



## CTSC MASTER'S DEGREE IN CLINICAL & TRANSLATIONAL INVESTIGATION

### Request for Applications

**DUE BY 5PM ON WEDNESDAY, MARCH 20, 2024**

*Courses Begin in September 2024*

[CLICK TO INITIATE APPLICATION](#)

[View Eligibility Requirements and Application Instructions](#)

The CTSC Master's Degree Program is comprised of a didactic curriculum of [core](#) and [elective](#) courses and a mentored clinical research project. During the first year, trainees work with their mentors to develop and refine their research project. In the second year and third year (if needed), trainees will utilize the skills acquired from the didactic curriculum to conduct their research project, **at 75% time and effort (50% minimum for surgeons and other specific clinical specialties)**.

Research projects must have a translational or clinical research focus. Pre-clinical studies should have *near-term potential to translate into patient-oriented research*. Emphasis is placed on precision medicine, drug discovery, targeted therapeutics, biomarkers, device development and novel technologies, LGBTI health needs, underserved populations, community health outcomes, pediatric and women's health studies, life course studies of diseases, and studies incorporating biostatistical methodologies and design.

*The mission of the Weill Cornell Medicine Clinical Translational Science Center (WCM CTSC) is to rapidly advance translational science discovery with the ultimate goal of getting more treatments to all patients more quickly. To achieve this mission, the CTSC Education Program (CTEP) aims to educate and train a diverse and empowered group of clinical and translational scientists who are prepared to advance translational science discovery to practice, thereby improving health and enhancing the quality of life by reducing disability and death from disease. The WCM CTSC is committed to ensuring that the translational science workforce is broadly representative across racial, ethnic, sex, gender, age, socioeconomic, geographic and disability status (See [NIH's Interest in Diversity Statement](#)). We seek students who represent and embody the wide range of lived experiences and backgrounds of the US population.*

*The goal of the Clinical & Translational Education Program (CTEP) is to educate and train highly motivated individuals to become successful, independent clinical and translational (C/T) investigators with a strong foundation in the knowledge and practical skills necessary to conduct C/T team research across disciplines and institutions.*

**What is Translational Science?** Translational Science is the field of investigations that focus on turning observations in the laboratory, clinic, and community into interventions that improve the health of individuals and the public—from prevention to diagnostics and therapeutics as well as medical procedures and behavioral changes. Read more about the stages of translational science [here](#).

### PROGRAM REQUIREMENTS

- 75% time and effort (50% for surgeons) devoted to performing and completing a mentored clinical & translational research project during the training period
- Presentation of the mentored research project at a CTSC Research in Progress Luncheon
- 30 credits of didactic curriculum (22 Core and 8 Elective)
- A grant submitted to the NIH or other funding agency requiring peer-reviewed funding with the trainee as the Principal Investigator, or a first author article submitted to a high-quality, peer-reviewed, scientific journal

- A presentation of the mentored research project at a local, national, or international scientific conference
- A presentation of the mentored research project at a Research-in-Progress networking lunch
- Master's Degree Thesis (Written Thesis and Oral Presentation)

#### **REVIEW CRITERIA**

Upon submission to the online application module [ePAR](#), your application will undergo review based on [several Application Review Criteria](#).

#### **APPLICATION PROCESS & TIMELINE**

**Applications are due by 5pm on Wednesday, March 20, 2024.** Candidates will be notified by **June 2024** of their applications final disposition. At that time, if selected, the applicant will complete additional required enrollment, regulatory, and compliance documents within 30 days.

