

CTS Pilots

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cctsi.cuanschutz.edu



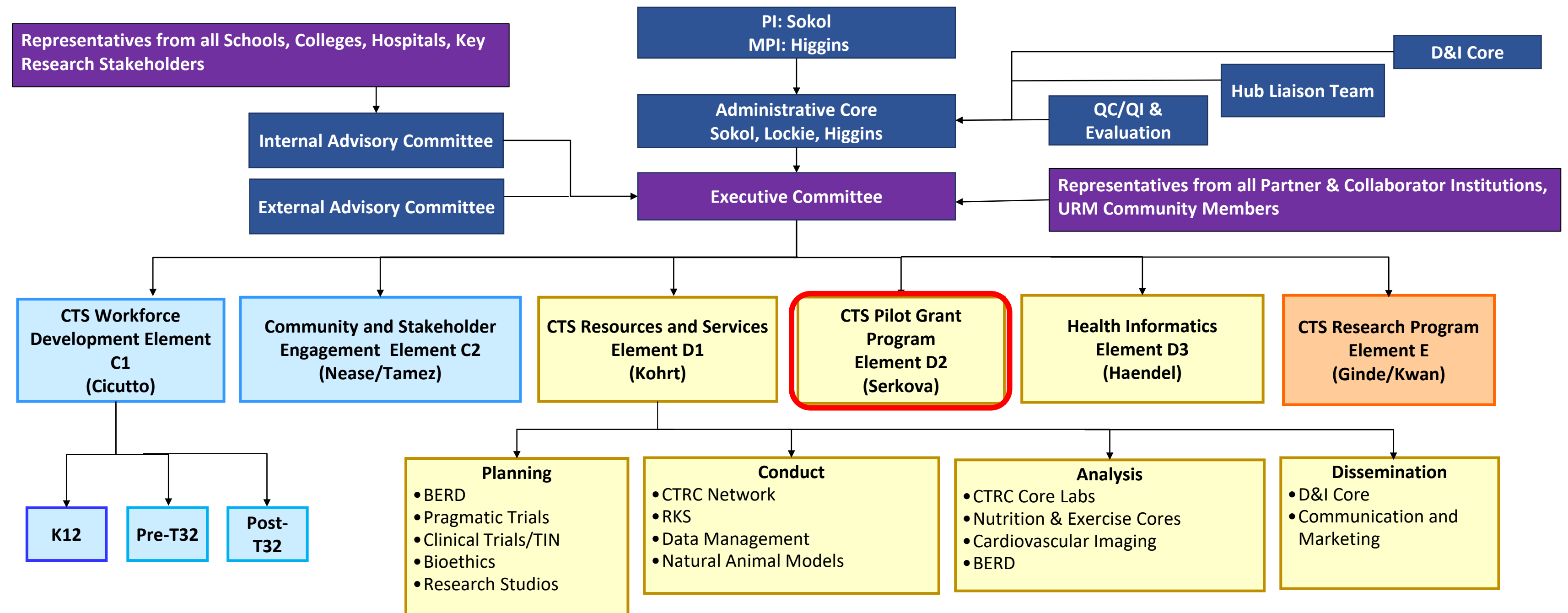
Colorado Clinical and Translational
Sciences Institute (CCTSI)

UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS



Integration Across CCTSI

CTS Pilot Grant Program is an essential part in Element D2 “Clinical and Translational Science Resources and Pilots”



