CCTSI K12

Program

Ellen L. Burnham, MD, MSc
Program Director

Lauren Shomaker, PhD
Associate Program Director

Paul Mclean, PhD
Associate Program Director

Kristen Nowak, PhD
Associate Program Director

cctsi.cuanschutz.edu

Integration Across CCTSI

- **Workforce development program: Career Development Award targeted at Instructor/Assistant Professor Level Faculty**
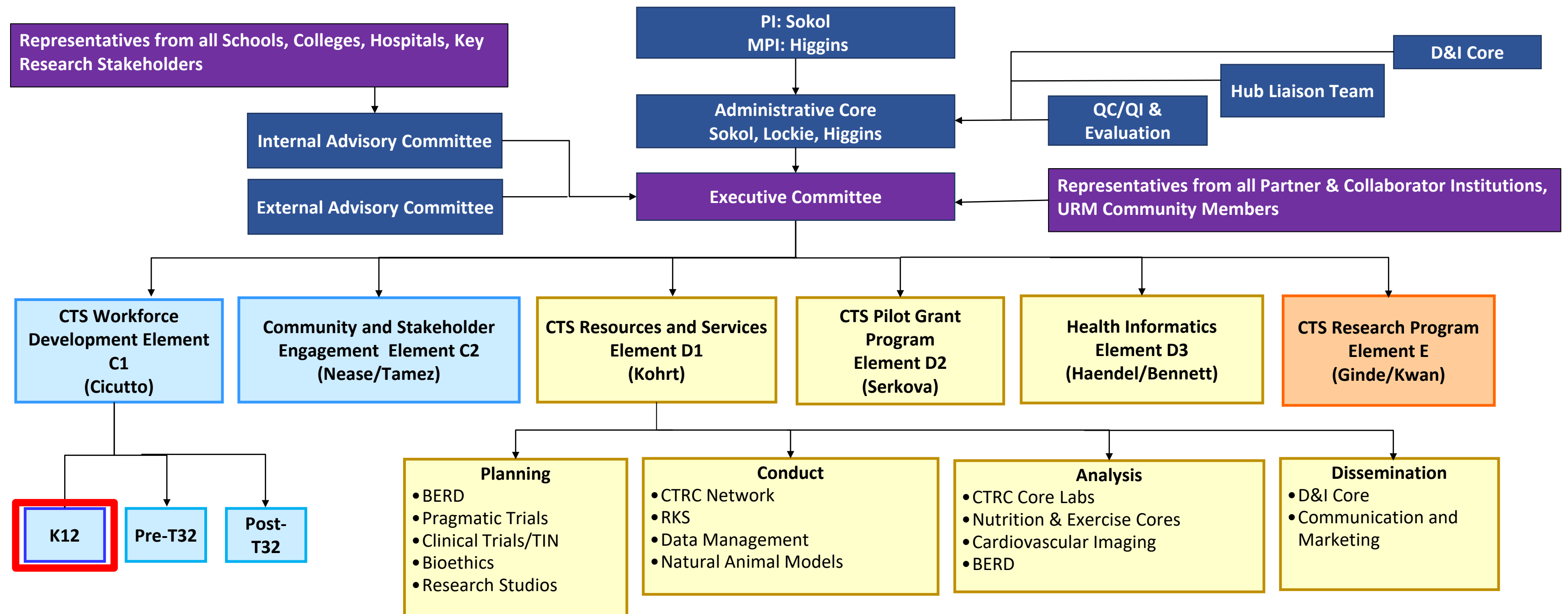
Leadership Team & Diversity

Ellen L. Burnham, MD, MSc: Program Director
Pulmonary/Critical Care Medicine
CU-Anschutz Medical Campus

Lauren Shomaker, PhD: Assoc PD
Human Development/Family Studies, Colorado State University
Affiliations with Colorado SPH & CHCO
Key Personnel, CCTSI Pre-K Program

Paul Maclean, PhD: Assoc PD
Endocrinology
CU-Anschutz Medical Campus
Director, CCTSI Pre-K Program

Kristen Nowak, MPH, PhD: Assoc PD
Renal Medicine/HTN
CU-Anschutz Medical Campus;
Affiliations with CU-Boulder; Colorado SPH

Ellen Burnham, MD: Anschutz

Lauren Shomaker, PhD: CSU/CHCO

Paul Maclean, PhD: Anschutz

Kristen Nowak, PhD: Anschutz

K12 PROGRAM Leadership
75% Female; 75% PhD with additional Master's training
Representation across CCTSI Partners: School of Medicine, Department of Medicine/ Department of Pediatrics; Colorado State University; Colorado School of Public Health

CTS Roadblocks Addressed

1. Acquire **disciplinary knowledge** and **expertise** in one or more translational science spectrum **domains.**

2. **Break down disciplinary silos** across research areas to advance development of a medical intervention.

