**Gene Orringer Advancing Translational Science Career Development Award (NC TraCS K12) Application**

The Gene Orringer Advancing Translational Science Career Development Award (TraCS K12) is funded by the NIH National Center for Advancing Translational Sciences (NCATS). NCATS is “disease agnostic”, meaning NCATS does not target a specific disease or area of science but supports research to develop discoveries, approaches or products that are generalizable across multiple diseases and that address challenges to the research process that are common across scientific areas. Please review the information below and the resources provided to determine whether your research is a fit for the TraCS K12 and to develop the strategy for your application. Members of the K12 Leadership Team are available to discuss questions and other funding options if you decide not to pursue a TraCS K12 application.

In the most recent [NCATS Strategic Plan](https://ncats.nih.gov/about/ncats-overview/strategic-plan/overview-of-ncats), NCATS makes a distinction between translational *research* and translational *science:*

* *Translation* *(research)* is 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 changes.
* *Translational science* is the field of investigation focused on understanding the scientific and operational principles underlying each step of the translational process.

Applications for the TraCS K12 must address translational **science** and demonstrate how the research approach, proposed training and anticipated research results address common barriers to translational research. For example, NCATS provides these examples of barriers that would benefit from “system wide” solutions. **These are only examples.** K12 applications are not limited to these areas and you will be asked to identify the research barrier/problem you will address in your K12 application and discuss why it is relevant to more than one area:

* Predictive efficacy and toxicology
* De-risking therapeutic development
* Clinical research efficiency
* Collaboration and partnerships
* Data transparency and release

NCATS has also defined a new vision: “[More Treatments for All People More Quickly](https://ncats.nih.gov/about/ncats-overview/strategic-plan/overview-of-ncats).” This vision reflects the commitment of NCATS to use innovative methods to increase the number of disease treatments and to improve aspects of the research process to decrease the time it takes to generate answers to research questions.

We recognize that it is challenging to articulate a focused research question/project while considering how the research will address the broader NCATS priorities AND position you for future funding. In addition to the hyperlinks above, you are encouraged to consult these resources to help you think about how to frame your research to address NCATS priorities:

[Infographic on Translational Science](https://ncats.nih.gov/translation/translational-science-resources)

[Translational Science Principles](https://ncats.nih.gov/about/about-translational-science/principles)
[What is Translational Science? YouTube video 30 minutes](https://www.youtube.com/watch?v=5yfPnl1pPmg)

**Application Instructions:**

**Format:**

* Font size should be 11 or larger. Consistent with NIH guidelines, font size should also be legible in tables/figures.
* Adhere to the page limits for each section.
* The application should be assembled in this order:
	+ Coversheet
	+ Application Narrative sections A-G
	+ Mentor Information
	+ Letters of Support
* Applicants are required to propose two distinct research projects to be completed during the funding period.
	+ The first is a **Mentored Research Project**, which should be a small, self-contained study conducted during the first year of the K12. This project is designed to support specific skill development and should leverage existing data or samples available through the mentor. While it should complement the **Individual Research Project**, it does not need to be identical in scope or focus. The Mentored Research Project should be described in one page or less and must include a clearly defined research question, a description of the data or samples to be used, and a projected timeline for completion and publication.
	+ The second project is the **Individual Research Project**, which serves as the scholar’s primary research effort. This project is expected to generate most or all of the preliminary data needed for a K- or R-equivalent grant submission by the end of the second year of the K12. The proposal should include a one-page Specific Aims section and up to eight pages detailing the research plan. This plan should address key components such as the significance of the research, the translational science barrier being addressed, the proposed approach, feasibility, statistical power, and potential problems along with alternative strategies.

**Mentor information:**

Include for each mentor proposed:

* NIH Biosketch
* Mentor Training Table: An existing, but updated, NIH or other type of table may be used but make sure it includes the following information for postdoctoral and/or junior faculty mentees for the last 10 years:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Trainee Name, pre or postdoc | Dates of training | Previous Degree | Institution | Research topic | Current Position and sources of grant support |

**Letters of support (PDFs, no hard copy is required):**

* + Department Chair or Division Chief (the individual who will guarantee your protected time)
	+ All mentors
	+ Two letters from other individuals who can speak to your potential to become an independent investigator

We understand that letters come at different times and writers may prefer to send a letter directly to us. You should include any letters you have at the end of the application (within the single PDF file). Otherwise, letters can go to Kate Matthews (skmatthe@email.unc.edu).

**Submission:**

Assemble the application in a single PDF in the order below. Name the PDF “Lastname\_Firstname K12App2025” and email it to Kate Matthews (skmatthe@email.unc.edu) by the deadline.

**Guidance on external K awards**:

NCATS/NIH does not allow us to appoint scholars with pending K-award applications. You may NOT have an external K award submitted and pending review at the time of submission of the K12 application. It is OK to have a previous K application that was scored prior to the K12 application and not fundable.