Leadership Team & Diversity



Natalie Serkova, PhD
CU Anschutz

Director
Natalie Serkova, PhD



Sue VandeWoude, DVM
CSU



Chris Baker, MD
CHCO



Phil Zeitler, MD
CHCO



Don Nease, MD
CU Anschutz



Montelle Tamez
CU Anschutz

Program Administrator
Kristen House

Colorado (CO-) Pilots
Natalie Serkova, PhD
Sue VandeWoude, DVM

Child & Maternal Health Pilots
Christopher Baker, MD
Philip Zeitler, MD

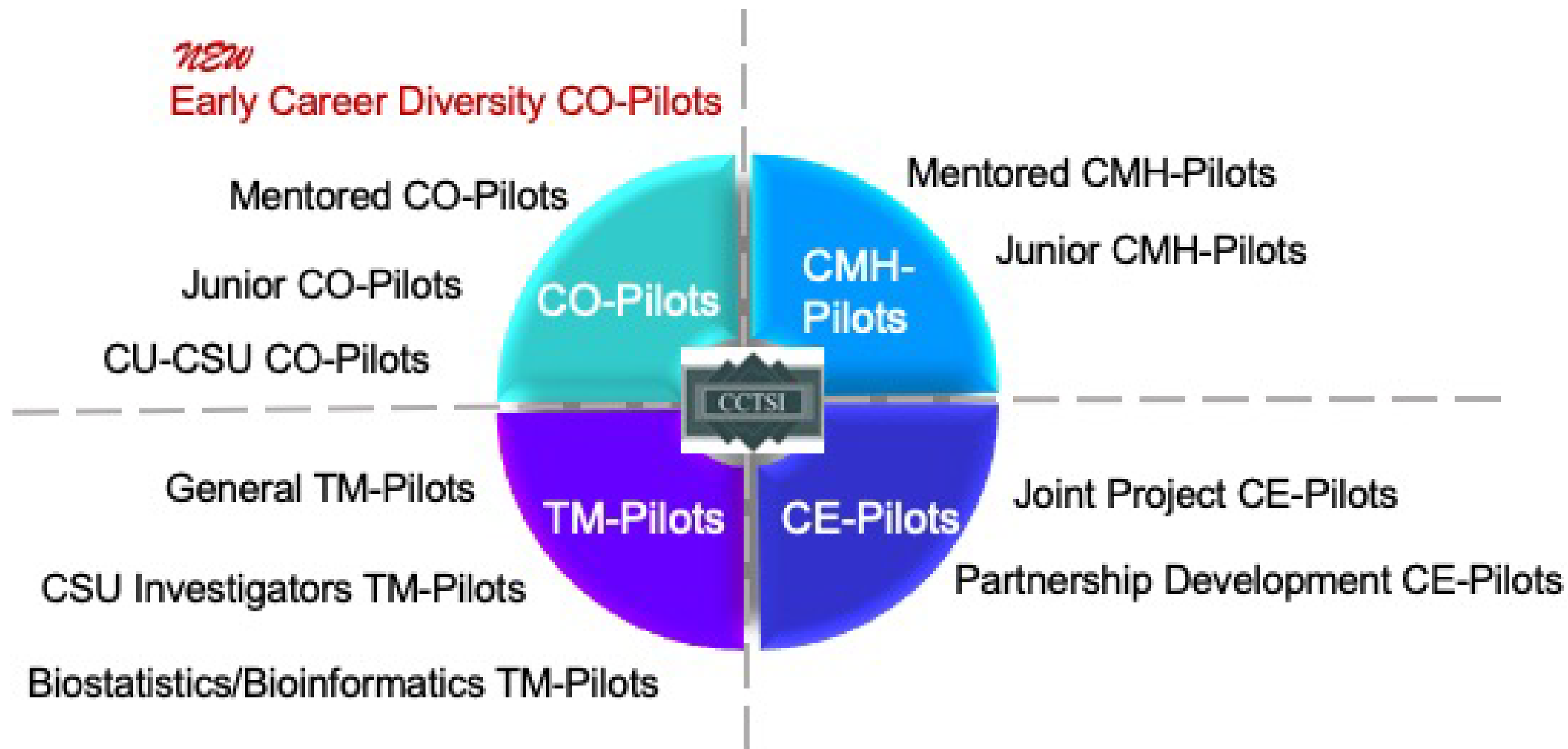
Community Engagement Pilots
Donald Nease MD
Montelle Tamez

Translational Methods Pilots
Natalie Serkova, PhD

CTS Pilots Leadership Diversity
50% Female
1 PhD, 1 DVM, 3 MD
Two Campuses (Anschutz and CSU)



