Predoctoral TL1 Program
Request for Applications (RFA)
Program Brochure
2024-2025

FRONTIERS
CLINICAL & TRANSLATIONAL
SCIENCE INSTITUTE
AT THE UNIVERSITY OF KANSAS

PRE-MEETING DUE:

December 7, 2024

FULL APPLICATION DUE:

December 13, 2024

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Start your Application Today!

Visit the Website or Scan the Code:

https://redcap.kumc.edu/surveys/?s=XDHAW3HLTK43KYT7

Frontiers Predoctoral TL1 Program

ABOUT THE PROGRAM

The Frontiers CTSI Predoctoral TL1 Program is a prestigious training opportunity designed to cultivate a diverse and skilled cadre of predoctoral translational researchers. Supported by the National Institutes of Health (NIH) Clinical and Translational Science Award, the TL1 Program provides trainees with the knowledge, skills, and resources necessary to drive innovative and impactful clinical and translational research. Through a combination of mentorship, education, and hands-on research experience, the program aims to foster a culture of excellence, collaboration, and innovation among its trainees, ultimately leading to improvements in health outcomes for individuals and communities.

The TL1 has three main components:

1. Developing productive and beneficial mentoring relationships
2. Completing the core curriculum
3. Successfully conducting a translational research project

At the heart of the TL1 Program is a strong emphasis on mentorship. Trainees work with experienced mentors who provide guidance and support in scientific research, career development, and work-life integration. With access to a diverse range of mentors and resources, trainees have the opportunity to develop into independent researchers capable of addressing complex health challenges. The program also offers a tailored core curriculum that includes training in clinical and translational research, as well as career development activities. By providing trainees with the necessary skills, knowledge, and support, the Frontiers CTSI TL1 Program aims to nurture the next generation of leaders in translational science.

Questions regarding the program can be sent to the KL2 & TL1 Program Director, Holly Zink, Ph.D. at hzink2@kumc.edu.

PROGRAM BENEFITS

The TL1 Program offers a range of benefits designed to support trainees in their development as independent clinical and translational researchers. These benefits include:

- **One year of training and support:** Trainees receive comprehensive training and support for one year to enhance their research skills and prepare them for a career in clinical and translational research.
- **Stipend and research project expenses:** Trainees receive a stipend of $27,144 (2023 NRSA Level)* to support their living expenses during the program. Additionally, they receive $4,550 for research project expenses*, allowing them to conduct their research effectively.
- **Childcare support:** The program provides childcare costs up to $2,500*, alleviating some of the financial burden for trainees with children and enabling them to focus on their research and training.
- **Intensive mentored research experience:** Trainees benefit from intensive mentored research experiences, working closely with experienced researchers to develop their skills and knowledge in clinical and translational research.
- **Master of Science in Clinical Research (MS-CR) degree:** Trainees have the opportunity to earn a Master of Science in Clinical Research (MS-CR) degree with full tuition remission, enhancing their qualifications and career prospects.
- **Travel support:** Trainees receive travel support to attend the National Association for Clinical and Translational conference, providing them with networking and professional development opportunities in the field of clinical and translational research.

PROGRAM LEADERSHIP

[Dr. Jennifer Goldman MD, MS–CR](#) is a pediatric infectious diseases physician. She is a Professor of Pediatrics at the University of Missouri-Kansas City and is a member of the Divisions of Clinical Pharmacology, Toxicology and Therapeutic Innovation and Infectious Diseases at Children's Mercy Kansas City, and co-Lead of the TL1 training program within Frontiers Clinical and Translational Science Institute.

[Dr. Jacob Sosnoff, Ph.D.](#) serves as the Associate Dean for Research in the School of Health Professions and a Professor in the Departments of Physical Therapy, Rehabilitation Science, and Athletic Training at the University of Kansas Medical Center, and co-Lead of the TL1 training program within Frontiers Clinical and Translational Science Institute.

