

REQUEST FOR APPLICATIONS (RFA)

Research Education, Training and Career Development (CTSI-Ed)

Translational Research and Career Training (TRACT) TL1 Program

- Full-time research and research career development (one year program)
- Open to predoctoral students pursuing a PhD and PhD postdoctoral fellows (see details below)
- U.S. Citizens or noncitizen nationals (permanent residents) eligible
- Up to eight predoctoral and three postdoctoral Scholars will be awarded
- Award starts August 1, 2022
- Letters of intent due March 21, 2022; Full application due May 2, 2022

Program description

The mission of the TRACT TL1 Program is to improve human health by catalyzing and accelerating the translation of research findings to the community and includes research from diverse disciplines and the full translational spectrum (i.e., preclinical to public health). Translational research fosters the multidirectional and multidisciplinary integration of basic research, patient-oriented research, and population-based research, with the long-term aim of improving the health of the public. Translational science investigates the scientific and operational principles underlying each step of the translational process in order to make it predictable and efficient. See examples of funded translational research/science projects across the translational spectrum below. Applications describing translational science projects are encouraged.

The program provides comprehensive, flexible training for a diverse cohort of predoctoral and postdoctoral trainees committed to a substantive and impactful career in translational research/science and team science. This one-year training opportunity, funded by the National Center for Advancing Translational Sciences (NCATS), integrates a mentored full-time research experience, an individualized curriculum, and professional development activities that focus on team-based research and effective collaboration and communication with the larger community. This RFA will award up to eight predoctoral and three postdoctoral Scholars.

Applications from underrepresented students are strongly encouraged.

Eligibility

This award is open to Predoctoral students pursuing a PhD, PharmD (or dual degree with a PhD, e.g. MD/PhD, DVM/PhD, etc.) who have passed their written and oral preliminary examinations before August 1, 2022 and have at least 12 months remaining toward completion of their PhD as of August 1, 2022; PhD postdoctoral fellows who completed their PhD no later than 3 years before the program start date, August 1, 2022. Postdocs from UMN partner organizations are eligible to apply (Hennepin Health Care Research Institute, Minneapolis VA Health Care System). Applicants must be U.S. citizens or noncitizen nationals (permanent residents)

Research Support

Predoctoral Scholars

The annual TRACT TL1 package provides 100% of predoctoral trainee salary as determined by current NIH NRSA Predoctoral Stipend rates. Each Trainee will also receive up to \$26,000 per year for tuition and fees* (fall, spring, summer) and health insurance coverage. The annual stipend for predoctoral individuals will remain fixed for the period of support, unless the stipend level is changed in the NIH annual appropriation. The NIH Grants Policy Statement is the final authority on the terms and conditions of stipends.

Postdoctoral Scholars

The annual TRACT TL1 package provides 100% of postdoctoral trainee salary as determined by current NIH NRSA Postdoctoral Stipend rates. Each Trainee will also receive up to \$11,000 per year for tuition and fees* (fall, spring, summer) and \$9,800 for health insurance and/or other expenses if health insurance is already covered. Stipends are assigned based on years of experience as specified by the NIH. Stipend levels are current and consistent with NIH guidelines, but are subject to change each year. The NIH Grants Policy Statement is the final authority on the terms and conditions of stipends.

**Tuition funds can be used for most courses offered by accredited organizations. However, courses outside of the University of Minnesota must be approved by program leadership before enrollment/payment.*

Mentors

CTSI-Ed's mission is to train the next generation of independent investigators in clinical and translational science. Trainees are required to have a mentoring team that consists of a primary mentor, co-mentor and community mentor (community mentor determined after appointment in conjunction with TRACT TL1 leadership).

The Mentoring Team must include an experienced senior researcher with current (or past) NIH

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or similar funding, a translational focus and a strong training record. Other mentors are eligible regardless of training history. At least one mentor must be from a department/discipline different from the applicant's.

