CCTSI 3.0 Town Hall

Next 5 Years

Ronald J. Sokol, MD
Director and P.I. of CCTSI
Assistant Vice Chancellor of Clinical and Translational Science
University of Colorado Denver

March 8, 2018
CTSA Program

• A national consortium of medical research institutions collaborating to transform how clinical and translational science is conducted nationwide

• Currently, 58 funded Hubs (sites), many of which include multiple universities and hospitals.

• CTSAs provide many local resources, facilities, research personnel, pilot funding, regulatory and informatics support, research units and education & training programs

• Grants originate from NCATS at NIH
CTSA Program Goals

• Train and cultivate the translational science workforce

• Engage patients and communities in every phase of the translational process

• Promote the integration of special and underserved populations in translational research across the human lifespan

• Innovate processes to increase the quality and efficiency of translational research, particularly of multisite trials

• Advance the use of cutting-edge informatics
Colorado Clinical & Translational Sciences Institute

- CCTSI is the Colorado CTSA Hub
- Created in 2008, refunded in 2013
- Funded primarily by NIH CTSA grant to UC Denver
- Substantial institutional support (funding)
- Supports all faculty, post-docs, trainees involved in clinical or translational research
- “Disease – agnostic”
- Evolved from the previous GCRCs and K30 program
CCTSI 3.0 – Future State

• Current Grant funded 05/01/2013 – 04/30/2018 (4 more days)

• Now in year 5, which ends April 30, 2018

• Renewal submitted in May 2017 impact score of 13

• New Grant to begin May, 1 2018 – April 30, 2023

• NOGA received last week – all 5 years funded at maximum amount, $46 million
CCTSI Partner Institutions

• **Three Universities**
  
  UC Denver (UCD)
  
  – Anschutz Medical Campus:
    
    6 health profession schools/colleges
  
  – Downtown Denver

  CU Boulder (CU-B) (UCCS)

  Colorado State University (CSU) since 2008

• **Six Affiliated Hospitals and Health Care Organizations** *

  UCH (UCHealth), Children’s Colorado, NJH, Denver Health, Denver VAMC, Kaiser Permanente

*Each is a separate legal entity, none owned by Univ. of Colorado*
CCTSI Community Partners

• >20 Community-Academic partnerships throughout the state, including multiple PBRNs

  – Populations:
    • Native Americans, Latinos, African-Americans, Rural populations, Nursing partnerships, Catholic churches, Ranching, LGBT, etc.

  – PACT Focus Groups:
    • San Luis Valley, Stapleton 2040, American Indian/Alaskan Native Programs, High Plains Research Network, Kaiser Patient/provider, LUCHAR
CCTSI Monthly Membership Growth

CCTSI Monthly Membership Growth by Academic Affiliation

- Missing or Not reported
- Colorado State University
- Kaiser Permanente of Colorado
- Other
- University of Colorado Anschutz Medical Campus
- University of Colorado Boulder
- University of Colorado Denver

326 (7.3%)
77.3%
# CSU CCTSI Members by College

<table>
<thead>
<tr>
<th>School/College</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CSU Total</strong></td>
<td><strong>326</strong></td>
</tr>
<tr>
<td>CSU College of Agricultural Sciences</td>
<td>8</td>
</tr>
<tr>
<td>CSU College of Applied Human Sciences</td>
<td>75</td>
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<tr>
<td>CSU College of Engineering</td>
<td>20</td>
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<tr>
<td>CSU College of Liberal Arts</td>
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<tr>
<td>CSU College of Natural Sciences</td>
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<tr>
<td>CSU Colorado School of Public Health</td>
<td>5</td>
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<tr>
<td>CSU Graduate School</td>
<td>7</td>
</tr>
<tr>
<td>CSU Veterinary Medicine &amp; Biomedical Sciences</td>
<td>156</td>
</tr>
</tbody>
</table>
The Colorado Clinical & Translational Sciences Institute (CCTSI) is the academic home to help transform the clinical and translational research and training efforts at the University of Colorado Anschutz Medical Campus and affiliated institutions. The CCTSI was created in 2008 with funding from the Clinical and Translational Science Award (CTSA) initiative of the National Institutes of Health (NIH).

