

CCTSI Overview

Ronald J. Sokol, MD
Director and MPI of CCTSI

Janine Higgins, PhD
Director of Operations and MPI
of CCTSI

NJH March 18, 2024

cctsi.cuanschutz.edu



Colorado Clinical and Translational
Sciences Institute (CCTSI)

UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS



CTSA PROGRAM

- Clinical and Translational Science Award (NIH)
- Grants originate from NCATS at NIH, our 4th round of funding

- An NIH-funded national consortium to transform how clinical and translational science is conducted
- Supported now by 4 grants: UM1, K12, Pre-Doc and Post-Doc T32 awards

- 62 funded CTSA Hubs, which include multiple universities and hospitals
- Provide research resources, funding opportunities & training programs

- Disease agnostic
- Supports translational research spectrum, T0-T4



CCTSI Vision

Accelerate and catalyze the translation of innovative science into improved, equitable health and patient care for all



CCTSI Mission

Catalyze

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

Educate

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

Research

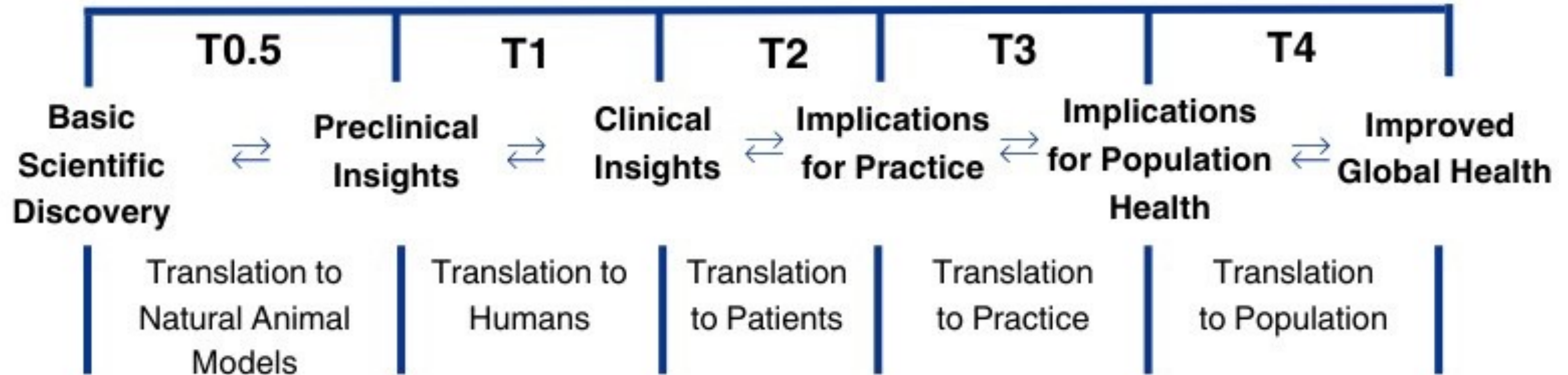
Promote and ensure an efficient, safe, collaborative and integrated **research environment**

Communities

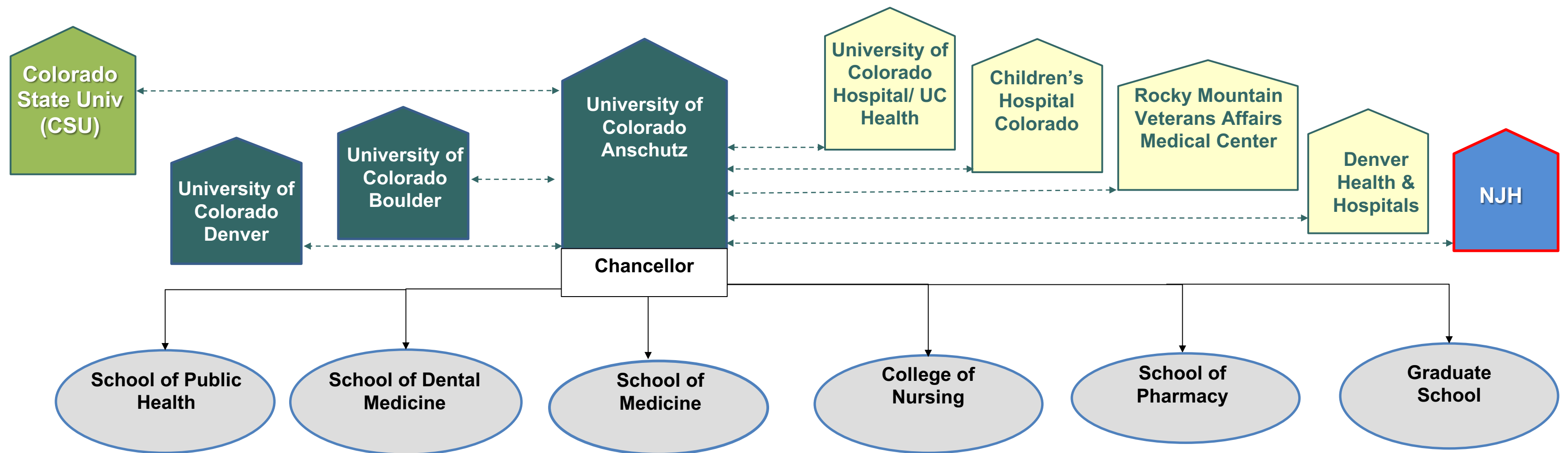
Engage stakeholders and communities across the entire translational spectrum