3. Leverage **strengths and expertise** of all players on the translational science **team.**

4. Innovate to **overcome bottlenecks** to accelerate scientific and operational principles underlying the translational process.

5. **Communication with all stakeholders** in the translational process, across diverse backgrounds.

6. Evaluate and address **external forces** impacting development of medical interventions, from patient factors to the market.

7. Conduct research at highest levels of **rigor and transparency**, with goal to maximize **reproducibility**.

Strategic Goals/Objectives

Major Goals for Module C1 relevant to the K12 Program: The goal of our CCTSI K12 Program is to provide protected time and opportunities for an intensive, mentored career development experience that leads to independent extramural support and leadership positions in CTR and academia.

1. **Objective 1:** Individualized Career Development Plan (IDCP) to support core Clinical Translational Science (CTS) knowledge and growth.

2. **Objective 2:** Evidence-informed mentoring training by scholar-mentor dyads.

3. **Objective 3:** Professional/managerial training, including DEI principles.

4. **Objective 4:** Academic writing disciplines; dissemination/communication strategies.

5. **Objective 5:** Relationship building with key stakeholders/members across scientific ecosystem.

6. **Objective 6:** Connection to innovative CTS programs.

Health Equity Goals

Objective 7: Equitable recruitment processes and enhanced training of underrepresented groups.

1

Augment diversity of K12 Scholar cohorts

Informed and targeted advertising of program; holistic consideration of diversity in application review

2

Engage community members beyond academia in research design

Community engagement consults and seminars to foster opportunities that exist in Colorado

Year 1 Progress & Impact

- **Initiated new K12 cohort (n=5) on Dec 1, 2023, to complement existing KL2 scholars (n=3):**
  - Eight total scholars: Six funded through NCATS, two funded through CHCO
  - 12% men; 25% URM
- **On-line IDP –** REDCap structure; to allow timely monitoring of scholars/mentors
- **Monthly K12 Seminar Series with K12 Leadership**
- **Exposure to Innovative Programs/Research Ecosystem opportunities–** combined with CCTSI T32 scholars
  - Academic-industry partnerships: Michael Holers, MD-Faculty Ventures Director, CU Innovations
  - Community-engaged research opportunities: Kaylee R. Gordon, MPH-CCTSI CE and HE core
  - Interactive workshop for DEIA relevant to K, T trainees: Amira del Pino-Jones, MD-Associate Dean for DEI
  - Biomedical Informatics: Tellen Bennett, MD, MS; CCTSI Translational Informatics Core

Composition of K12 cohorts, 2019-23

23 K12 scholars were active between 2019 and 2023: 83% were female, and 26% were Underrepresented in Biomedical Research (URM). 43% of scholars had an MD degree; 43% had a PhD.

