



Colorado Clinical & Translational Sciences Institute

# 2025 CCTSI Pilot Grant Program Overview



**Natalie Julie Serkova, Ph.D.**  
CCTSI Pilot Grant Program Director



**Matt Hickey, Ph.D.**  
CSU Pilot Grant Program Director

**Christopher Baker, MD**  
CMH-Pilot Grant Program Director



**Kristen House**  
CCTSI Pilot Grant Program Administrator



# CCTSI Funding Opportunities

CCTSI awards \$2.8 million/year in pilot grants, microgrants, and pre-doctoral and post-doctoral research scholar awards

**\$835K in 2025 for  
CCTSI Pilot Grants**

## Funding Sources

- National Center for Advancing Translational Science (NCATS)
- University of Colorado School of Medicine Dean's Office
- Children's Hospital Colorado Research Institute
- Traystman' Fund

<https://cctsi.cuanschutz.edu/funding>



# CCTSI-Pilot Grant Categories

**Early Career Diversity CO-Pilots**

**Mentored CO-Pilots**

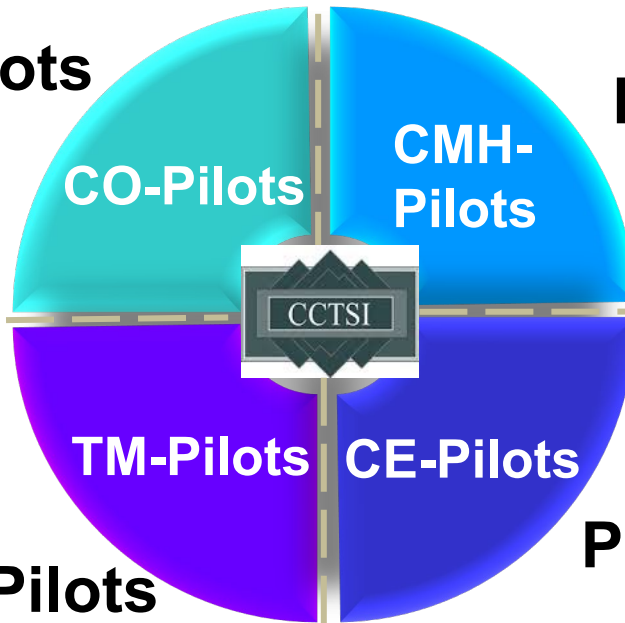
**Junior CO-Pilots**

**CU-CSU CO-Pilots**

**General TM-Pilots**

**CSU Investigators TM-Pilots**

**Biostatistics/Bioinformatics TM-Pilots**



**Mentored CMH-Pilots**

**Junior CMH-Pilots**

**Joint Project CE-Pilots**

**Partnership Development CE-Pilots**

*Colorado Pilots (CO-Pilots)*  
*Child and Maternity Health (CMH)*  
*Community Engagement (CE)*  
*Translational Methods (TM)*



# CCTSI Pilot Grant Award Eligibility



- CCTSI Members
- Faculty at CCTSI Partner Institutions

Graduate, undergraduate, postdoctoral students, fellows and PRAs are encouraged to participate in Non-Key Roles.

**Underrepresented, female, and minority researchers** are particularly urged to apply, as the CCTSI intends to contribute to the creation of a research workforce that is representative of the U.S. population.

