Published on CU Connections (https://connections.cu.edu)

CU sets new systemwide record with \$1.7 billion in sponsored research funding and gifts[1] [2]

Faculty across the University of Colorado system this year attracted \$1.7 billion in sponsored research funding and gifts supporting research, a new record total in CU history.

In achieving the collective record, each of the four CU campuses also attained new records for sponsored research funding and gifts supporting research.

The systemwide figure reached in the 2023-24 fiscal year is 7% higher than the previous year's total. This marks the eighth consecutive year CU has topped the \$1 billion mark.

The investment in research endeavors at CU's four campuses powers life-changing discoveries across Colorado, the nation and the world.

"Our extraordinary faculty are changing life as we know it and creating new possibilities for our future. The importance of their research is reflected in part by the level of funding they continue to attract each year," said CU President Todd Saliman. "This latest milestone speaks to the real-world impact of the discoveries and innovations the CU community is generating."

The overall total is fueled by \$1.5 billion in research awards, an 8% increase over the previous year. Most is awarded by federal agencies, which accounted for \$942.8 million. Top federal sponsors of CU research include Health and Human Services (in particular, the National Institutes of Health), NASA, the Department of Commerce, the National Science Foundation and the Department of Defense.

Non-federal awards totaled \$579.7 million. Gifts toward research via the CU Foundation totaled \$180.8 million.

Following are the 2023-24 totals in sponsored research funding and gifts supporting research at each of the four CU campuses, as well as examples of the ways the university advances knowledge, inspires innovation, fosters creativity and improves the quality of life for Coloradans:

University of Colorado Anschutz Medical Campus: \$910 million. Last year, the National Institutes of Health (NIH) awarded \$62 million over a seven-year period to the Colorado Clinical and Translational Sciences Institute (CCTSI) to help advance groundbreaking discoveries that can directly impact patient care. These grants will fuel biomedical research and scientific training programs across the state, while empowering CU Anschutz to improve outcomes for patients facing long COVID, type II diabetes and a wide range of other diseases. Over the coming years, the CCTSI will leverage these funds to advance clinical and translational research, promote collaborative team science, and ensure our state is poised to respond to the public health emergencies of the future. In addition, the awards will support CCTSI's ongoing work to address health inequities and disparities statewide. University of Colorado Boulder: \$742.2 million. As a key university partner in the Colorado-Wyoming Climate Resilience Engine (CO-WY Engine), CU Boulder is enabling data analysis, monitoring technologies and predictive analytics to develop trustworthy decision support systems; mitigating environmental and economic degradation; and advancing climate solutions that result in regional community resiliency and economic vitality. The university is also contributing to the creation of new startup companies and playing a role in leadership and governance of the CO-WY Engine. The prestigious National Science Foundation award totals up to \$160 million over 10 years and positions the CO-WY Engine at the forefront of the nation's environmental and climate technology initiatives. The inclusion of the CO-WY Engine in this national effort highlights the region's capacity to transform into a thriving hub of innovation, technology and economic growth. University of Colorado Denver: \$31.7 million. Colorado has a tragic history of gun violence, particularly mass violence, which prompted the passage of several laws to address the problem. Among the laws passed was a 2020 "red flag law," which authorized the use of civil protection orders called extreme risk protection orders (ERPOs). The National Institute of Justice awarded a \$1.5 million dollar grant to Sheila Huss, Ph.D., assistant teaching professor of Criminal Justice, and her team to study the effectiveness of ERPOs at the macro and micro levels. The grant funds a five-year project that assesses whether ERPOs effectively prevent suicides, homicides and incidents of mass violence. Additionally, the project examines various aspects of the ERPO process for petitioners and respondents to determine what parts of the implementation are effective and where the barriers are. University of Colorado Colorado Springs: \$19.3 million. Michele Okun, Ph.D., BioFrontiers research professor and director of the Sleep and Biobehavioral Health Research

Laboratory, recently landed the Peer Reviewed Medical Research Program Lifestyle and Behavioral Health Interventions Research Award. The award comes with a \$3.8 million grant for the study "Improving Maternal Mental Health in Military-Affiliated Pregnant Women: Effectiveness of a Smart Bassinet," a multi-institutional collaborative effort. Okun and the research team plan to investigate the effectiveness of smart bassinets in improving sleep patterns in infants, and, subsequently, the sleep and mental health of the birthing parent. Perinatal sleep health has been a focus of Okun's for some time, and it's been a longstanding goal of hers to secure funding for in-depth research into her specializations.

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 programs and researchers with unique expertise, such as biotechnology and aerospace, which stimulates industry.