CTS Pilot Grant Categories



Diversity & Health Equity in CTS Pilots

- Since 2021, we have introduced a new “Early Career Diversity Award” category – 4 Diversity Pilot Awards were funded (11 submitted in 2024)
- Community Engagement Pilot Grants address directly Colorado Health Care Access Equity, especially for the URM communities and in the Rural areas

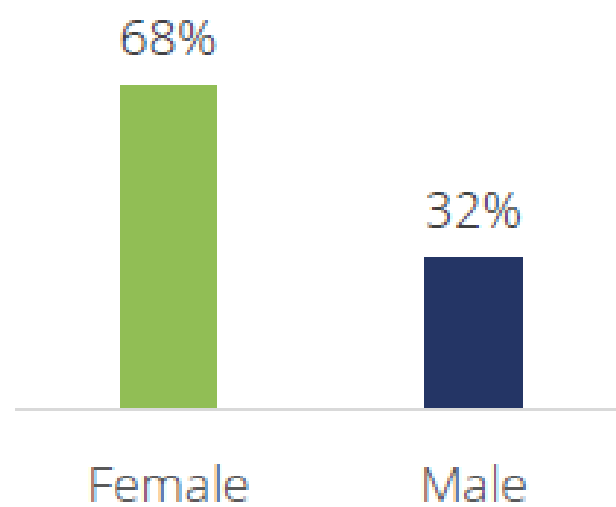
DEIA metrics for the CTS-Pilots applicants in 2023 Cycle (Year 1)

| Female | URM | Low-income | Challenging environment | First generation college | Physical or mental disability | Latino, Hispanic | Asian, African-American |
|--------|-----|------------|-------------------------|--------------------------|-------------------------------|------------------|-------------------------|
| 59% | 33% | 12% | 8% | 17% | 2% | 15% | 35% |



Previous Statistics in CTS Pilots (2018 – 2022)

More than two-thirds of grantees were **female**.



28%

Of grantees had an MD.

8%

Of grantees were **underrepresented in biomedical research (UBR)**.

| CU-Anschutz Medical Campus (n=125) | Colorado State (n=29) | CU-Denver (n=18) | CU-Boulder (n=9) | All other (n=13) |
|------------------------------------|-----------------------|------------------|------------------|------------------|
| 64% | 15% | 9% | 5% | 7% |

13.02



Return on Investment (ROI) across the entire CTS-Pilot Program.

CCTSI has funded over **\$5 Million** in CTS-Pilots to address translational science roadblocks.

Grantees received over **\$68 million** in follow on funding to continue their research.

Bruker 9.4T/ 20cm BioSpec MR Scanner for Colorado Animal Imaging

1 [S100D023485-01](#) \$2,000,000 [SERKOVA, NATALIE J.](#) 2018

Multi-Modal Optical/ microCT system for Colorado Animal Imaging Resource

1 [S100D027023-01A1](#) \$733,485 [SERKOVA, NATALIE J.](#) 2020

Sex-based differences in the neuronal mechanisms of food intake behavior

1 [R01DK119236-01A1](#) \$2,521,123 [LEGGET, KRISTINA T.](#) 2019

Sex Effects on the Neurobiology of Eating Behaviors in Veterans

1 [I01CX001949-01](#) \$898,233 [LEGGET, KRISTINA T.](#) 2020

A SIM2s/SEMA7A Switch Drives ER+ Breast Cancer Progression

1 [R01CA282900-01A1](#) [LYONS, TRACI](#) 2024

\$2,832,310

[BORGES, VIRGINIA F.](#)

[PORTER, WESTON W.](#)

Impact of lymph node sparing on the anti-tumor response for head and neck

1 [K01OD031809-01A1](#) [BOSS, MARY-KEARA](#) 2022-2024

cancer treated with radiation and immunotherapy

\$361,245 COLORADO STATE UNIVERSITY

TM-Pilot 2018

CO-Pilot 2018

TM-Pilot 2018

CO-Pilot 2019



Goldie Komaie, PhD, Grace Gonzalez (CCTSI Evaluation and Continuous Quality Improvement (QPIP))



2018 - 2022 Impact and ROI

Grants: 198 grants have been awarded

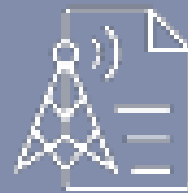
People: 194 individual researchers received pilot awards

13.02



Return on Investment (ROI) across the entire CTS-Pilot Program.