*CU Anschutz Medical Campus*

*CU Boulder*

*CU Denver*

*Colorado State University*

*Denver Health*

*University of Colorado Hospital*

*Children's Hospital Colorado*

*National Jewish Hospital*

*VA Eastern CO Health Care System*

*Kaiser Permanente Colorado*

<https://cctsi.cuanschutz.edu/aboutus/affiliated-institutions>

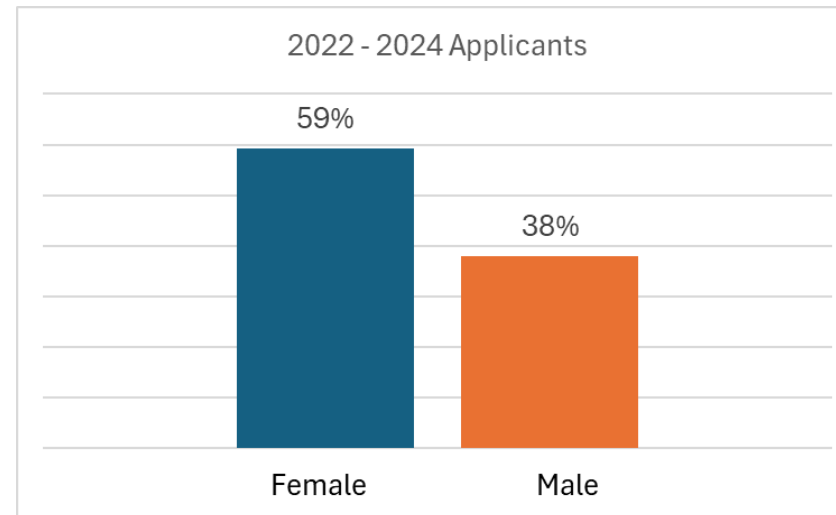
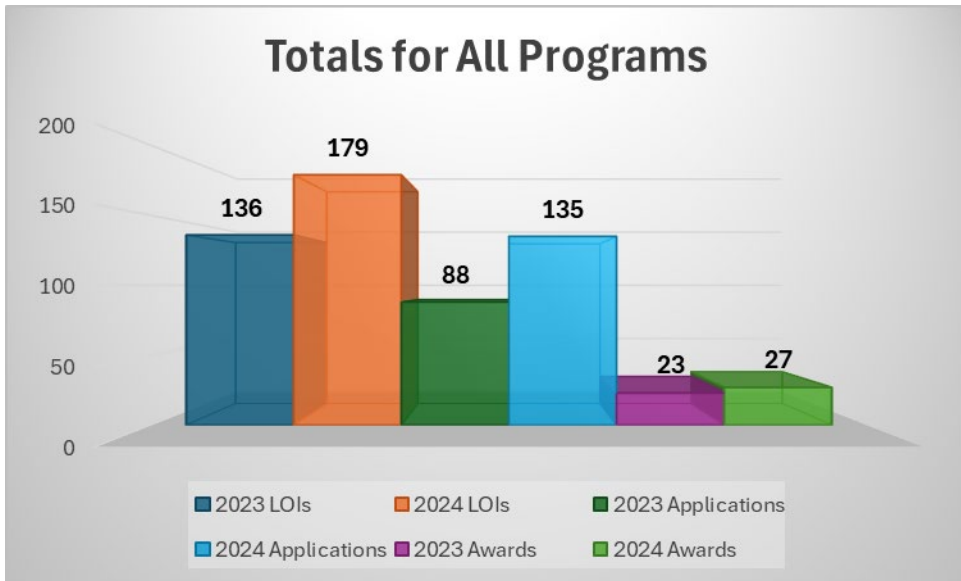
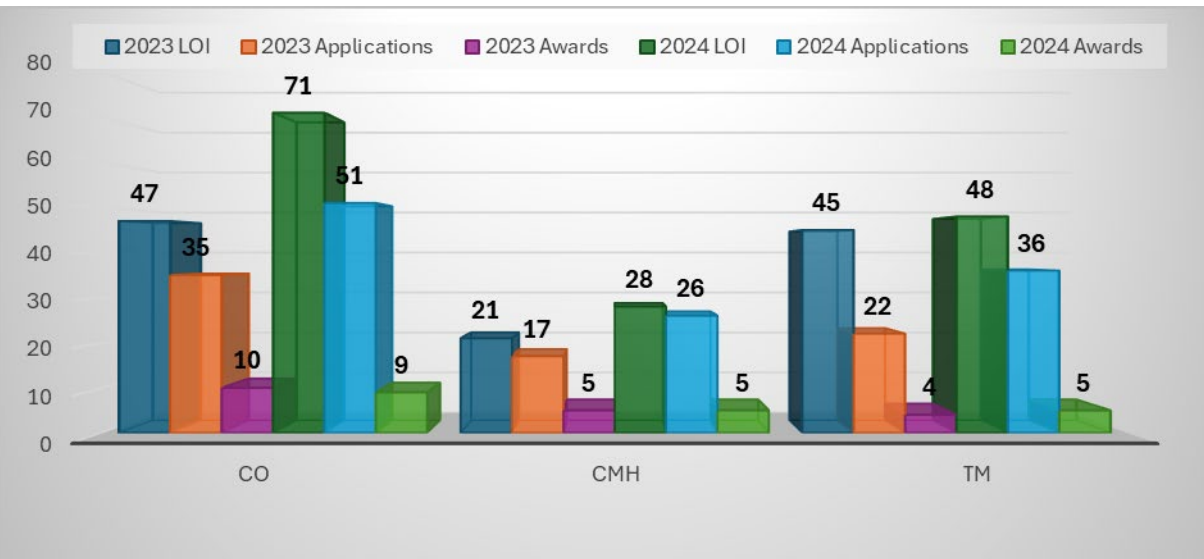
<https://cctsi.cuanschutz.edu/funding/membership>



# History of Applicants

## Demographics (2022 - 2024)

CU-AMC	CU-Boulder	CU-Downtown	CSU	CHCO	NJH	DVAMC	DHHA
64%	4%	2%	17%	5%	3%	3%	1%



# Exclusions/ Restrictions

1. An individual may apply in a Key Role on only one application between the CO-/ CMH-/ CE-Pilots. This restriction is not applicable to the TM-Pilots, nor to Non-Key Roles.
2. Key Role individuals on a no-cost extension (NCE) Pilot award are not allowed to apply for the new cycle.
3. Applications proposing to continue the work of a previously funded CCTSI Pilot Grant Project are not allowed.
4. CCTSI Pilot Grant Awards may not be used to support research conducted outside of the United States. However, proposals that use data or samples collected at international sites through other means may be considered for funding if the portion of the work conducted locally occurs at CCTSI Affiliate Institutions.
5. The CTS-Pilot Program **is not designed to** fund “translational research projects” (which are only focused on crossing a particular step of the translational process for a particular target or disease) that do not also address to some extent a generalizable translational roadblock in **translational science**.



# What is new in 2025 Pilot Grant Cycle?

- We are in the new NCATS UM1 Cycle (2023-2029)
- Under the new NCATS guidelines, a pilot project should address overcoming a barrier or roadblock in [translational science](#) as well as a research question
- No-cost extensions will not be allowed for the 2025 award cycle (all projects must be completed by 7/31/2026)



# 2025 Pilot Grant Cycle Timeline

	CO-Pilots	CMH-Pilots	TM-Pilots
<b>RFA Announcement</b>	11/4/2024	11/4/2024	11/11/2024
<b>Informational Call #1</b>	11/13/2024	11/13/2024	11/18/2024
<b>Letter of Intent Due</b>	<b>12/9/2024</b>	<b>12/9/2024</b>	<b>12/16/2024</b>
<b>Informational Call #2</b>	12/18/2024	12/18/2024	01/06/2025
<b>Application Due Date</b>	01/13/2025	01/13/2025	01/21/2025
<b>2024 Award Cycle</b>	<b><u>08/01/2025 – 07/31/2026</u></b>		