Questions? See [CTEP FAQs](#), or email [CTSC-Education@med.cornell.edu](mailto:CTSC-Education@med.cornell.edu)



**Weill Cornell  
Medicine**

**Clinical & Translational  
Science Center**

## Clinical & Translational Science Center

A Weill Cornell Medical College Multi-Institutional Consortium with:

Weill Cornell Graduate School of Medical Sciences / New York Presbyterian Hospital / Cornell University, Ithaca / Cornell University Cooperative Extension, New York City / Memorial Sloan-Kettering Cancer Center / Hospital for Special Surgery / Hunter College of the City University of New York / Hunter-Bellevue School of Nursing / Hunter School of Urban Public Health / Hunter Center for Translational and Basic Research / Animal Medical Center and Cornell College of Veterinary Medicine

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# CTSC MASTER'S DEGREE IN CLINICAL & TRANSLATIONAL INVESTIGATION

## ELIGIBILITY REQUIREMENTS

*Applications must comply with eligibility and submission requirements*

*Documents or information that are missing or incomplete will disqualify application for review*

### **Program Eligibility - All Candidates**

Must be a **US Citizen, Non-Citizen National, or Permanent Resident** (residency status must be met at time of application; proof of residency status required in order to be appointed)

Must have the ability to devote full-time **75% effort** (50% for surgeons) to the MSCTI

Must have **primary appointment** or be **employed** at a **Weill Cornell CTSC partner institution**

Only 2 resubmissions are allowed by an individual applicant (whether or not the projects are different)

Medical students and Medical Doctors (**MDs**), **MD/PhDs**, senior residents, fellows

Veterinarians (**DVM**), Osteopaths (**DO**), Dentists (**DDS, DMD**), or Physical Therapists (**DPT**)

**Post-doctoral PhDs** seeking a career in clinical and translational research

Faculty members from any of the **partnering Weill Cornell CTSC institutions**

**PhD** candidates in Nursing School, those with Bachelor of Science in Nursing (**BSN**), Master of Science in Nursing (**MSN**), and Doctorate of Science in Nursing (**DNS**) degrees

Certified Physicians' Assistants and Clinical Research Project Coordinators/Aides with a bachelor's degree