View our [CCTSI funded grant](#).
Colorado Clinical & Translational Sciences Institute

We accelerate and catalyze the translation of innovative science into improved health and patient care.

CLINICAL & TRANSLATIONAL RESEARCH CENTERS

FUNDING OPPORTUNITIES

EDUCATION & TRAINING

COMMUNITY ENGAGEMENT

REGULATORY SUPPORT

TRANSLATIONAL INFORMATICS

CHILD & MATERNAL HEALTH

The Colorado Clinical & Translational Sciences Institute (CCTSI) is the academic home to help transform the clinical and translational research and training efforts at the University of Colorado Anschutz Medical Campus and affiliated institutions. The CCTSI was created in 2008 with funding from the Clinical and Translational Science Award (CTSA) initiative of the National Institutes of Health (NIH).

View our CCTSI funded grant.
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.

CTRC Support

- **MicroGrant Program**
  These funds can be used to purchase CTRC services for research protocols conducted at University of Colorado Hospital, Children’s Hospital Colorado, and Perinatal CTRC. This award is generally available to junior investigators.

CCTSI Pilot Programs

- **Colorado Pilot Program (CO-Pilot)**
  Provides one-year pilot awards to encourage cross-disciplinary and collaborative research in clinical and translational science. Several categories of award are available for applicants from fellows through senior investigators.

- **Center for Neuroscience Pilot Program (CNS-Pilot)**
  Provides one-year pilot awards to encourage cross-disciplinary and collaborative investigation in basic and translational neuroscience research.

- **Child & Maternal Health Pilot Program (CMH-Pilot)**
  Provides one-year pilot awards for longitudinal research in children, pregnant women, and mothers to improve child and maternal health and prevent diseases that begin in early life. These awards are generally available to fellows and junior investigators.

- **Community Engagement Pilot Program (CE-Pilot)**
  Encourages community-academic partnerships in clinical and translational research.

- **Novel Methods Development Grant (NMD Pilot Program)**
  Facilitates novel methods development across the University of Colorado campuses and its affiliate hospitals.

- **Colorado State University Pilot Program (CSU-Pilot)**
  Provides one-year pilot awards to promote innovative research collaborations and interactions for clinical and translational research at CSU that will lead to new funded research.
The Colorado Clinical & Translational Sciences Institute (CCTSI) is the academic home to help transform the clinical and translational research and training efforts at the University of Colorado Anschutz Medical Campus and affiliated institutions. The CCTSI was created in 2008 with funding from the Clinical and Translational Science Award (CTSA) initiative of the National Institutes of Health (NIH). View our CCTSI funded grant.

**ANNOUNCEMENTS**

- Dec. 8 Workshop on Quality Analysis on Quality Improvement Research
- K to R (KTR) Transition program LOI due Dec. 15
- Apply for a Novel Methods Development Pilot Grant
- Apply for a Pre K Grant Review by Dec. 18
FIND MENTORS, COLLABORATORS, EXPERTS, LABORATORY TO WORK IN, ETC., ETC.
Colorado Clinical and Translational Sciences Institute

Colorado State University is proud to be a partnering institution with the Colorado Clinical and Translational Sciences Institute (CCTSI), an NIH Clinical & Translational Science Award (CTSA) Awardee lead via University of Colorado Denver.

The CCTSI is the academic home to help transform the clinical and translational research and training efforts at the University of Colorado Denver and affiliated institutions. The CCTSI was created in 2008 with funding from the Clinical and Translational Science Award (CTSA) Initiative of the National Institutes of Health (NIH).

CCTSI Membership

Join the CCTSI if you are interested or involved in clinical and translational research or training. You MUST be a member to use CCTSI services and resources or to obtain CCTSI funding.