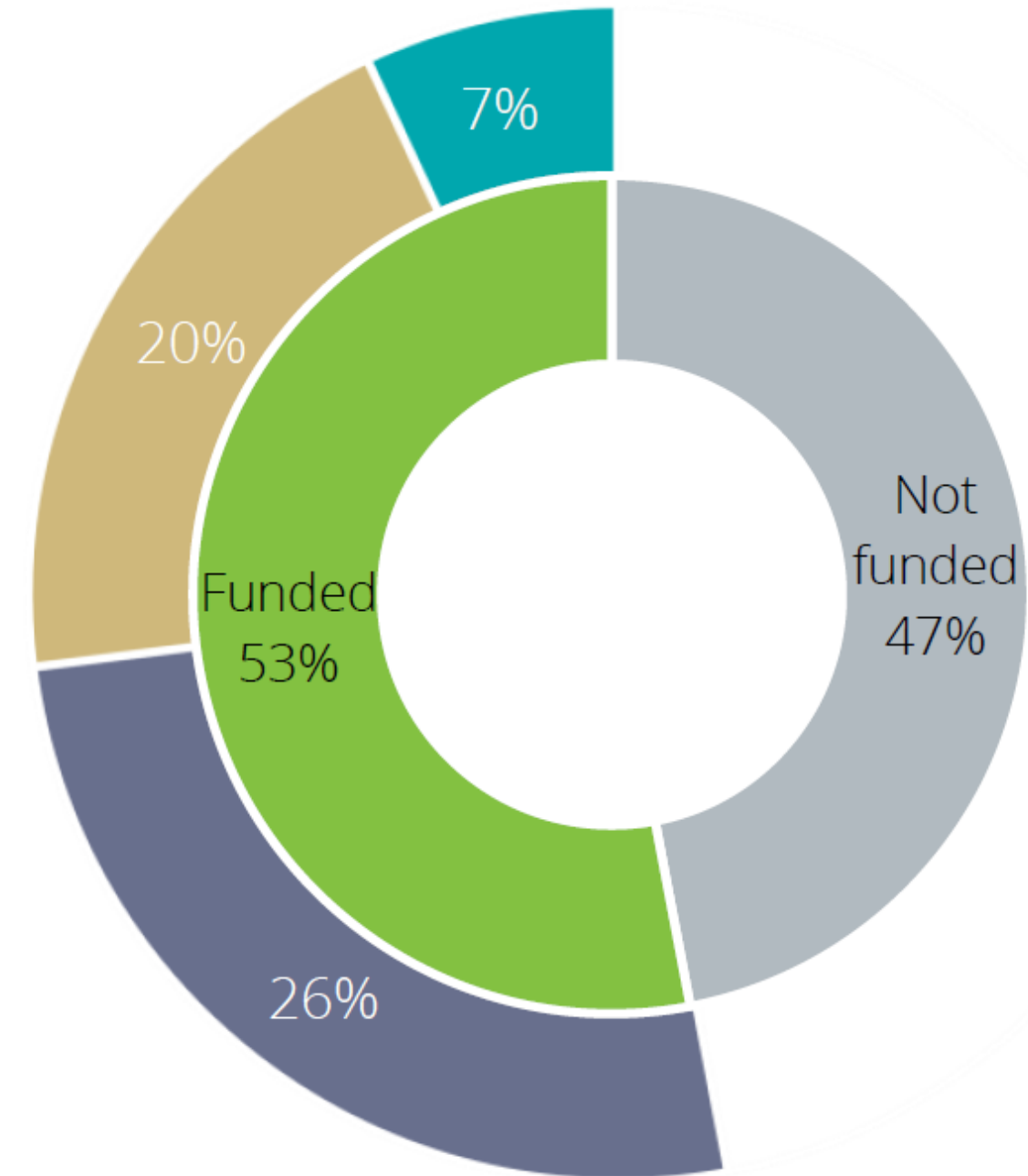**15** scholars completed the program between 2019 and 2023.
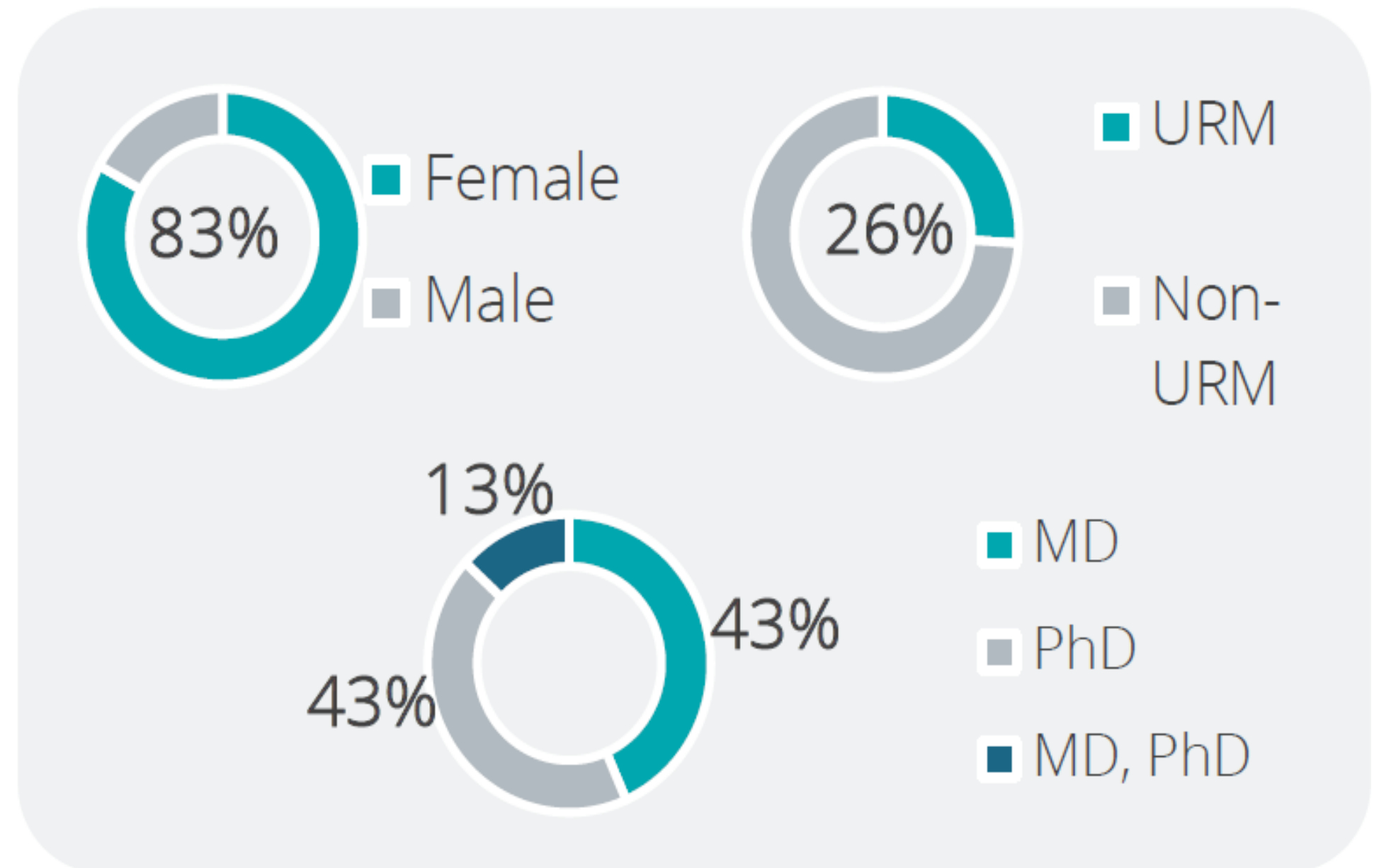
Scholar transition to independence, 2019-2023