MENTORING

Mentoring is a cornerstone of the Frontiers CTSI TL1 Program, playing a vital role in shaping the development and success of our trainees. We believe that effective mentorship is multifaceted, encompassing scientific guidance, career navigation, and personal support. Each TL1 Scholar works with a primary mentor and mentorship team, providing a diverse range of perspectives and expertise. Additionally, trainees have access to TL1 Program Directors who serve as active mentors throughout the program. Our approach to mentorship emphasizes the importance of interdisciplinary collaboration and community engagement, reflecting the diverse nature of translational research.

As part of the scholar's seminar series, trainees also receive training from the Center for the Improvement of Mentored Experiences in Research (CIMER). Frontiers CIMER-trained faculty and staff facilitate research mentor and mentee training for individuals at all career stages, ensuring that trainees are equipped with the skills and knowledge to foster effective mentoring relationships. Through CIMER, trainees learn new approaches and resources for advancing mentoring relationships, promote cultural change that values excellence in research mentoring, and build a network of mentors and mentees. This training not only enhances the mentorship experience within the TL1 Program but also contributes to advancing diversity in the research enterprise.

CORE CURRICULUM

Our Core Curriculum is designed to equip trainees with the skills and knowledge necessary to become successful translational scientists. Central to this curriculum is the integration of the "Seven Characteristics of a Translational Scientist," which include being a domain expert, boundary crosser, team player, process innovator, skilled communicator, systems thinker, and rigorous researcher. Through a combination of didactic coursework, hands-on training, and mentorship, trainees develop these characteristics independent of their particular areas of expertise.

The curriculum includes tailored didactic coursework that covers a range of topics essential for translational research, such as grant writing, scientific writing, systematic reviews, clinical trials, and responsible conduct of research. Trainees also participate in the Frontiers Scholar Seminar Series, which includes training from the Center for the Improvement of Mentored Experiences in Research (CIMER). This training helps trainees develop effective mentoring relationships and fosters a culture of excellence in research mentoring. Additionally, trainees have the opportunity to enroll in degree programs and training workshops that align with their career goals and enhance their skills in translational research. Through this comprehensive curriculum, trainees gain the knowledge and expertise needed to drive innovative and impactful clinical and translational research.
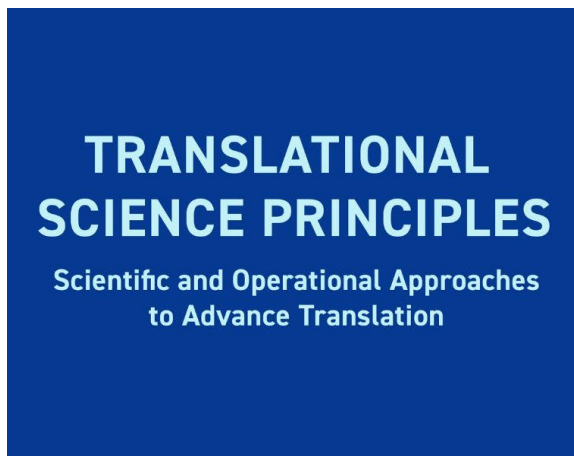
TAILORED DIDACTIC COURSEWORK

The Tailored Didactic Coursework component of our program offers TL1 Trainees a range of options to enhance their skills and knowledge in clinical and translational research. Trainees will participate in the Master of Science in Clinical Research program. These programs provide comprehensive training in critical areas of translational research, including informatics, biostatistics, and clinical research methods.

- Master of Science - Clinical Research (KUMC)
- Master of Science in Bioinformatics (UMKC)
- Certificate in Clinical Research (UMKC)
- Graduate Certificate - Health Data Science (KUMC)

In addition to degree programs, trainees can enroll in various workshops, symposia, and training programs that align with their career goals and interests. All clinical and translational researchers require opportunities to improve their skills and learn new approaches. Frontiers is committed to offering relevant, timely and high value training reflecting all aspects of clinical and translational research. Programs offer training in topics such as best practices for engaged research, nationally vetted recruitment and retention methods, practice facilitation and other useful tools and techniques. Frontiers leverages the expertise among Frontiers partner institutions to offer special training in entrepreneurship and implementation research.

