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 / Cornell College of Veterinary Medicine

1300 York Ave, Box 149, New York, NY 10065 • Tel: 646-962-8302 • Fax: 646-962-0534 • www.med.cornell.edu/ctsc

2024 CTSC Career Enhancement Application

The Clinical and Translational Education Program (CTEP) offers the Career Enhancement (CE) track to allow enrollment in specific didactic clinical and translational investigation courses to fulfill applicants' self-identified educational needs. When enrolling in this track, you will earn course credit and have a grade recorded on an official WCGS transcript. You are expected to have at least an 80% attendance rate and fulfill all course requirements. **We do not allow trainees to audit courses**.

Trainees who wish to pursue additional training may do so once matriculated into either the Advanced Certificate or Master's Degree in Clinical and Translational Investigation Programs. Please note, failing to complete coursework or withdrawing from a course without giving written notification to the CTSC Education Program office will result in a grade of 'F' on your academic transcript and ineligibility for registration the following semester.

TO START YOUR APPLICATION PROCESS, SELECT THE LINK BELOW

Initiate a Notification of Intent

Then, to complete your submission please login to the Electronic Protocol Authoring and Review System (ePAR) and refer to the Application Instructions and checklist below

1. Trainee Application Form • **Click on** your current citizenship status to proceed. • Personnel and demographic information. Valid institutional or employer issued email is required. • **Please complete the impact question:** briefly discuss why you wish to enroll as a non-matriculated, CE trainee, and how this opportunity would impact your career development, and if applicable, clinical & translational research goals. **2. Course(s) Requested –** check the "Requested?" Box, click on the "Details of Request" link, click on [add/remove] to make your course selection. ○ Use the **Search** tool to find and select the course(s) you wish to enroll. ○ Finalize your request by checking the "This request is finalized" box. **Note:** CE trainees may enroll for a maximum of 6 core course credits. **Enrollment in courses selected is not guaranteed and must be approved by the CTSC Education Program.**	☐ ☐
3. Required Supporting Documents: Upload as individual PDF files in the order indicated below. ○ **Weill Cornell Graduate School (WCGS) Non-Degree Form:** Click on the [More info] link, copy, paste Qualtrics link into your browser. Fill out survey. Once survey is completed, save response as a PDF, upload into Supporting Documents. ○ **Career Enhancement Enrollment Contract:** Upload the signed and dated downloadable document as a pdf.	☐ ☐
4. Non-Refundable $175 application processing fee. Payable by Paypal.	☐

Questions? Email: ctsc-education@med.cornell.edu

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Clinical & Translational Investigation Education Program
Fall 2023 Career Enhancement Course Offerings

Core Courses	Instructor (s)	Type	Credits	Dates	Days (Times)	Location
Introduction to Biostatistics in Clinical Research **(CTIV 5019)** **Deadline: 08/02/2024**	Christos	Core	2	Start date: 9/3/2024 End date: 12/3/2024	Tuesdays 4:15p – 6:00p Wednesdays 10/23 & 11/20 4:15p-6:00p	FULLY REMOTE Zoom TBA
Foundations of Clinical Research (**CTIV 5012**) **Deadline: 08/02/2024**	Mushlin	Core	3	Start: 9/4/2024 End: 12/12/2024 **No Class:** 10/3, 11/28	Wednesday 9/4 3:45p-5:15p Mondays & Thursdays 9/9-12/9 3:45 – 5:15pm	Room TBA
Molecular Biology & Genetics for Clinical and Translational Research (**CTIV 5022**) **Deadline: 08/02/2024**	Zhu	Core	3	Start: 9/6/2024 End: 12/13/2024 **No Class:** 10/4, 10/11, 11/29	Wednesdays 9/18, 10/9 & 12/11 3:30p-5:00p Fridays 3:30 – 5:00pm	Room TBA
Genomics Workshop **(CTIV 5014)** **Deadline: 08/02/2024**	Xiang	Elective	1	Start: 9/04/2024 End: 10/23/2024	Wednesdays 3:45p – 5:15p **10/2: 1:30p-3p**	FULLY REMOTE Zoom TBA
Introduction to R-Programming **(CTIV 5053)** **Deadline: 08/02/2024**	Thomas	Elective	1	Start: 9/16/2024 End Date: 10/21/2024	Mondays 3:30p – 5:35p	Room TBA
Advanced Seminars in Ethics of Clinical Research **(CTIV 5001)** **Deadline: 08/02/2024**	de Melo-Martin	Elective	1	Start: 9/24/2024 End: 10/29/2024	Tuesdays 3:15p – 5:15p	Room TBA
Science of Team Science **(CTIV 5049)** **Deadline: 09/06/2024**	Bales	Elective	1	Start: 10/28/2024 End: 12/02/2024	Mondays 3:45p – 5:15p	Room TBA

