KL2 Program Request for Applications (RFA) Program Brochure 2024-2025



FRONTIERS CLINICAL & TRANSLATIONAL SCIENCE INSTITUTE AT THE UNIVERSITY OF KANSAS LOI DUE:

October 25, 2024

FULL APPLICATION DUE:

December 20, 2024



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Start your Application Today!

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Frontiers CTSI KL2 Program

About the Program

The Frontiers Clinical and Translational Science Institute (CTSI) KL2 Program is a rigorous training opportunity designed to cultivate a diverse and skilled cadre of early-career translational researchers. Supported by the National Institutes of Health (NIH) Clinical and Translational Science Award, the KL2 Program provides scholars 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 scholars, ultimately leading to improvements in health outcomes for individuals and communities.

The KL2 has three main components:

- 1. Developing productive and beneficial mentoring relationships
- 2. Completing a core curriculum focused on advancing in a career as an independent translational investigator
- 3. Successfully conducting a translational research project

At the heart of the KL2 Program is a strong emphasis on mentorship. Scholars 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, scholars 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 scholars with the necessary skills, knowledge, and support, the Frontiers CTSI KL2 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 <u>hzink2@kumc.edu</u>.

PROGRAM BENEFITS

The KL2 Program offers a range of benefits designed to support scholars in their development as independent clinical and translational researchers. These benefits include:

- Salary support for up to 75% protected time* (9.0 Calendar Months) dedicated to research, allowing scholars to focus on their research efforts. Salary support will be provided up to \$120,000.
- Provided \$25,000 in research funds per year*, which can be used for project supplies, publication costs, and travel to conferences or workshops. The average total amount budgeted per scholar must not exceed \$180,000 in direct costs per year.
- Childcare costs up to \$2,500 are provided*, alleviating some of the financial burden for scholars with children.
- Up to two years of training in a collaborative, supportive environment, providing scholars with the opportunity to engage with a diverse group of peers and mentors.
- Intensive mentored research experience, ensuring scholars receive guidance and support from experienced researchers throughout their projects.
- Formal training in clinical and translational research, including coursework and seminars to enhance scholars' research skills and knowledge.
- Assistance toward securing independent funding by the end of Year 2, helping scholars transition to the next stage of their research careers.

*Financial support is contingent on availability of funds. Some positions may be contingent on receiving departmental financial support. Frontiers Clinical and Translational Science Institute at the University of Kansas is part of a nationwide network of Clinical and Translational Science Awards institutions working to speed the research process from scientific discovery to patient care. Frontiers supports the spectrum of translational research, from animal health studies to community-based and population health outcomes research. Frontiers recognizes that diverse teams are essential to improve health, and of utmost importance are the partnerships and collaborations with communities, families, and individuals. Frontiers is supported by a five-year, \$25 million grant from the National Center for Advancing Translational Sciences (NCATS) of the NIH.

PROGRAM LEADERSHIP

Dr. Matthew W. Mosconi, Ph.D. is the Director of the Kansas Center for Autism Research and Training (K-CART) at the University of Kansas. He also serves as a Senior Scientist and the Associate Director of the Life Span Institute, Professor of Clinical Child Psychology, and co-Lead of the KL2 training program within Frontiers Clinical and Translational Science Institute.

Dr. Nicole (Nikki) L. Nollen, B.S., M.A., Ph.D. is Professor of Population Health at KUMC with expertise in health disparities research and co-lead of the Cancer Prevention and Control Program within the University of Kansas Cancer Center, and co-Lead of the KL2 training program within Frontiers Clinical and Translational Science Institute.