Requirements and Milestones

Requirement	Duration/Frequency
Engage in full-time mentored research or educational activities related to the applicant's research activities during the period of the TRACT TL1 award.	Continuous
Meet with primary mentor	Weekly or more
Meet with co-mentor/s	Bi-monthly or more
Mentoring team group meeting (Scholar, mentor and co-mentor)	Monthly or more
Participate in the Community Mentor Program which includes getting matched with a community mentor (determined after the appointment in conjunction with TRACT TL1 leadership) and a kick-off meeting, planning meetings, the trainee's and primary mentor's participation in a community conversation and a final presentation to the cohort	Throughout the award
Develop and revise an Individual Development Plan that will identify strategic goals and strategies associated with the trainee's objectives for the TRACT TL1 award	Required at orientation meeting, 6-mo, 12-mo reviews
Participate in monthly TRACT TL1 Scholar seminars with >75% attendance. <i>Several seminars require mandatory attendance.</i>	Monthly; (the second Wednesday of each month), 3:00 - 5:00 p.m.

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Present a poster at the fall CTSI Research Symposium; fall 2022	Once
Attend at least one University-wide Research Career Development Seminar hosted by CTSI-Ed <i>Held monthly. The Program Manager will provide dates and topics as available.</i>	Once
Attend half-day Translational Science Retreats	Twice
Attend the spring national Association for Clinical and Translational Science annual meeting (ACTS Translational Science), and submit an abstract to present a poster during the award period. The TRACT TL1 Program will cover travel expenses associated with the conference.	Once
Participate in one UMN/Mayo Mock Study Section. This activity is offered annually on UMN or Mayo campus as well as at the ACTS Translational Science Conference. Scholars may choose which they would like to attend.	Once
Complete coursework biostatistics PUBH 6450 Biostatistics I or equivalent.	
Complete Case Studies in Translation course (joint course offered by TRACT program and Mayo Clinic CTSA)	Spring 2023
Complete Communicating Your Science course (course offered through program)	Fall 2022
Attend a grant writing workshop. We recommend Writing Winning Grants offered in January 2022.	Once
TL1 Midwest Research Summit (multi-CTSA activity hosted by Univ of Wisconsin-Madison)	Once

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<p>Presentations at Seminar: Scholars are required to present chalk talks, the translational path of their project, and an aspect of their discipline/training they consider themselves an expert in.</p>	<p>During Seminars (Monthly; the second Wednesday of each month, 3:00 - 5:00 p.m.)</p>
<p>Wellbeing requirement: All scholars are required to take a wellbeing course or a self-selected series of webinars/lectures/podcasts during the program. Course suggestions include Wellbeing and Resilience for Health Professionals, Mindfulness at Work, or one of a scholar's choosing with a certificate of completion. If a scholar elects not to take a course, scholars can select 6 webinars, lectures, or podcasts and prepare a half page reflection on each on how the scholar will apply what they've learned in their own lives.</p>	<p>Scholar's choice (determined as part of the Individual Development Plan with mentors)</p>
<p>Adhere to all reporting requirements:</p> <p>Submit progress reports at 6-months and 12-months. Progress reports must document the efforts of the trainee to submit one or more peer-reviewed manuscript(s) incorporating research results obtained with this grant. A minimum of one peer-reviewed manuscript as lead author incorporating the research results obtained should be submitted for publication by the end of the one-year award period. Trainees will present their progress to members of the Internal Advisory Board and program leadership for assessment and guidance</p> <p>Work with TRACT TL1 Program administrators to complete all NIH reporting requirements including the annual Research Performance Progress Report (RPPR).</p>	<p>Continuous</p>

Selection Criteria

- A 1-year career development plan that addresses professional and personal growth that is supported by the primary and co-mentor. This plan should clearly expand beyond what is offered in the applicant's PhD program.
- Individualized plan for expanded training specific to translational science, including coursework and possibly an advanced degree, as appropriate.
- Long-term career plan with milestones for evaluation by advisory committee
- Mentoring team must include at least one experienced senior researcher with a strong training record. The team must also demonstrate translational research experience and active funding to support the applicant's research project.