Course Descriptions

Introduction to Biostatistics in Clinical Research: This course is an introduction to the fundamental statistical issues in the design of clinical research studies. Its primary emphasis is on understanding the design and analytic methods of clinical research from a statistical perspective. Lectures and discussions will focus on the following: exploratory data analysis; basic concepts of statistical analysis; construction of hypothesis tests and confidence intervals; the development of statistical methods for analyzing data; development of mathematical models used to relate a response variable to explanatory or descriptive variables; and an introduction to statistical analysis of microarray and genomic studies.

Foundations of Clinical Research: The goal of this course is to provide an overview of the methodological foundations and study designs for research involving human subjects. While gaining an understanding of core epidemiological concepts and methods to investigate clinical interventions, students will develop the skills needed to prioritize, select and plan a clinical research project.

Molecular Biology & Genetics for Clinical and Translational Research: This course will focus on experimental strategies used by biomedical scientists to understand both normal and pathophysiological processes. Lecture topics will cover biochemical, cellular, molecular, immunological, genetic, and bioinformatic approaches. The goal of the course is to equip students with the fundamental knowledge needed to develop independent patient and translational research proposals, and to critically evaluate the work of others.

Genomics Workshop: This course is designed to give the students a detailed overview of current genomics technologies and their applications in the biomedical field. The primary objectives are for the students to become familiar with the key concepts, general methodologies and experimental design of the technology, and to acquire the ability to interpret genomics data and design their own research experiments. The course will cover the experimental design, data analysis and interpretation of the next-generation sequencing data and will be delivered through a combination of lectures and tutorial.

Introduction to R programming: This course is for students seeking to gain beginner-level skills in data structures, data manipulation, generating descriptive statistics, and data visualization in the R programming language and environment. Base R as well as tidyverse R coding will be covered. Previous experience with a programming language is not necessary. Applications of skills learned in this course are geared towards clinical research, but these skills are transferrable to many projects outside the scope. Prerequisites: No prior programming experience required, but some familiarity working with data in clinical research is useful.

Advanced Seminars in Ethics of Clinical Research: Scientific research influences all of us in various ways. Scientific knowledge transforms our lives and our societies in positive and negative ways. Science informs public policies that affect communities. A scientifically informed public is essential to well-functioning democracies. Moreover, some of us become research subjects and are yet affected by scientific research in even more intimate ways. Scientific research thus raises a variety of ethical challenges. This course explores some of these issues from a philosophical point of view. We will consider broad questions about the role of values in science, scientists' ethical obligations, and researchers' accountability for the societal impacts of scientific research. Our focus will be the biomedical sciences.

Science of Team Science: This course provides students with an overview of the research field of the Science of Team Science, with a focus on the knowledge and skills that support effective scientific collaboration. Topics include identifying collaborators, working with individuals from different disciplines, conflict prevention and management, negotiating funding and co-authorship, and evidence-based strategies for effective team leadership. The course covers considerations for working with geographically distributed collaborators, including the use of tools and technologies to support remote collaboration. Students also gain practical working knowledge of three core methodological frameworks employed in the Science of Team Science: bibliometrics, research impact assessment, and social network analysis.