37%



Of grantees published findings from pilot projects in academic journals.

45%



Of pilot projects procured follow-on funding to continue their research.



Goldie Komaie, PhD, Grace Gonzalez (CCTSI Evaluation and Continuous Quality Improvement (QPIP))



2018 - 2022 Impact and ROI

Grants: 198 grants have been awarded

13.02



Return on Investment (ROI) across the entire CTS-Pilot Program.

89 CO-Pilots

13.37



Return on Investment (ROI) across CO-Pilot program.

30 CMH-Pilots

8.84



Return on Investment (ROI) across CMH-Pilots.

39 CE-Pilots

1.11



Return on Investment (ROI) across CEHE-Pilot programs.

36 TM-Pilots

24.31



Return on Investment (ROI) across TM-Pilots.



Goldie Komaie, PhD, Grace Gonzalez (CCTSI Evaluation and Continuous Quality Improvement (QPIP))



CTS Roadblocks Addressed

- 1. Enhancing study design by improving rigor and transparency in major generalizable areas of translational discovery**
- 2. Technical execution of complex mechanistic studies in humans or animal models**
- 3. Using novel methods to translate findings from the laboratory, clinic, or community into treatments and interventions**
- 4. Validating natural animal models of human disease in companion animals**
- 5. Novel use of informatics or big data to answer important clinical questions**
- 6. Translational barrier from animal models to human trials; or between adult and pediatric patient populations**



Strategic Goals

- 1. Goal:** Implement a comprehensive CTS-Pilots Program to accelerate cutting-edge collaborative translational science and to address barriers in clinical research
- 2. Goal:** Conduct rigorous, transparent peer-review of CTS-Pilots applications to ensure the selection of the best translational science projects with the greatest potential impact
- 3. Goal:** Establish and implement metrics to monitor the impact of the CTS-Pilots on scientific discoveries and clinical implementation
- 4. Goal:** Disseminate the REDCap peer-review process platform to other CTSA Hubs



Health Equity Goals

1

**Timely participant
recruitment and
retention**

Improved enrollment into
Pilot Trials

2

**Enhanced recruitment
and engagement of
underserved
populations**

CE- and Early Career Diversity
CTS Pilots

3

**Developing new tools
Improve
generalizability of
research**

Translational Method CTS
Pilots



Year 1 Progress: Awarded

| CTS Program | Annual Budget | 1 st year # award |
|---|------------------|------------------------------|
| Colorado Pilots | \$140,000 | 3 |
| Mentored Pilot | \$40,000 | |
| Early Career Diversity Pilot | \$40,000 | |
| CU-CSU Collaborative Pilot | \$60,000* | |
| Child and Maternal Health Pilots | \$80,000 | 2 |
| Mentored Pilot | \$40,000 | |
| Junior Pilot | \$40,000 | |
| Community Engagement Pilots | \$25,000 | 1 |
| Joint Pilot | \$25,000 | |
| Translational Methods Pilots | \$60,000 | 2 |
| Innovation Pilot | \$30,000 | |
| Bioinformatics/Biostatistics | \$30,000 | |
| Total* | \$305,000 | 8 |

Year 2 Plans Submitted

CO-Pilot – 71
 CSU/CU Collaboration Award – 8
 Junior Faculty Award – 27
 Mentored Faculty Award – 25
 Early Investigator Award – 11