Membership Benefits

- Membership is free
- Access to Clinical and Translational Research Centers' resources
- Access to consultative services in biostatistics, epidemiology and research design; translational Informatics, regulatory support; bioethics, and more
- Tools for facilitating collaboration
- Access to education, training, and career development for pre-doctoral to senior faculty levels
- Pilot project and novel methods funding eligibility
- Academic promotion letters of support

CCTSI Contacts

Sue VandeWoude, DVM
Associate Dean
College of Veterinary Medicine and Biomedical Sciences
Colorado State University

Patricia Davies, PhD
Associate Dean for Research
College of Health and Human Sciences
Colorado State University

Jim Sites, PhD
Associate Dean
College of Natural Sciences
Colorado State University

Sonia Kreidenweis, PhD
Associate Dean for Research
Walter Scott, Jr. College of Engineering
Colorado State University

Aimee Oke, MBA
CSU CCTSI Program Coordinator
College of Veterinary Medicine and Biomedical Sciences
Colorado State University

CCTSI Leadership
Funding Opportunities

General CCTSI Funding Opportunities

**CCTS1 UCD Colorado Pilots**: Submission period is closed. Awards will be announced in February 2017.

**CSU-specific funding opportunities: CSU Only Pilot Projects RFA.** Submissions for the CSU Pilots are due February 6, 2017 by 5 p.m. MST via email to Aimee.Oke@colostate.edu. Budgets must be reviewed by the Associate Dean of Research in the submitting PI’s college and approved by obtaining signature on the proposal face page.

List of previously funded CCTSI CSU Pilots

Facilities and Services

The Colorado State University CTRC includes the Proteomics and Metabolomics Core, Pharmacology Core, and the Natural Animal Models Core. All services are provided as fee-for-service resources.

**Natural Animal Models Core**
Contact Wayne Jensen for more information.

**Pharmacology Core**
The CU Cancer Center Pharmacology Shared Resource (PSR), located at CSU's Flint Animal Cancer Center was established to work with researchers and clinicians in a collaborative manner to design and implement studies to measure xenobiotics (drugs, toxicants, natural products, etc.) in biological systems and matrices. Contact Dan Gustafson for more information.

**Proteomics and Metabolomics Core**
The Proteomics and Metabolomics Facility is located in the Microbiology building on the CSU main campus. Our mission is to serve as an enabling resource for research and development by providing access to state of the art analytical instrumentation and expertise. The primary focus of the laboratory is on biological mass spectrometry of both proteins and metabolites. We support the clinical research community through discovery based workflows as well as targeted assays for biomarker validation. Contact Jessica Proni for more information.

**Biostatistics Consultation**
Available services include consultations regarding general study design, sampling methodologies, sample size calculations, analysis recommendations, wording of analytical methods sections for grant applications, recommendations for data entry tools basic and advanced statistical analysis, interpretation of statistical analysis and presentation of results for reports. Contact Sangeeta Rao for more information.

**Bioinformatics Consultation**
Available services include consultation on laboratory and sample preparation for next generation sequencing libraries, genome assembly, RNA transcript assembly, read alignment, metagenomics analysis, tailored software development, bioinformatics training and mentoring, and interpretation of results. Contact Mark Strobel for more information.
13 CCTSI Key Functions

- Education, Training and Career Development (11 programs)
- Clinical Research Units (CTRCs)
- Community Engagement & Research
- Child & Maternal Health Research
- Biostatistics, Epidemiology and Research Design
- Translational Informatics (including REDCap)
- Research Bioethics
- Regulatory Knowledge and Support
- Pilot Grants and New Methods grants (> $1 million per yr)
- Translational Technologies (N=15)
- Pragmatic Trials / Dissemination and Implementation
- Research Incubator Studios
- Evaluation & Tracking and QPIP
Clinical Translational Research Centers (CTRCs)

• UCH, CHCO, NJH, CU-B and Perinatal
  – Inpatient and outpatient facilities
  – Research Nursing – inpatient, outpatient, mobile teams (NICU, PICU, ED, etc.)
  – Bio-nutrition, metabolic kitchen, whole room calorimeter and body composition
  – Vascular Ultrasonography and ECHO
  – Core laboratories & specimen processing
  – SARC review of protocols
  – 200 unique PI’s conduct research on > 400 CTRC Protocols each year
CSU CCTSI Contacts/Leadership

