Many people can recall a time when heart disease went largely undiagnosed and there was virtually no treatment for heart attacks. Interventional cardiovascular medicine has transformed this once grim outlook. The Cardiovascular Research Foundation’s (CRF’s) evidence-based research, innovative technologies, and committed clinicians have united to advance a subspecialty that has had a vast impact on public health—saving lives and allowing countless numbers of patients to avoid surgery.

CRF is a global leader at the forefront of today’s treatments and technologies in the fight against heart disease. Since its inception in 1991, CRF has played a pivotal role in advancing the understanding and treatment of cardiovascular disease, realizing dramatic improvements by establishing the safe use of new technologies, drugs, and therapies. Guided by visionary physicians who are passionate about advancing the field, our mission is to improve the survival and quality of life for those suffering from heart disease.

CRF’s role is unique: by providing the highest quality research, evaluation, and education under one roof, we have the distinct ability to generate important research questions, test and refine groundbreaking new therapies, and ensure that these treatments are available to patients at the earliest possible opportunity.

“At CRF, we are fortunate to have the full spectrum of research and educational capabilities as well as globally respected thought leaders.”
Pioneering New Therapies for the Treatment of Heart Disease

A Track Record of Advances

“...The progress being realized in interventional cardiology is staggering. Therapies are becoming less invasive and are resulting in improved patient survival.”

CRF’s success can be attributed to our talented faculty—distinguished physicians with expertise in both clinical research and patient care. As the field matures, we are able to adapt and grow by recruiting physicians with unique skills to spearhead investigations into new areas of inquiry. They are surrounded by research fellows, clinical research associates, statisticians, and other professionals, as well as an infrastructure that includes a state-of-the-art preclinical translational research facility, one of the world’s leading core laboratories, and highly respected data management and analysis capabilities.

CRF collaborates extensively with numerous U.S. and international colleagues in academia, the biomedical industry, and government agencies to forward our comprehensive and ambitious research agenda, which has played a central role in making coronary and peripheral interventions effective and durable.

As an independent organization, we are able to define scientific goals and expand into new areas of investigation. Consequently, our researchers are at the forefront of many of the seminal breakthroughs in the field, including first- and second-generation drug-eluting stents, transcatheter aortic valve replacement, bioresorbable vascular scaffolds, the use of antiplatelet medications, and novel devices to identify and treat advanced heart disease and atherosclerosis.

CRF Leads the Way

- The HORIZONS-AMI trial is named one of the “Top Ten Research Advances” of 2007 by the American Heart Association.
- The PROSPECT trial publication in the *New England Journal of Medicine* is ranked the 29th most influential scientific research paper of 2011 by Thomson Reuters.
- The PARTNER trial is named one of the “Top Ten Research Advances” of 2010 by the American Heart Association and one of the “Top Five Papers in Medicine” of 2010 by *The Scientist* and Faculty of 1000.
- The first drug-eluting stent is approved by the FDA based on clinical studies led by CRF.
From Bench to Bedside

“When it comes to developing life-saving treatments, we can never go fast enough, but we do so thoughtfully, responsibly, and with reverence for the academic and regulatory process.”

CRF’s capabilities span the entire spectrum of research and education. Each phase in the research cycle is represented by talented staff, the most current technology, and unparalleled experience in conducting and adjudicating clinical trials of every type, size, and level of complexity.

From initial device conception to the design and execution of preclinical and clinical trials and preparing final reports for submission to the FDA—culminating in new treatments for patients—CRF’s exceptional clinicians and scientists are involved in every step of the research continuum.

As part of our commitment to mentoring the next generation of researchers, CRF teaches and develops interventional cardiology fellows from all over the world. We provide comprehensive research training at CRF and expert clinical training at Columbia University Medical Center, where CRF is affiliated. Fellows return to their home countries to put what they have learned here into practice.

Areas of Expertise

CRF carries out its mission through three basic goals:

Innovate
The CRF Skirball Center for Innovation guides early ideas and innovations through comprehensive preclinical research programs to introduce practical clinical therapies to patients.

Investigate
The CRF Clinical Trials Center plans and executes clinical investigations from first-in-man studies to large, multicenter, international trials and provides expert, independent, qualitative and quantitative analyses of clinical and imaging data.

Educate
The CRF Center for Education trains practitioners in advanced techniques and innovations at more than 50 educational meetings and conferences each year, including the annual Transcatheter Cardiovascular Therapeutics (TCT) scientific symposium.

