CHARTING A PATH TO IMPROVED CANCER CLINICAL RESEARCH

> Association of American Cancer Institutes **Clinical Research Initiative** PROGRESS REPORT 2009 – 2016



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## AACI CLINICAL RESEARCH INITIATIVE

#### **MISSION STATEMENT**

AACI CRI collects, evaluates and shares best practices that promote the efficient and effective operation of cancer clinical research offices and interacts with key stakeholders to inform policy decisions and advocate for improvement in the national clinical trials enterprise.

## AACI CRI STEERING COMMITTEE CHAIRS



James P. Thomas, MD, PhD (2009 – 2012) Medical College of Wisconsin Cancer Center



**Tony Reid, PhD, MD** (2012 – 2015) UC San Diego Moores Cancer Center



#### Paul J. Martin, MD (2015 – present)

(2015 – present) Fred Hutchinson Cancer Research Center

Report Design: Tara Taylor, Tru Blu Studio

## A MESSAGE from the AACI Clinical Research Initiative

he Association of American Cancer Institutes (AACI) comprises 95 of the leading academic and freestanding cancer research centers in North America. The Association is dedicated to reducing the burden of cancer by enhancing the impact of academic cancer centers. Its membership roster includes National Cancer Institute–designated centers and academic-based cancer research programs that receive NCI support.

AACI advances the objectives of cancer centers by promoting widespread recognition of the cancer center network, facilitating interaction among the centers, educating policy makers and fostering the development of partnerships between cancer centers and other cancer organizations to improve the overall quality of cancer care.

As cancer research evolves, new approaches to treating patients are being developed via clinical trials. At the same time, trials are becoming more complex with the integration of immunotherapies and targeted therapies. In response, multiple industry, government, and ad hoc groups are focusing on improving the clinical trials process and infrastructure.

For its part, AACI established a network for cancer center clinical research leaders in 2009—the AACI Clinical Research Initiative (CRI)—to address obstacles to activating and conducting cancer clinical trials. Examples of the challenges include the growing complexity of clinical trials, expanding staffing requirements, administrative barriers, rising trials costs, regulatory constraints that prolong trial activation, and difficulty recruiting enough patients.

CRI examines and shares best practices that promote the efficient operation of cancer center clinical research facilities and leverage the ability of AACI cancer centers to advocate for improvement in the national cancer clinical trials enterprise.

CRI had its genesis in a 2006 annual meeting session, which was sponsored by the Cancer Center Administrators Forum and aimed to help to build connections among clinical research administrators at cancer centers. Participants expressed interest in extending their interactions through a formalized communications forum. AACI's president at the time, Dr. H. Shelton Earp, encouraged AACI to pursue the project. AACI's board of directors approved a proposal for the initiative in 2008, and a CRI planning committee met in early 2009, followed by the first CRI annual meeting later that year.

Now in its eighth year, CRI pursues a variety of objectives, including developing better methods to disseminate information across cancer centers, identifying clinical research challenges, and sharing proven means of addressing challenges and measuring progress. The CRI program aligns with AACI's strategic goal to stimulate interactions among cancer centers, to maximize the use of resources and to facilitate research. Those involved in CRI fill a variety of leadership roles and thoroughly understand their center's entire clinical trials system.

This report highlights CRI's activities and progress to date and its contributions to enhancing the efficient implementation of cancer clinical trials and improving the level of care for patients at AACI cancer centers.



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Barbara Duffy Stewart, MPH Executive Director, AACI



Jane K. Hofacter

Janie K. Hofacker, RN, BSN, MS Director of Programs, AACI

# A DECADE OF SHIFTING CHALLENGES for Clinical Trials Office Management

he past decade has seen a transition in clinical oncology, from the traditional cancer treatment model based on a tumor's anatomic site of origin to a new model based on a tumor's molecular characteristics.

This fundamental reconsideration of the nature of cancer treatment has unfolded as cancer centers faced the need to adopt sophisticated data management systems while "doing more with less" with ever-leaner budgets. In this demanding environment, clinical trials managers have been challenged to implement new or more streamlined approaches to every aspect of trial operation, from financing to patient screening and accrual, to day-to-day administration.

In 2009, AACI launched the Clinical Research Initiative (CRI) to provide a forum in which cancer centers could share best practices for addressing the multiple challenges facing the national clinical trials enterprise. Although cancer centers each have unique features and strengths, their leaders recognize that they all face similar demands and can benefit from sharing ideas and solutions. By implementing and sharing innovative approaches to clinical trials management challenges, cancer centers are ensuring that the clinical trials enterprise can continue pushing forward the boundaries of cancer treatment for the benefit of patients.



#### **Umbrellas and Baskets**

Variously referred to as "precision medicine" or "targeted therapy," the emerging focus on cancer treatments that target specific genetic mutations or molecular pathways in tumors has brought potentially powerful new tools into the cancer armamentarium. But it has also dramatically increased the complexity of conducting cancer clinical trials.