• Sue VandeWoude, DVM, DACLAM, College of Veterinary Medicine and Biomedical Sciences
• Patti Davies, PhD, College of Health and Human Sciences
• Jim Sites, PhD, College of Natural Sciences
• Sonia Kreidenweis, PhD, Walter Scott Jr. College of Engineering
• Amee Oke, MBA, Program Coordinator, College of Veterinary Medicine and Biological Sciences
Education, Training and Career Development (ETCD)

1. Summer Undergraduate Minority Mentoring in Translational Science (SUMMiT) (n=14)

2. **TL1 (T32) training program (1 yr.) - TOTTS**

3. Clinical Sciences Graduate Program (PhD, Masters)

4. **KL2 (K12) Research Scholar program - up to 3 yrs. of support**

5. K-Club and Nuts and Bolts

6. Support for Clinical Faculty Scholars Program
Education, Training and Career Development (ETCD)

7. Clinical Research Forum for Investigators and Study Coordinators

8. Leadership in Innovative Team Science (LITeS)

9. Colorado Mentor Training Program

10. K to R Transition Grant Review

11. Pre-K Award Assistance and Grant Review

12. Community Engagement Immersion Program
2017 Grant Renewal

• Major changes in FOA:
  – Rent for CTRC space – not allowed; research nurses, tests and procedures (CTRCs) – limited amount on NIH budget
  – **No** Translational Technologies supported
  – Allocate Funds to Trial Innovation Network support
  – BERD limited to grant and project writing/planning
  – Pilots – no basic discovery, emphasize science of translation
  – More focus on Methods Development & Informatics
  – Optional functions (n = 2)
CCTSI Organizational Structure

EXTERNAL ADVISORY COMMITTEE

INTERNAL ADVISORY COMMITTEE

ADMINISTRATIVE CORE
Sokol  Lockie  Higgins

EXECUTIVE COMMITTEE

Evaluation
Nearing

QPIP
Kwan

Dissemination Implementation
Morrato

Informatics
Kahn

Community & Collaboration
Nease

Translational Endeavors
Campbell

Research Methods
Lakin

Hub Research Capacity
Kohrt

Network Capacity
Flaig

Innovation Ecosystem
Morrato

Early Life Exposures
Hay

Collaboration & Team Science
Kohrt

Community Engagement
Nease

Workforce Development
Cicuto

Pilot Translational Studies
Campbell

Regulatory Support
Lakin

BERD
Carlson

Participant & Clinical Interactions
Kohrt

Integrating Special Populations
Kohrt / Hay

Trial Innovation Network
Liaison Team

Training Core (T1L)
Cicuto

Institutional Career Development (KL2)
Wilson
CCTSI Vision

Accelerate and catalyze the translation of innovative science into improved health and patient care
CCTSI Mission

• Catalyze and enhance scientific discovery, innovation, dissemination and translation across the lifespan

• Educate and sustain a resilient, innovative and diverse translational science workforce

• Promote and ensure an efficient, safe, collaborative and integrated research environment

• Engage stakeholders and communities across the entire translational spectrum
Overall Strategic Goals

Goal 1: Diverse translational science workforce

Goal 2: Translational research environment in which team science and collaboration are supported

Goal 3: Engage local and national communities and stakeholders

Goal 4: Integrate research in special populations - children, the elderly, the underserved and those with rare diseases.

Goal 5: Promote quality, efficiency, & safety of our research and participate in the CTSA Trial Innovation Network.
New Programs in CCTSI 3.0
TL1 Program Re-engineered

• Team Oriented Training across the Translational Sciences (TOTTS)
  – Expand spectrum of trainees to include Vet Medicine PhD students, Post Doc DVM trainees and DVM residents, and clinicians and Medical Residents as well as CU PhD and MD students (Both a Pre- and Post-Doc program)
  – Embrace Diversity to Accelerate Research Excellence (DARE) through recruitment, mentorship and retention of URM scientists
  – Optimize program to develop skills across entire translational spectrum
Rationale for TL1 and Vet Med

“The inclusion of veterinary scientists in our TL1 program is in response to national data showing insufficient numbers of veterinarians are trained in translational biomedical research—despite the significant need for their expertise in comparative translational medicine to accelerate bench to bedside discoveries. The capacity of veterinarians to fill this national need is severely limited due to insufficient opportunities for postdoctoral training in research as highlighted in several reports including the 2015 NIH Physician Scientist Workforce report, National Academy of Sciences analyses and the NIH ORIP One Health Workshop: Integrating the Veterinarian Scientist into the Biomedical Research Enterprise. These documents also stressed the need for veterinarians to enhance translational research by consideration of the intersection of human, animal and environmental health (so-called One Health).”
TOTTS and CCTSI Resources

• Preparing veterinary clinical scientists from Colorado State University, a CCTSI partner institution, in translational science and integrating them into multi-disciplinary team-oriented CTR across the translational spectrum.

