

Clinical Research Training at the NIH Clinical Center



Yesterday

- Historically, clinical researchers frequently learned how to conduct clinical research by “doing” coupled with informal training by mentors and other colleagues. In addition, translational research, embracing the bench-to-the bedside concept and team science emerged as key components of the NIH and Clinical Center missions.
- Several recommendations in the 2004 NIH Director’s Blue Ribbon Panel on the Future of Intramural Clinical Research focused on the NIH Clinical Center’s (CC) role in improving the conduct of clinical research by providing education in the discipline.
- Re-engineering the clinical research enterprise was one of the NIH Roadmap of Medical Research’s (now Common Fund) (<http://commonfund.nih.gov/>) key elements because there is an absolute need to safely, efficiently, and effectively translate medical research into medical practice. Clinical research—especially translational clinical research—is the critical link.

Today

- Training clinical and translational researchers—and building a national infrastructure of training in the field—is a top priority and part of our mission at the NIH CC.
- Clinical research and medical advancement depend on having enough investigators who are prepared to effectively translate promising discoveries in the laboratory to improve health and save lives.
- Clinical research is an increasingly complex enterprise, and clinical researchers in all disciplines are in short supply. The NIH CC is a unique hospital that facilitates both basic and clinical research in one location. This offers a breadth of experience and training not available elsewhere.
- The CC’s Office of Clinical Research Training and Medical Education develops, administers and evaluates clinical research training and medical

education initiatives. Programs and services are available on the NIH campus in Bethesda, Maryland and to the clinical research community worldwide through distance-learning techniques.

- Clinical research training courses are offered free of charge for interested researchers and professionals at the NIH and at remote sites with a total of nearly 18,000 students trained since 1995.
- Included in the formal training is a curriculum in clinical research with three core courses: Introduction to the Principles and Practice of Clinical Research, Principles of Clinical Pharmacology, and Ethical and Regulatory Aspects of Clinical Research. A Master’s degree of Health Sciences in Clinical Research is offered in collaboration with Duke University School of Medicine.
- Because it is important to expose young investigators to clinical research early in their careers, the NIH CC hosts the annual Clinical Investigator Student Trainee Forum. It provides an intensive educational experience for medical and dental students who have taken a year out from their regular schedule to participate in mentored research programs at NIH and other medical centers nationally. The forum augments the students’ training programs by helping the students prepare for careers in clinical and translational research. In 2009, approximately 260 medical and dental students from 70 U.S. schools participated in the forum.
- The Clinical Center launched a new program in 2009 called the Sabbatical in Clinical Research Management which brings experienced investigators to the NIH to learn about management of a clinical research enterprise. The four participants who have completed the pilot program experienced an array of electives including “Protocol Writing & Tracking” and “Scientific Review.”
- With the increased use of technology and new media, the NIH CC uses innovative outreach techniques, combined with traditional campaigns. Keeping our

program alumni engaged and connected is also a priority.

- Public-Private Partnerships play an important role in the success of the NIH CC's clinical research training initiatives. For example, the Foundation for the National Institutes of Health seeks support from the private sector for NIH CC programs, such as the Clinical Research Training Program for Medical and Dental Students and the "Principles of Clinical Pharmacology" course.
- CC Nursing and Patient Care Services staff support clinical research training for nurses at all levels of career development from student nurses through pre- and post-doctoral fellowships. Education and outreach efforts include national and international collaborations with several NIH institutes. CC nurses also provide multiple opportunities for clinical research training in the form of graduate and undergraduate student clinical placement, new nurse internship training and shadow experiences for those considering research nursing.
- A grant from the National Institute of Minority Health and Health Disparities (NIMHD) supported collaboration by CC nurses with the Indian Health Service on a project that uses outreach education, online collaboration and long distance mentoring to build a collaborative research program to address health disparities and incorporate evidence into nursing care for American Indians and Alaskan Natives.
- CC nurses provide advice and consultation nationally and internationally to facilitate the management of clinical research. Topics include intensity measurement, clinical research competency measurement, outreach strategies to involve minority communities in research and operational consultation for the development of clinical research centers.

Tomorrow

- As the promise of medical discovery expands, so does the demand for a scientific workforce capable of exploring new options and approaches. The NIH CC embraces this challenge and continuously looks for innovative ways to address training needs.

- The NIH CC will continue to offer options for clinical research training to investigators at every stage of their careers.
- Partnerships and collaborations will continue to flourish as the NIH CC is further established as a national resource and the gold standard for clinical research training and careers in clinical and translational research.
- CC nurses have completed a four-year strategic plan to define the specialty of Clinical Research Nursing and to collaborate with nursing leaders from throughout the national clinical research enterprise in establishing standards, competencies and a core curriculum. The outputs from this four-year project will be disseminated to the clinical research community via a national conference in Fall 2010, and through a broad network of communications and outreach activities in 2011 and beyond.

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Clinical Center website: <http://www.cc.nih.gov/>

Clinical Center Training Homepage: <http://www.cc.nih.gov/training>