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| <p><b>institutions</b> and from <b>different disciplines</b>. NIH definition of different disciplines will have priority (areas <u>outside</u> biology, e.g., computer science, imaging, chemistry, mathematics, informatics, engineering, behavioral science, health services/ outcomes research, and biostatistics). A mentor's institution will be determined by their primary appointment.</p> |  |
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|---|--------------------------|
| <b>Biographical Sketches</b>  | <b>Completed</b>         |
| Upload individual MS Word files for the applicant and mentors; <a href="#">current NIH Biosketch format</a> is required.  | <input type="checkbox"/> |
| <b>Supporting Documents – Please Upload Attachments as individual PDF files.</b>  | <b>Completed</b>         |
| <p><b>Research Proposal:</b> Projects must have a translational or clinical research focus. Pre-clinical studies should have near-term potential to translate into patient-oriented research. Clinical Trials (phases I or II) are permitted. Emphasis is placed on drug discovery, targeted therapeutics, biomarker or device development and novel technologies; projects focusing on health needs of LGBTI and underserved populations and/or directly impacting health outcomes in the community; pediatric and women's health studies; life course studies of disease; and studies incorporating biostatistical methodologies and design. Limited to <b>3 single-spaced</b> pages (at least ½ inch margins, no smaller than 11pt Arial font) to include:</p> <ul style="list-style-type: none"> <li>• Hypothesis and specific aims</li> <li>• Scientific background for the study, citing appropriate references of work in the area by the investigator(s) and others</li> <li>• Research Plan (research team to be involved, experimental design, methods, statistics, timeline, innovation, human subjects and animal issues, if applicable)</li> <li>• References and supporting tables, figures, (2-3 additional pages are allowed)</li> <li>• First Name, Last Name in the upper left-hand corner</li> </ul> | <input type="checkbox"/> |
| <b>Career Statement</b> (1 page or less) – Discuss short and long-term goals, how this award would impact your career & professional development. Include your First Name, Last Name in the upper left hand corner.   | <input type="checkbox"/> |
| <p><b>Letters</b> - address to the Admissions Committee, on departmental letterhead, sign, and send from the department to <a href="mailto:ctsc-education@med.cornell.edu">ctsc-education@med.cornell.edu</a> with candidate's name in the subject header.</p> <p>a. <b>Department Chair/Division Chief Letter:</b> must state a guarantee of 75% protected time &amp; effort (50% for surgeons).</p> <p>b. <b>Mentors Letters:</b> Required from all mentors and the designated primary mentor's letter must include a <a href="#">mentoring plan</a> (click link for instructions).</p>   | <input type="checkbox"/> |
| <p><b>Transcripts and Test Scores</b> – Upload digital copies of test scores and transcripts with application submission. Upon program acceptance, official documents will be required in hardcopy. Test scores include: Upload MCAT scores if applicable. GREs are optional.. Transcripts from Undergraduate, graduate and/or medical school.</p>  | <input type="checkbox"/> |
| <p><b>Non-Refundable Application Processing Fee (\$175):</b> A non-refundable Application Processing Fee of \$175 payable by a departmental account or by PayPal must accompany all applications. Please contact <a href="mailto:ctsc-education@med.cornell.edu">ctsc-education@med.cornell.edu</a> to set up a departmental transfer. For PayPal, please use the link below to pay the application fee: <a href="https://www.paypal.com/cgi-bin/webscr?cmd=_s-xclick&amp;hosted_button_id=963CRYNF9QTVA">https://www.paypal.com/cgi-bin/webscr?cmd=_s-xclick&amp;hosted_button_id=963CRYNF9QTVA</a>. Once you have successfully completed the payment, please upload a photo of the receipt to your WebCAMP application as proof of payment.</p> <p><b>*Medical/Graduate students, please email <a href="mailto:ctsc-education@med.cornell.edu">ctsc-education@med.cornell.edu</a> <u>before</u> proceeding to make payment.*</b></p>  | <input type="checkbox"/> |
| <b>How to Submit Your Application</b>   |                          |
| <p>1. Return to the <b>Application Status Page</b> (link in the upper left-hand side of the page), click on the blue <b>Submit Application</b> button.</p> <p>2. If you do not see the <b>Submit Application</b>, please click the <b>Run Detailed Completeness Check</b> link to display items missing, or incomplete.</p>   |                          |

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### **MENTORING PLAN INSTRUCTIONS:**

*(Each mentor's letter not to exceed 3 pages, excluding table of current and past trainees)*

Please provide a detailed mentoring plan for the Candidate that describes the approaches to be used such as frequency of one-on-one and group meeting; oral scientific presentations; instruction on how to critically evaluate the literature and experimental design; training in scientific writing (e.g., grant proposal preparation, manuscripts, and abstracts); designing experiments, etc.

Plans to enhance the candidate's research capabilities should include:

1. Describe how the Candidate will be supported and guaranteed protected time, and how it will be ensured that the project is completed in a timely manner
2. Specific skills to be acquired during the mentoring experience
3. Milestones that will be reached during the mentoring experience (e.g., acquisition of preliminary data, new research skills, presentation of research findings at local/national meetings, and publications)
4. Opportunities to interact with research team; The role of other investigators who will contribute to the research mentoring should be described in the application
5. The mentoring plan must include instruction in the ethical conduct of research (including training in animal and human subjects' protection, if applicable)
6. A plan to acquire presentation and publication skills, and presentation of at least one poster or oral presentation at a national or international scientific meeting during the award period
7. A plan on how opportunities will be provided for the Candidate to participate in writing and publishing scientific papers
8. Describe any planned outside laboratory experiences or collaborations for the Candidate
9. How this experience will help the candidate move toward achieving her/his stated career goals
10. Mentors and candidate must provide a projected timeline delineating specific research milestones and other activities that will be undertaken to secure independent research funding (i.e., anticipated publications, training in grantsmanship, timeframe for grant submissions and type of independent research support the candidate seeks)
11. Mentors should provide evidence of mentoring experience and success. Please provide a table containing: (1) Current Trainees, (2) Past Trainees ( $\leq 10$  years). For each of the individuals listed, please provide their current positions and name of institution, outcomes of the prior trainees. Describe how these prior mentoring experiences influenced the development/mentorship plan proposed for the current candidate