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- Plans for regular interactions with each mentor and with the entire mentoring team should be clearly described.
- Description of a research study including title, aims, significance, innovation, approach, translation plan, incorporation of biostatistical analysis and potential for how this research will facilitate building a research-oriented career should be provided. The study should be designed to be realistically completed in one year.
- Previous research, academic experience, academic potential, and achievement index* over time. **What you have accomplished in research given the opportunities available to you, your personal circumstances and time devoted to research*
- Passion for translational research/science and a career in academia or industry.
- Clear financial/resource support from the mentoring team for conducting the research.
- After formal review of the applications, the top rated applicants will be interviewed by CTSI-Ed leadership and final decisions will be made based upon a combination of the grant review score, the interview, and having balance in disciplines and diversity in the program.

Examples of Translational Research/Science Projects

Translation refers to the process of turning observations in the laboratory, clinic and community into interventions that improve the health of individuals and the public—from diagnostics and therapeutics to medical procedures and behavioral- or population-level changes. The following list of project titles and investigators are from former TRACT TL1 Scholars. They are intended to demonstrate the range of research that is considered translational. See more information about current and former TRACT TL1 scholars at z.umn.edu/TL1scholars.

Translational Science Projects

“Optimizing integrated care implementation in primary care settings using latent class analysis,” Gretchen Buchanan, Family Social Science PhD Program, College of Education and Human Development (TS)

“Utilizing real world evidence to increase efficiency of clinical trials with application to COVID-19 clinical trials,” Lillian Haine, Biostatistics PhD Program, School of Public Health (TS)

“The clinical and economic impact of the implementation of prospective pharmacogenomic testing in the care of patients with cancer,” Zachary Rivers, PharmD, Social and Administrative Pharmacy PhD Program, College of Pharmacy **could be considered both translational science and research*

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Translational Research Projects

“Resting-state brain networks underlying psychopathology and associations with early life stress”, Max Herzberg, Child Psychology PhD Program, College of Education and Human Development

“Development of predictive screening tool for patient-reported symptom clusters for artery disease,” Rebecca Brown, RN, Nursing PhD Program, School of Nursing

“Computer-aided diagnosis for prostate cancer detection on multiparametric MRI,” Ethan Leng, MSTP Student, Biomedical Engineering PhD Program, College of Science and Engineering

“Altered neuroplasticity of the motor system with people with idiopathic REM sleep behaviour disorder: a harbinger of Parkinson's Disease?” Rebekah Summers, DPT, PhD, Postdoctoral Fellow, Department of Neurology, Medical School

“Creating a culturally-sensitive report card for African-American kidney transplant candidates,” Warren McKinney, PhD, Postdoctoral Fellow, Nephrology, Hennepin Healthcare Research Institute (HHRI)

“Developing a capacitive aortic stent-graft for blood pressure management,” Shannen Kizilski, Mechanical Engineering PhD Program, College of Science and Engineering

If you have questions about how your research might relate to translational science please contact Angie Merrifield at ctiseduc@umn.edu.

Award Timeline

LOI Due	March 21, 2022 at 11:59 p.m.
Applicant full submissions due	May 2, 2022 at 11:59 p.m.
Award start date	August 1, 2021

How to Apply

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Phase I: Letter of Intent (LOI)

Access the link for LOI submissions on the TRACT TL1 website [z.umn.edu/CTSITRACT TL1](https://z.umn.edu/CTSITRACT_TL1)

A mandatory letter of intent (LOI) is due on March 21, 2022 and will be used for planning the review of applications. See the attached LOI template. Applicants will be notified in March if they are invited to submit a full application.