• TOTTS program and CCTSI Cores:
  BERD, CTRCs, Health Data Compass, Regulatory, Clinical Sciences Graduate Program, LITeS, Community Engagement and Research
TOTTS (TL1) Leadership

- Lisa Cicutto, RN, PhD
- John Tentler, PhD (Medical Oncology)
- Marion Sills, MD, MPH (Pediatric Emergency Medicine)
- Doug Thamm, VMD, DACVIM (Oncology at CSU) – oversee TOTTS training at CSU for Post-Doctoral Vet Med trainees
- URM Leader; Shanta Zimmer MD, Assoc Dean for Diversity and Inclusion, SOM
# TOTTS Training

## Table 7: Alignment between TOTTS Program and our Model of Persistence in CTR

<table>
<thead>
<tr>
<th>Program Elements</th>
<th>Persistence Factor Addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Individualized Career Development Plan (ICDP)</td>
<td>Formalized process for using the seamless pipeline to achieve individual’s goals and milestones</td>
</tr>
<tr>
<td>2. Mentorship</td>
<td>Provide effective mentorship and peer support to promote academic and social integration</td>
</tr>
<tr>
<td>3. Individualized CTR Training</td>
<td>Supports ability to plan, conduct, and disseminate meaningful research</td>
</tr>
<tr>
<td>4. Research Project Supervision</td>
<td>Supports ability to plan, conduct, and disseminate meaningful research. Provide effective mentorship to promote academic and CTR integration</td>
</tr>
<tr>
<td>5. TOTTS Seminars</td>
<td>Advocating for self and managing environmental pull factors and Promotes academic and social integration into CTR</td>
</tr>
<tr>
<td>6. Immersion Experience with Translational Mentor</td>
<td>Promotes academic and social integration into CTR</td>
</tr>
<tr>
<td>7. Translation of CTR</td>
<td>Promotes academic and social integration into CTR</td>
</tr>
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</table>
### Proposed Courses – Vet Med TOTTS Trainees

<table>
<thead>
<tr>
<th>Veterinary Post-Doctoral</th>
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</thead>
<tbody>
<tr>
<td>Biostatistics (CSU)</td>
</tr>
<tr>
<td>Study design: Epidemiology or Design and Conduct of Clinical Trials (CLSC, CSPH)</td>
</tr>
<tr>
<td>Translational Biomedical Research and Animal Models Selection (CSU)</td>
</tr>
<tr>
<td>Writing Scientific Manuscripts and Grants (CSU) (Participation in Career Development Grant Review and Mock Study Section; see B.3.3)</td>
</tr>
<tr>
<td>Ethics and Responsible Conduct of Research (CLSC)</td>
</tr>
<tr>
<td>Grant Writing (CLSC)</td>
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# Pilot Grants Program

<table>
<thead>
<tr>
<th>Table 3. Pilot Translational and Clinical Studies Programs</th>
<th>Annual Budget</th>
<th>Number of Awards</th>
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<tr>
<td></td>
<td></td>
<td>1&lt;sup&gt;st&lt;/sup&gt; Year</td>
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<tr>
<td><strong>Colorado Pilots</strong></td>
<td>$180,000</td>
<td>5</td>
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<tr>
<td>CO-Pilot Mentored</td>
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<tr>
<td>CO-Pilot Junior</td>
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<td></td>
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<tr>
<td>CO-Pilot Collaborative</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Child and Maternal Health Pilots</strong></td>
<td>$60,000</td>
<td>2</td>
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<tr>
<td>CMH Mentored</td>
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<tr>
<td>CMH Junior</td>
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<tr>
<td><strong>Community Engagement Pilots</strong></td>
<td>$60,000</td>
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<tr>
<td>CE Collaborative</td>
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<tr>
<td><strong>Translational Methods</strong></td>
<td>$100,000</td>
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<td>TM Collaborative</td>
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<tr>
<td><strong>Natural Models</strong></td>
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<tr>
<td><strong>Total</strong></td>
<td>$400,000</td>
<td>14</td>
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</table>