For a conventional trial of a novel cancer therapy, a center could expect to accrue one patient out of every two or three who were screened. For trials of molecularly targeted therapies, however, only one patient in 40 may have the mutation of interest. This slim ratio drives up both the time required to screen patients and the cost of doing so. With each cancer center able to accrue perhaps a handful of patients for a molecularly driven trial, more trials are being conducted at multiple sites to achieve the total enrollment needed for viability.

Novel trial designs are emerging that enable new agents aimed at multiple molecular targets to be tested in a single trial. The Lung Cancer Master Protocol, or Lung-MAP trial, is an example of a so-called umbrella trial, in which multiple drugs are being tested against multiple mutations in one tumor type, in this case, squamous cell lung cancer.

At the same time, the concept of segregating cancers by organ system—lung cancer, breast cancer, etc. is breaking down as it becomes clear that tumors originating at different anatomic sites may be driven by the same molecular abnormalities. In "basket" or "bucket" trials, a single drug is tested against a single mutation in multiple tumor types. The multi-arm NCI-Molecular Analysis for Therapy Choice (NCI-MATCH) trial combines aspects of both umbrella and basket trials.

These innovations have challenged cancer centers' traditional approaches to managing clinical trials

by tumor type—for example, having one trial manager oversee all breast cancer trials from start to finish.



In a major shift, many centers have moved toward managing trials by function—for example, designating staff whose sole job is to screen patients for molecularly driven trials and establishing teams with expertise in managing multi-site or multi-disease trials. Centers have also revised their cost estimation procedures to take into account the need to screen larger numbers of patients for molecularly driven trials.

#### **Faster, Faster**

Activating clinical trials and accruing patients in a timely fashion are two challenges that have long concerned cancer centers and have taken on renewed urgency in the precision-medicine era. Review by multiple committees and institutional review boards (IRBs) often stretched to months or years the time needed to approve and open a trial. Then came patient accrual, frequently a slow process, with many trials closing or never being completed because of inadequate numbers of patients.

To reduce trial activation times, cancer centers have implemented strategies such as using a single, centralized IRB; requiring multiple committees to review a trial protocol simultaneously instead of consecutively; designating staff as trials activation specialists; and using contracts that include preapproved language to minimize time spent on contract negotiations. To speed up patient accrual, centers have adopted methods such as reducing administrative barriers to trial recruitment and devising innovative funding strategies to support investigator-initiated trials.

#### **Big Data**

Complex new trial designs and the proliferation of multi-site trials have increased the demands on cancer centers' information management capabilities. For years, many centers relied on "home-grown" clinical trials management systems that performed a few functions well, such as tracking how many clinical trials were active and when a patient went on or off a particular study.

Over time, however, many of these systems became cumbersome to use as functions not originally included in the design were added on.

Many cancer centers have adopted the same powerful trials data management system that offers both greater functionality and interoperability, facilitating, for example, information sharing among centers participating in the same multi-site trial. Features enable tracking of a patient's progress through a trial, including when his or her next visit or procedure is scheduled, and generating an alert if the person is hospitalized. Data-entry safeguards flag errors that could lead to an incorrect medication or dose being prescribed. Robust financial management tools facilitate invoice and collections tracking, budget preparation, and the generation of cost reports.

In 2009, shortly after the launch of the CRI, James P. Thomas, MD, PhD, then chair of the initiative's steering committee, described the initiative's goals this way: "Performing clinical trials is a very slow and costly process, and we need to find ways to make that more efficient. Each cancer center addresses these issues in a vacuum, but as a group, maybe we can make some progress."\*

Seven years on, cancer centers have found that by acting as a group to share ideas and strategies, they are indeed stronger and better equipped to address the ongoing challenges of a still-evolving clinical trials enterprise.

\*P. Eastman, "AACI's New Clinical Research Initiative Confronts Common Challenges in Conducting Cancer Trials," *Oncology Times*, November 25, 2009. Novel trial designs are emerging that enable new agents aimed at multiple molecular targets to be tested in a single trial.

# **CRI ANNUAL MEETING**



The CRI annual meeting, held in Chicago, is one of the primary ways that the initiative achieves its main objective of improving clinical trials management at cancer centers. Each year since 2009, the meeting has provided an opportunity for CRI members to share best practices—through networking and interactive learning—that can lead to the discovery of novel cures and effective treatments for patients with cancer.

Meeting attendance has grown from 83 in 2009 to more than 262 attendees—representing 61 cancer centers—in 2016 (see chart, page 5). The event attracts a wide variety of stakeholders, including medical directors, administrative directors, and office managers of clinical trials offices (CTOs); directors of clinical research administration; administrators of cancer centers; representatives of research regulatory agencies; sustaining members and corporate roundtable members of AACI; and

AACICRI

representatives from industry, including pharmaceutical companies.

A brief overview of annual meeting program topics and keynote talks reflects the shifting landscape faced by CTOs as precision medicine and novel trial designs have gained prominence in cancer care.

> The inaugural CRI annual meeting included a discussion of NCI's Clinical Trials

Reporting Program (CTRP), part of a concerted effort by NCI to reinvigorate its Cooperative Groups Program and streamline clinical trial operations by creating a single "source of record" on the status of clinical trials. According to NCI, CTRP aimed to provide the agency with a more global view of emerging knowledge from cancer trials and to identify patterns and insights promptly to ensure patient safety and an optimal return on the nation's investment in cancer clinical trials.