# Colorado (CO-Pilot) Grant Program

**To encourage cross-disciplinary and collaborative research in clinical and translational medicine focused on improving human health**

*Basic research at the cellular and molecular level, pre-clinical research in animal models, clinical research in humans, outcomes, and health services research*

## **Program Directors**

Natalie Serkova, PhD

Matt Hickey, PhD

## **Award Categories**

- Early-Stage Investigator  
Diversity Award
- Mentored Faculty
- Junior Faculty
- CSU/ CU Collaboration



# Colorado (CO-Pilot) Grant Program

**Amount:** \$40K (Mentored/ Junior/ Early Career Diversity)  
\$50K (CSU/CU Collaboration)

**Duration:** 1 year

## Major goals

- Support junior faculty/ early-stage investigators in their efforts to become an independent PI
- Facilitate developing preliminary data on hypothesis–driven projects to help securing future federal funds
- Foster new collaborations among established CSU/ CU investigators



# Colorado (CO-Pilot) Grant Program

## CCTSI Pilot Grant Program: PI Eligibility by Academic Rank

These are typical rank eligibility listings for applicants from CCTSI Affiliated Institutions. If you have eligibility questions for atypical ranks, please contact the appropriate Pilot Program office.



✓ = Eligible	Professor <sup>3</sup>	Associate Professor <sup>3</sup>	Assistant Professor <sup>1,3</sup>	Assistant Professor <sup>2,3</sup>	Instructor/ Senior Instructor <sup>3,4</sup>	Post-Doctoral Fellow/ Residents
<b>Colorado Pilot Program (CO-Pilot)</b>						
Mentored				✓	✓	✓
Junior			✓	✓	✓	
Early-Investigator Diversity			✓	✓	✓	
Collaboration CSU-CU	✓	✓	✓			
<b>Child &amp; Maternal Health Pilot Program (CMH-Pilot)</b>						
Mentored				✓	✓	✓
Junior			✓	✓	✓	
<b>Translational Methods Pilot Program (TM-Pilot)</b>						
All	✓	✓	✓	✓	✓	
<b>Community Engagement Pilot Program (CE-Pilot)</b>						
Joint Pilot Projects	✓	✓	✓	✓	✓	
Partnership Develop. Projects	✓	✓	✓	✓	✓	

<sup>1</sup> Later Career Assistant Professors (4-7 years of experience) typically have prior research funding

<sup>2</sup> Early Career Assistant Professors (1-3 years of experience) typically have had limited or no prior research funding

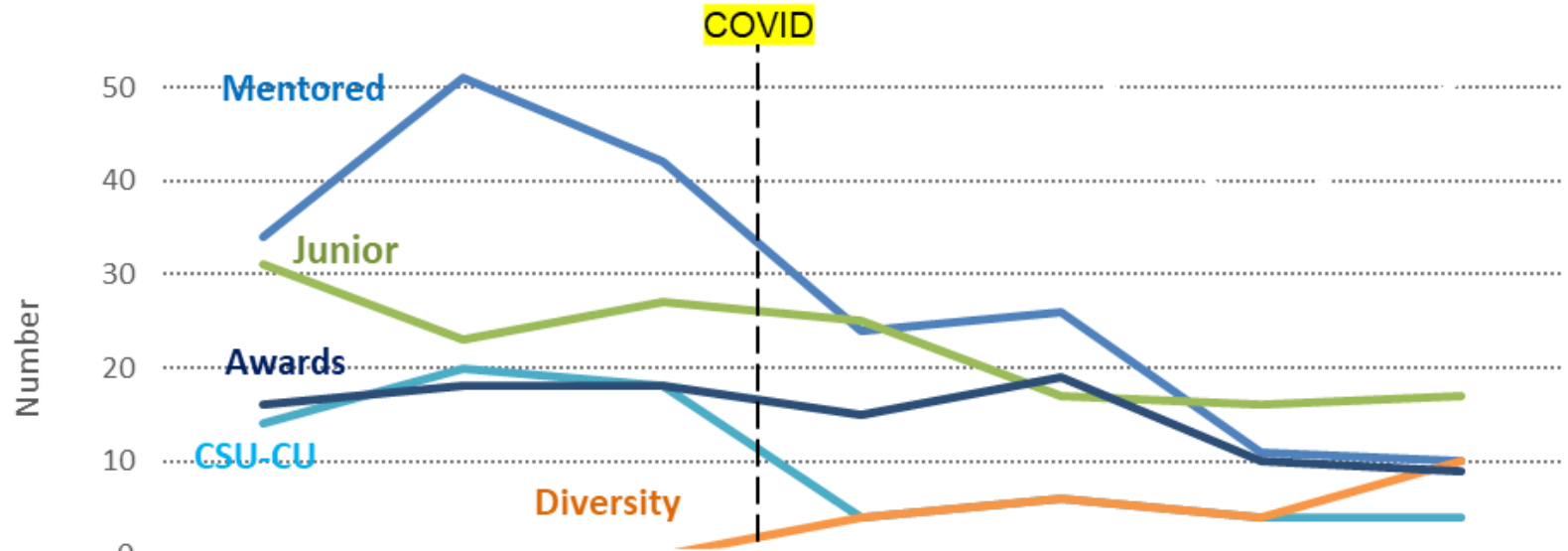
<sup>3</sup> Includes Research Scientist rank at Colorado State University

