T32 Predoctoral Mentored Research Training Grant

Information Session January 25, 2024

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Agenda

1. Who We Are: CCTS, NIH, NCATS, and Translational Science

2. CCTS Predoctoral T32: Mission and Objectives

3. Eligibility

4. Benefits of the CCTS T32

5. Expectations of CCTS T32 Trainees and Mentors

6. Full Application Described—with tips for applying

7. Evaluating Your Application: The CCTS T32 Study Section

8. Questions

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Who Are We?

- Center for Clinical and Translational Science

- One of ~60 centers in the US

- Funded by the Clinical & Translational Science Award (CTSA) program

- Part of the National Center for Advancing Translational Science (NCATS)

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NCATS and Translation

National Center for Advancing Translational Sciences
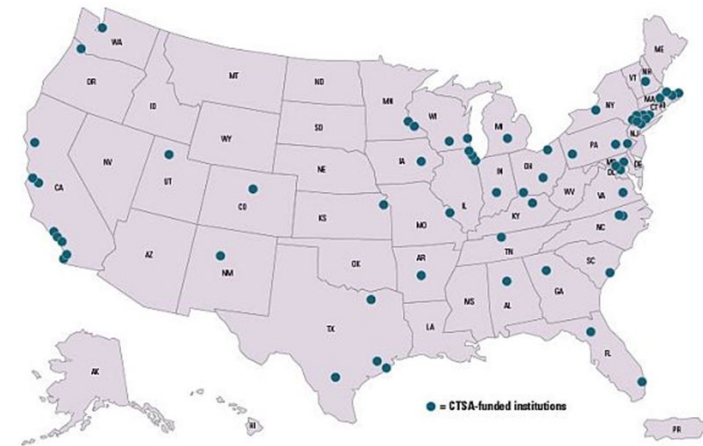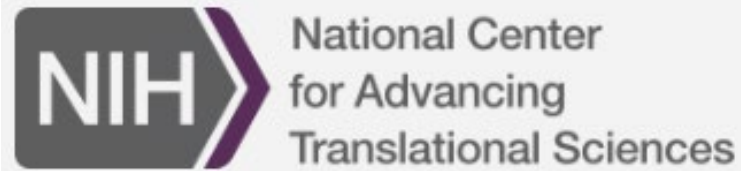
More Treatments for All People More Quickly

We conduct research and support activities that address long-standing challenges in translational research so that new treatments and other health solutions reach people faster.

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Predoctoral T32: Mission & Objectives