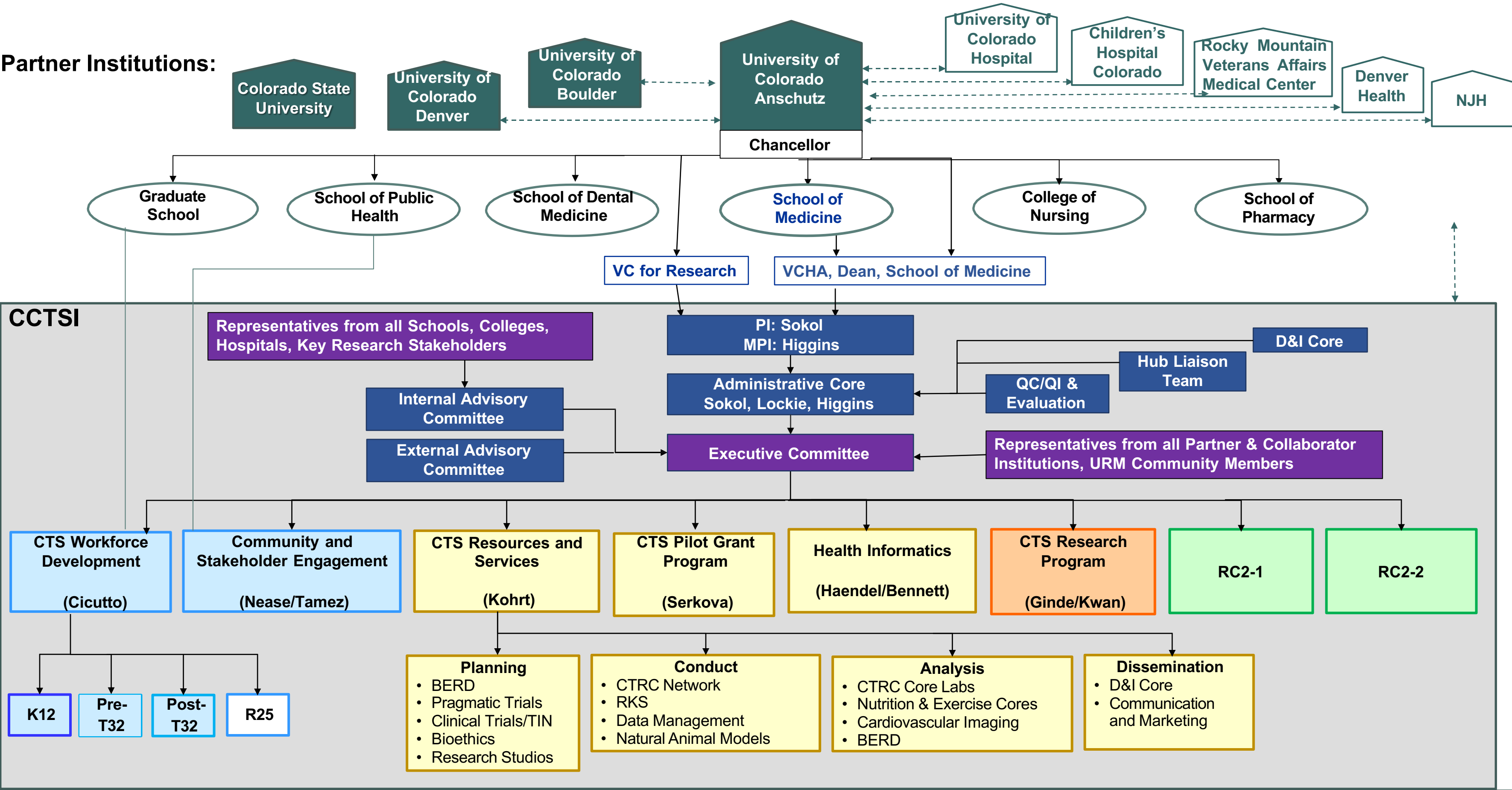
Spectrum of Translational Research



CCTSI Partners



Partner Institutions:



CCTSI Leadership and Diversity

Director: Ronald Sokol, MD, MPI

Director of Operations: Janine Higgins, PhD, MPI

DFA: Tim Lockie, MS, MBA

Associate Directors:

- Wendy Kohrt, PhD
- Melissa Haendel, PhD
- Alison Lakin, RN, JD
- Donald Nease, MD, MPH & Montelle Tamez
- Natalie Serkova, PhD
- Lisa Cicutto, PhD
- Bethany Kwan, PhD & Adit Ginde, MD

CSU: Susan VandeWoude, DVM

CU- Boulder: Chris Desouza, PhD

VAMC: Jane Reusch, MD

NJH: Donald Leung, MD, PhD

CCTSI Leadership:

50% Female

50% PhD or equivalent

Representation across Schools & Depts

SOM, CON, CSPH, Engineering

CCTSI Exec Committee:

52% Female

55% PhD or other

2 URM Community Representatives

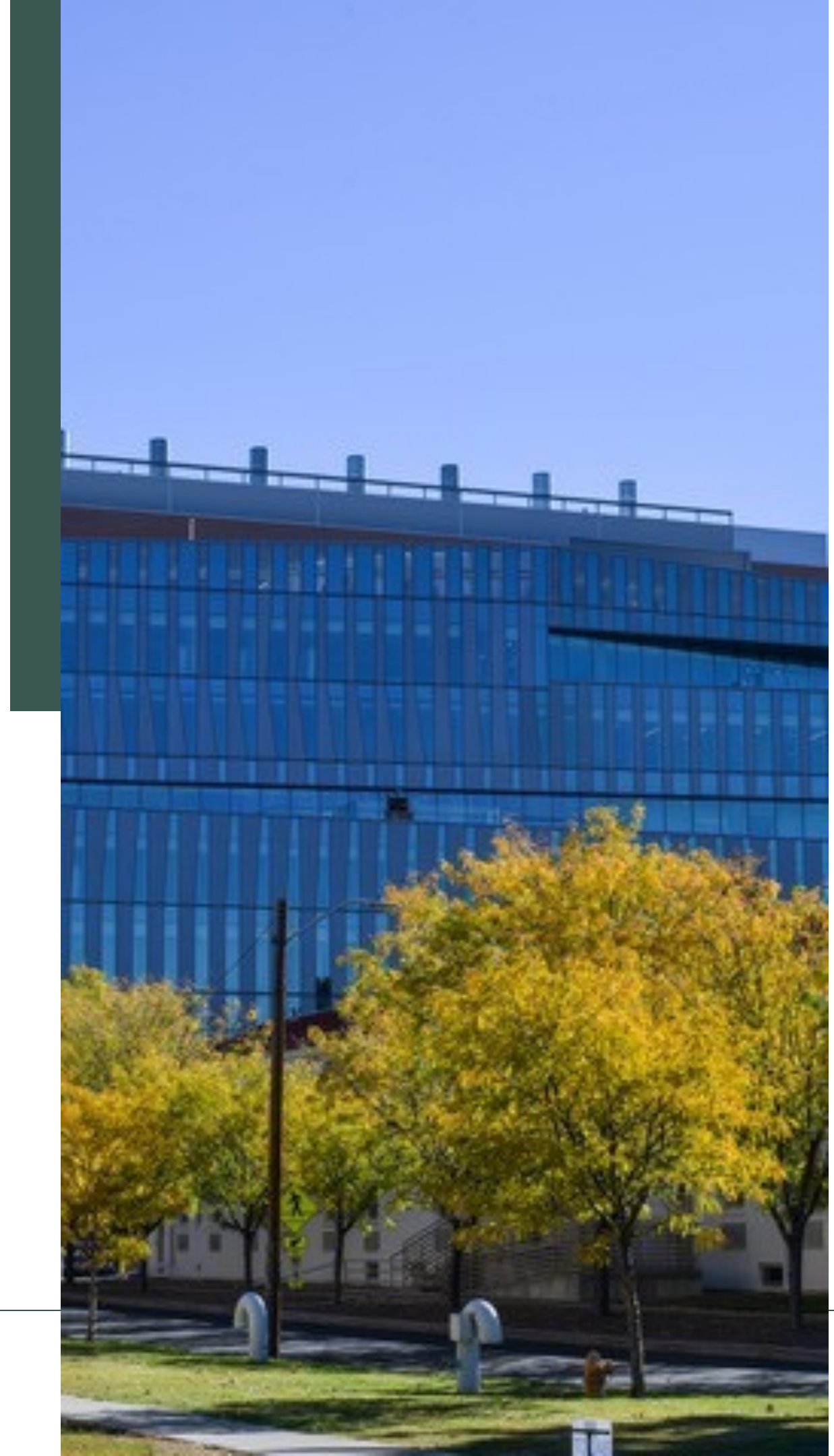
Representation across AMC Schools and

Depts, and all Partner Institutions



Programs & Resources

1. Education, Training and Career Development – [K12](#), [T32x2](#), [CLSC](#), etc.
2. Clinical Research Resources & Facilities – [CTRCs](#)
3. Community Engagement & Health Equity – [Immersion training](#), [Bootcamp Translation](#)
4. Dissemination & Implementation Research – [tools, education, and consults](#)
5. Team Science – [Teaming Workshop Series](#)
6. Biostatistics, Epidemiology and Research Design (BERD) – CIDA – [Tools, education, statistician assistance](#)
7. Translational Informatics – [REDCap](#), [HDC](#), [N3C](#), [Colorado Profiles](#) to find mentors and collaborators at CU
8. Research Bioethics – [Consult service](#)
9. Regulatory Knowledge and Support – [OnCore](#), [Training](#), [DSMB assistance](#)
10. Pilot Grant Programs – [CO-Pilot](#), [CMH](#), [CEHE](#), [Translational Methods](#)
11. Trial Innovation Network – uses CTSA network to [facilitate multi-center trials](#)
12. [Pragmatic EHR- Embedded Trials \(PEET\) research program](#)
13. Innovation and Entrepreneurship – [iCorp](#) customer discovery training, education, tools
14. Early Life Exposures Program (ELEP) – resources for [research in PN populations](#)





Website


cctsi.cuanschutz.edu





Must be a member
to access funding
and resources


Colorado Profiles



 University of Colorado **Anschutz Medical Campus**


Webmail  | UCD Access  | Car

Colorado Clinical and Translational Sciences Institute




Resources and Services

