



CENTER FOR CLINICAL AND TRANSLATIONAL SCIENCE

MENTORED CAREER DEVELOPMENT (K12) AWARDS REQUEST FOR APPLICATIONS

Announcement Date: November 3, 2025

LOI Due: January 9, 2026

BACKGROUND

A major goal of the **University of Massachusetts Center for Clinical and Translational Science** (UMCCTS) is to develop and support the next generation of leaders in clinical and translational science. Success in today's complex and competitive environment requires training that is truly transdisciplinary in nature, encompassing the full spectrum of translational research from discovery, through pre-clinical development and first-in-human studies, to implementation science and population-based studies with additional continuous feedback to basic science research.

The overall goal of the K12 program is to develop the careers of translational scientists who will possess both the fundamental competencies and the 7 essential characteristics that will enable them to become transformational agents of change across the translational research spectrum. The program is open to early-career UMass faculty members who seek to develop careers as independent translational scientists.

In this funding cycle we are soliciting proposals along two tracks.

- 1) **Sponsored by Lahey Clinic, specifically requests proposals from UMass Chan – Lahey Regional campus faculty for career development in research focused on Healthcare Delivery Sciences and development of a Learning Health System.**
- 2) **Sponsored by NIH, proposals from faculty at any UMass campus conducting clinical and translational science.**

DEFINITIONS OF CLINICAL AND TRANSLATIONAL RESEARCH and TRANSLATIONAL SCIENCE

The NIH defines **Translational Science** as:

- The field that generates innovations that overcome longstanding bottlenecks and roadblocks to accelerate progress along the translational research pipeline. These include scientific, operational, financial and administrative innovations that transform the way that research is done.

The NIH defines **Translational Research** as:

- The process of applying ideas, insights, and discoveries generated through basic scientific inquiry to the treatment or prevention of human disease.

The NIH defines **Clinical Research** as:

- Patient-oriented research. Research conducted with human subjects (or on material of human origin such as tissues, specimens and cognitive phenomena) for which an investigator (or colleague) directly interacts with human subjects. Patient-oriented research includes: (a) mechanisms of human disease, (b) therapeutic interventions, (c) clinical trials, or (d) development of new technologies. **Excluded** from this definition are *in vitro* studies that utilize

human tissues that cannot be linked to a living individual.

- Epidemiological and behavioral studies.
- Outcomes research and health services research.

The NIH defines **Basic Science Research** as:

Research that aims to gain a better understanding of fundamental aspects of phenomena or observable facts through experimental laboratory investigations.

The US Agency of Healthcare Research and Quality defines a **Learning Health System** as:

- A health system in which internal data and experience are systematically integrated with external evidence, and that knowledge is put into practice. As a result, patients get higher quality, safer, more efficient care, and health care delivery organizations become better places to work.
- Thus, research projects and career development plans using rigorous clinical, epidemiological, behavioral, outcomes, implementation, and/or health services research methods to improve patient health, population health, and/or health system operations will meet the definition of **Healthcare Delivery Sciences**.

ELIGIBILITY FOR THE MENTORED CAREER DEVELOPMENT PROGRAM

- Research or health professional doctoral degree (e.g., MD, DO, PhD, ScD, DVM, PharmD).
- University of Massachusetts (any campus) faculty appointment (Instructor or preferably Assistant Professor) **prior to award start**. (This includes faculty from Baystate and Lahey regional campuses with appointments at UMass Chan.)
- Commitment to a career as an independent investigator in clinical and translational research.
- Talent and aptitude for scholarship and critical thinking; prior productive research experience highly desirable.
- NIH track faculty must have a personal commitment to and departmental support of a minimum of 75% protected time for 2 years. However, certain clinical specialties, such as surgery, can have less than 75%, but not less than 50%, protected time if sufficiently justified and approved by K12 program leadership. Lahey track faculty must commit to at least 50% protected time to be eligible for K12, but up to 75% is strongly encouraged.
- There is no post-completion time limitation from post-doctoral or fellowship training to be eligible to apply as long as the applicant states a compelling need for the mentored career development plan that is required as part of the application.
- Applicants cannot have previously been the principal investigator on an R01, R21, R34, or equivalent award, Program Project grant, or a Co-PI on a Program Project grant.
- Applicants may not simultaneously submit or have pending an application for any other PHS mentored career development award (e.g., K07, K08, K22, K23) that duplicates any of the provisions of the K12 program; however, **K12 awardees will be expected to apply for individual mentored external K awards (or R-level grants) during their two-year tenure as K12 scholars**; if successful, funding for the scholar would transition from the K12 program to the new individual K award.
- Candidates should assemble a strong mentoring team made up of at least 3 to 4 individuals – a **primary mentor** with substantial clinical or translational research and mentorship experience and a commitment to help develop the candidate's research career, a **junior faculty member** with relevant expertise as a mentor in training, an **experienced investigator** with specific methodological and/or complementary expertise that will promote career development, and if needed, a member of the UMCCTS Biostatistics, Epidemiology, and Research Design (BERD - <https://www.umassmed.edu/ccts/resources/berd/>) core.