<sup>4</sup> Includes Research Associate



*Applicants may submit more than one LOI, but only one Application!*

CO-Pilot: History of Applications by Award Category



	2018	2019	2020	2021	2022	2023	2024
Mentored	34	51	42	24	26	11	10
Junior	31	23	27	25	17	16	17
CSU-CU Collaboration	14	20	18	4	6	4	4
Diversity	0	0	0	4	6	4	10
Total Applications	79	94	87	57	55	35	51
Awards	16	18	18	15	19	10	9
Funding Rate	20%	19%	21%	26%	35%	29%	18%



# Child and Maternal Health (CMH-Pilot) Grant Program

**Cross-disciplinary and collaborative research focused on children of all ages as well as pregnant women and mothers of newborn and young infants that will ultimately improve child and maternal health**

*Basic research at the cellular and molecular level, pre-clinical research in animal models, clinical research in humans, outcomes, and health services research*

## **Program Directors**

Christopher Baker, MD

## **Award Categories**

- Mentored Faculty
- Junior Faculty



# Child and Maternal Health (CMH-Pilot) Grant Program

**Amount:** \$40K  
**Duration:** 1 year

## Major goals

- Support junior faculty/ early-stage investigators in their efforts to become an independent PI
- Facilitate developing preliminary data on hypothesis-driven projects to help securing future federal funds



# Child and Maternal Health (CMH-Pilot) Grant Program

## CCTSI Pilot Grant Program: PI Eligibility by Academic Rank

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<b>Colorado Pilot Program (CO-Pilot)</b>						
Mentored				✓	✓	✓
Junior			✓	✓	✓	
Early-Investigator Diversity			✓	✓	✓	
Collaboration CSU-CU	✓	✓	✓			
<b>Child &amp; Maternal Health Pilot Program (CMH-Pilot)</b>						
Mentored				✓	✓	✓
Junior			✓	✓	✓	
<b>Translational Methods Pilot Program (TM-Pilot)</b>						
All	✓	✓	✓	✓	✓	
<b>Community Engagement Pilot Program (CE-Pilot)</b>						
Joint Pilot Projects	✓	✓	✓	✓	✓	
Partnership Develop. Projects	✓	✓	✓	✓	✓	



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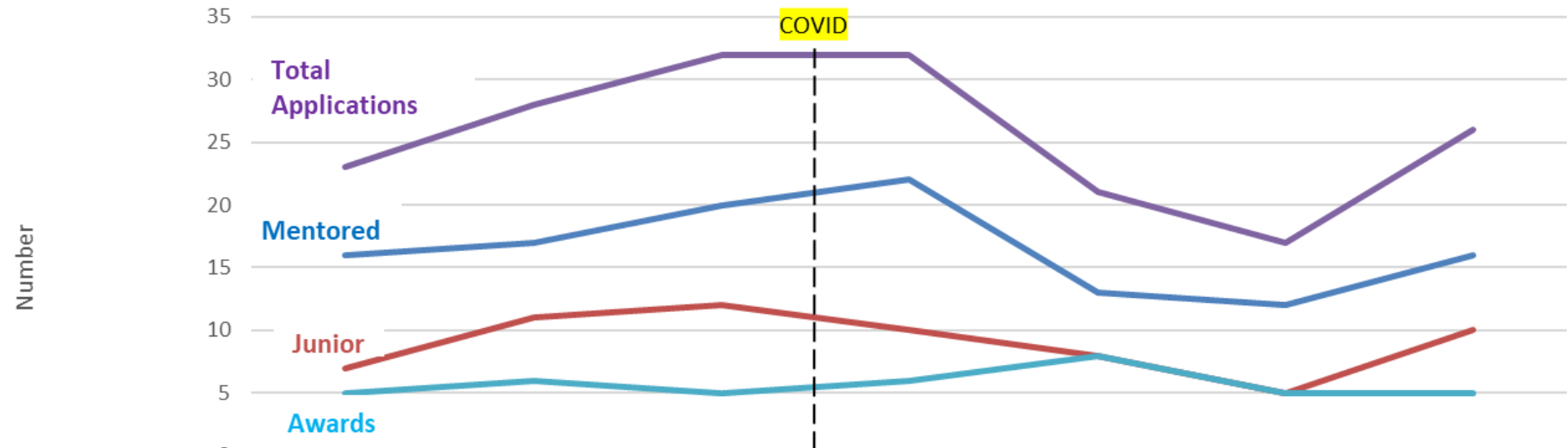
<sup>3</sup> Includes Research Scientist rank at Colorado State University

<sup>4</sup> Includes Research Associate



*Applicants may submit more than one LOI, but only one Application!*

CMH-Pilot: History of Applications by Award Category



	2018	2019	2020	2021	2022	2023	2024
Mentored	16	17	20	22	13	12	16
Junior	7	11	12	10	8	5	10
Total Applications	23	28	32	32	21	17	26
Awards	5	6	5	6	8	5	5
Funding Rate	22%	21%	16%	19%	38%	29%	19%



# Review Criteria

## *CO-Pilot and CMH-Pilot*



CCTSI Review Panels will use the NIH 9-point scoring system and rate based on following criteria:

- a. **Innovation** in research hypotheses, approaches, and techniques.
- b. **Approach/Scientific Merit** based on rigor, transparency and one-year feasibility of the proposed study design.
- c. **Principal Investigators'** research qualification and collaborative potential of the team and mentors
- d. **Significance** to the CCTSI Vision to “Accelerate and catalyze the translation of innovative science into improved health and patient care.”
- e. **Translational Science Roadblock:** does the Pilot proposal address a translational science roadblock that could be generalizable to other research studies?
- f. **Career Development Plan** for Mentored pilot applications only
- g. **Environment** and institutional support to the PI and the proposal
- h. **Health Equity and Diversity (Non-Scoring Criteria)**



# Tips for Success

## Colorado Clinical and Translational Sciences Institute

Resources Training Funding Community Engagement News and Events About Us Volunteer for a Study

- Clinical and Translational Research Centers (CTRC)
- Language For Your Grant Applications
- Protocol Submission
- Clinical Research Support Team (CRcST)
- Regulatory Knowledge and Support
- DSMB Assistance
- Translational Informatics
- Biostatistics, Epidemiology, and Research Design (BERD)
- Trial Innovation Network (TIN)
- Recruit Participants
- Research Ethics
- Research Studio Program
- Find a Researcher (PROFILES)
- IT Campus Research Resources
- Early Life Exposures Research Program (ELEP)
- Dissemination and Implementation
- What are you looking for?