“Research at CRF—from how trials are designed to how data are analyzed—adheres to the strictest rules of evidence-based medicine.”
Guiding Innovation in Interventional Therapies

“The globalization of medical innovation requires the expert integration of research, engineering development, and regulatory capabilities.”

A Track Record of Success
Since 2005:
• Over 190 innovation programs
• More than 1,000 protocols approved
• 10 sponsor companies acquired

Since 2012:
• 9 programs translated to human applications
• 14 international regulatory approvals

“We are a dynamic and unique partner for the cost-effective advancement of the innovation process. It all begins with excellent trial design. CRF has that expertise.”

“Because we understand the disease, we help sponsors refine their ideas and identify gaps in thinking or practice related to testing a new drug or device.”

Mission:
To catalyze the advancement of disruptive technology through novel research and strategic partnerships.

The CRF Skirball Center for Innovation (SCI) is dedicated to the investigation and validation of novel concepts, treatments, and devices. Our preeminent team of pioneering researchers and thought leaders continually break new ground as they guide early ideas and inventions through comprehensive preclinical research programs to introduce practical therapies into clinical medicine. With a worldwide training and education network, SCI works with dozens of innovation partners across the globe and meets the highest regulatory standards. The range of studies underway at SCI reflects many of the most cutting-edge issues in cardiovascular medicine.
Mission:
To improve cardiovascular outcomes through the design and execution of clinical trials that investigate innovative therapies.

A distinguished academic research organization, the CRF Clinical Trials Center (CTC) plans and executes clinical investigations from first-in-man studies to large, multicenter international trials designed to elevate the quality of patient care in cardiovascular medicine. Specializing in trial design, event adjudication, DSMBs, and biostatistical services, the CTC is also home to CRFiCOR, one of the world’s leading imaging core laboratories.

Led by a diverse group of thought leaders in clinical research and practice, we are uniquely positioned to design clinical research protocols that answer the most important questions in cardiovascular medicine and improve and innovate the clinical research process. Drawing upon a thorough understanding of treatment guidelines, patient populations, as well as the research and regulatory landscapes, we work with sponsors to design and execute studies that have a profound impact on patient care. The CTC also works on initiatives involving big data to help answer some of the field’s greatest unanswered questions.

The scientific rigor for which we are known has led to a track record of publishing that is second to none. Our faculty have contributed more than 2,000 book chapters, peer-reviewed abstracts, articles, and books during the past decade. In many instances, this publishing output has generated data and manuscripts for years following the conclusion of the trial. Many of our trials are showcased at major cardiovascular meetings around the world.

“CRFiCOR, the CTC’s state-of-the-art core lab, is among the busiest and most highly regarded in the world. CRFiCOR specializes in all aspects of coronary, carotid, and peripheral angiography, intravascular imaging, and the assessment of structural heart disease.”

Key Statistics
- Over 650 clinical trials completed, amassing more than 150,000 patients
- More than 70 active projects
- Over 30 sponsors and institutions
- Conducts image analyses of more than 10,000 subjects per year
- Adjudicates approximately 3,000 clinical events and endpoints per year

“The CRF Clinical Trials Center has a history of moving academic research forward and improving patient care in the process.”
“CRF’s educational initiatives have responded directly to the most current needs of practicing physicians.”

Mission:
To educate physicians and other healthcare professionals on the latest advances designed to translate new therapies into improved care for patients with cardiovascular disease.

With a worldwide reputation for excellence in training practitioners in advanced techniques and innovations, CRF conducts more than 50 educational meetings, conferences, and teaching symposia every year, including the annual Transcatheter Cardiovascular Therapeutics (TCT) conference, the world’s premier meeting of its kind. Through additional TCT partnerships around the globe, CRF disseminates its expertise for the benefit of patients everywhere.

TCTMD is CRF’s leading online resource for cutting-edge news and information in the field. The website delivers the latest data from journals, lay publications, and medical conferences around the world and also serves as the repository for research and content presented at TCT and all other CRF conferences.

For more than 25 years, TCT has featured major medical breakthroughs and the latest evidence-based research in the field.

**At-a-Glance**
- Conducted over 200 CME meetings that have trained more than 100,000 physicians and healthcare professionals worldwide
- Accredited by the ACCME since 1987
- Over 50 meetings conducted annually
- CRF has worked with the American College of Cardiology (ACC) since 2008 to develop the interventional component of the ACC Annual Scientific Session.
