CCTSI T32 Programs Pre- and Post-Doc

Lisa Cicutto RN, MSc, PhD, ACNP(cert) **PI**, **Director**

CU | AMC **National Jewish Health**



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Colorado Cilcicar and Sciences Institute (CCTSI) Colorado Clinical and Translational

UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS

Integration Across CCTSI







Leadership Team

Amira del Pinto-Jones MD, CUAMC, UCH Director - Diversity, Inclusion, Health Equity



Paul MacLean PhD, CU|AMC, **Director - Biomedical Scientists**





Kristen Nadeau MD, MSCS, CU|AMC, CHCO **Director-**Clinician Scientists





Diversity of Faculty Mentors

Pre-Doctoral Faculty Characteristics (n=96)		
Doctoral Degrees		
PhD	54 (56%)	
MD	23 (24%)	
MD/PhD	14 (10%)	
PharmD	3 (3%)	
PharmD/PhD	1 (1%)	
DPT/PhD	1 (1%)	
Rank		
Professor	56 (58%)	
Associate Professor	32 (33%)	
Assistant Professor	8 (8%)	
Translational Spectrum (category overlap)		
T1 Pre-clinical	69 (70%)	
T2 Patients/Clinical	65 (68%)	
T3 Clinics/Implementation	36 (38%)	
T4 Public Health	15 (16%)	
Female	44 (46%)	
BIPOC	13 (14%)	
Both Anschutz + affiliate/ partner	31 (32%)	
appointments		



All UC|AMC professional schools represented

Partners: CSU, CU Boulder, CU Denver, NJH, VAMC, DH

Diversity of Faculty Mentors

Post-Doctoral Faculty Characteristics (n=111)	
Doctoral Degree(s)	
DVM/PhD	12 (11%)
DVM or VMD	2 (2%)
MD	36 (32%)
MD/PhD	20 (18%)
Clinician, non-MD/PhD	8 (8%)
Clinician, non-MD	3 (3%)
PhD	30 (27%)
Rank	
- Assistant Professor	6 (6%)
- Associate Professor	34 (31%)
- Professor	71 (63%)
Translational Spectrum	
T.5 Shared animal-human disease	35 (32%)
T1 Pre-clinical	72 (65%)
T2 Patients	67 (60%)
T3 Clinics	64 (58%)
T4 Community/public health	17 (15%)
Female	46 (41%)
BIPOC	12 (11%)

All UC|AMC professional schools represented

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Partners: CSU, CU Boulder, CU Denver, NJH, VAMC, DH

CTS Roadblocks Addressed

- 1. Diversity in translational workforce, science and research
- 2. Misinformation and mistrust in translational research
- 3. Improve collaboration and team science
- 4. Improve rigor (study design, data collection and quality)
- 5. Attain funding for translational science and research





Health Equity Goal

Goal 1: Weave our value, Diversity Accelerates Research and Translation (DART), into all T32 activities

Amira del Pino-Jones MD, SOM CU|AMC, UCH: Director, Diversity, Inclusion and Health Equity



Available for consult, advice, mentoring, guidance any time to mentees and mentors

Workshops

- 3/year for Leadership Advisory Council
- T32 seminars
- Mentoring³: Mentors, Mentees, Peers
- Teaming and Leading



Attract, Recruit, Select, Retain Trainees

- Declare our value on all materials
- Support for applicants
- Applicants respond to question: How do you contribute to DART
- Holistic review
- Work to create pathways

Strategic Goals

- **1.** Objective: Promote development of foundational characteristics of Translational Scientists: Domain Expert, Rigorous Researcher, Boundary Crosser, Process Innovator, Team Player, Skilled Communicator, and Systems Thinker.
 - Roadblocks addressed: All roadblocks identified on previous slide
- 2. Objective: Apply evidence informed mentoring practices to support developing **trainees** from all backgrounds for career persistence and success in CTSR.
 - Roadblocks addressed: Improve Rigor and Collaboration
- 3. Objective: Develop trainee's ability to communicate effectively (writing, speaking, listening) with diverse target groups.
 - Roadblocks addressed: Clinical trial participant representation, Health equity, Misinformation and mistrust in translational research