MENTORING

Mentoring is a cornerstone of the Frontiers CTSI KL2 Program, playing a vital role in shaping the development and success of our scholars. We believe that effective mentorship is multifaceted, encompassing scientific guidance, career navigation, and personal support. Each KL2 Scholar works with a primary mentor and mentorship team, providing a diverse range of perspectives and expertise. Additionally, scholars have access to KL2 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, scholars also receive training from the Center for the Improvement of Mentored Experiences in Research (CIMER). Frontiers CIMERtrained faculty and staff facilitate research mentor and mentee training for individuals at all career stages, ensuring that scholars are equipped with the skills and knowledge to foster effective mentoring relationships. Through CIMER, scholars 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 KL2 Program but also contributes to advancing diversity in the research enterprise.

CORE CURRICULUM

Our Core Curriculum is designed to equip scholars 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, scholars 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. Scholars 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 scholars develop effective mentoring relationships and fosters a culture of excellence in research mentoring. Additionally, scholars 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, scholars gain the knowledge and expertise needed to drive innovative and impactful clinical and translational research.

TRANSLATIONAL SCIENCE PRINCIPLES

Scientific and Operational Approaches to Advance Translation



TAILORED DIDACTIC COURSEWORK

The Tailored Didactic Coursework component of our program offers KL2 Scholars a range of options to enhance their skills and knowledge in clinical and translational research. Scholars have the opportunity to participate in the following degree-granting programs that 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)
- <u>Certificate in Clinical Research (UMKC)</u>
- Graduate Certificate Health Data Science (KUMC)

In addition to degree programs, scholars 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 a comprehensive range of clinical and translational research topics, including (but not limited to) best practices for engaged research, translational research participant 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, including through select courses, such as

- 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

KL2 Scholars are expected to uphold the highest standards of ethical conduct in research. To ensure this, all scholars 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, scholars conducting human research are required to complete Collaborative Institutional Training Initiative (CITI) modules. Scholars 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 KL2 Program, offering scholars 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, 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 KL2 Program is designed to advance scholars' 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 KL2 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 questions and objectives, ensuring that scholars gain valuable experience in designing and executing impactful research. Scholars 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 KL2 Program. This emphasis on scholarly output and grant preparation equips scholars with the skills and experience needed to succeed as independent researchers conducting 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 KL2 Program requires applicants to meet the following criteria:

- Be a United States citizen or non-citizen national, or have legal admission as a permanent resident.
- Hold a doctoral level degree (MD, DO, DDS, PharmD, PhD, DVM, or equivalent degree) and have completed all clinical training by the time of KL2 appointment.
- Have prior training in clinical research methods, with preference given to individuals who have already completed master's or PhD-level training in a relevant program.
- Have a minimum of two years of post-terminal degree research experience.
- Be appointed to a faculty position by the time of KL2 appointment.
- Have a commitment from the Frontiers partner institution, school, or department to provide 75% protected effort for the scholar to direct towards the KL2. Clinicians in certain specialties who need to maintain procedural skills may be allowed to commit only 50% research effort.
- An incoming KL2 Scholar cannot be or have been a PD/PI on an R01, R29 or subproject of a P or U grant, independent mentored career development (K-series) grants, or other equivalent research grant from PHS except for an R03 or an R21.

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.

LETTER OF INTENT

Interested applicants should submit the following documents:

- 1. Applicant Information (REDCap Form)
- 2. Letter of Intent (2 Pages): Outline career goals, preliminary plans for mentorship, and a brief plan of the anticipated program of research.
- 3. Applicant NIH Biosketch.
- 4. Primary Mentor NIH Biosketch.

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

FULL APPLICATION

Invited applicants should submit the following documents:

- 1. Applicant Information (REDCap Form)
- 2. **Personal Statement (1 Page):** Summarize your background and research training, research interests, and your short- and long-term career goals.
 - **Background and Research Training**: Describe your prior research experience and training, including relevant pre-clinical, translational, and/or clinical research.
 - **Research Interests**: Describe your past and current research interests. Highlight your research productivity and consistent themes that have guided your previous research work.
 - Short and Long-Term Career Goals: Outline your goals, including a description of how the KL2 will help develop or expand your career in clinical and translational research. Describe a systematic plan that demonstrates a logical progression (i) from prior research and training experience (ii) to the research and career development experience provided by the KL2 (iii) to independent investigator status. Justify the need for further career development to become an independent investigator and how you will utilize the relevant Frontiers Training Center research and educational resources.