**Guidance on Duration of K12 Funding:**

We will fund scholars for a maximum of 3 years.Scholars are reviewed by the program annually and can be removed if adequate progress is not made. **Please note**: To be eligible for a third year of K12 funding, candidates are required to submit an application for an external NIH K award or an R-equivalent grant by the end of their second year in the program

**COVERSHEET**

|  |  |
| --- | --- |
| Name of applicant:  |  |
| Degree(s): |  |
| Are you faculty or postdoc/clinical fellow?  |  |
| Department: |  |
| School: |  |
| If postdoc/clinical fellow, what Dept/School will house your faculty position, and when is your start date? |  |
| Title of Project: (should match current or future IRB or IACUC materials): |  |

Abstract (250 words) Include the research and training aims:

**Mentor Requirements:**

1. **Mentors must come from different disciplines and one mentor must be a clinician.** If you are proposing mentors from the same department, you should describe in the narrative the unique skills each mentor will bring to the research and training.
2. **You must designate ONE Primary Mentor.** A Primary Mentor is directly accountable for Scholar progress and should help the Scholar manage the mentor team.Note: TraCS has a formal partnership with North Carolina A&T University and NC State University (including the College of Veterinary Medicine). Applicants to this K12 may propose faculty from these institutions to be a Primary Mentor, or as part of the mentor team. Faculty from other institutions may only serve as part of the mentoring team. **The Primary Mentor’s letter must explicitly address how the proposed career development activities will support the candidate’s progression toward independent research funding.**
3. **Applicants may propose Advisors who have a more limited role in the research or training.** For example, only involved with one aim. However, Advisors are not required for this K12. **The Primary Mentor must have had mentor training prior to the Scholar’s appointment to the grant.** If a proposed mentor has not received mentor training for biomedical researchers by the time of the application, they can complete the training after Scholar selection and before Scholar appointment.

|  |  |
| --- | --- |
| **PRIMARY Mentor:** |  |
| Department: |  |
| Institution: |  |
| Has this mentor been on the mentoring team for prior institutional or individual K Scholars? |  |
| Has this mentor received mentor training for biomedical researchers? (Yes/No) |  |
| If Yes, please provide the name of the training (e.g., BBSP mentor training) and when? |  |
|  |  |
| **Mentor name #2:** |  |
| Department:  |  |
| Institution: |  |
| Has this mentor been on the mentoring team for prior institutional or individual K Scholars? |  |

**Add additional boxes for ALL Mentors and Advisors**

|  |  |
| --- | --- |
| Applicant email: |  |
| Applicant UNC ONYEN: |  |
| Applicant ORCID ID: |  |
| Applicant ERA Commons ID: |  |
| UNC PID number: |  |
| Are you a US citizen? |  |
| If you are not a citizen, do you have a permanent resident card or have an application pending? (must be approved before we can appoint you to K12 grant) |  |
| What level of support are you seeking? Individuals who are in procedure-focused specialties (i.e. surgery) may propose 50% protected time for training and research but this request must be approved by the NIH prior to final acceptance to the K12. All other applicants are required to have 75% time. |  |
| Requested start date of funding (when you can devote 50 or 75% time to research and training): |  |
| Please list any other currently pending grants (ones that are already submitted) that include salary coverage for you. Provide the date of anticipated review/funding decision. |  |

**Application Narrative**

**A. NIH Biosketch** (updated format dated September 2024 <https://grants.nih.gov/grants/forms/biosketch.htm>)

**B. Curriculum Vitae**

**C. Candidate background & career goals (up to 4 pages): Organize the narrative according to the following subsections:**

C1. Background and Research Training

C2. Career Goals and Objectives

C3.Career Development/Mentoring/Training Plan

In this section, clearly identify your training goals during the K12 program and explain how each goal aligns with your current research project and long-term career objectives. Be specific in describing how the proposed training activities will directly support your transition to becoming an independent researcher. You must also include a table that outlines the timing of each training activity and projected milestones for completion. An example is below. You can modify the format of the table, but you must include a table in the application.

|  |  |  |  |
| --- | --- | --- | --- |
| **Career Development Activity (add rows as needed)** | **Year 1** | **Year 2** | **Year 3** |
|  | Fall | Spring | Fall | Spring | Fall | Spring |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**D. Individual Research Project (maximum 9 pages):**

This project serves as the scholar’s primary research effort. It is expected to generate most or all of the preliminary data needed for a K- or R- equivalent grant submission by the end of the second year of the K12. This plan should address key components such as the significance of the research, the translational science barrier being addressed, the proposed approach, feasibility, statistical power, and potential problems along with alternative strategies.

Organize this section according to the following subsections:

* + 1. Specific Aims (maximum 1 page)
		2. Research Strategy (maximum 8 pages):
			- Significance: Describe the importance of the problem, how it will advance the field, and the potential impact of your research.
			- Innovation: Explain how your research challenges existing paradigms or develops novel technologies or approaches.
			- Approach: Detail the experiments you will conduct to achieve each aim organized around those aims. Include your rationale for the hypothesis, expected outcomes, and alternative approaches.

In addition to the narrative organized by Significance, Innovation, and Approach, you must include a table of projected research milestones and planned future grant submissions (see example below).

|  |  |  |  |
| --- | --- | --- | --- |
| **Projected Research Milestones (add rows as needed)** | **Year 1** | **Year 2** | **Year 3** |
|  | Fall | Spring | Fall | Spring | Fall | Spring |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**E. Mentored Research Project (maximum 1 page):**

This project should be a small, self-contained study conducted during the first year of the K12. This project is designed to support specific skill development and should leverage existing data or samples available through the mentor. While it should complement the Individual Research Project (described above), it does not need to be identical in scope or focus. The Mentored Research Project should be described in one page or less and must include a clearly defined research question, a description of the data or samples to be used, and a projected timeline for completion and publication.

**F. The vision of NCATS is: “More Treatments, All People, More Quickly.” Please describe the** Translational Science Barrier or Problem that is the focus of the research in this application (1 paragraph or less) and **how the research and/or training in this application was designed to address the NCATS vision for “All People” to make research products more generalizable and accessible to a wider population (maximum 1 page).** Depending on the type of research and methods you propose, this may include: development of “platform” technologies or methods, targeting what is common across diseases, engagement of a wider range of stakeholders, potential research participants, or testing a process that would improve efficiency.

**G. Resources available for the Research only if you are using resources that are not at UNC (maximum 1 page)**