### ACCELERATING RESEARCH TO IMPROVE HEALTH

The CCTSI helps build research teams of the future, speed the development of new treatments and improve human health



Colorado Clinical and Translational Sciences Institute (CCTSI)

UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS

<https://cctsi.cuanschutz.edu/resources>





**Regulatory Knowledge and Support**

The Regulatory Knowledge and Support Core (RKSC) of the CCTSI provides a support structure to deal with the complexities of research regulatory compliance.



**Research Ethics**

This free consultative service is sponsored by the CCTSI and is available to all biomedical and behavioral researchers at CU Anschutz, as well as its institutional partners and clinical affiliates, who seek advice about ethically complex aspects of their research.



**Trial Innovation Network**

The Trial Innovation Network is a new collaborative initiative within the CTSA Program and is composed of three key organizational partners – the CTSA Program Hubs, the Trial Innovation Centers (TICs) and the Recruitment Innovation Center (RIC).



**Clinical Research Support Team**

Provides a pool of experienced study coordinators and regulatory staff to assist with clinical research study start-up, implementation and closeout.



**Biostatistics, Epidemiology and Research Design (BERD)**

Providing statistical collaboration and resources to CCTSI investigators and trainees. We facilitate clinical and translational research through statistical consultation, improved statistical literacy, through seminars and short courses, and advanced tools.



**Recruit Participants**

Access the many resources necessary for successful recruitment of participants for clinical research studies. Learn how to develop and implement a well-planned strategy.



**Funding**

Each year, the CCTSI awards more than \$2 million in pilot grants, microgrants and pre-doctoral and post-doctoral research scholar awards



**Language for Grant Applications**

CCTSI resources and other support details for your grant applications.



**Protocol Submission**

The Research Submission Portal process will ensure that your human subject research is ready for IRB submission.



**Find a Researcher**

The Colorado PROFILES search engine and social networking platform for biomedical researchers provides tools to help investigators and students find experts, potential collaborators or mentors.

[CTRC Pricing](#)

[CCTSI Research Studio Program](#)

[Colorado PROFILES](#)

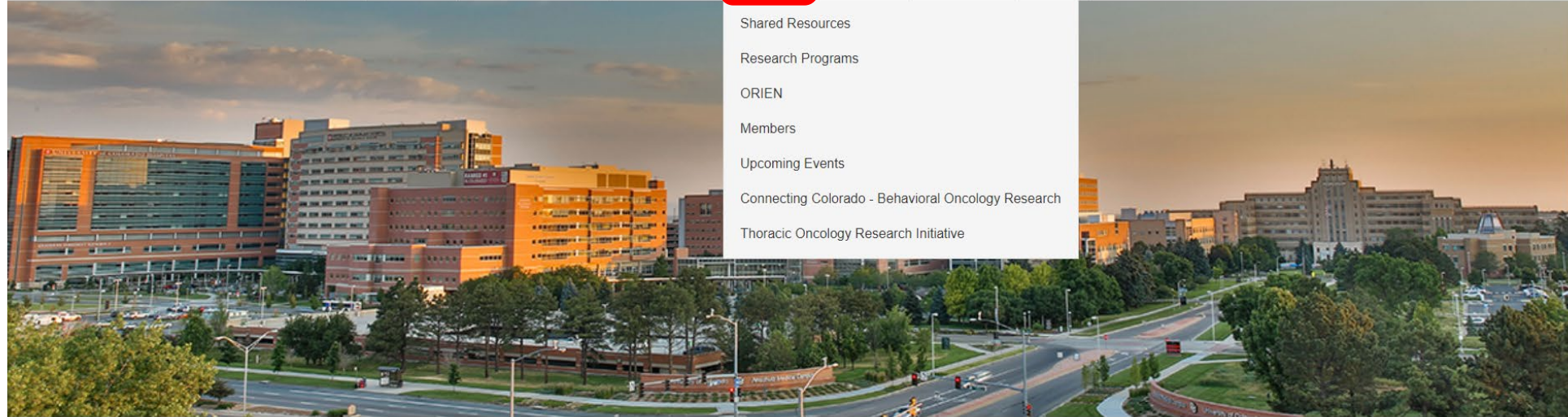


## University of Colorado Cancer Center

School of Medicine

[Home](#) [About Us](#) [Patients & Families](#) [Clinical Trials](#) [Research](#) [Education](#) [Community](#) [News](#)

- Shared Resources
- Research Programs
- ORIEN
- Members
- Upcoming Events
- Connecting Colorado - Behavioral Oncology Research
- Thoracic Oncology Research Initiative



The CU Cancer Center supports a variety of state-of-the-art technological shared resources – *their incorporation into **CO/CMH/TM-Pilot** proposals is encouraged!*

Animal Imaging – Biostatistics and Bioinformatics – Cell Technologies – Drug Discovery and Development – Flow Cytometry – Functional Genomics – Genomics – Human Immune Monitoring – Mass Spectrometry – Population Health – Structural Biology – Pathology

<https://medschool.cuanschutz.edu/colorado-cancer-center#CUMain>



[HOME](#)

[FAQ](#)

[CONTACT](#)

## Research Core Labs



One of the defining features of a top-tier research university is the availability of core facilities that provide a spectrum of contemporary analytic tools that can be shared across the campus. Ideally these cores provide both technical and consultative services at modest cost and, as a result, elevate the quality of the overall research enterprise. It is appropriate that the core landscape evolves as new technologies emerge and others become obsolete.

