NUCATS MULTIDISCIPLINARY TRAINING PROGRAM
IN CHILD AND ADOLESCENT HEALTH (TL1)

REQUEST FOR APPLICATIONS

Date:    July 1, 2021

To:       Northwestern University Department Chairs, Center and Institute Directors and Faculty
           Clinical Fellowship Program Directors, Northwestern University
           Engineering and Data Science PhD Program Directors

From:     Susanna McColley, MD, Professor of Pediatrics
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           Associate Chief Research Officer for Clinical Trials and Director, Clinical and
           Translational Research, Stanley Manne Research Institute
           Director, NUCATS Institute TL1 Program

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           Richard D’Aquila, MD, Senior Associate Dean for Clinical & Translational
           Research, Director, Northwestern University Clinical & Translational Sciences
           (NUCATS) Institute

Re:    Request for applications for NUCATS Institute Multidisciplinary Training Program in Child and
       Adolescent Health postdoctoral fellowship research training program (TL1)

The Northwestern University Clinical and Translational Sciences Institute (NUCATS) is pleased to
announce a call for applications for the Multidisciplinary Training Program in Child and Adolescent
Health (TL1). The goal of this program is to train clinician scientists and engineers to conduct
translational science that will improve the care of children and adolescents. This innovative program is
funded as part of the NUCATS Institute Clinical and Translational Science Award (CTSA). The CTSA
award is supported by the National Center for Advancing Translational Sciences at the National
Institutes of Health.

The purpose of this communication is to invite TL1 trainee nominations from graduating PhDs, current
postdoctoral trainees, or pediatric fellows at or applying to Northwestern University. Potential
applicants to the program are encouraged to visit the TL1 website to view the spectrum of projects
that have been supported by TL1 funding. For further information, determination of eligibility or
assistance in identifying mentors, please contact the program coordinator, Adam White, at adam-
white@northwestern.edu. Full applications for the TL1 Training Program are due August 27th. See the
“Timeline of Events” section on the last page for application due dates, notice of award dates and
funding start dates.
A. OVERVIEW
The overall goal of the TL1 is to address the US workforce need for well-trained clinician scientists and engineers by attracting talented trainees, equipping them with the tools to succeed and retaining their commitment to be independent investigators. The TL1 aims to train postdoctoral fellows in a creative and multidisciplinary environment that produces investigators equipped to apply translational scientific approaches to problems in child and adolescent health. The TL1 is a dynamic program that promotes interactions among both mentors and trainees from multiple disciplines in order to encourage creative thinking and novel approaches to child-health translational science.

In order to accomplish this objective the TL1 program offers access to extensive research training resources including: mentor matching, monthly sessions focused on Collaborative Approaches in Child and Adolescent (C&A) Health, team science training, catalyzing new teams and ideas, mentor development workshops, community mentors, research and methods mentors and support, grant writers groups, experiential learning opportunities and more. The TL1 program endeavors to catalyze creative, multidisciplinary partnerships between pediatrics, engineering and data science to improve child and adolescent health.

The TL1 program accepts applications from two types of trainees wishing to receive additional training and mentorship in clinical and translational science. Applications will be accepted from:

1. Clinical postdoctoral fellows pursuing training in child and adolescent health who desire to complement their clinical insight with research skills learned from mentors with diverse scientific backgrounds.
   a. Clinical fellows should have a primary mentor with a focus in pediatric or adolescent health.
   b. Secondary mentors will usually come from engineering or data science to complement the clinical expertise. TL1 leadership is available to help identify secondary mentors appropriate to the project. A pre-established relationship is not necessary.

2. Graduating PhDs and PhD postdoctoral fellows from engineering and basic scientific disciplines – including areas such as bioengineering, synthetic biology, systems biology, informatics, population science, materials science, operations research, imaging, signal processing and analysis, gaming theory, robotics, machine learning, health services research, and communication disorders – who desire to apply their discipline to a project in child and adolescent health.
   a. PhD Postdoctoral Fellows will usually have a primary mentor with a focus in engineering or data science
   b. Secondary mentors should complement this basic science mentor with clinical expertise. TL1 leadership is available to help identify secondary mentors after appointments are made; applicants are not expected to have identified secondary mentors at the time of application.

3. Applicants who are interested in completing their research at a non-NU institution but are able to participate in career development activities at Northwestern should contact Susanna McColley directly.

