CTS Pilots

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Kristen House
CTS Pilot Program Administrator

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Integration Across CCTSI

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

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

Natalie Serkova, PhD
CU Anschutz

Sue VandeWoude, DVM
CSU

Chris Baker, MD
CHCO

Phil Zeitler, MD
CHCO

Don Nease, MD
CU Anschutz

Montelle Tamez
CU Anschutz
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

<table>
<thead>
<tr>
<th>DEIA metrics for the CTS-Pilots applicants in 2023 Cycle (Year 1)</th>
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</thead>
<tbody>
<tr>
<td>Female</td>
</tr>
<tr>
<td>--------</td>
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<tr>
<td>59%</td>
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</table>
Previous Statistics in CTS Pilots (2018 – 2022)

More than two-thirds of grantees were female.

Of grantees had an MD.

Of grantees were underrepresented in biomedical research (UBR).

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

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CTSI 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.

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1. **Bruker 9.4T/ 20cm BioSpec MR Scanner for Colorado Animal Imaging**
   - S1000623485-01: $2,000,000
   - SERKOVÁ, NATALIE J.
   - 2018

2. **Multi-Modal Optical/ microCT system for Colorado Animal Imaging Resource**
   - S1000827923-01A1: $733,485
   - SERKOVÁ, NATALIE J.
   - 2020

3. **Sex-based differences in the neuronal mechanisms of food intake behavior**
   - R01DK119236-01A1: $2,521,123
   - LEGGET, KRISTINA T.
   - 2019

4. **Sex Effects on the Neurobiology of Eating Behaviors in Veterans**
   - R15CA221949-01: $898,233
   - LEGGET, KRISTINA T.
   - 2020

5. **A SIM2s/SEMA7A Switch Drives ER+ Breast Cancer Progression**
   - R01CA282909-01A1: $2,832,310
   - LYONS, TRAVIS
   - BORGES, VIRGINIA F.
   - PORTER, WESTON W.
   - 2024

6. **Impact of lymph node sparing on the anti-tumor response for head and neck cancer treated with radiation and immunotherapy**
   - K01OD083188-01A1: $361,245
   - BOSS, MARY KEARA
   - 2022-2024
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.

13.37
Return on Investment (ROI) across CO-Pilot program.

30 CMH-Pilots
Return on Investment (ROI) across CMH-Pilots. 8.84

39 CE-Pilots
Return on Investment (ROI) across CEHE Pilot programs. 1.11

89 CO-Pilots

36 TM-Pilots
Return on Investment (ROI) across TM-Pilots. 24.31

Goldie Komaie, PhD, Grace Gonzalez (CCTS 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 to improve generalizability of research
   - Translational Method CTS Pilots
Year 1 Progress: Awarded

<table>
<thead>
<tr>
<th>CTS Program</th>
<th>Annual Budget</th>
<th>1st year # award</th>
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<tbody>
<tr>
<td>Colorado Pilots</td>
<td>$140,000</td>
<td>3</td>
</tr>
<tr>
<td>Mentored Pilot</td>
<td>$40,000</td>
<td></td>
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<tr>
<td>Early Career Diversity Pilot</td>
<td>$40,000</td>
<td></td>
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<tr>
<td>CU-CSU Collaborative Pilot</td>
<td>$60,000*</td>
<td></td>
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<tr>
<td>Child and Maternal Health Pilots</td>
<td>$80,000</td>
<td>2</td>
</tr>
<tr>
<td>Mentored Pilot</td>
<td>$40,000</td>
<td></td>
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<tr>
<td>Junior Pilot</td>
<td>$40,000</td>
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<tr>
<td>Community Engagement Pilots</td>
<td>$25,000</td>
<td>1</td>
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<tr>
<td>Joint Pilot</td>
<td>$25,000</td>
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<tr>
<td>Translational Methods Pilots</td>
<td>$60,000</td>
<td>2</td>
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<tr>
<td>Innovation Pilot</td>
<td>$30,000</td>
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<tr>
<td>Biostatistics/Bioinformatics</td>
<td>$30,000</td>
<td></td>
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<tr>
<td>Total*</td>
<td>$305,000</td>
<td>8</td>
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Year 2 Plans Submitted

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<thead>
<tr>
<th>Program</th>
<th>NCATs</th>
<th>Inst $</th>
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<tr>
<td>CO-Pilot – 71</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>CSU/CU Collaboration Award – 8</td>
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<td></td>
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<tr>
<td>Junior Faculty Award – 27</td>
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<td></td>
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<tr>
<td>Mentored Faculty Award – 25</td>
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<tr>
<td>Early Investigator Award – 11</td>
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<tr>
<td>CMH-Pilot – 27</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Junior Faculty Award – 10</td>
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<td></td>
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<tr>
<td>Mentored Faculty Award – 17</td>
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<tr>
<td>CE-Pilot – 26</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Partnership Development – 14</td>
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<tr>
<td>Joint Project – 12</td>
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<tr>
<td>TM-Pilot – 47</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CSU Investigator Award – 5</td>
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<tr>
<td>Biostatistics/Bioinformatics Award – 13</td>
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<tr>
<td>General Translational Methods – 29</td>
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Review Study Sections: April-May 2024
CTS Pilot Grant Awardees Affiliations

- CU Anschutz Medical Campus (CU AMC) 65%
- Colorado State University (CSU) 15%
- Children’s Hospital Colorado (CHCO) 11%
- Denver Health and Hospital Authority (DHHA) 3%
- CU Boulder (CUB) 3%
- Denver University (DU) 3%
  National Jewish Health (NJH)
  University of Colorado Downtown (UCD)
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)