CCTSI supports translational research by providing resources, integrating facilities and services, developing innovative research tools and catalyzing interdisciplinary research programs.




Funding

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



Education, Training and Career Development

The Education, Training and Career Development (ETCD) program provides clinical-translational scientists and trainees with knowledge, training and career skills






Clinical Translational Research Centers

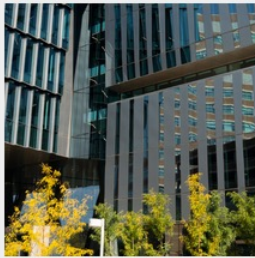
The CTRC provides infrastructure, resources and dedicated space to conduct clinical research.

Cite our Grant

Become a Member
Join the CCTSI for free

Find a Researcher 
Colorado PROFILES

  **Found In Translation**
News from around the CCTSI




Director's Corner

12/20/2023

Read the latest news from the Colorado Clinical and Translational Sciences Institute (CCTSI)....

[Read More](#)





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102117 Publications
8309 Total Profiles



added a publication
from: Applied and
environmental

The "Colorado PROFILES" search engine for biomedical research expertise and networking provides tools to help investigators and students find experts, potential collaborators or mentors, and to view past and present research networking of our investigators.

Find people by research topic

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Search

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smoke
oncology
Genomics
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Driving Automobile
Regeneration
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[Sokol, Ronald](#)
[See All \(1\) pages](#)

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Co-Authors are people in Profiles who have published together.

[List](#)
[Radial](#)
[Cluster](#)
[Timeline](#)
[Details](#)

This cluster graph shows the co-authors (green circles) and top co-authors of co-authors (blue circles) of Ronald Sokol (red circle). The size of a circle is proportional to the number of publications that author has. The thickness of a line connecting two authors' names is proportional to the number of publications that they share. Options for customizing this network view are listed below the graph.