## Biomedical professor at intersection of teaching and entrepreneurship[3]

Next week's University of Colorado Showcase is bringing together all that is great about entrepreneurship and innovation across our four campuses.

Our community is made of diverse industries and perspectives – in this case, that of a biomedical professor at CU Boulder who is also the CEO of Aspero Medical.

Mark Rentschler is a tenured professor of mechanical engineering with roles in biomedical engineering, robotics at CU Boulder and surgery at CU Anschutz. He leads the Advance Medical Technologies Laboratory, innovating "smart" medical devices and surgical robotics with support from NSF, NIH and industry partners.

His lab focuses on advancing health care technologies toward a futuristic operating room. As the founding CEO of Aspero Medical, a CU spin-out, Rentschler drives innovation in gastroenterology devices. The company's FDA-cleared device is on the market, with a promising pipeline for future commercialization.

Here's a Q&A with Rentschler:

# You are interestingly both a professor and a CEO. Which came first, professorial life or private sector life? And how did you move into the other?

It was a bit of both, almost in parallel. Before I started at CU, I spent two years as the first employee in a startup that spun out of a university based on my Ph.D. research. Here is where I was likely first bitten by the entrepreneurial bug. Coming to CU then as a professor, I anticipated spinning technology out at some point, but didn't anticipate leading the company.

As a deep tech founder, much of the early time at the company was heavy in technical development, so it's been a reasonably smooth transition to picking up the additional skills needed to lead a small spin-out company.

#### How has being part of CU Boulder affected your innovations and entrepreneurship?

CU has been extremely supportive of my entrepreneurial pursuits. While there are roadmaps, rarely is there a perfect blueprint for how to translate technology out of a university. CU has been flexible and creative in helping me and my co-founder establish a startup and spin the tech out of the university.

#### With your unique perspective, how do you see the CU campuses helping or encouraging faculty in their

Published on CU Connections (https://connections.cu.edu)

## innovation and entrepreneurship journeys?

What I see as a major strength is that CU doesn't see one size fits all. There is creativity and willingness to try different approaches to supporting faculty and entrepreneurs in an effort to move tech along in an efficient manner. The willingness to try and fail, with emphasis on failing early, is something I've observed as a hallmark of success.

## CU Showcase is Oct. 4

Meet Rentschler and other members of the CU ecosystem at next week's CU Showcase, which brings together ventures spanning quantum tech, AI, health care, the arts and more, all tackling big challenges for our state and world. This gathering celebrates their hard work and aims to spark serendipitous connections and creative collaborations that will shape the future of Colorado and our university system.

We hope to see you there: You are the showcase!

#### **Event Details**

When: 1-6 p.m. Oct. 4 Where: CU Anschutz Medical Campus Register<u>HERE[</u>4]Learn more about the initiative <u>HERE</u>[5]

- By Megan Barbour, I&E Initiative Adviser

How to fight 'technostress' at work [6]

Cooley named UCCS Chief of Police [7]

Recetas y recuerdos: Food, family and memories from CU Denver's community[8]

<u>CU summit highlights importance of military family engagement in firearm suicide prevention [9]</u>

Leeker will use NSF grant to promote participation of Black families in STEM [10]

<u>Gibson completes term on NCAA Committee [11]</u>

Farrelly virtually partnering with educators in Ukraine [12]

The Quest to Build a Telescope on the Moon[13]

Colorado child psychiatrist calls new Instagram policy a great first step[14]

New 'violence interrupter' app built by and for youth in northeast Denver[15]

## Links

[1] https://connections.cu.edu/spotlights/cu-sets-new-systemwide-record-17-billion-sponsored-research-funding-andgifts[2] https://connections.cu.edu/sites/default/files/sponsored-res\_feat\_1.jpg[3] https://cvent.me/r1vLvo[5] https://www.cu.edu/impact-cu/[6] https://connections.cu.edu/stories/how-fight-technostresswork[7] https://connections.cu.edu/stories/cooley-named-uccs-chief-police[8] https://connections.cu.edu/stories/recetasy-recuerdos-food-family-and-memories-cu-denver-s-community[9] https://connections.cu.edu/stories/cu-summithighlights-importance-military-family-engagement-firearm-suicide-prevention[10] https://connections.cu.edu/people/leeker-will-use-nsf-grant-promote-participation-black-families-stem[11] https://connections.cu.edu/people/farrelly-virtually-partnering-educators-ukraine[13] https://connections.cu.edu/itn/questbuild-telescope-moon[14] https://connections.cu.edu/itn/new-violence-interrupter-app-built-and-youth-northeast-denver