Below is a list to the current operational research cores supported by the School of Medicine and the research leadership on the Anschutz Medical Campus.

### Search our Core Labs



e.g., biomarker, data analysis, flow cytometry, genetic screen, proteomics

<https://researchcores.cuanschutz.edu/>



# Application Process

Kristen House  
CCTSI Pilot Program Administrator



# How to Apply



University of Colorado Anschutz Medical Campus

Webmail | UCD Access | Canvas | Quick Links | Search

## Colorado Clinical and Translational Sciences Institute

Resources Training Funding Community Engagement News and Events About Us Volunteer for a Study

- TL1 Pre and Post Doctoral Program
- KL2 Mentored Career Development Award
- CCTSI COVID-19-Related Research Pilot
- CO-Pilot Grants
  - Child and Maternal Health Pilot Grant (CMH-Pilot)
  - Community Engagement Pilot Grant (CE-Pilot)
  - Translational Methods Pilot Grant (TM-Pilot)
- CTRC MicroGrants
- CCTSI Membership

### Funding Opportunities

Each year, the CCTSI awards more than \$2 million in pilot grants, microgrants, and pre-doctoral and post-doctoral research scholar awards. You can find more information on each grant and how to apply below

<https://cctsi.cuanschutz.edu/funding>



## 2025 Key Dates

### RFA Posted

November 4, 2024

### Intent to Apply Due

December 9, 2024 at 5:00 pm MT

### Informational Call #1

November 13, 2024 from 11am-12pm  
via [Zoom](#)

### Informational Call #2

December 18, 2024 from 3-4pm via  
[Zoom](#)

### Application Deadline

January 13, 2025 at 5:00 pm MT

### Scientific Merit Review

April 2025

### Notice of Award

May/June 2025

### Start of Award

August 1, 2025

### Award Expiration Date

July 31, 2026

Early-Stage Investigator Diversity Award - \$40,000  
Mentored - \$40,000  
Junior - \$40,000  
CSU/CU Collaboration - \$50,000

## Request for Applications (RFA)

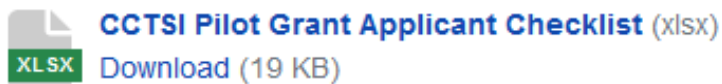
The RFA describes eligibility, award categories and application requirements.



### CO-Pilot Intent to Apply Form [↗](#)

Deadline: December 9, 2024 at 5:00 PM MT

## Information & Resources



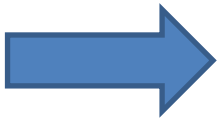
<https://cctsi.cuanschutz.edu/funding/copilot>

<https://cctsi.cuanschutz.edu/funding/cmh>





Save  
this  
email!



LINK TO APPLY FOR CCTSI PILOT GRANT FUNDING - Message (HTML)

File Message Help Acrobat

Ignore Delete Archive Reply Reply All Forward More Share to Teams

Avanzi (CO-D-2... To Manager  
Team Email Done  
Reply & Delete Create New

Move Rules Send to OneNote Actions

Mark Unread Categorize Follow Up Tags Editing

Read Aloud Immersive Reader Translate Zoom Viva Insights

LINK TO APPLY FOR CCTSI PILOT GRANT FUNDING

HK CCTSI <kristen.house@cuanschutz.edu>  
To House, Kristen

20220726163915\_survey\_0a597401.pdf  
50 KB

[External Email - Use Caution]

Thank you for submitting your Intent to Apply Form (LOI).

**SAVE THIS REUSABLE LINK TO YOUR APPLICATION FORM:**

**[CCTSI Pilot Grant Award Application Form](https://datastore.cctsi.ucdenver.edu/surveys/?s=pXiVZ7HvpquMaaJx)**

Or copy and paste this link into your browser: <https://datastore.cctsi.ucdenver.edu/surveys/?s=pXiVZ7HvpquMaaJx>

If you require assistance, please contact [kristen.house@cuanschutz.edu](mailto:kristen.house@cuanschutz.edu).

You may now close this tab/browser.



## CCTSI Pilot Grant Award Budget

*Budget and Active Award Period: August 1, 2025 to July 31, 2026*

CATEGORY & ITEM(S)	Indicate Budget for Each Location					Total Amount
	CU AMC	CSU	CU Boulder	CHCO	Other Institution (Specify Location)	
<b>Key Personnel Salary &amp; Fringe Benefits</b>						\$ -
<b>Other Personnel</b>						\$ -
<b>Fee for Service (including Core Services)</b>						\$ -
<b>Supplies</b>						\$ -
<b>Equipment</b>						\$ -
<b>Animals</b>						\$ -
<b>Participant Incentives</b>						\$ -
<b>Meetings &amp; Travel (Costs are permitted for attendance at one scientific conference)</b>						\$ -
	\$ -	\$ -	\$ -		\$ -	

**TOTAL AWARD BUDGET** \$ -

### Unallowable expenses

- indirect costs
- international entities
- publication costs
- equipment ≥\$5,000
- computers
- telecommunications
- food
- furniture
- administrative support
- non-project specific office expenses
- Professional dues/fees/membership
- training costs