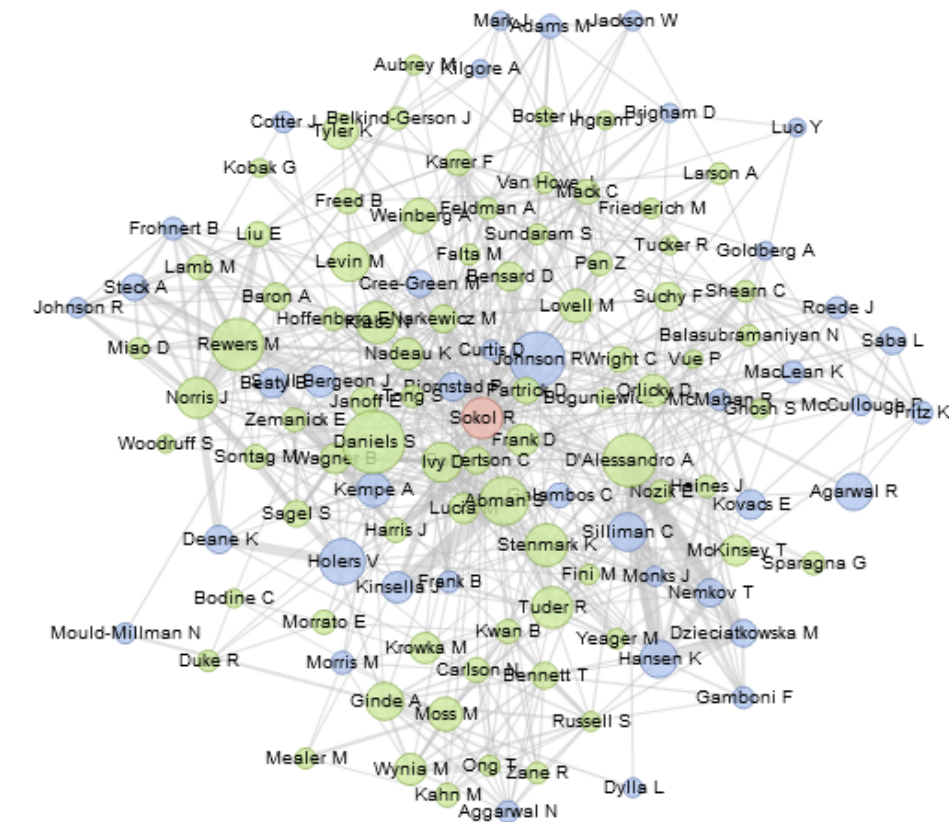
Click the "See All" links for more information and interactive visualizations!

▶ [See all \(1003\) concept\(s\)](#)

▶ [See all \(78\) people](#)

▶ [See all \(60\) people](#)

[▶ Search Department](#)



Click and drag the name of any author to adjust the clusters. Shift-click and drag the name of any author to move them and pin it to a fixed location. Click again to unlock the position. Ctrl-click a name to view that person's network of co-authors. Alt-click a name to view that person's full profile. Please note that it might take several minutes for the clusters in this graph to form, and each time you view the page the graph might look slightly different.

Clinical Translational Research Centers

- Adult-AHSB, **NJH**, CU Boulder; Pediatric-CHCO
 - Inpatient and outpatient facilities – **no charge for space (except industry studies)**
 - **Research Nursing** – inpatient, outpatient, mobile teams (NICU, PICU, ED, etc.)
 - **Core laboratories** & specimen processing
- Subsidized pricing for investigator-initiated studies

