



# INTRODUCTION TO CLINICAL RESEARCH TRAINING

HARVARD MEDICAL SCHOOL

ICRT

The Harvard Medical School  
Introduction to Clinical  
Research Training Program

2015-2016





## HMS MISSION

To create and nurture a diverse community of the best people committed to leadership in alleviating human suffering caused by disease.



## DEAN'S MESSAGE

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The Harvard Medical School Introduction to Clinical Research Training (ICRT) program is a tremendous opportunity for those interested in a skills-based primer focused on modern clinical research. This intensive program is ideal for healthcare professionals launching a clinical research career who need the knowledge and skills to successfully tackle clinical projects in their local research environment. Similarly, those wishing to improve their ability to synthesize and interpret the increasingly complicated medical literature will find this program to be an invaluable experience.

The ICRT program utilizes an innovative, blended-learning approach. Two face-to-face workshops, each three days in length, flank the six-month core curriculum, combining traditional live teaching methods with online instruction, team projects and interactive webinars. This unique mix of individual and cooperative learning provides each student with strong critical thinking skills, while also exposing them to the challenges and opportunities of collaborative research efforts.

Over the last century, remarkable advances have been made in the prevention and treatment of human disease. Superbly trained physician-scientists have been at the heart of these efforts. The ICRT program aims to foster further advancement by bringing this unique training to the next generation of leaders, providing an unparalleled foundational program from which participants can launch an exciting and rewarding research career.



**David H. Roberts, MD**  
Dean for External Education  
Harvard Medical School

## ABOUT THE PROGRAM

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The ability to perform, interpret and discuss clinical research are essential attributes for the modern healthcare professional. The Introduction to Clinical Research Training (ICRT) program is specifically designed to meet these needs and will provide outstanding training in the core competencies required to perform human investigation.

The ICRT programs blended-learning style harnesses the immense power of interactive web-based learning and combines it with face-to-face, team- and individual-based teaching methods. All instructional materials are prerecorded and available online, making this a truly global and continuously available virtual classroom. The program begins and ends with a three-day workshop, where students will interact with Harvard-based faculty and learn the art of critical thinking and problem-solving. The intervening curriculum is comprised of approximately 38 lectures, 17 webinars and team projects. Ongoing assessment occurs throughout the course and culminates with a final examination. Core subject matter includes modules in epidemiology, biostatistics, study design, ethics in research, evidence-based medicine and communicating scientific research.

Graduates of the ICRT program will:

- Receive a Certificate of Completion from Harvard Medical School
- Have forged new collaborations with peers
- Be equipped with the skills to launch a successful and fruitful research career

Learn more about the ICRT program on the Web at [www.hms.harvard.edu/icrt](http://www.hms.harvard.edu/icrt).

### **Kenneth B. Christopher, MD**

Director, ICRT Program  
Assistant Program Director  
Medicine Residency Program  
Brigham and Women's Hospital  
Instructor in Medicine  
Harvard Medical School







## KEY FEATURES

- Senior faculty from Harvard Medical School and other leading academic institutions
- Blended approach of online and interactive teaching
- Team-based learning
- 24/7 access to online learning material

## OVERALL STRUCTURE

- Approximately 38 Online Lectures covering core topics in clinical research
- 17 Interactive Webinars designed to expand lecture topics and to promote critical thinking and problem-solving
- Two skills-based workshops—The workshops offer a mix of didactic and practical exercises and are designed to promote collaborations and team approaches to solving research problems.
- Biostatistical Computing—This course uses Stata statistical software; support for the software is provided by faculty and staff.



## PROGRAM CONTENT

The initial modules of this program will introduce the basic principles of epidemiology and biostatistics, including: disease (outcome) measures; measures of association; study design options; bias; confounding and effect modification; how to organize, summarize and display quantitative data; measures of variability and confidence intervals; and interpreting tests of significance. Instruction is provided in basic

use of statistical software (Stata) to complement these topics. Subsequent modules will cover the elements of study design, research ethics, evidence-based medicine and coaching in the interpretation and effective communication of scientific research. Special lecture topics include sessions on management, leadership and mentoring, thereby priming students with critical advice for career development and progression.