- Grant Writing (KUMC – PRVM 872)
- Scientific Writing (KUMC – PRVM 873)
- Systematic Reviews (KUMC – PRVM 869)
- Clinical Trials (KUMC – BIOS 810)
- Responsible Conduct of Research (KUMC – PRVM 853)
- Scientific Rigor and Reproducibility (KUMC – BIOS811)
- Implementation Science
- Biostatistics for Clinical and Translational Researchers
- Informatics (REDCap) and HERON Training

TRAINING IN RESPONSIBLE CONDUCT OF RESEARCH

TL1 Trainees are expected to uphold the highest standards of ethical conduct in research. To ensure this, trainees are required to complete training in Responsible Conduct of Research (RCR). This includes taking the Responsible Conduct of Research course (KUMC – PRVM 853), which covers key topics such as research integrity, authorship, data management, and conflicts of interest. Additionally, trainees conducting human research are required to complete six biomedical Collaborative Institutional Training Initiative (CITI) modules. Trainees must also comply with any other current institutional requirements related to RCR.

MENTORED RESEARCH PROJECT

The Mentored Research Project is at the core of the TL1 Program, offering trainees the opportunity to engage in transformative clinical or translational research under the guidance of experienced mentors. Each scholar, supported by their mentor team, develops and implements a research project tailored to the program's two-year timeframe and available resources. This project is expected to be rigorous, potentially impactful, and to lead to academic products such as scientific presentations, peer-reviewed publications, and the preparation of grant proposals. The research conducted during the TL1 Program is designed to advance trainees' careers, with the goal of achieving independence and securing future funding, such as individual career development awards (e.g., K01, K08, K23) or R funding equivalents.

Projects within the TL1 Program can take various forms, ranging from providing preliminary or pilot data for future grants to being definitively hypothesis-testing. The scope and methodology of each project are tailored to the specific research question and objectives, ensuring that trainees gain valuable experience in designing and executing impactful research. Trainees are expected to submit at least two original papers for peer-reviewed publications each year and to have submitted a meritorious application for the next stage of funding before completing the TL1 Program. This emphasis on scholarly output and grant preparation equips trainees with the skills and experience needed to succeed as independent researchers in the field of clinical and translational science.

APPLICATION REVIEW CRITERIA

Reviewers will consider each of the review criteria below:

Criteria	Details
Candidate's Preparedness and Potential	- Discuss the candidate's preparedness for the proposed research training plan. Consider the context, for example, the candidate's stage of training and the opportunities available. - Assess whether the candidate and sponsor statements as well as the referee letters provide convincing evidence that the candidate possesses qualities (such as scientific understanding, creativity, curiosity, resourcefulness, and drive) that will improve the likelihood of a successful research training outcome. - Consider the candidate's potential to benefit from the fellowship research training plan and to transition to the next career stage in the biomedical research workforce.
Research Training Plan	- Assess the rigor and feasibility of the research training project and how completion of the project will contribute to the development of the candidate as a research scientist. - Evaluate the goals of the overall research training plan and the extent to which the plan will facilitate the attainment of the goals. - Discuss whether the research training plan identifies areas of needed development and contains appropriate, realistic activities and milestones to address those needs. - Consider whether the sponsor(s), scientific environment, facilities, and resources are adequate and appropriate for the proposed research training plan.
Commitment to Candidate	- Assess whether the sponsor(s) presents a strong mentoring plan appropriate to the needs and goals of the candidate. - Evaluate the extent to which the sponsor(s) and organizational commitment is appropriate, sufficient, and in alignment with the candidate's research training plan. - Consider whether the level of commitment provided will contribute to the successful completion of the proposed plan and allow the candidate to advance to a productive career in the biomedical research workforce.

HOW TO APPLY

ELIGIBILITY

Eligibility for the TL1 Program requires applicants to meet the following criteria:

- **Citizenship or residency**: Applicants must be a United States citizen, non-citizen national, or have legal admission as a permanent resident.
- **Enrollment status**: Applicants must be currently enrolled in an MD, DO, DDS, PharmD, DVM, DPT, AuD, DNP, or other clinical PhD program at a Frontiers partner institution.
- **Leave of absence**: Applicants must have an approved leave of absence from their current program to complete the Master of Science in Clinical Research (MS-CR) coursework and commit 100% effort to the research and training activities of the TL1 Program.
- **Prerequisite coursework**: Applicants must provide proof of completion of prerequisite coursework in basic sciences and mathematics to be eligible for the program.