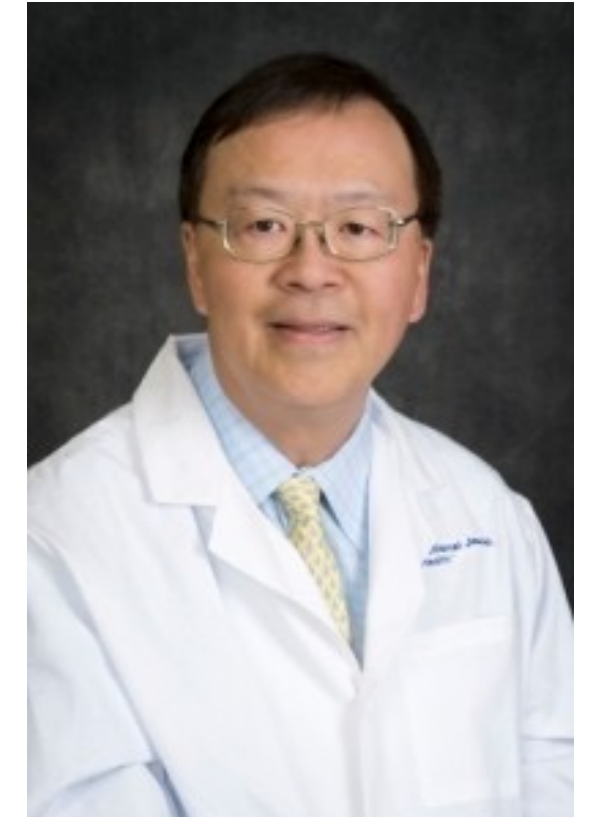


Wendy Kohrt, PhD

Clinical & Translational Research Center (CTRC) at National Jewish Health (NJH)

The NJH CTRC includes an outpatient clinic, expert research nursing services, and a core laboratory offering a menu of specialized assays, including bronchoscopy and ECG equipment.

Donald Leung, MD, PhD - Director



Donald Leung, MD, PhD

Facilities & Services

- [NJH CTRC Inflammation & Immunology Core Lab](#)
- [Nursing Services](#)
- Exam rooms
- Procedure room
- Interview room
- Bronchoscopy
- Cardiac monitoring equipment
- ECG machines
- Cardiovascular imaging
- Food Challenges and IT
- Skin biopsies and tape strips
- Physical exams
- Spirometry
- Large volume blood draws
- Microbiome collection
- Interviews for structured questionnaires
- 36 protocols covering AD, FA, COPD, CF, ILD, etc.
- ADRN, COFAR, COPD gene, etc.

NJH Inflammation & Immunology Core Lab (CTRRC)

4th floor Smith building, BSL2/BSL2+

- Service center, discount for members
- Train technicians, fellows/ graduate and undergraduate students/MDs/ PhDs
- Assay development; consider animal studies
- Services not offered in ADx or CRU

The Core Lab manager: Beth Canono x1658 or canonob@njhealth.org

Director Lisa A. Maier, MD, MSPH, x1826, maierl@njhealth.org

- Blood Processing:
 - PBMC isolation
 - Cell isolation (eg CD4+, monocytes)
 - Serum and plasma isolation
- BAL processing: BALF and cell isolation
- Sputum processing
- Cell assays
 - Differential cell counts, staining
 - Culture
 - Proliferation assays
 - Cryopreservation
- ELISA/ELISpot and other assays
- Flow cytometry
- DNA/RNA extraction: multiple sources
- PCR



Lisa Maier, MD, MSPH

MICROGrants

CTRC Scheduler

Join Our Team

CHCO Associate Medical Director job description

Join Our Team

UCH Associate Medical Director job description

CTRC Contacts

UCH Adult IP Unit
720-848-7907

UCH Adult OP Unit
303-724-1225 or 303-724-1226

CHCO OP Unit
720-777-2581

UCH Adult Nursing Manager
720-848-7901 or 303-724-4402

CHCO Nursing Manager
720-777-4700

UCH Adult CTRC Core Lab
303-724-4093

CHCO CTRC Core Lab
720-777-8209

Nutrition Services
303-724-1219

Cardiovascular BiImaging



Nursing Services



Core Lab Services



Nutrition Services



Cardiovascular BiImaging



Exercise & Body Composition



Scheduler

Core Lab Services

CTRC Core Laboratory Services support [IRB-approved protocols](#) with a wide range of analytical testing including chemical, hormone, metabolite, and immunological assays. CTRC Core Laboratories are CAP- and CLIA-accredited and provide trained personnel, reagents, equipment, and QC capabilities to conduct assays for research studies.

[CAP Certification](#)
[CLIA Accreditation](#)

All services are provided as [fee-for-service resources](#).

Adult CTRC Core Lab

[Chemical and immunological assays](#), including peptide/hormone measures by HPLC, RIA, ELISA, Chemiluminescence, and spectrophotometry; Processing of blood, urine and saliva.

[Request access to obtain your Adult CTRC assay results.](#)

Adult CTRC Lab Hours: Monday and Friday, 8:00 am - 4:30 pm

Children's Hospital Colorado CTRC Core Lab

[Chemical and immunological assays](#) including cytokine and fat soluble vitamin assays, UPLC, HPLC, ELISA, Luminex, RIA, Nephelometry, chemiluminescence, and spectrophotometry.