Mission: To cultivate a **diverse** clinical and translational science workforce that will propagate a collaborative and inclusive culture of **rigorous** scientific inquiry and deliver **innovations** to improve human health and wellbeing for all.
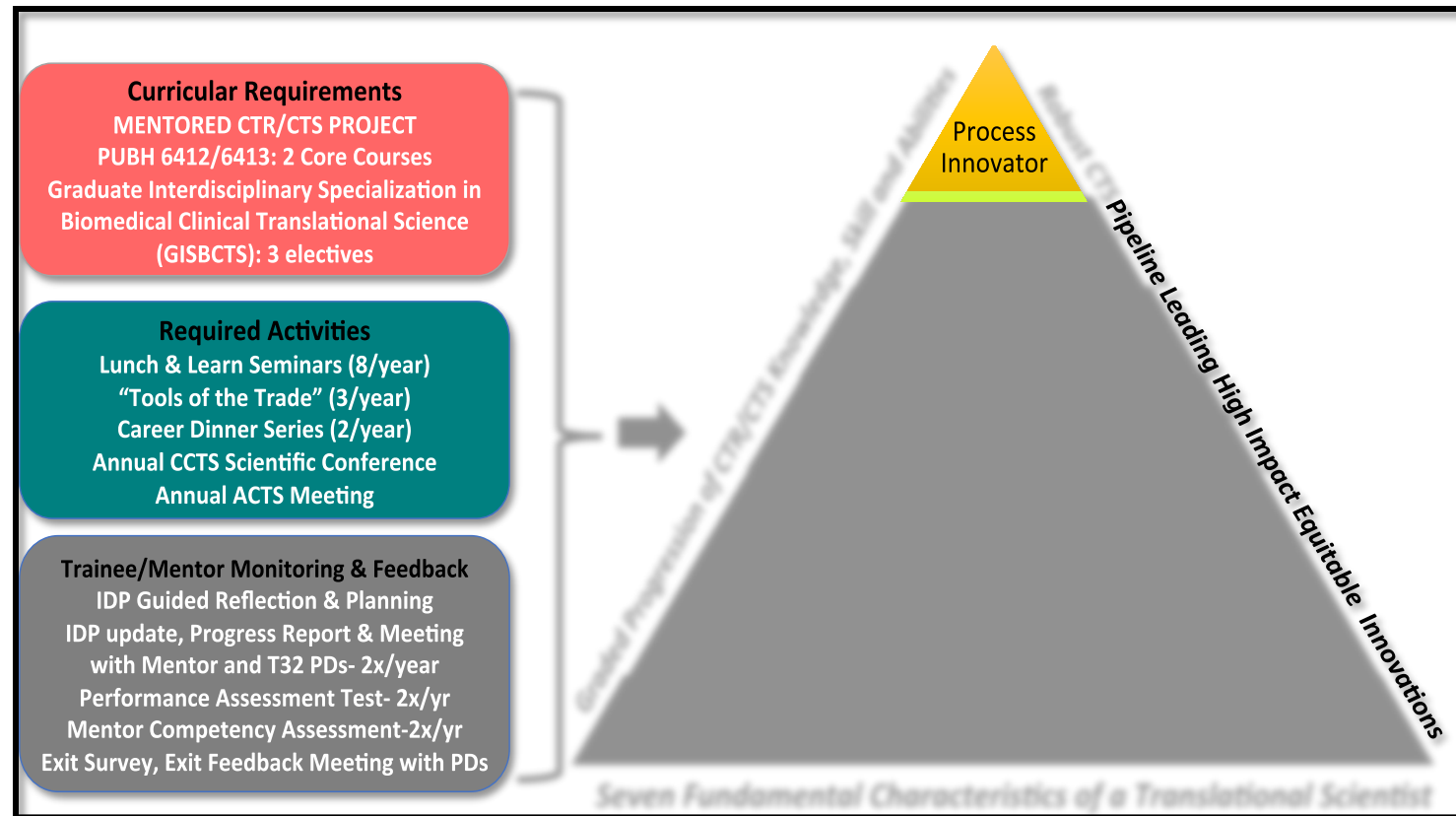
Objectives:

I.   To recruit, rigorously educate, and inspire a diverse group of **predoctoral** trainees to drive discoveries and innovations in clinical and translational research (CTR) and clinical and translational science (CTS).

II.   To foster a culturally responsive, learning environment grounded in **mentorship excellence** to promote diversity, equity, inclusion, accessibility (DEIA) focused on trainee success and career satisfaction.

III. To develop **future leaders** who advance human health and promote health equity through discovery, teamwork, science education, meaningful communication and sustained engagement in CTR and CTS careers.

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CCTS T32 Training Grant
7 Characteristics of a Translational Scientist

Curricular Requirements
MENTORED CTR/CTS PROJECT
PUBH 6412/6413: 2 Core Courses
Graduate Interdisciplinary Specialization in Biomedical Clinical Translational Science (GISBCTS): 3 electives

Required Activities
Lunch & Learn Seminars (8/year)
"Tools of the Trade" (3/year)
Career Dinner Series (2/year)
Annual CCTS Scientific Conference
Annual ACTS Meeting

Trainee/Mentor Monitoring & Feedback
IDP Guided Reflection & Planning
IDP update, Progress Report & Meeting with Mentor and T32 PDs- 2x/year
Performance Assessment Test- 2x/yr
Mentor Competency Assessment-2x/yr
Exit Survey, Exit Feedback Meeting with PDs

Process Innovator

Pipeline Leading High Impact Equitable Innovations

Seven Fundamental Characteristics of a Translational Scientist

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CCTS Predoctoral T32 Training

- Full-time research training support for predoctoral trainees pursuing clinical and translational research or clinical and translational science

- Examples of potential CTS projects include research focused on advancing therapeutics, developing new clinical interventions, promoting health equity or investigating/fostering behavior modifications to improve health.