CMH-Pilot – 27
 Junior Faculty Award – 10
 Mentored Faculty Award – 17

CE-Pilot – 26
 Partnership Development – 14
 Joint Project – 12

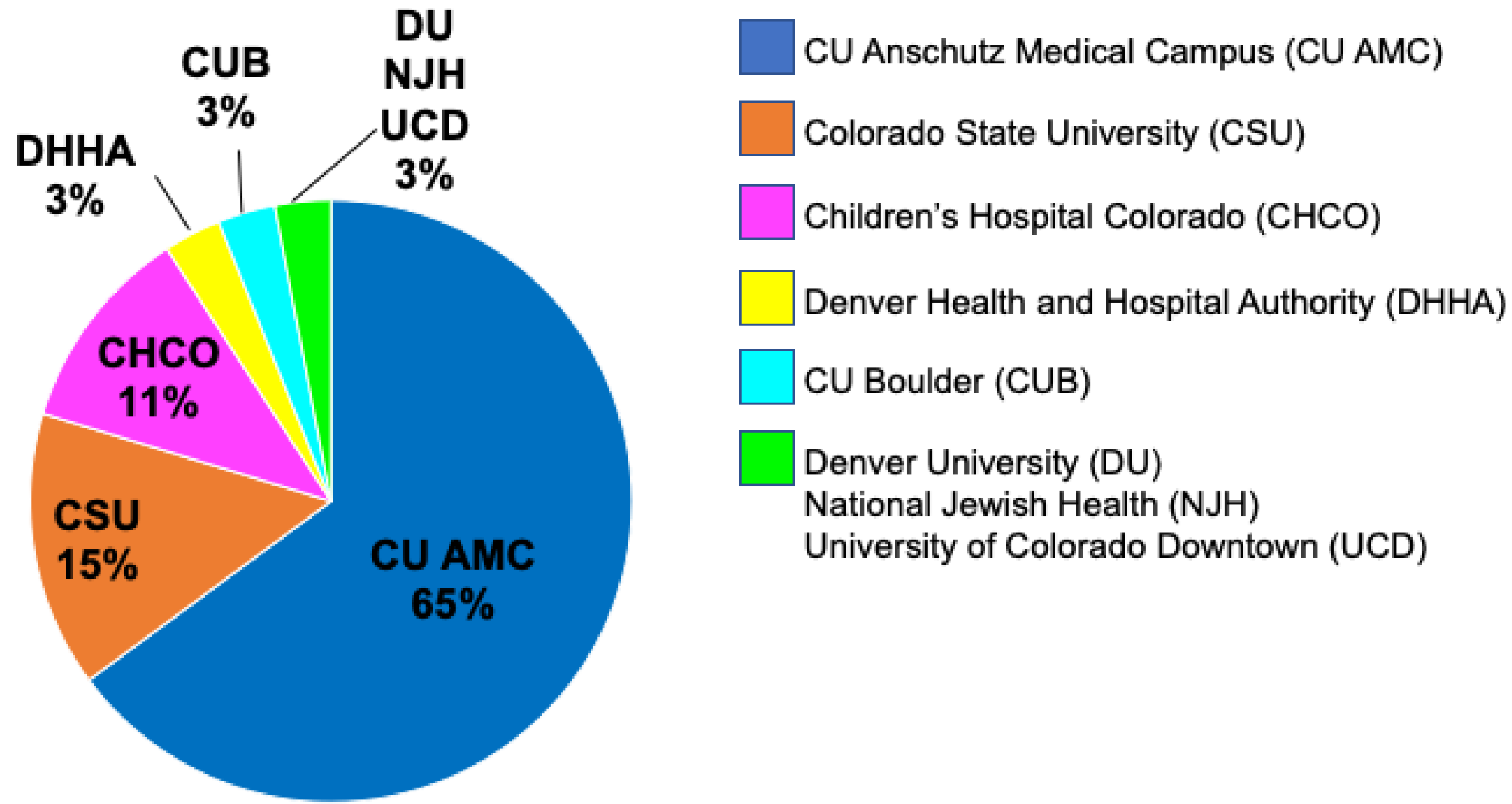
TM-Pilot – 47
 CSU Investigator Award – 5
 Biostatistics/Bioinformatics Award – 13
 General Translational Methods – 29