[Reference NHLBI \(7.1.8. MENTORING PLAN\)](#)



## CTSC MASTER'S DEGREE IN CLINICAL & TRANSLATIONAL INVESTIGATION APPLICATION REVIEW CRITERIA

Similar to the NIH process, each proposal is carefully reviewed by at least two independent evaluators for scientific merit based on translational focus and significance. The following criteria are taken into consideration:

- ✓ **Overall Impact Score** - Reviewers should provide their assessment of the likelihood that the proposed career development and research plan will enhance the candidate's potential for a productive, independent scientific research career in a health-related field, taking into consideration the criteria below in determining the overall impact score.
- ✓ **Candidate:** Does the candidate have the potential to develop to be an independent and productive researcher? Is the candidate's prior training and research experience appropriate for the proposed project? Is the candidate's academic, clinical (if relevant), and research record of high quality? Is there evidence of the candidate's commitment to meeting the program objectives to become an independent investigator in research? Do the letters of reference address the above review criteria, and do they provide evidence that the candidate has a high potential for becoming an independent investigator?
- ✓ **Career Development Plan/Career Goals & Objectives** - What is the likelihood that the plan (the award) will contribute substantially to the scientific development of the candidate and lead to scientific independence?
- ✓ **Research Proposal** - Is there a strong scientific premise for the project? Are the proposed research question, design, and methodology of significant scientific and technical merit? Has the candidate presented strategies to ensure a robust and unbiased **approach**, as appropriate for the work proposed? Is the research plan of high quality, and does it have potential for advancing the field of study with **innovation**? Is the scientific and technical merit of the proposed research plan of **significance**? Will the proposed research lead to an independent line of research for the candidate?
- ✓ **Mentors and Mentoring Plan** - At least 2 mentors are required. Primary and Secondary mentors must be from CTSC partner institutions. Additional mentors may be from any institution. Are the qualifications of the mentor(s) in the area of the proposed research appropriate? Does the mentor(s) adequately address the candidate's potential and his/her strengths and areas needing improvement? Is there adequate description of the mentor's proposed role in providing guidance and advice to the candidate? Is there evidence of the mentors' current research productivity and peer-reviewed support? Is there evidence of the mentors' active/pending research funding? Do the letters from mentors document their willingness to participate in the award program? Is the proposed Mentoring plan likely to contribute substantially to the scientific and professional development of the candidate, and facilitate his/her successful transition to independence? (see [Instructions for Mentoring Plan](#))
- ✓ **Environment & Departmental Commitment:** Is there a strong statement of commitment by the department to the levels of effort required to devote directly to the research and career development



activities described in the application? Is the environment for scientific and professional development of the candidate of high quality? Is there assurance that the department intends the candidate to be an integral part of its research program as an independent investigator?

**The following areas receive additional priorities for their special relevance to the CTSC mission:**

- **Translational and Clinical Research Focus** – Projects aimed at improving research methods and/or incubating novel technologies to accelerate multidisciplinary clinical and translational research.
- **Pre-clinical studies** should have near-term potential to translate into patient- oriented research, and clinical trials (phases I or II) are permitted.
- **Emphasis is placed on:**
  - Drug discovery, targeted therapeutics, biomarker or device development and novel technologies
  - **Comparative effectiveness and health disparities research** - Projects focusing on health needs of underserved and special populations such as children, the elderly, vulnerable, and disabled populations, and LGBTI communities, and/or directly impacting health outcomes in the community, as well as health disparities research
  - **Pediatric and Women’s Health Studies**
  - **Life course studies of disease**
  - Studies incorporating **Biostatistical Methodology and Design**

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