CSU-CU $60,000

Additional $400,000 – 500,000 institutional funds
CU and CSU researchers collaborate using natural animal models

Spring 2018

by Wendy S. Meyer

In 2012, the Colorado Clinical and Translational Sciences Institute (CCTSI) formally invited Colorado State University (CSU) to become an official Instituto partner. CCTSI Director Ron Sokol, MD, says that the CCTSI is one of only a handful of the 58 NIH-funded CTSA Hubs across the nation that includes veterinary researchers—and translation to natural animal models—in its spectrum of translational research. Since 2012, the collaboration between human and animal biomedical researchers has thrived.

"The Veterinary School at CSU is one of the best in the nation," says Sokol. "And the researchers there—leaders in One Health and exploring biological mechanisms in natural animal models of human diseases—have been creating investigational collaborations with the biomedical researchers on the Anschutz Medical Campus."

CCTSI has awarded pilot grants to promising CSU investigators and CU-CSU collaborations. "The applications for the CU-CSU Collaboration Pilot Grant Award were extremely strong this year," says Tom Campbell, MD, co-leader of the program. "Their scores were some of the best I have seen since I’ve been leading this program, and we are excited to see their work progress."

Two of those recipients are Melanie Joy, PharmD, PhD, and Matthew Young, PhD, who are researching the impact of antibiotic resistance in cattle with the goal of developing new ways to limit the spread of antibiotic-resistant bacteria. They are also using animal models to test new strategies aimed at preventing the spread of antibiotic-resistant bacteria in livestock populations.
Trial Innovation Network (TIN)
trialinnovationnetwork.org

• National CTSA Consortium effort to facilitate conduct of Multi-Site (NIH) Clinical Trials
• Provide local and national support for the entire study lifespan
  – TICs - study design, central IRBs, study operations, data collection and analysis
  – RIC - assist with recruitment and retention strategies
  – TIN Hub Liaison Team – Info on CCTSI website
• Investigators can request a single service or complete study life cycle assistance
Trial Innovation Network
Operational Excellence

**TRIAL INNOVATION NETWORK**

**Trial Planning**
- Protocol Design
- Study and Budget Feasibility
- Statistical Analysis Plan
- Risk Assessment
- Engagement and Recruitment Plans
- Patient Engagement Studio
- Cohort Discovery Leveraging EHR
- Recruitment Training
- Access to unique populations – Rare Diseases
- Key Opinion Leader/Clinical Expertise

**Trial Execution**
- 3 Academic Central IRBs
- Standard Agreements Used Across Network (*FDP-CTSA*)
- CTSA Program Recruitment Sites with Trial Innovation Network Hub Liaison Teams
- Regulatory Support
- Project Management
- Consent Forms, CRFs
- Site Selection, Initiation, Training
- Performance Metrics
- Recruitment Plans and Tools
- Data Management
- DSMB
- Study Close Out, Statistical Analysis
- Publications
CCTSI Hub Liaison Team

**Principal Investigator**
- Ronald Sokol
  - ronald.sokol@childrenscolorado.org

**Medical Director**
- Thomas Flaig
  - thomas.flraig@ucdenver.edu

**Administrator/Project Manager**
- Benjamin Echalier
  - benjamin.echalier@ucdenver.edu

**Liaison Team Staff**
- Adrienne Allegre
  - FDP-CTSA Standard Agreements Contact
  - adrienne.allegre@ucdenver.edu

**Liaison Team Members**
- Barbara Hammack
  - liaison team member
  - barbara.hammack@ucdenver.edu
- Cynthia Sneddon
  - liaison team member
  - cynthia.sneddon@ucdenver.edu
- Christy Williamson
  - IRB Contact
  - christin.williamson@ucdenver.edu

Thomas Campbell MD (adult trials)
Peter Mourani MD (pediatric trials)
Optional Function: Innovation Ecosystem

- **Aim 1:** Catalyze an academic entrepreneur culture and workforce by (a) expanding and disseminating the reach of robust bio-entrepreneurship training opportunities, (b) fostering entrepreneurial networking, and (c) demonstrating career trajectories for faculty and graduate students who are CTR science innovators.