- Supported graduate degree programs come from
  - colleges of medicine, public health, engineering, nursing, *and others*
  - interdisciplinary programs, such as neuroscience and nutrition

- Dual degree programs: such as MD/PhD program

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T32 Grant

- T32 is for up to two years
  - Training and research plans should reflect that timeline
  - Trainee progress is monitored by program faculty
  - Reappointment based on satisfactory progress on meeting training and research goals
- Can apply for one-year T32

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T32 Grant: Eligibility

Candidates must be

- U.S. citizens or non-citizen nationals,
- or an individual lawfully admitted for permanent residence who possesses a permanent resident card, or some other verification of legal admission as a permanent resident prior to appointment.

T32 Grant: Eligibility

- Must be enrolled in an OSU biomedical research-related doctoral degree program

- Must be either (a) post-candidacy

OR

(b) have a candidacy exam scheduled before August 15, 2024

❖ Applicants will be asked to supply date of candidacy exam

T32 Grant: Benefits

- Stipend support awarded at the NIH allowed annual maximum;

- Travel funds

- Tuition and fees paid by T32 Grant and OSU Graduate School

- Interdisciplinary training curriculum in clinical and translational science

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T32 Benefits: Training Curriculum

- Exposure to other disciplines

- Opportunities for new team formation

- Annelise Madison. It is important to bridge the gap between clinical psychology and psychoneuroimmunology. Specifically, no matter the finding, it is important to think about and communicate clearly its clinical relevance with the ultimate goal of developing clinically relevant and effective interventions.

- Kim Scott: The scientific conferences (Translational Science, CCTS Annual Conference) were new to me and expanded my view of translational science. This wider lens has challenged me to think beyond neurorehabilitation for infants and children to consider how I could do collaborative science that results in positive health outcomes for other populations.

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T32 Benefits: Training Curriculum

- Victoria Diedrichs. Taking courses for the Graduate Interdisciplinary Specialization in Biomedical, Clinical, and Translational Science provided many opportunities for networking with students and professionals in adjacent fields. I feel like I was able to gain a better perspective on conducting clinical research, learn about different departments where I may be qualified to apply for faculty positions down the road, and gain exposure to research concepts not included in my prior curriculum.

- Wesley Wang. Early on [in my PhD training], I realized I wished to have more translational human research but required the funding to allow me to work on more clinically focused endeavors in the lab. Thus, the award directly bridged that challenge to open work within my lab to perform translational neuropathology/neuro-oncology research

T32 Benefits: Training Curriculum

- Foundations Course Sequence:
  - **PUBHEPI 6412**: Basic Principles in Clinical & Translational Science (offered in the Fall Semester)
  - **PUBHEPI 6413**: Conducting & Communicating Research in Clinical and Translational Science (offered in the Spring Semester).
- The Annual meeting of the Association of Clinical and Translational Science (typically held in April in Washington, DC)
- Your Individualized career development and mentorship plan

T32 Benefits: Training Curriculum: Lunch & Learn

- Monthly Lunch & Learn that cover a variety of topics on clinical and translational science and research (currently on the first Tuesday of each month)