Phase II: Submitting Full Application

Full applications are due on May 2, 2022. Application requirements can be found below. Submission information will be provided to those invited to submit a full application.

Application Components	
Formatting instructions: All typed documents must be Arial 11 pt font, ½ inch margins, single-spaced. Upload all documents as PDFs	
Applicant information	Online form
Research Proposal to include: <ul style="list-style-type: none">● Project Title● Aims● Significance● Innovation● Approach (include biostatistical analysis)● Describe <u>if and how</u> this proposed research is different from your dissertation research	Upload up to 3 pages, exclusive of references
Describe where the proposed research plan is on the translational research spectrum and the research's potential translational impact. (See definitions of translational research and translational science at z.umn.edu/CTSITRACTProgram)	Upload up to ½ page

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<p>Provide translation plans for advancing the project's research findings along the translational research continuum. Translation stage will vary by project but applicants must describe how this research will be useful in advancing human health (e.g., could lead to early stage testing in humans, be ready for human testing, or encompass later stage translational research of best practices in practice settings and the community).</p>	
<p>Career Goals and Research Interests</p> <p>1 – 2 page statement</p>	Upload up to 2 pages
<p>Describe how your research will be funded. The TRACT TL1 program provides a stipend, tuition and health insurance but does not provide research funds.</p>	Upload up to 1 page
<p>IRB, IACUC, IBC; Human participant and animal protection information</p> <p>(Most predoctoral Scholars have approval for their research as part of their mentor's research but this needs to be described This may also be true for postdoctoral Scholars but they are more likely to be Principal Investigator)</p> <p>Download this form on the TRACT TL1 website (http://z.umn.edu/CTSITRACT TL1)</p>	Upload
<p>Initial start-up plan: Explain the steps needed to operationalize your research project – steps that are done and/or will be done in the first three months (e.g., start experiments, develop protocols and/or data collection).</p>	Upload up to ½ page (3 – 5 sentences)
<p>Curriculum Vitae (CV)</p>	Upload
<p>Proposed Mentor and Co-Mentor's NIH Biosketches and Other Support and Training Record</p>	Upload (combine into 1 pdf)

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<p>Mentor-Mentee Compact with Proposed Mentor and Co-Mentor</p> <p>One compact per mentor. Download this form on the TRACT TL1 website (http://z.umn.edu/CTSITRACTProgram).</p>	Upload (combine into 1 pdf)
<p>Letters of Support from Proposed Mentor and Co-Mentor(s)</p> <p>This letter should indicate the mentor/co-mentor's commitment to the training of the applicant and outline the project the applicant will be doing in the mentor/co-mentor's laboratory. This letter must explicitly state the trainee will have 100% protected time for research and how the mentor(s) will ensure coverage of research expenses. Each mentor can provide a separate letter or a joint letter may be submitted.</p>	Upload

<p>LOI Template – may adjust formatting as needed, but must provide each item. No more than 4 pages.</p>	
Initial to confirm you meet the eligibility criteria stated in RFA	
<ol style="list-style-type: none">1. Scholar Name2. Predoc or Postdoc3. ORCID ID* (for more information: https://orcid.org/)4. Date of enrollment in PhD program5. Date (or estimated date) of preliminary oral examination completion6. Estimated date of graduation7. Department/Division/Program, School/College, Organization (if outside of UMN ex. HHRI, VA)8. Primary Work Site (if not UMN Twin Cities)	

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<p>Signatures:</p> <p>Applicant</p> <p>PhD Program Head/Director of Graduate Studies and Academic Advisor (predocs)</p> <p>Department Chair (or equivalent if applicable) (postdocs)</p>	
<p>Planned mentoring team, including Name, Faculty rank, Department/Division, School/College of each team member</p>	
<p>Project title</p>	
<p>Please describe how you would contribute to a diversity of viewpoints and identities in the scholar program. You may use this box or type below. There is no page limit but generally applicants provide 1 to 2 paragraphs.</p>	