Processing of sputum, tracheal aspirates, and BAL fluids

CHCO CTRC Lab Hours: Monday - Friday, 8:00 am - 4:30 pm

National Jewish Health CTRC Inflammation & Immunology Core Lab

- Analysis of human inflammatory and immunologic response
- [Core Lab assays and pricing](#)

Pricing

Authorization Request to access data

Core Lab Assays & Pricing
Member Pricing

[All services as MS Excel](#)

Sort list items alphabetically

[G](#) [I](#) [S](#) [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) [All](#)

Please budget for an approximate price increase of 6% each year of study progression.
Effective 7/1/2023

Assay	Pricing	Manufacturer	Performing Lab
6-Ketoprostaglandin F1 (6-KetoPGF1)	\$39.70	Cayman	Children's Hospital Colorado CTRC, 720.777.8209
8-hydroxydeoxyguanosine (8-OHdG)	\$61.61	Cell Biolabs, Inc.	Children's Hospital Colorado CTRC, 720.777.8209
8-Isoprostane ,urine	\$38.38	Cayman	Children's Hospital Colorado CTRC, 720.777.8209
A1C (Hemoglobin A1C)	\$23.40	Siemens DCA Vantage	Anschutz Health Sciences Bldg. CTRC, 303.724.4093
Adenosine 3',5'-cyclic monophosphate (cAMP)	\$59.43	R&D Systems	Children's Hospital Colorado CTRC, 720.777.8209
Adiponectin	\$15.51	Millipore	Anschutz Health Sciences Bldg. CTRC, 303.724.4093
Adrenocorticotrophic Hormone (ACTH)	\$25.09	Siemens (Immulite 1000)	Children's Hospital Colorado CTRC, 720.777.8209
Albumin	\$6.87	Beckman Coulter	Anschutz Health Sciences Bldg. CTRC, 303.724.4093
Aldosterone , EDTA Plasma	\$46.48	Immunodiagnosics Systems	Children's Hospital Colorado CTRC, 720.777.8209
Aldosterone ,Urine	\$45.07	Immunodiagnosics Systems	Children's Hospital Colorado CTRC, 720.777.8209
Alpha-1-Antitrypsin (AAT) , Pulmonary Fluids	\$49.49	Bethyl	Children's Hospital Colorado CTRC, 720.777.8209
Alpha-1-Antitrypsin (AAT) , Serum/Plasma	\$32.04	Siemens	Children's Hospital Colorado CTRC, 720.777.8209
Amylase , Salivary	\$35.69	Salimetrics	Children's Hospital Colorado CTRC, 720.777.8209
Angiopoietin-1 (ANG-1) , >32pg/mL , : Multiplex Panel	\$58.76	R&D Systems	Children's Hospital Colorado CTRC, 720.777.8209
Angiopoietin-2 (ANG-2)	\$67.65	R&D Systems	Children's Hospital Colorado CTRC, 720.777.8209
Angiotensin II	\$89.21	ALPCO	Anschutz Health Sciences Bldg. CTRC, 303.724.4093
Apolipoprotein B Discontinued 1/30/2018	\$10.57	Beckman	Anschutz Health Sciences Bldg. CTRC, 303.724.4093
Arginase-1	\$59.43	BioVendor	Children's Hospital Colorado CTRC, 720.777.8209
Assay Development	\$120.00		National Jewish Hospital CTRC, 303.398.1658



Pilot Grant Awards

- 5 Pilot Grant programs – CO-Pilot, CMH, Community Engagement, New Methods, CU-CSU Collaboration Award
- ~\$900,000 available annually
- \$25,000 for Community Engagement Pilots
- \$30,000 for Translational Methods
- \$40,000 for CO-Pilot and CMH mentored, junior, and early career diversity pilots
- \$60,000 for CU-CSU collaborative pilots



Natalie Serkova, PhD

Translational Informatics

- **REDCap** – operated for entire campus by CCTSI
>9,000 users, >6,000 active projects
- **Health Data Compass** – enterprise-wide research data warehouse
- **Colorado PROFILES**, CTSC Scheduler, Harvest, LIS
- **Data Delivery & Cohort Discovery** – TrinetX, Compass, ACT, N3C
- **Multiple applications** to support Grant Review and Education programs