7% of scholars* were awarded their first R-series grant within one year after completing K12.

20% of scholars* were awarded their first R-series grant during their participation in the K12 program.

26% of scholars* were awarded their first K-series grant within one year after completing K12.

*All the R and K grant awardees were different individuals. This analysis only includes the 15 scholars who completed the K12 program between 2019 and 2023.

Donut chart: Outer ring — 7%, 20%, 26%, Not funded 47%. Inner ring — Funded 53%, Not funded 47%.

Year 2 Plans

- **Year 2 begins December 2024**
- **Solidify 1:1 coaching scheme with K12 Leadership and Scholars**
- **First Year Scholars:** CO-Mentor Program (mentor-mentee pairs)
- **Second Year Scholars:**
  - Team Science training
  - Communicating Your Science to the Public
  - PreK/KTR proposal review
- **All Scholars:** Writing Accountability Groups (WAGs)

- **Formalize CO-Mentor Booster Program (w/ Anne Libby, Greg Austin)**
- **Launch on-line IDP**

National Representation and D&I

- **CTSA K12 PI national working group:** bi-monthly virtual meetings

- Scholar presentation at **CTSA Virtual K12/KL2 Visiting Scholar program**
  - Jillian Cotter, MD, MSc

- **External Advisory Committee Service** by Dr. Burnham
  - University of Wisconsin, University of Miami

- **D&I:** CO-Mentor booster program for experienced/senior mentors
  - Potential collaboration with University of Miami (who already employs our CO-Mentor program)

Response to EAC Critiques

1. *No integration of K12 scholars from CCTSI partner institutions (e.g., CSU):*
   Clearly defined K12 leader (Dr. Shomaker) to serve as liaison between CSU campus and K12 program. Potential for connections with CU Boulder given new K12 leadership (Dr. Nowak).

2. *Leadership with early career trainee contact/interactions - how to understand barriers/facilitators for junior faculty to develop research programs?*

   PI (Burnham) provided 1:1 feedback on request to both pre-applicants and unfunded applicants for K12 cycle (fall 2023) to strengthen future applications, and serve as resource for CCTSI questions

   Intent to host FAQ session(s) prior to next K12 application cycle

Question for EAC

Parental leave issues have continued (unsurprisingly) to contribute to breaks in research momentum.

"Expectation" from scholars (majority of whom are women) that parental leave should be given, and K12 extended later to compensate for this leave

NIH seems to favor up to 12 weeks leave, but no break in award, i.e., awards ends on original date

How has your site navigated this issue? Is your HR office helpful in this regard?