Sample Lunch and Learn Topics		
Topic	Speaker	Speaker Title & Affiliation
Careers outside of Academia	Michael Bush, PhD Amy Dworkin, PhD	Senior Scientist, Siemens Senior Manager, Research Evaluation at Susan G. Komen
Tips for Effective Writing For Publication	Mary Beth Happ, PhD	Professor and Senor Assoc. Dean for Research, College of Nursing
From Graduate Student Faculty: Navigating the Journey	Abby N. Turner, PhD Sakima Smith, MD, MPH	Assoc. Professor, Infectious Disease, Medicine Assoc. Professor, Cardiology, Medicine
Discussing Your Research in the Media	Janice Kiecolt Glaser, PhD Eileen Scahill	Director, Institute for Behavioral Medicine Research Senior Consultant, Media Relations, OSUWMC

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Training Curriculum: Graduate Interdisciplinary Specialization in Biomedical Clinical & Translational Science

- The GISBCTS require a minimum of 10 and no more than 20 semester credit hours of graduate level coursework taken with nine credit hours taken outside of the student's home program in at least three courses.

- Five courses Required:
    - CCTS core course (PUBHEPI 6412)
    - Course from each of four skills areas: **Research Methods, Analysis, Statistics, & Informatics, Community & Communication, Leadership**

- Sample Courses:

o **PUBHEPI 7412**: Principles & Procedures for Human Clinical Trials

o **BMI 5750**: Methods in Biomedical Informatics

o **BSGP 7070**: Fundamentals of Grant Writing I

o **EEOB 5510**: Interdisciplinary Team Science

- Courses already taken as part of your PhD can count to the GIS

Expectations of T32 Trainees

- Commit full-time effort in the program at the time of appointment

- Prepare an on-line INDIVIDUAL DEVELOPMENT PLAN (IDP)

- Complete all required curricular training elements and requirements of the GISBCTS

- Participate in 8 Lunch & Learn seminars, 3 Tools of the Trade Workshops, 2 Career Dinners per year

- Participate in Science Communication activities (workshop from Articulation)

- Meet Research Productivity expectations (1 first authored publication and 2 co-authored publications over the 2-year training period, 1 national scientific presentation per year, experience submitting or contributing to the submission of an external grant at least once during their graduate training).

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Expectations of T32 Trainees

- Write progress reports twice a year in conjunction with the IDP meeting.

- An annual written report and an oral presentation to the IAC and CCTS EC is required.

- All trainees must acknowledge the CCTS T32 support in all publications, presentations.

- All trainees must adhere to the NIH Public Policy Access Policy.

- Remain in good academic standing (minimum grade point average of 3.00), while making reasonable progress toward the graduate degree.

- Complete RCR coursework, the CITI Good Clinical Practice training, all OSU Office of Responsible Research Practice (ORRP) requirements and trainings, and T32 RCR-related seminars and workshops.

- Submit abstracts for poster or oral presentations and attend the annual OSU CCTS Scientific Conference and the Association for Clinical and Translational Science annual meeting.

Expectations of Mentors

- Provide guidance for design and execution of an original, high quality research project
- Meet with the trainee regularly
- Provide career development and counseling
- Complete Cultural Competency Assessments (IAT)
- Participate in formal CCTS Mentor training
- Practice inclusive and culturally responsive mentorship
- Providing financial support and other resources for trainee conduct of mentored research
- Attend Orientation, IDP meetings (twice a year), and at least two trainings/events per year organized for T32 trainees and mentor

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Why Mentorship Matters

- Research mentorship is essential to development of the trainee's motivation, passion, and vision for a research career.

- All CCTS T32 trainees are guided by a mentorship team consisting of a primary research mentor and additional research and/or clinical or career co-mentors.

- Trainees and mentors who are selected for the CCTS T32 training program are held accountable for implementing and updating the mentoring plan.

- T32 PDs meet with the primary mentor and trainee to review mentor requirements and to identify each of the mentoring team's contribution to the student's curriculum, training goals, and milestones that becomes part of the RedCap based IDP.

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TL1 Letter of Intent

- Due: February 12, 2024

The purpose of the Letter of Intent is:

- To let program staff know of your intent to apply for the TL1 in order that they may organize the Study Section.

- So applicants can fill-out the eligibility checklist to know that they are eligible.