The award is open to individuals with doctoral-level degrees, including but not limited to: PhD, MD, DO, DC, DDS, DVM, OD, DPM, ScD, EngD, DrPH, DNSc, ND (Doctor of Naturopathy), PharmD, DSW, PsyD, or equivalent doctoral degree from an accredited domestic or foreign institution. Trainees for the TL1 program are accepted from a wide array of specialties, departments and schools and
partner institutions across NU. For the purposes of this proposal, Engineering is broadly defined and includes, but is not limited to, such fields as Data Science, Biomedical Engineering, Industrial (process) Engineering, Chemical and Biological Engineering, Computer Science, Materials, Simulation, Prosthetics and Device development.

Northwestern University and the TL1 program are committed to identifying and implementing ways to create and support a diverse and inclusive campus community. Scholars from diverse backgrounds and life experiences bring different perspectives, creativity, and individual enterprise to address complex scientific problems. Individuals belonging to groups that have been traditionally underrepresented in biomedical, clinical, behavioral and social sciences (e.g., certain racial, ethnic and gender minorities and individuals with disabilities) are strongly encouraged to apply to this program. The NIH Statement on Diversity can be found here; individuals may voluntarily self-identify based on the descriptions included in the statement.

The TL1 program provides support for up to two years and applications should be submitted that cover a training period of two years. The two-year training must include both mentored research and plans for other research training activities in child and adolescent health (see below). The second year of training is contingent on satisfactory progress during year 1.

Individuals who are funded by this mechanism will receive assistance in applying for other fellowship awards or independent grants during the period of this award. All trainees supported on the TL1 are encouraged to prepare an F or K-series grant early in year 2 of their appointment and expected to submit a first-author manuscript based on their funded project.

Postdoctoral fellows in the TL1 program will participate in an integrated didactic and mentored research program overseen by the TL1 Internal Advisory Committee (IAC). The IAC includes members from diverse backgrounds to ensure that all areas represented by NUCATS have input into the decisions of the TL1 program. Areas of oversight include the selection of trainees, catalyzing innovative partnerships for the trainees, development and monitoring of trainee individual development plans (IDPs), and the identification of novel opportunities and approaches to research training in child and adolescent health. The IAC includes several experienced investigators and mentors as well as young investigators and developing mentors. The IAC is chaired by the TL1 Program Director.

**B. TIMELINE OF EVENTS**

The table below lists upcoming application due dates, notice of award dates and the tentative funding start dates for the TL1 program.

Applications must be submitted by the rolling due dates indicated below. Applicants may submit for each of the deadlines, and we intend to appoint at least one fellow from each application cycle during the current grant year. Please visit the TL1 website for additional information.

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<th>Application Due</th>
<th>Notice of Award</th>
<th>Tentative Funding Start Date</th>
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<tr>
<td>August 27th</td>
<td>October 15, 2020</td>
<td>November 15, 2020*</td>
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C. ELIGIBILITY, PROVISIONS, TERMS, AND APPLICATION INSTRUCTIONS

An outline of requirements are listed below, and detailed information can be found on our website.

1. Complete the TL1 Data Applicant Form
2. PHS 398 Face Page (no signature required)
3. Abstract
   a. Limited to 30 lines or less, including the project’s objectives, description of research design and methods, and career development goals.
4. Proposal – 4 page limit
   a. Candidate Background (1 page)
   b. Career Goals, Objectives and Development Plan, emphasizing the focus on child and adolescent health (1 page)
   c. Research Project, with a focus on child and adolescent health (2 pages)
5. NIH Biosketches
   a. Trainee
   b. Primary Mentor
   c. Co-Mentor (if identified at time of application)
6. Letters of Support
   a. Primary Mentor
   b. At least one other letter that can speak to the applicant’s experience and career goals.
   c. Co-mentor

Standard NIH NRSA T32 and F-series award eligibility requirements apply.

Awardees will receive prevailing NRSA stipend, health insurance, tuition support, travel expenses, and programmatic support in the areas of qualitative methods, mentor matching, team science training, Responsible Conduct of Research training, grant writing workshops, and access to the Center for Community Health.

All trainees are expected to attend programming on a regular basis and comply with data requests while funded and with annual update requests for 15-years post-funding for NIH reporting.

Mentors are required to participate in career development activities and provide annual updates as requested, as well as provide funding to trainees for research-related expenses.

Applications should be submitted via Competitions. Application Instructions are found on our website.

Process related questions can be directed to Adam White at adam-white@northwestern.edu.

Questions related to selection of mentors or co-mentors and/or potential candidate eligibility or qualification can be directed to Susanna McColley at smccolley@luriechildrens.org.

We look forward to your response to this solicitation.