio State University, Stanford University and Oxford University in England. **University of Colorado Denver: \$19.5 million.** The National Science Foundation awarded \$1.3 million to a team of researchers to study how vegetation in the Yukon-Kuskokwim Delta in Western Alaska is responding to climate change. Millions of migrating geese depend on the area, which is being threatened by warming temperatures, sea rise, and flooding as seen earlier this month when remnants of Typhoon Merbok pounded the state causing millions in damages. The team also is looking at whether the vegetation's role in taking in carbon dioxide and producing oxygen is changing. By studying these changes in the Arctic, scientists may be able to predict how high-altitude environments – including Denver – will be affected by climate change and better prepare for it. The project is a collaboration with South Dakota State University and Utah State University. **University of Colorado Colorado Springs: \$9.3 million.** Brandon Runnels, Ph.D., Assistant Professor of Mechanical Engineering at UCCS, was granted a National Science Foundation CAREER Award, one of the most prestigious awards available to early career academics, to develop faster and more reliable techniques for assessing damage likelihood in materials. The project, called "CAREER: A Multichannel Convolutional Neural Network Framework for Prediction of Damage Nucleation Sites in Microstructure," has been funded with more than \$500,000 over five years. His work will use artificial intelligence to identify why and how materials break, in order to make the world a safer place.



Sponsored research funding from federal, state, international and foundation entities targets specific projects to advance research in laboratories and in the field. Research funding also helps pay for research-related capital improvements, scientific equipment, travel and salaries for research and support staff and student assistantships. CU cannot divert this funding to non-research-related expenses.

A significant amount of sponsored research funding is directed to departments and researchers with unique expertise, such as biotechnology and aerospace, which stimulates industry.

## **STAR HARBOR, CU collaborate on space-focused educational curriculum**<sup>[3]</sup>

## **Regents approve staff recommendation for no changes to Policy 14.D**<sup>[4]</sup>

## **Top takeaways from State of the Campus 2022**<sup>[5]</sup>

## **Educators invited to CTL and ASSETT open house** <sup>[6]</sup>

## **The highs and lows of the Hybl Center altitude chamber** <sup>[7]</sup>

## **CU Denver launches new initiative to increase access to tech education, careers** <sup>[8]</sup>

## **CU Cancer Center leading clinical trial of new drug to treat metastatic colorectal cancer** <sup>[9]</sup>



## Schrock named assistant vice chancellor and Title IX coordinator in the Office of Equity <sup>[10]</sup>

## Cantu named UCCS vice chancellor for enrollment management <sup>[11]</sup>

## Spencer named NLN ‘Nurse Educator of the Year’ <sup>[12]</sup>

## Colorado is turning to everyone from Gen Z to retirees as it tries to staff up for expanded preschool in 2023 <sup>[13]</sup>

## New free Colorado Springs program to help kickstart conversations about war for servicemembers, civilians <sup>[14]</sup>

## Farming, water and Wall Street on Colorado’s Western Slope <sup>[15]</sup>

### Links

[1] <https://connections.cu.edu/spotlights/university-colorado-faculty-attract-146-billion-sponsored-research-funding-and-gifts>

[2] [https://connections.cu.edu/sites/default/files/spons-res\\_feat\\_0.jpg](https://connections.cu.edu/sites/default/files/spons-res_feat_0.jpg)

[3] <https://connections.cu.edu/stories/star-harbor-cu-collaborate-space-focused-educational-curriculum>

[4] <https://connections.cu.edu/stories/regents-approve-staff-recommendation-no-changes-policy-14d>

[5] <https://connections.cu.edu/stories/top-takeaways-state-campus-2022>

[6] <https://connections.cu.edu/stories/educators-invited-ctl-and-asset-open-house>

[7] <https://connections.cu.edu/stories/highs-and-lows-hybl-center-altitude-chamber>

[8] <https://connections.cu.edu/stories/cu-denver-launches-new-initiative-increase-access-tech-education-careers>

[9] <https://connections.cu.edu/stories/cu-cancer-center-leading-clinical-trial-new-drug-treat-metastatic-colorectal-cancer>

[10] <https://connections.cu.edu/people/schrock-named-assistant-vice-chancellor-and-title-ix-coordinator-office-equity>

[11] <https://connections.cu.edu/people/cantu-named-uccs-vice-chancellor-enrollment-management>

[12] <https://connections.cu.edu/people/spencer-named-nln-nurse-educator-year>

[13] <https://connections.cu.edu/itn/colorado-turning-everyone-gen-z-retirees-it-tries-staff-expanded-preschool-2023>

[14] <https://connections.cu.edu/itn/new-free-colorado-springs-program-help-kickstart-conversations-about-war-servicemembers>

[15] <https://connections.cu.edu/itn/farming-water-and-wall-street-colorado-s-western-slope>