Applicants should customize these Categories



Budget Template ([Excel](#)) and ([PDF](#))

## APPLICATION CHECKLIST

*This checklist is for informational purposes only. All applicants must comply with the requirements of the official Request for Funding Applications (RFA) posted on the CCTSI website.*

### Intent to Apply Form (LOI)

		All Applicants	Mentored	Junior	CU-CSU Award	TM-Pilot	CSU Faculty
1	Select CCTSI Pilot Grant Program	Required					
2	Select Pilot Award Category	Required					
3	Certify this project meets RFA Eligibility & Exclusion criteria	Required					
4	Does this study involve collaboration with non-CCTSI Affiliated Institution(s)?	Required					
5	Are any investigators involved with this project associated with Colorado State University?	Required					
6	Project Title	Required					
7	Translational Science Roadblock	Required					
8	Contact Information: Principal Investigator	Required					
9	Contact Information: Co-Principal Investigator				Required	Optional	
10	Contact Information: Co-Investigator(s)	If Applicable					
11	Contact Information: Primary Mentor (or two Co-Mentors)		Required				
12	Contact Information: Requested Reviewer(s)	Optional					
13	Research Topics (Used to pair applications with reviewers)	Optional					

Application Checklist ([Excel](#))



## Application Form

		All Applicants	Mentored	Junior	CU-CSU Award	TM-Pilot	CSU Faculty
1	Confirm all contact information from LOI is accurate. Combine all documentation required in the RFA and combine into a single PDF to upload with you online Application Form. Refer to RFA for specific formatting guidelines.	Required					
2	<b>Project Overview (2-3 sentences)</b> List all investigator names, titles, institutions before the Project Overview	Required					
3	<b>Abstract (strict 250 word limit)</b>	Required					
4	<b>Specific Aims, including a Translational Science Roadblock</b>	Required					
5	<b>Background, Significance and Innovation, including the description of the translational science roadblock</b>	Required					
6	<b>Approach, including Experimental Design, Translational Science Roadblock, Data and Statistical Analysis, Feasibility, Shared Resources, Timeline</b>	Required					
7	<b>References (no page limit)</b>	Required					
8	<b>Multiple PI Plan (1 page limit)</b>				Required	Optional	
9	<b>Mentor Letter of Support (no page limit)</b> If there are two co-Mentors, a combined letter or two separate letters will be accepted as a single PDF.		Required				
10	<b>Career Development Plan (1 page)</b>		Required				
11	<b>Letters of Support (no page limit)</b> May include department chairs, consultants, foundations, commercial sources, manufacturers, etc.	Optional					
12	<b>Budget (1 page limit, vertical alignment only)</b> Please use the CCTSI Budget Template (available on the CCTSI website)	Required					
13	<b>Budget Justification</b>	Required					
14	<b>Biosketches (no page limit)</b>	Required					
15	<b>CSU OSP Proposal Transmission Letter (no page limit)</b> Contact Jessica Hunter (jessica.hunter@colostate.edu) for details.				Required		Required
16	<b>Cost Share Budget (1 page limit)</b> Applications may include collaboration with non-CCTSI Affiliated organizations. Refer to RFA for specific instructions.	See RFA, Check with Kristen House					
17	<b>Other: Institutional Prior Approval (no page limit)</b> Applicants based at CCTSI Affiliated Institutions are strongly encouraged to work with the sponsored programs office at their institution to meet all pre-application requirements specific to their organization, including applications for federal and non-federal (internally funded) seed grant programs.	Check with institution					

Application Checklist ([Excel](#))





National Center  
for Advancing  
Translational Sciences

# Transforming Translational Science

NCATS Strategic Principles

Whereas “translational research” focuses on crossing a particular step of the translational process for a particular target or disease, translational science is focused on the general case that applies to any/multiple targets or diseases.

A key tenet of translational science is to understand common causes of inefficiency and failure to complete translational research projects in a timely fashion, which may present a common barrier across various research targets, diseases, and therapeutic areas.



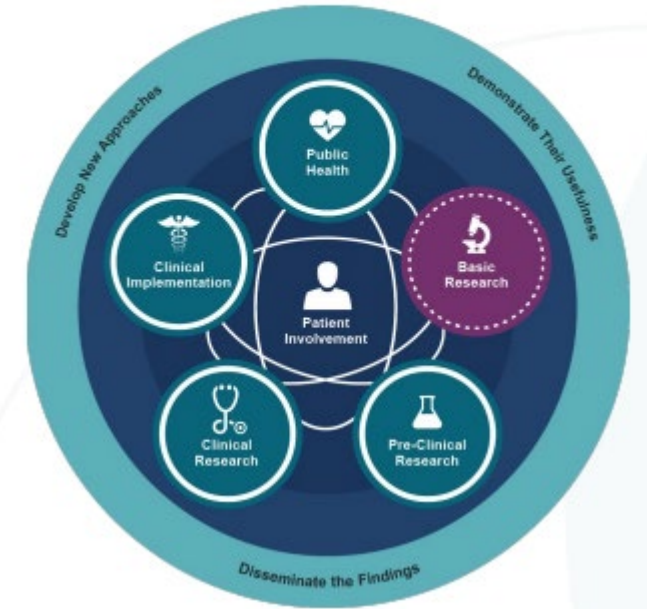
## Examples of Translational Science Roadblocks

In the application, the PI must state clearly what is your “translational science roadblock” that you will be addressing in your proposal:

- improved study design by improving rigor and transparency in major generalizable areas of translational discovery
- technical execution of complex mechanistic studies in humans or animal models
- challenges to data acquisition, integrity and analysis
- translational barrier from animal models to human trials; or between adult and pediatric patient populations
- timely participant recruitment and retention
- enhanced recruitments and engagement of underserved populations

### Spanning the Full Spectrum of Translation

NCATS' programs, initiatives and other resources span the entire spectrum of translational science.