Please note that NIH-funded spots in this program are limited. However, there is an opportunity for applicants to be considered for an Institutionally-Funded spot. **If selected for an Institutionally-Funded spot, the applicant's department will be responsible for covering the costs associated with the award.** We encourage departments to support their applicants in taking advantage of this valuable training and development opportunity.

PRE-APPLICATION MEETING

A meeting with TL1 Leadership is required in the pre-application phase, at least 3 weeks before the application deadline. Questions regarding the application process can be sent to the KL2 & TL1 Program Director, Holly Zink, Ph.D. at hzink2@kumc.edu.

Invited applicants should submit the following documents:

1. **[Applicant Information (REDCap Form)](#)**
2. **Personal Statement (500 Words):** This section should summarize your background and training, your career development goals, and your research interests.
   - **Candidate Background and Training:** Tell us a little bit about yourself, your educational journey, and a description of any prior research and training, including relevant pre-clinical, translational, and/or clinical research. When appropriate, describe your clinical training.
   - **Career Development Goals:** Describe your short- and long-term career development goals, including reasons for applying to the program and a description of how the TL1 will help develop or expand your career in clinical and translational research.
   - **Research Interests:** Describe your current research interests, the mentorship and training that you will receive during the program, and your future research and training plans following completion of the program.
3. **Research Strategy (2 Page Limit):** This section should summarize your (a) prior research, (b) research gaps, (c) aims and methodology, (d) population, (e) setting, and (f) mentors.
   - **Background**: Provide a concise overview of the previous research, highlighting their relevance to your proposed study.
   - **Gaps**: Identify specific unanswered questions within your field that your research aims to address.
   - **Aims & Methodology/Approach**: Clearly outline the objectives of your study and briefly describe the methods you'll employ to achieve these goals.
   - **Population:** Define the specific group or demographic that your study will focus on, emphasizing its relevance to your research aims.
   - **Setting:** Describe the environment or context where your research will take place, emphasizing its significance to the study.

- **Mentors:** Briefly introduce your mentors, emphasizing their expertise and their roles in guiding your research endeavors.

4. **Individual Development Plan (5 Pages):** This section should describe your career goals, your past research experience and relevant graduate coursework, your mentor selection, planned coursework, plans without the award, and impact of the award on your career plans.

   - **Career Goals:** Outline your professional aspirations succinctly, aligning them with your academic pursuits and desired career trajectory.
   - **Past Research Experience & Relevant Graduate Coursework:** Summarize your prior research involvement and relevant coursework in a way that highlights their connection to your proposed research.
   - **Mentors Selection & Rationale:** Briefly introduce your mentors and explain why you've chosen them, emphasizing their relevance to your research and career development.
   - **Planned Coursework & Rationale:** Outline the courses you intend to undertake, emphasizing their significance in enhancing your skills and advancing your research goals.
   - **Plans Without the Award:** Briefly describe your contingency plans for the next 2-3 years if you do not secure the grant, indicating how you'll continue pursuing your goals.
   - **Impact of the Award on Career Plans**: Describe how receiving the award would influence or alter your career trajectory, highlighting the changes or enhancements it would bring to your professional journey.

5. **Primary Mentor Letter of Reference:** In two pages or less (PDF format), describe the qualities and potential of the fellowship applicant for the research training for which support is being requested (predoctoral, postdoctoral, or senior fellow). This should include your evaluation with special reference to:

   - Research ability and potential to become an independent researcher
   - Adequacy of scientific and technical background
   - Written and verbal communication abilities including ability to organize scientific data
   - Quality of research endeavors or publications to date, if applicable
   - Perseverance in pursuing goals

- Evidence of originality
- Need for further research experience and training
- Familiarity with research literature
- Mentor's commitment to:
    1. Assure adequate and sustainable time and commitment;
    2. Confirm that adequate space, facilities, and resources will be made available for the successful completion of research projects;
    3. Confirm that you reviewed the mentee's research plan;
    4. Attend biannual Frontiers Training Center scholar/mentor meetings, participate in mentor training activities, and take part in grant mock reviews and monthly seminars as appropriate; and
    5. Acknowledge that if awarded, the Applicant will cite the Frontiers CTSI grant on all work that the awardee contributes to while funded, including work that is published afterward.
- Referees may provide any additional, related comments that they believe will help reviewers evaluate the merit of the fellow's application.