Melissa Haendel, PhD

Education, Training and Career Development

Lisa Cicutto, PhD, APN, RN



1. Summer Undergraduate Minority Mentoring in Translational Science (SUMMiT) (n=14)
2. **T32 Pre- and Post-doctoral T32 training programs – Lisa Cicutto, PhD, RN**
3. Clinical Sciences Graduate Program (Masters, PhD)
4. **K12 Research Scholar program - up to 3 yrs. of support – Ellen Burnham, MD**
5. Clinical Faculty Scholars Program – Anne Libby, PhD
6. Clinical Research Training and Education Program (CRSC)

Education, Training and Career Development

Lisa Cicutto, PhD, APN, RN



7. Colorado Mentor (CO-Mentor) Training Program – Greg Austin, MD
8. K-to-R Transition Grant Review – Maggie Wierman, MD
9. Pre-K Award Assistance and Grant Review – Paul MacLean, PhD
10. Research Studios – Jane Reusch, MD, Alan Prochazka, MD
11. Innovation Corps @ CCTSI – Cathy Bodine, PhD
12. Leading and Teaming in Clinical and Translational Science – Jeni Cross, PhD
13. Communicating Your Science to the Public – Aimee Pugh Bernard, PhD

Pre- F, Pre-K and Pre-R Grant Review Programs

- Assist junior faculty and their mentors write successful career development and first R01 awards
- Mock grant reviews: 3 times a year
 - Applicants and mentors attend
 - Format: reviewers and then panel discusses, followed by Q&A
 - Full written reviews
- [Helpful materials](#) on website relevant to K applicants



Arianne Theiss, PhD



Paul Maclean, PhD



Maggie Wierman, MD

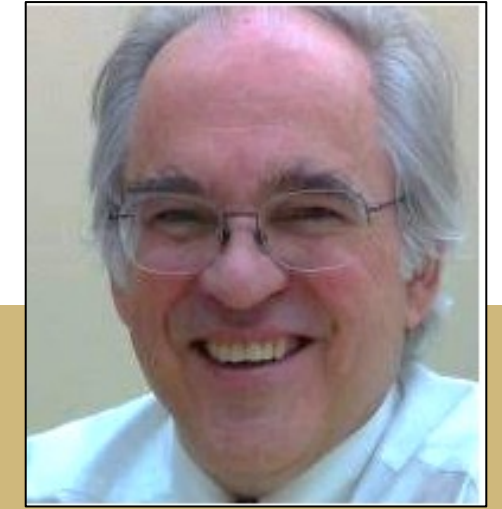


Research Studio Program

- **Expert Panel** to provide targeted advice about research project, grant application, idea generation, etc.
- **Studio sessions** are virtual – 90 minutes
 - Investigator presents brief summary (10-15 minutes)
 - Focused discussions with experts for 3 or 4 predetermined questions from the investigator (60-70 minutes)
 - Moderator and panelists provide summarized comments (10-15 minutes)
- 2019-2020 participants believed the experience contributed to **>\$2M in subsequent grant funding**



Jane Reusch, MD



Alan Prochazka, MD

I-Corps@CCTSI

- Innovation-Corps program
- Teams of faculty, staff or students with a biomedical discovery or health innovation idea
- Uses customer discovery methods used for startups for academic researchers
- A team-based short course designed for faculty, staff and students
- Test the business model hypothesis for a technology or idea



Cathy Bodine, PhD

Communicating Your Science to the Public



Comilla Sasson, MD, PhD

Offered Quarterly for up to 30 per session. Started in Spring 2021.

1

Workshop #1

Effectively communicating
your message to the public

2

Workshop #2

Sharing your message
effectively and
giving/receiving feedback

3

Workshop #3

Expanding your media
horizons



Community Engagement & Health Equity

- Colorado Immersion Training in Community Engagement (CIT)
- Research Readiness Certification for Community Based Organizations
- Community Research Liaison (CRL) program
- Community Engagement Consults
- CE Pilot Grant Program
- Boot Camp Translation for Patient-Centered Outcomes: Facilitator Training
- Introduction to CBPR for Community-Academic Partnerships



Don Nease, MD, MPH

Trial Innovation Network (TIN)



Adit Ginde, MD

National CTSA
Consortium effort to
facilitate design and
conduct of Multi-Site (NIH)
Clinical Trials

Provides local and national support
for the entire study lifespan

- Study design, central IRBs,
study operations, data collection
and analysis, recruitment and
retention strategies, etc.
- TIN Hub Liaison Team – Local
linkage to national TIN

Investigators can request a
single service (e.g., single
IRB) or complete study life
cycle assistance

Questions



303 - 724 - 1222



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Become a **CCTSI**
member to receive
updates, funding
announcements
and more!