- At least the three core mentors noted above must be University of Massachusetts faculty members, with at least one having an affiliation to the UMass Chan Morningside Graduate School of Biomedical Sciences (GSBS).
- Applicants for the NIH track must be US citizens, non-citizen nationals, or permanent residents. Applicants for the Lahey track who are UMass Chan-Lahey faculty visa-holders may be considered (J1 Visa holders are not eligible).
- Applicants and mentors must be members of the UMCCTS. Applications for free membership can be completed by accessing the UMCCTS website and completing the online membership form at: <https://umassmed.edu/ccts/about/membership/>.

TRAINING PROGRAM

Training for K12 scholars must have **4 key components** tailored to individual goals:

- 1) a transdisciplinary mentoring team and an intensive mentored research experience targeted to independence;
- 2) coursework targeted to provide either advanced understanding of analytical methods (for more advanced entering scholars) or a degree (PhD for select MDs, MSCI for clinically-oriented scholars who do not already have an MPH or equivalent degree);
- 3) K12 required elements including: “Projects-in-Progress Seminar Series” (PiPSS); a specially-designed Translational Science Lecture Series; a writing skills development course; a scientific journal internship; and an annual research retreat; and
- 4) enrichment activities (e.g., research seminars, workshops on a variety of topics, rotations focused on gaining experience in all stages of drug development from discovery through early-stage clinical trials) available through UMass Chan or other UMass institutions, collaborating programs and centers (e.g., UMCCTS Small Molecule Screening Core). Scholars will pursue career development full-time, pursuing their independent research projects designed to launch their career, while developing the skills needed to compete for independent funding.

Year 1: Suggested coursework (if not already completed) includes training in: translational science, research study design (including clinical trial design and implementation); epidemiology; informatics for data storage/analyses; critical interpretation of literature and data; statistics; scientific integrity and the responsible conduct of research; human subjects training; regulatory; presentation of research; mentoring; team and leadership skills; individualized coursework relevant to project; and tutorials or mini-rotations with potential mentors in addition to coursework. Participants will be urged to give strong consideration to completing the Master’s in Clinical Investigation, if appropriate.

Years 1-2: Mentored research project; Submission of intramural and extramural grant applications to develop additional sources of funding.

THE K12 PROGRAM PROVIDES

- Two years of 75% salary support for trainees up to \$110,000. Certain clinical specialties, such as surgery, can have less than 75%, but not less than 50% salary support up to \$110,000. The applicant’s home department is responsible for any remaining gap between \$110,000 and 75% of the salary of the scholar, as well as the remaining 25% of the scholar’s salary, for each of the two years. An additional year of support may be available with special permission of the K12 Review Committee. NIH rules prohibit K12 scholars from receiving salary support from other federal grants and contracts (except as noted at <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-18-157.html>); however, other intramural and non-federal extramural grant sources may be used for this purpose.
- Course tuition. Planned courses should be budgeted in the proposal.
- \$25,000 per year for research supplies and supports.

- \$2,500 per year for travel.
- Indirect costs will not be supported.
- Salary support for the mentors will not be supported.

THE DEPARTMENT/PROGRAM IS EXPECTED TO PROVIDE

- Assurance of full salary support for the duration of the training period. This includes support for any remaining gap between \$110,000 and 75% of the salary of the scholar, as well as the remaining 25% of the scholar's salary. The remaining 25% of effort can be divided among other research, clinical, and teaching activities. As noted previously, NIH rules prohibit K12 scholars from receiving salary support from other federal grants and contracts (except as noted at <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-18-157.html>); however, other intramural and non-federal extramural grant sources may be used for this purpose.
- A minimum of \$25,000 for research supplies to be made available in the 1st year of funding.
- Tenure track appointment for K12 recipients with primary appointment in a basic science department or selected clinical departments, following successful completion of the program.

Interested applicants are invited to attend an informational meeting to be held via Zoom on Friday, November 21, 2025 from 12:00 PM - 1:00 PM EST at:

<https://umassmed.zoom.us/j/99901843681?pwd=Yj8p7PtqxPrC3BWNyMtlbaslOYbzYv.1>

Password: 770745

This meeting will provide an overview of the program, clarify expectations, and address attendees' questions.

APPLICATION PROCEDURE

STAGE 1: LETTER OF INTENT: All candidates must submit a letter of intent (LOI) and supporting materials as a single .pdf document. LOIs are due on **Friday January 9, 2026 at 5:00pm EDT**.

Completed LOIs should be emailed to ccts@umassmed.edu.