6. **Dean of Students Letter of Reference:** In two pages or less (PDF format), describe the qualities and potential of the fellowship applicant for the research training for which support is being requested (predoctoral, postdoctoral, or senior fellow). This should include your evaluation with special reference to:
    - Research ability and potential to become an independent researcher
    - Adequacy of scientific and technical background
    - Written and verbal communication abilities including ability to organize scientific data
    - Quality of research endeavors or publications to date, if applicable
    - Perseverance in pursuing goals
    - Evidence of originality
    - Need for further research experience and training
    - Familiarity with research literature
    - Dean's acknowledgement: This letter should contain information that the candidate is in good academic standing and will be allowed to take a leave of absence from your current academic program during the year-long award period to complete the MS-CR degree and TL1 Training program.

- Referees may provide any additional, related comments that they believe will help reviewers evaluate the merit of the fellow's application.

7. **Faculty Member Letter of Reference:** (or individual with whom the applicant has worked closely). In two pages or less (PDF format), describe the qualities and potential of the fellowship applicant for the research training for which support is being requested (predoctoral, postdoctoral, or senior fellow). This should include your evaluation with special reference to:
   - Research ability and potential to become an independent researcher
   - Adequacy of scientific and technical background
   - Written and verbal communication abilities including ability to organize scientific data
   - Quality of research endeavors or publications to date, if applicable
   - Perseverance in pursuing goals
   - Evidence of originality
   - Need for further research experience and training
   - Familiarity with research literature
   - Referees may provide any additional, related comments that they believe will help reviewers evaluate the merit of the fellow's application.

Frontiers Predoctoral TL1 Program

FULL APPLICATION CHECKLIST

- ☐ Applicant Information (REDCap Form)
- ☐ Personal Statement (500 Words)
- ☐ Research Strategy (2 Pages)
- ☐ Individual Development Plan (5 Pages)
- ☐ Primary Mentor Letter of Reference
- ☐ Dean of Students Letter of Reference
- ☐ Faculty Member Letter of Reference

Questions regarding the application process can be sent to the KL2 & TL1 Program Director, Holly Zink, Ph.D. at hzink2@kumc.edu.

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The Frontiers KL1 and TL1 Programs are designed to foster the development of early career faculty, postdoctoral and predoctoral students interested in conducting groundbreaking clinical and translational research. To learn more, please reach out to the KL2 & TL1 Program Director, Holly Zink, Ph.D. at hzink2@kumc.edu.

RFA Release

KL2 Program:
Monday, July 15, 2024
TL1 Predoctoral Program:
Monday, July 15, 2024
TL1 Postdoctoral Program:
Monday, July 15, 2024

LOI/Meeting Due Date

KL2 Program:
Friday, October 25, 2024 (*LOI*)
TL1 Predoctoral Program:
Friday, December 7, 2024 (*Mtg*)
TL1 Postdoctoral Program:
Friday, October 25 (*LOI*)

Application Due Date

KL2 Program:
Friday, December 20, 2024
TL1 Predoctoral Program:
Friday, December 13, 2024
TL1 Postdoctoral Program:
Friday, December 13, 2024

Award Notification

KL2 Program:
Monday, March 17, 2025
TL1 Predoctoral Program:
Monday, March 17, 2025
TL1 Postdoctoral Program:
Monday, March 17, 2025

Orientation Meeting

KL2 Program:
April/May 2025
TL1 Predoctoral Program:
April/May 2025
TL1 Postdoctoral Program:
April/May 2025

Start Date

KL2 Program:
Tuesday, July 1, 2025
TL1 Predoctoral Program:
Tuesday, July 1, 2025
TL1 Postdoctoral Program:
Tuesday, July 1, 2025

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