| NCATs | Inst \$ |
|-------|---------|
| 3 | 8 |
| 2 | 2 |
| 1 | 1 |
| 2 | 3 |

Review Study Sections: April-May 2024



CTS Pilot Grant Awardees Affiliations



National Representation and D&I

- **Disseminate our innovative REDCap infrastructure through:**
 - peer-reviewed publications
 - presentations at the CTSA Program Annual Meetings
 - CCTSI REDCap grant managing platform was highlighted during the national QA/QC meeting.
 - Since then, additional 6 CTSA Hubs have recently contacted Kristen House to help with their REDCap platform
- **D&I:** The REDCap Pilot Grant Management System will be offered through virtual training and workshops to interested CTSA Hubs for implementing fast, efficient, and transparent CTS-Pilots Infrastructure to facilitate and accelerate translational research locally, regionally and nationally



Response to EAC Critiques

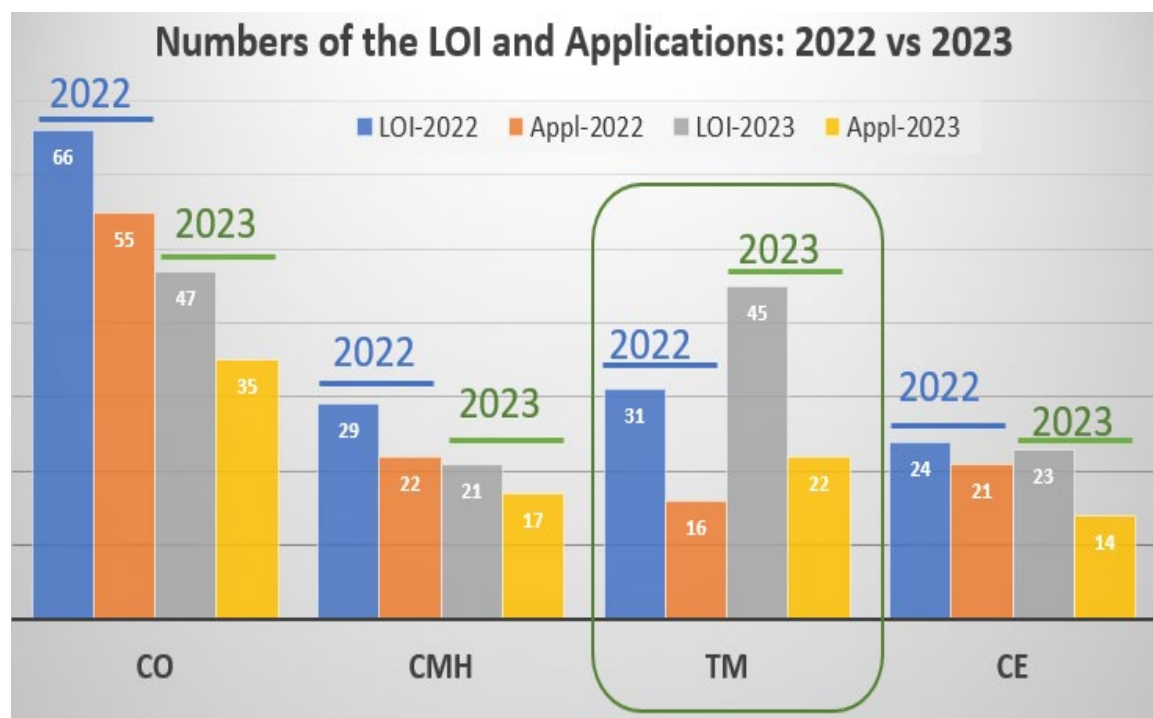
Last year, the Translational Pilot Program received a highly favorable feedback:

“...(The program) demonstrated both exceptional leadership and the outstanding accomplishments of the component”

No noticeable critiques to be reported



Questions for EAC



We have experienced a decreased number of Pilot applications – especially in the Junior/ Mentored Category – in the pandemic/post-pandemic times.

Should we worry?

Do other CTSA Hubs/ Pilot Grant Programs have a similar experience?

The quality of applications remains stable/ high

The funding rate has increased (positive)