- **Applicant Cover Letter:** Summarize applicant's prior training, research experience, career goals, and rationale for choice of mentor.
- **Letter of Intent:** maximum of 2 single-spaced pages outlining the proposed training period and training goals and plan (maximum of 0.5 page); research project rationale, specific aims, and experimental design. References are not required, but if included are not considered part of the two (2) page limit.
- **Applicant's Biosketch:** NIH format, maximum of 5 pages.
- **Department or Program Chair's Letter of Support** outlining the Department's commitment to mentoring the candidate as an independent researcher. The signed letter should provide assurance that the candidate will not have any administrative or other commitments that exceed 25% effort (50% for select clinical specialties) and will not spend any more than 25% of his/her time in activities other than research. The letter should also provide assurance that the Department will provide the requisite funds for salary support and research supplies for the candidate.
- **Demographic data** (voluntary):
 - Gender
 - a. Male
 - b. Female
 - c. Would rather not answer
 - Ethnicity
 - a. Hispanic or Latino
 - b. Non-Hispanic
 - c. Would rather not answer
 - Racial category
 - a. American Indian or Alaska Native
 - b. Asian

- c. Native Hawaiian or other Pacific Islander
- d. Black or African American
- e. White
- f. More than one race
- g. Would rather not answer
- Do you have a disability?
 - a. Yes
 - b. No
 - c. Would rather not answer
- Do you come from a disadvantaged background?
 - a. Yes
 - b. No
 - c. Would rather not answer

Letters of Intent will be peer-reviewed and the most promising candidates will be selected to submit a full application. Applicants will be notified by January 26, 2026.

STAGE 2: FULL PROPOSAL: Candidates who are invited to submit a full application must submit all components of the proposal (listed below) as a single .pdf document by **Friday, March 6, 2026 at 5:00pm EDT**. Full proposals should be emailed to ccts@umassmed.edu.

Please follow the NIH format and page guidelines for K Awards (for example, the omnibus K23 - <https://grants.nih.gov/grants/guide/pa-files/PA-24-184.html>).

The full NIH-style proposal consists of (include all of the following):

- **Abstract** of the Project (1 page)
- **Specific Aims** (1 page)
- **Candidate and Training Information:** (12 pages for all sections combined)
 - Candidate's background, career goals and objectives
 - Career development/training activities during award period
 - Project research strategy
- **References** Section (no page limit)
- **Training** in the Responsible Conduct of Research (1 page)
- Description of **Institutional Environment** (1 page)
- **Biographical Sketch** (maximum of 5 pages)
- **Departmental and Mentor Resources Supporting the Application.** This includes a **Departmental Support Letter** attesting to the department's commitment to providing the expected supports listed above, and **statements by mentors, co-mentors, consultants, and contributors**. Includes the Departmental / Mentor's resources to support the applicant, a statement of support for the applicant's training plan (support letter can elaborate on training plan if appropriate) a description of the level of mentoring time for the applicant, a description of the full mentoring team and how they will be coordinated, and how the proposed project fits with the mentor's ongoing program of research and laboratory/research resources. Specific source(s) of available grant or institutional support for the proposed project should be discussed (7 pages max).
- **Primary Mentor's NIH Biosketch:** including list of current /former trainees and funding sources.
- **Letters of Reference:** Two letters of reference (maximum) that attest to the candidate's commitment to and suitability for development as an independent researcher. The reference letters should come from individuals not involved with the project who can speak to the applicant's past research training, experience, and productivity. Do not send more than two letters of reference.
- **Budget:** NIH PHS 398 Form (pages 4 and 5) which includes budget justification. Salary portion of the budget must reflect 75% of scholar's current salary (or, if known, salary as of the planned

- project start date), not to exceed \$110,000, and applicable fringe.
- **Appendices:** not allowed.

Awardees will be required to submit “Just-in-Time” information, as follows, PRIOR to making an award.

- **Current Other Support.** Use the sample format provided on the “Other Support Format Page” in the PHS 398 Fillable Forms. For all Key Personnel, provide details on how you would adjust any budgetary, scientific, or effort overlap if this application is funded.
- **Certifications.**
 - If Human Subjects are involved, please provide the assurance type and number and the Certification date of IRB Review and Approval. *Pending or out-of-date approvals are not acceptable.*
 - If Vertebrate Animals are involved, please provide the assurance number, verification of IACUC approval with date, and any IACUC imposed changes. *Pending or out-of-date approvals are not acceptable.*
- **Human Subjects Education.** For grants involving Human Subjects, provide certification that each person identified under Key Personnel involved in human subjects research has completed an educational program in the protection of human subjects.
- If the project will include **human subjects research studies**, these must conform to the NIH policies. Details of such studies must be provided to the K12 program office before any awardees undertake such studies.
- **Financial Conflict of Interest Form.**
- Your data for inclusion in the UMCCTS **All Personnel Report:** see PHS 2590 Form (page 7).

TIMELINE

Announcement Date	Monday, November 3, 2025
Information Session	Friday, November 21, 2025, 12:00PM - 1:00PM
Letters of Intent Due	Friday, January 9, 2026 at 5:00PM Eastern
LOI Finalists Notified	Monday, January 26, 2026
Full Proposals Due	Friday, March 6, 2026 at 5:00PM Eastern
Earliest Project Start Date	April 2026

QUESTIONS?

Regarding the K12 program or proposal, email:

Dr. Catarina Kiefe (catarina.kiefe@umassmed.edu).

Regarding application, email:

Dr. Nate Hafer (nathaniel.hafer@umassmed.edu).

Completed LOIs and full proposals shall be submitted as a single pdf document to:
ccts@umassmed.edu.

Complete information is available on the UMCCTS website at:

<http://www.umassmed.edu/ccts/education/KL2-training-program/>.