- 3. **Mentorship Plan (1 Page):** Describe the role of your primary mentor (and other members of your mentoring team, where appropriate) in accomplishing the goals of the KL2.
 - Your mentor's research qualifications and previous experience as a research supervisor;
 - a plan describing the nature of the supervision and mentoring that will occur during the proposed award period;
 - a plan to progress from the mentored stage of your career to independent research investigator status during the project period of the KL2; and
 - a plan for monitoring research productivity and progression towards independence.
- 4. **Research Strategy (5 Pages Total):** Describe your specific aims (1 page), the significance and innovation, your research approach, timeline and next steps.
 - Specific Aims (1 Page): The specific aims page is 1 page long and should provide a concise summary of the proposed research plan along with a list of the specific aims and relevant hypotheses. All aims should be achievable within a 2-year time frame. Summarize the expected outcomes(s), including the impact that the results of the proposed research will exert on the research field(s) involved. NOTE: Your Specific Aims page will be uploaded as a separate document, however it does count in the total page limit (5 pages).
 - Significance: Explain the importance of the problem or the critical barrier to progress in the field that the proposed project addresses. Explain how scientific knowledge, technical capability, and/or clinical practice will be advanced. How will the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field be changed if the proposed aims are achieved(i.e., describe the potential impact on the field(s))? Include brief background data with appropriate citations . Although some background is needed, you also need to convince the reviewer that results stemming from your hypothesis and plan will be important. Don't short-change this section, but make sure you leave enough room for the Approach section.

- Innovation: Describe any novel concepts, approaches or methodologies, instrumentation, or intervention(s) to be developed or used. Emphasize any innovative conceptual framework or approach you are using: why is your approach better than what has been done before; what makes it novel? Innovative methods, innovative equipment, or an innovative way of looking at a problem can be emphasized. One or two paragraphs are generally sufficient for the Innovation section.
- Approach: Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims. Include how the data will be collected, analyzed, and interpreted. Discuss potential problems and alternative strategies. If you have any preliminary findings that support the aims of the project, include them in the Approach section. Outline methodology in enough detail to be understood by an expert investigator who may not work directly in your area of the field. Proposed activities should be feasible with the amount provided for training-related expenses over 2 years (usually ~\$20,000 per year), or convincing evidence provided of how your department/center will provide additional resources.
- **Timeline and Next Steps**: Clearly articulate a two-year plan for your research and plans to submit for future funding.
- Literature Cited: (Not counted against page limit).
- 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. **Division Director/ Department Head Letter of Reference:** In two pages or less (PDF format), acknowledge:
 - 1. commitment to ensure the applicant meets the required protected time to conduct research, coursework, and other Frontiers CTSI programmatic activities. This is currently set as 75% for the KL2;
 - 2. description of the division/department/school's resources (financial and other) that will be provided to the applicant, as a reflection of the department's long-term commitment to the applicant's career development. Address plans for further development after the period of the CTSI award and the applicant's motivation and likelihood to become an independent investigator;
 - 3. assurance the Primary Mentor supports the applicant's career development and training plan.
 - Referees may provide any additional, related comments that they believe will help reviewers evaluate the merit of the fellow's application.

Frontiers CTSI KL2 Program

FULL APPLICATION CHECKLIST

- □ Applicant Information (REDCap Form)
- □ Personal Statement (1 Page)
- □ Mentorship Plan (1 Page)
- □ Research Strategy (5 Pages)
- □ Primary Mentor Letter of Reference
- Division Director/Departmental Chair Letter of Reference

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

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Funding Cycle Timeline 2024-2025

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 <u>hzink2@kumc.edu</u>.

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

Start Date

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

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



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