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TL1 Letter of Intent

- Asks You to identify the clinical and translational aspects of your research.

Full Application

- Due March 25, 2024
- Online RedCap form for name, address, eRA commons name (if you have it), ORCID id, mentoring team, demographics
  - Career Development Plan (up to 2 pages)
    - Applicant Background
    - Career Development/Training Activities
  - Research Plan (up to 4 pages)
  - Other Parts:
    - NIH Biosketches: applicant & mentoring team
    - Letter of Support
    - Signatures

Personal Statement

- Who are you? Why have you chosen a research career? What are your research career aspirations?

- Your previous research experience?

- How can you add to the diversity of the clinical and translational research workforce?

- How you believe this training program will change the trajectory of your career or enhance achievement of your research career goals?

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T32 Grant: Application

Proposed Career Development Plan*

- Where are the gaps in your training that this program will help fill?

- How will you fill those gaps? Be as specific as possible.

- How will you meet the NIH requirements for instruction in the responsible conduct of research?

*This is a career Development Grant

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T32 Grant: Application

Research Plan – 4 pages

- Background & Statement of the Research Problem: Frame as an hypothesis (significance and gaps in the field)
- Specific Aims – each should address the central hypothesis
- Innovation- what are the innovative aspects of your proposed research
- Methods – good idea to include a list of milestones/benchmarks for success anticipated to achieve the aims
- Diversity, Equity, Inclusion and Accessibility (DEIA) aspects of your research (this could be addressed in the background section of your proposal) and how your research is expected to impact health equity if applicable
- References (not included in page count)

Integrating Special Populations

Special Populations encompasses a multitude of groups and communities that are commonly underrepresented in clinical and translational research, and the CCTS is actively working to correct this problem. These groups include, but are not limited to, the following:

- Fetuses, neonates, and children

- Pregnant or nursing women

- Older adults

- Individuals with physical disabilities or sensory or cognitive impairments

- Racial, ethnic, or cultural minorities

- Non-English speaking individuals

- Underinsured or socioeconomically disadvantaged patients

- Gender or sexual minorities (LGBTQ+)

- Isolated urban or rural communities

Not a scored category but applicants are encouraged to think about how their research could include one or more of these groups.

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T32 Grant: Mentoring*

Lead mentor

Guiding and encouraging the design and execution of an original, high quality, clinical research project;

Providing career development and counseling

*This is a *mentored* career development grant

T32 Grant: Mentoring*

Two Additional Mentors

Complementary to the interests of the lead mentor

1. One mentor must be from a different department than the applicant. The choice of this mentor should reflect a skill-building purpose that is discussed in the career development and mentoring plans.

2. The mentoring team must include at least one clinician.

3. The mentoring team must include someone who is either a population focused or lab-based researcher.

*This is a *mentored* career development grant

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Mentor Training

- All Lead Mentors are required to complete or have completed the **CCTS Research Mentoring Training Workshop**.

- Mentors are required to take part in Mentorship Best Practices programs during the year.

  - Focused on specific mentoring topics to foster continued growth in mentoring

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Other Parts of the Application

- Current Advising Report

- NIH Biosketches
  - Format for pre-doctoral fellowships
  - Use Personal Statement to make your case

- Letters of Support: Lead Mentor and each member of your mentorship team

T32 Grant: Signature Page

Applicant

Lead Mentor

Department/Program Chair

☞ Do not wait until the last minute.

T32 Grant: Study Section

Members drawn from across the health sciences

Scored using NIH critique form

Overall score and subsection scores

Scored 1 to 9

Overall Impact or Criterion Strength	Score	Descriptor
High	1	Exceptional
	2	Outstanding
	3	Excellent
Medium	4	Very Good
	5	Good
	6	Satisfactory
Low	7	Fair
	8	Marginal
	9	Poor

T32 Grant: Study Section

Evaluation Criteria:

- Trainee
- Training Plan
- Mentors
- The Research– including clinical/translational aspects

Questions?

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