- **Aim 2:** Accelerate the development of commercializable innovations through customer discovery development support for Innovation-Corps (I-Corps™) teams.

- **Aim 3:** Accelerate health impact by connecting investigators to resources for commercialization mentorship, domain expertise, and accelerator funding.
Figure 1. CCTSI PIVOT Innovation Ecosystem

Innovation Spectrum
T5-T1-T2-T3-T4 Translation

CCTSI PIVOT Entrepreneurial Ecosystem

Aim 1. Workforce
Entrepreneur Culture and Education

Aim 2. Develop
Idea Generation and Team Formation

Aim 3. Demonstrate
Accelerator Investment

Launch
I-Corps@CCTSI

Now taking applications for the Fall '17 I-Corps@CCTSI Training Program.

In-class dates: October 5, 6 and 27. (Spring '18 dates: April 12, 13 and May 4)

Do you want to learn how to accelerate the translation of your biomedical discoveries and health innovation into viable commercial products? Are you part of a team that wants to move your innovative idea off campus and into the real world?

Introducing I-Corps@CCTSI:
In line with the President's new Strategy for American Innovation, NIH is offering this entrepreneurial training program at select institutions across the country to accelerate the translation of innovations from the lab to clinical practice. The NIH selected the CCTSI to bring the I-Corps program to biomedical and translational researchers.
Expansion of I-Corps@CCTSI to CSU

• Two cohorts per year at CU-AMC
• **Additional new training cohort will be added at CSU each year (8-12 teams each)**
• I-Corps@CCTSI is a 3-week introductory shortcourse to help teams identify their target customer and through a customer discovery process involving 30 interviews test their “value proposition” hypothesis.

• All teams will be eligible to apply for a new program of funding (up to $3,000 each) to support their customer discovery process or concept validation.
Innovation & Entrepreneurship Ecosystem at AMC

A virtuous cycle of innovation and entrepreneurship

Technology Transfer Office

Accelerating

Opportunity Identification

Fundamentals

Launch

AMC Accelerator

Pitch Competitions

Incubating

Vetting

Idea Generation and Team Formation

Entrepreneurial Education Curriculum and Culture

I-Corps @NCATS Team Training Pilot Program
New – Science of Team Science (SciTS) Program

• Jeni Cross, PhD, Dept of Sociology – Building on the CSU Catalyst for Innovative Partnerships program, the following will be initiated in year one:
  • Team science seminars – increase awareness of best practices. Seminar series held twice per yr.
  • Workshops for existing and new scientific teams
  • Innovative Forums – to form new collaborations
  • Evaluation of each part of the program
CCTSI is here to support you!

- http://ucdenver.edu/research/cctsi
- Become a Member (quick, free, powerful)
- Become familiar with the website
- Ask questions on our website for assistance
CCTSI Budget Breakdown: CTSA Yr-1 (7 month)

Cost Share:
- $5.1M CTSA Grant
- $8.57M University Colorado Hospital
- $1.2M Children’s Hospital
- $514K National Jewish Health
- $748K University Colorado Boulder
- $621K Denver Health
- $73K Kaiser Permanente
- $151K CFPHE
- $271K CFPHE

Affiliate Subcontracts: $3.8M

CFPHE = Colorado Foundation for Public Health and the Environment
ETCD = Education, Training and Career Development

CCTSI Components: $4.7M
- Translational Pilots: $107K
- Enhanced Research Environ: $32K
- Resources & Services: $2.5M
- Education & Training: $473K
- KL2 Awards (5): $314K
- TL1 Awards (8): $252K
- Translational Informatics: $634K
- Administrative Core: $371K
- Colorado State Univ: $244K

Questions