

# Changing the world through biomedical research

The University of Colorado **Anschutz Medical Campus is at** the forefront of transformative research, science, healthcare and innovation.

As the largest academic health sciences campus in the region, CU Anschutz encompasses six health professional schools, 60+ centers and institutes, and two nationally ranked hospitals – all collaborating to deliver life-changing research across the full spectrum of care. From basic science to population health research and everything in-between, scientists across our integrated medical campus are advancing groundbreaking new discoveries to improve human health and well-being worldwide.

## **CU Anschutz Research by the Numbers, FY23**

1.5K

3,500+

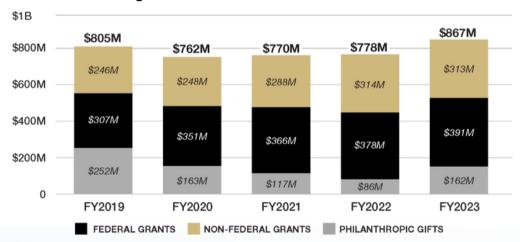
principal investigators on campus

active clinical trials underway

square feet of laboratory space

patents filed by faculty last year nationally ranked hospital partners

### **Research Funding at CU Anschutz**





\$705M sponsored research



\$162M philanthropic gifts for research in FY23

**\$**867M total research funding in FY23

## **Key Grants and Partnerships**

At CU Anschutz, collaboration is in our DNA. Here are a few of the key research partnerships and grants that are advancing scientific discoveries on our campus and beyond.

#### **CU INNOVATIONS**

CU Innovations brings together industry partners and investors with researchers and clinicians to rapidly translate bold ideas into life-changing biomedical devices and healthcare technologies. Last year CU Innovations' technology commercialization activities generated an estimated \$423.1 million in economic activity and supported an estimated 1,696 jobs across the state.

#### ARPA-H

The Advanced Research Projects Agency for Health (ARPA-H) recently awarded up to \$39 million to a University of Colorado-led team of scientists to develop novel treatments for osteoarthritis, a degenerative joint disease. What started as crosscampus collaboration inspired by CU's AB Nexus program has turned into a prominent research project with the potential to impact millions of patients worldwide.

#### **CCTSI**

Last year, the NIH awarded \$54 million over a seven-year period to the Colorado Clinical and Translational Sciences Institute (CCTSI) at CU Anschutz. The grant will fuel biomedical research and training across the state, allowing the University of Colorado to advance leading-edge scientific collaborations that can directly impact health and patient care.

## 2023-24 CU Anschutz Research Highlights

Last year was one full of exciting innovations and transformative advances in biomedical research at CU Anschutz. Here are just a few of the ways that our researchers are bringing pioneering medical discoveries from the laboratory to the clinic to the world at large.

**Advancing Mental Health Breakthroughs:** Scientists at CU Anschutz are on the cutting edge of interdisciplinary research to help address the mental health crisis. Recent research highlights include:

- Groundbreaking clinical trials are testing the effectiveness of deep brain stimulation—a
  novel procedure that implants electrodes into the brain—as a treatment for OCD and
  schizophrenia.
- CU Anschutz scientists are studying the underlying causes of depression and anxiety—both genetic and environmental—and how to reduce risk factors across the lifespan.
- Researchers are working with hospital partners to develop smartphone apps that track key indicators of mental health and help caregivers to identify early suicide warning signs.

**Delivering New Cancer Cures:** The University of Colorado Cancer Center is a world leader in pioneering more effective and personalized cancer treatments that are giving renewed hope to cancer patients. Recent research highlights include:

- Home to leading cellular therapy scientists and a state-of-the-art manufacturing facility, the Gates Institute at CU Anschutz is advancing cutting-edge CAR T-cell therapies that are revolutionizing the way we treat leukemia, lymphoma and other cancers—often with fewer side effects than chemotherapy.
- Basic scientists at CU Anschutz are making significant progress in understanding the cellular mechanisms that drive cancer growth, helping to unlock new treatment pathways and cures.

**Transforming Diabetes Care:** CU Anschutz is nationally recognized for its novel research into diabetes detection, causes and prevention, as well as its integrated approach to incorporating new treatments directly into patient care. Recent research highlights include:

- In 2023, a pediatric patient at the Barbara Davis Center for Diabetes became the first
  person in Colorado to receive Tzield, a newly-approved drug aimed at delaying the onset of
  type 1 diabetes. This first-of-its-kind clinical trial could transform care and improve health
  outcomes for diabetes patients nationwide.
- Researchers are also working to reduce diabetes by studying the key drivers of obesity and metabolic disease, as well as the most effective interventions to help patients to live healthier lives.

**Improving Military and Veteran Health:** CU Anschutz is home to renowned researchers on trauma care, brain injuries and PTSD. Today, our researchers are using their expertise to help inform caregivers and military leaders on combat-related injuries, surgical trauma techniques, mental health interventions and more. Recent research highlights include:

- A CU Anschutz team won the 2023 Military Health System Research Symposium research team award for their significant contributions to military medicine. The SAVE O-2 team is studying how much oxygen is needed for critically injured patients, which could reshape military medical supply logistics.
- Through the Firearm Injury Prevention Initiative, researchers are leading evidence-based interventions to help reduce suicide rates among veterans and active military, including a "Lock to Live" program that promotes safe gun storage for those in crisis.



In 2023, the CU School of Medicine's Department of Psychiatry partnered with a local school district to open Traverse Academy, a first-of-its-kind school and day program for youth with severe mental health conditions.



The CU Cancer Center received more than \$74.8 million in research funding in FY23 and published nearly 650 cancer-focused peerreviewed research papers.



#### **DID YOU KNOW?**

Last year, the Barbara Davis
Center received a \$9 million grant
to expand its highly successful
type 1 diabetes universal
screenings nationwide – a program
proven to help reduce late-stage
diagnosis complications.



The Department of Defense has partnered with CU Anschutz researchers to develop new "BioButton" wearable devices that can help to monitor soldiers' health remotely.

Image courtesy of ZGF Architects © Connie Zhou

Together, we make tomorrow's research happen. cuanschutz.edu/research