

Research and Innovation at the University of Colorado Boulder

The **Research & Innovation Office (RIO)** at CU Boulder is focused on creating global impact by cultivating and supporting collaboration, transformation and leadership. At the heart of this focus are the diverse contributions of a wide range of world-class experts, working together to accelerate ideas throughout the entire innovation lifecycle.



\$658M in total research funding FY21-22

87% increase in research funding over the last decade (2013-2022)

#5 nationally in startup creation

Aerospace

- ▶ **Celebrating 75 years of LASP:** Laboratory for Atmospheric and Space Physics—a CU Boulder research institute that pre-dates NASA—has sent an instrument to study every planet in our solar system.
- ▶ **#1 public university recipient of NASA research funding:** Anchored by LASP and the College of Engineering and Applied Science, CU Boulder is consistently a leading recipient of NASA research funding.
- ▶ **Dynamic aerospace partnerships:** Collaborations include companies like Lockheed Martin, Northrop Grumman and Ball Aerospace, and government partners like NASA, United States Air Force Academy and U.S. Space Command.



Earth, Environment & Sustainability

- ▶ **A top ranked program in the world in geosciences:** Research institutes like Cooperative Institute for Research in Environmental Science (CIRES), Institute of Arctic and Alpine Research (INSTAAR) and Renewable and Sustainable Energy Institute (RASEI) tackle complex global issues.
- ▶ **Home to many of the nation's most highly cited researchers:** CU Boulder researchers lead in climate, energy, sustainability, and earth and environmental sciences.
- ▶ **The relationship between social and natural systems:** Institute of Behavioral Science (IBS) researchers study climate change and human vulnerability, population migration and resilience to wildfires, hurricanes, droughts and floods.



Arts & Humanities

- ▶ **25 years of advancing the arts and humanities:** The Center for Humanities & the Arts supports faculty and graduate student research, cultivates collaborations, incubates innovative graduate teaching and training, and engages with the broader community.
- ▶ **Center for African and African American Studies:** Created in 2021, the CAAAS leads research and teaching about the histories, cultures and arts of Africa, African Americans, and the wider African diaspora.
- ▶ **\$60K National Endowment for the Humanities fellowship:** Archaeologist, classicist and former MacArthur “genius grant” recipient Dimitri Nakassis recently won a fellowship to advance his study of ancient and Mycenaean Greece.



Quantum Science & Technology

- ▶ **A leading quantum science and technology ecosystem:** Emanating from world-class opportunities including top-rated academic disciplines, extensive collaboration with NIST and JILA—a joint research institute of NIST and CU Boulder—and the new Quantum Engineering Initiative.
- ▶ **\$25M NSF Quantum Leap Challenge Institute:** CU Boulder is leading NSF-funded Q-SEnSE, which includes a dozen other research organizations across the nation and abroad. The university is seeking renewal of Q-SEnSE.
- ▶ **CU Boulder's influential quantum footprint:** Includes expanding partnerships with established partners like Lockheed Martin and Boeing, plus fast-rising startups like CU Boulder-founded Inflection (formerly ColdQuanta).





**crown
institute**

The Renée Crown Wellness Institute
University of Colorado **Boulder**



Building a World Where Every Young Person Thrives

At the **Renée Crown Wellness Institute**, we are committed to creating a world where every young person thrives. Our vision invites many disciplines, perspectives and people to come together. We seek to promote the wellness of young people and the systems and adults who support them through interdisciplinary research-practice partnerships.

Crown Institute Overview

Given the reality of the pervasive crisis in youth mental health, supporting children and young people is not just about conducting research or publishing papers. It is also about building knowledge that leads to real action in our communities.



- 300,000+ people** viewed our conversation on compassion and dignity in schools
- 4,428 undergraduates** enrolled in Crown Institute courses
- 64 faculty and staff** representing 14 departments
- 53 students** engaged in Crown Institute research projects
- 32 community** organization and school partners

Research in Partnership with Children and Youth

- ▶ **Partnering with young people to create a better world:** The Crown Institute has worked with 6,200+ young people from ages 6 to 22 since we launched. Our programs are designed with young people and cover a range of important topics including mental health and wellness, education, the arts, the environment and leadership.
- ▶ **InsideU, a digital tool for youth:** Working directly with Disney and Pixar, this project takes inspiration from the movie *Inside Out* and uses the power of storytelling to improve children's mental and emotional wellness. InsideU is preparing for a national launch at the end of 2023.
- ▶ **Promoting undergraduate research and wellness:** The Crown Institute mentors future researchers, practitioners and community leaders. We have established two undergraduate fellowship programs focused on developing rigorous research skills and cultivating compassion, mindfulness and leadership.



Research in Partnership with Families

- ▶ **Family connection:** Since the Crown Institute opened its doors, we have worked with 1,200+ parents and family members. Our research programs design and scale science-based solutions in ways that make sure all parents have the support they need to raise their kids, in the ways they want.
- ▶ **Evidence-based peer-to-peer mentoring for new and expectant parents:** The Alma program connects new and expectant parents who are experiencing depression, anxiety and stress with trained peer mentors who provide support and guidance. In both English and Spanish, we have engaged parents in rural and urban settings.
- ▶ **Countering isolation during COVID-19:** In partnership with the College of Music, the Colorado Lullaby Project addressed the isolation that many parents experienced during the pandemic. Parents met with student musicians and created a lullaby for their child. They reported significant improvement in their experience of loneliness, sense of belonging and mental health.



Research in Partnership with Educators

- ▶ **Working with our state's educators:** The Crown Institute has worked with 412 Colorado educators, engaging teachers in urban and rural areas. Through our partnerships with school districts and educational institutions, we are ensuring that our research supports today's educators.
- ▶ **Together with educators:** We co-designed an online certificate program in Compassion and Dignity that leads to a Master of Arts in Teacher Leadership offered through the CU Boulder School of Education. The program is grounded in neuroscience, psychology and the expertise of educators.
- ▶ **Strengthening belonging and trust:** Our research engages educators, families and young people with the aim of understanding belonging and trust and developing systems and programs that promote equitable and just family-school partnerships.