Strategic Goals

- 4. Objective: Engage trainees with a new translational community and network that brings new insights, perspectives, and skills through immersion experiences with translational mentors.
- 5. Objective: Approach CTSR as a team endeavor and foster trainees' teaming and leading skills for high performing teams.
 - Roadblocks addressed: Improve collaboration and team science
- 6. Objective: Apply the One Health Framework to culminate the integration of translational scientist competencies. (Post Doc program)
 - Roadblocks addressed: Improve collaboration and team science
- 7. Objective: Identify, monitor, track, review and respond to, as necessary, indicators and metrics of an effective and successful program through continuous quality improvement.
 - Roadblocks addressed: Skilled workforce



Year 1 Progress & Impact

New RFA released for T32 Pre- and Post-Doctoral programs

- **Pre-doctoral program** designed for biomedical, bioengineer, clinical PhD students (2 years) and students in professional doctoral programs for one year.
 - Filled all pre-doctoral slots: 8 •
 - Biomedical: cancer biology, integrative physiology, microbiology, neuroscience, cell biology
 - Bioengineer: \bullet
 - Clinical: epidemiology
 - Clinician: MD student \bullet
- **Post-doctoral** collaborative program b/t CSU and CU for clinicians (veterinarians and human)
 - Filled 2 of 4 Post-doc slots: 1 surgeon and 1 veterinarian
- Challenges \bullet
 - Learned likely receiving funding in July/August and grant started in September ullet
 - Medical and Veterinary fellows start July so the Sept/October start date problematic \bullet
 - Altering the start date moving forward



Year 1 Progress & Impact

Obj. 1: Developing characteristics of Translational Scientist

- All trainees completed with their mentors Individualized Career Development Plan (ICDP) that includes • translational scientist domains
 - For each domain, identify
 - Goals •
 - Milestones
 - Resources •
 - Courses/workshops
 - People
 - Experiences
- Presented and reviewed by T32 directors and peers \bullet
 - Repeated 1- and 2-year anniversary
- T32 seminars \bullet
 - What is: Translational Scientist, Translational Research, Translational Science •



Year 1 Progress & Impact

Obj. 2: Mentoring

- Developed and piloting Mentoring³: Mentors, Mentees, Peers
 - Workshops held for mentees only, mentors only and as dyads
- Initiated process to evaluate mentoring relationships: dyads and as mentors and mentees
 - Assessments:
 - Upon program entry, 1 year and 2 years
 - Mentor: self-reflection and mentee
 - Mentee: self-reflection and mentor
 - Review by T32 directors and IAC

• Obj. 3: Communication

- Participated in *Effectively Communicating your Science to the Public* program
- Writing Accountability Group (6 weeks for 1.5 hrs) held this summer
- Obj. 5: Teaming and Leading
 - Participated in *Teaming and Leading* program



ids id as mentors and mentees

Public program mmer

Year 2 Plans

Obj. 3: Communication

Holding 2 Café Scientifique events in community

- Aim to engage people in a conversation about science and technology that affect our lives and promote the cultural examination of the work.
- Conducted in informal and friendly atmosphere (Cafés)
- Some evidence suggesting improve the image of scientists and people interested in careers in science
- Each trainee will present their research

Obj. 1, 5, 6: Translational Scientist, Teaming, One Health

- "One Health Translational Team-athon" event
 - Interdisciplinary teams will use a OneHealth approach to address a common issue across the translational spectrum



Year 2 Plans

- **Obj. 2: Mentoring** •
 - Review mentoring (mentee-mentor) data as dyads and aggregate mentors and • mentees
 - Develop reporting back templates •
 - Follow-up with mentoring dyads that are at-risk or struggling •



National Representation

- CTSA Consortium Training Program Directors
 - **Conference** planning •
 - Abstract review





Response to EAC Critiques

1. Integration of TL1 and KL2 with partners:

- Post-Doc T32 is split 50-50 with CSU and CU clinicians
- Pre-Doc T32 open to PhD students and professional doctorate students for a 1-year leave - open to partners through translational immersions and research projects



Questions for EAC

1. How are you weaving in translational science and the domains of translational scientists into your T32 programs (or proposed programs)?