Translation Science Examples ([PDF](#))



- Discovering new therapeutic targets and molecular pathways which play crucial roles across various therapeutic areas
- Developing or testing models that better predict a person's response to treatment
- Using novel methods to translate findings from the laboratory, clinic, or community into treatments and interventions
- Developing data acquisition methods or post-processing that will facilitate use of complex technologies and datasets in clinical research
- Novel use of informatics or big data to answer important clinical questions
- Developing or testing novel methods in early stage (Phase 1-2) clinical trials to make the trial more efficient
- Developing or testing novel methods, processes or study designs to address health disparities
- Enhancing the design and conduct of clinical trials so the results more accurately reflect the patient population generally affected by a disease (to enhance clinical relevance)
- Developing and testing new tools for engagement of underserved populations
- Developing or testing processes to improve enrollment of diverse populations in a hypothesis-driven research pilot study
- Validating natural animal models of human disease in companion animals

## Spanning the Full Spectrum of Translation

NCATS' programs, initiatives and other resources span the entire spectrum of translational science.



## [How to Address Translational Science Roadblocks?](#)



## ***Some Examples of Translational Science Pilot Focus***

***Establishing Molecular Mechanisms of Polymorphism of Cytochrome P450:*** This study will be performed in vitro using Tg and KO epithelial and hepatic cells using novel immunosuppressive drug (CU AMC Drug Discovery Core). CYP450 polymorphism is a very generalized problem, and its understanding will help to establish pharmacokinetic properties of over 75% of existing therapeutic agents (CSU Drug Discovery Core). The pilot addresses the barrier of rigor and transparency in major generalizable areas of translational discovery.

***Advanced Bulimia Treatment in Adolescent Girls:*** Efforts will be made to enroll young female participants from diverse geo-economic and racial background to address eating and behavioral disorders. fMRI at a 3 Tesla MRI (CU AMC Brain Imaging Core) will provide pharmacodynamics readouts. Addresses enhanced recruitments and engagement of underserved populations

### **Spanning the Full Spectrum of Translation**

NCATS' programs, initiatives and other resources span the entire spectrum of translational science.





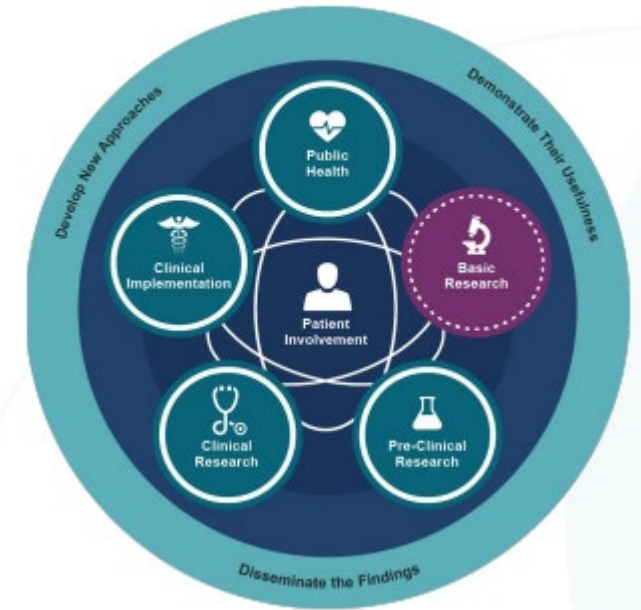
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***Validating Natural Animal Translational Disease Models:*** Many diseases of dogs, cats, horses and other animals are more similar to diseases in people than induced diseases in traditional rodent models. For example, osteosarcoma in dogs is genetically similar to the same tumor in people and responds to similar therapies. Idiopathic epilepsy in dogs has many symptoms that mimic childhood epilepsies. Accordingly, validating the molecular, diagnostic, and therapeutic features of these diseases in veterinary clinical trials (so called “T0.5”) is a mechanism for improving translational science, addressing translational barrier from animal models to human trials.

***Retrospective Analysis on Multi-Institutional CU-CSU Omics Data:*** These pilots could leverage the pilot to address the issue of performing team science across institutions and data harmonization and transfer between institutions, etc. Address challenges in data acquisition, integrity and analysis

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# CCTSI Pilot Grant Contacts

<https://cctsi.cuanschutz.edu/funding>

**Kristen House**

CCTSI Pilot Program Administrator

[kristen.house@cuanschutz.edu](mailto:kristen.house@cuanschutz.edu)

**Jessica Hunter**

CSU Pilot Program Administrator

[jessica.hunter@colostate.edu](mailto:jessica.hunter@colostate.edu)

**Nikki Leonardo**

CU Boulder Pilot Program Administrator

[leonardo@colorado.edu](mailto:leonardo@colorado.edu)

**Dr. Natalie Serkova**

CO/TM-Pilot Program Director

[natie.serkova@cuanschutz.edu](mailto:natie.serkova@cuanschutz.edu)

**Dr. Christopher Baker**

CMH-Pilot Director

[christopher.baker@childrenscolorado.org](mailto:christopher.baker@childrenscolorado.org)

**Dr. Matt Hickey**

CSU Pilot Program Director

[matthew.hickey@colostate.edu](mailto:matthew.hickey@colostate.edu)