### PROGRAM OBJECTIVES

#### AT THE COMPLETION OF THE ICRT PROGRAM, STUDENTS WILL BE ABLE TO:

- Understand the core concepts of biostatistics and epidemiology pertaining to clinical research
- Develop a research question and formulate a testable hypothesis
- Write an organized and structured research manuscript
- Critically evaluate the medical literature
- Perform basic statistical analyses using Stata software





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*The ICRT program is uniquely tailored to the needs of the early career investigator. The blended educational approach allows students to access state-of-the-art instruction anywhere in the world at a time and location convenient to their individual needs. Graduates of this program will be equipped with a strong foundation in core clinical research methodology, providing a basis upon which to launch an investigative career or pursue advanced research training.*

**Ajay K. Singh, MBBS, FRCP (UK), MBA**  
Director, Office of Global and Continuing Education  
Harvard Medical School

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*A strong knowledge of the core skills involved in human investigation is essential for a productive clinical research career. The blended learning methods of the ICRT program provide a unique opportunity to begin developing these capabilities and to forge collaborations around the world.*

**Heather J. Baer, ScD**  
Assistant Professor of Medicine, Harvard Medical School  
Assistant Professor of Epidemiology, Harvard School of Public Health

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*The core training in human investigation that the ICRT program delivers will allow students to critically assess the needs of their local research environment, pose clinically-relevant research questions, formulate testable hypotheses and design robust clinical studies. Similarly, those who devote the majority of their time to caring for patients will benefit immensely from learning how to dissect and interpret the medical literature most relevant to their individual patients.*

**Salmaan Keshavjee, MD, PhD**  
Associate Professor of Global Health and Social Medicine  
Harvard Medical School

## SCHOLARSHIPS

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There are a limited number of partial scholarships available. The scholarship application deadline is October 5, 2015 at 12:00 p.m. EDT.

### DUBAI HARVARD FOUNDATION FOR MEDICAL RESEARCH (DHFMR) SCHOLARSHIPS

DHFMR offers a limited number of partial scholarships to selected candidates. Priority is given to candidates from the United Arab Emirates (UAE), but candidates from the Gulf Cooperation Council (GCC) and Middle East and North Africa (MENA) regions, regardless of nationality, will also be considered. These scholarships are awarded on a basis of merit and need.

### DUBAI HEALTH AUTHORITY (DHA) SCHOLARSHIPS

DHA provides a limited number of full and partial scholarships to the DHA staff and affiliates and to individuals working in DHA hospitals and institutions.

### ABU DHABI HEALTH SERVICES COMPANY (SEHA) SCHOLARSHIPS

SEHA provides a limited number of full scholarships to the SEHA staff and affiliates and to individuals working in SEHA hospitals and institutions.

## WORKSHOP DATES AND LOCATIONS

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The program curriculum includes two residential workshop-style courses, comprised of a mix of didactic and practical exercises. There is a bonus mini-workshop titled “Introduction to American Medicine” immediately following the second workshop. The two workshops will take place in the UAE, Sunday, December 6 – Tuesday, December 8, 2015, and Sunday, May 15 – Tuesday, May 17, 2016.



Finnian R. Mc Causland,  
MBBCh, MMSc  
Associate Director  
Office of Global Education  
Harvard Medical School  
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*The Introduction to American Medicine workshop will provide unique insights and information for those considering further medical training in the United States. Students will learn what residency and fellowship programs examine and expect from successful foreign medical graduates.*



## ICRT ADMINISTRATION

**Kenneth B. Christopher, MD**  
Director of ICRT Program  
Office of Global Education

**AJAY K. SINGH, MBBS,  
FRCP (UK), MBA**  
Associate Dean for Global Education  
Harvard Medical School

**ROBIN J. WHEATLEY, MA**  
Director of Administration

**RACHEL LUND, EdM**  
Education Manager

**JASMIN MEHOVIC, MA**  
Senior Program Manager

## APPLICATION INFORMATION

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### ELIGIBILITY REQUIREMENTS

Applicants for the ICRT program must have an MD, PhD, MBBS, DMD, DDS, PharmD, DNP, or equivalent degree.

APPLICATIONS ARE ACCEPTED FROM JULY 1, 2015 TO NOVEMBER 2, 2015

**Application and registration information is available on the Web at [hms.harvard.edu/icrt](http://hms.harvard.edu/icrt).**

## TUITION AND REGISTRATION

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Tuition for the ICRT program is US \$6,000.

**The final registration for accepted applications is November 2, 2015.**

All applicants must complete and submit the application form and all the required supporting documents in order to be considered for admission. Tuition includes fees for the two workshops and all three modules. Fees do not include books, supplies, software, or travel and accommodation expenses.

## CONTACT INFORMATION

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