Abstract and poster presentations (see page 6) were introduced at the third annual meeting, providing a platform for cancer centers to share homegrown solutions to clinical trial challenges.

The fourth annual CRI meeting, in 2012, featured a panel discussion about contract research organizations and the pharmaceutical industry's perspective on facilitating clinical trials operations at cancer centers.

The next year, panelists explored the role of the clinical trial medical director, including how investigatorinitiated trials are funded. The discussion was a precursor to AACI's launch of its Physician Clinical Leadership Initiative.

In 2015, CRI's annual meeting was expanded to two full days to accommodate a larger program. Attendees discussed ways for cancer centers to best work with new clinical trial designs, such as basket and umbrella trials.





Presentations touched on how these trials differ from other cancer trials, the benefits and risks for patients, the toxicities associated with cancer immunotherapies, adverse event reporting, screening patients using molecular tumor boards, and the use of a centralized institutional review board to reduce regulatory burden.

With the theme of "Operational Excellence," the 2016 meeting is set to feature keynote speaker Keith Eaton, MD, PhD, an associate member of the Clinical Research Division at Fred Hutchinson Cancer Research Center. In his talk, titled "When the Physician Becomes the Patient", Dr. Eaton will share his experiences as both a cancer patient participating in a clinical trial and a treating physician who administers trials.

Diagnosed with cancer in 2012, Dr. Eaton received a form of immunotherapy—CAR T-Cell therapy—that reduced his tumor cells to undetectable levels. He subsequently underwent a stem cell transplant.

Dr. Eaton's perspectives from the bench, the bedside, and the bed will resonate with cancer center CTO leaders as they set their sights on removing operational barriers to optimizing cancer clinical research.



**CRI Annual Meeting Attendance** 

Pictured on page 4: Lower left, Doug Stahl; lower right (L-R), Kamilah Frison and Nick Fisher. Above (L-R): Vijaya Chadaram and Rebecca Selle.

### CRI TESTIMONIAL: SOLVING FINANCIAL PUZZLES, WITH HELP FROM CRI

In a presentation delivered at the 2014 AACI/CCAF Annual Meeting, Dr. Kristen Erickson highlighted CRI's value, urging attendees to get involved in the initiative. She noted that participating in the CRI annual meetings, Listserv discussions, clinical trials financial working groups and conference calls, and CRI meeting abstract/poster presentations can help cancer centers address CTO financial challenges.

**"Financing Clinical Trial Offices: A Slippery Slope"**—Kirsten Erickson, PhD, Senior Director, Clinical Research Office, University of Kansas Cancer Center

## ABSTRACTS AND POSTERS Discussing Key Concepts, Sharing Best Practices

OVER THE YEARS, THE ABSTRACTS HAVE COVERED AN IMPRESSIVE RANGE OF TOPICS—FROM ISSUES INVOLVING THE AFFORDABLE CARE ACT TO OPERATIONAL CHALLENGES LIKE TRIAL ACTIVATION AND PERFORMANCE METRICS. Since 2011, CRI's annual meeting has featured presentations of abstracts that inform meeting attendees about clinical trials operational challenges and solutions implemented at cancer centers.

Abstracts are evaluated by at least two members of the AACI CRI Steering Committee using a peerreview process. The abstracts with the three highest scores are chosen for oral presentation at the meeting. Up to two authors of each winning abstract receive complimentary meeting registration.

All authors who submit abstracts are encouraged to present and discuss their findings in a poster during the poster session and reception at the meeting. The abstracts are printed in a booklet and posted on AACI's website.

Over the years, the abstracts have covered an impressive range of topics—from regulatory issues like cancer centers' experience with the Affordable Care Act to trial activation and performance metrics. The abstract presentations and poster sessions are among the highlights of the annual meeting, providing opportunities for centers to further discuss concepts that are being explored and implemented at cancer centers.

#### **CRI Abstract Submissions**



#### **CRI Annual Meeting Abstracts**

Top entries by year, with submitting organization(s)

#### 2016

#### The Clinical Trial Management Tool: An Innovative Approach to Regulatory Operations

Cleveland Clinic Taussig Cancer Institute The Cleveland Clinic Foundation

#### 2015

#### Cancer Centers' Experience with Insurance Denials for Clinical Trial Participation after ACA Mandate

University of Kansas Cancer Center; American Society of Clinical Oncology

#### 2014

#### Improving Clinical Trial Activation Efficiency through Technology, Systems Integrations and Analytics

Memorial Sloan Kettering Cancer Center

#### 2013

Quality Improvement Initiative to Enhance Regulatory Compliance and Reduce Submission Errors Utilizing an Optimal Outcome Procedure System (OOPS)

Roswell Park Cancer Institute

#### 2012

Managing Risk: A Path toward Enhanced Communication, Risk Reduction, and Process Improvement between Investigators and Monitors

Dana-Farber Cancer Institute Harvard Medical School

#### 2011

#### Protocol Performance Metrics and Resource Utilization of Phase II Investigator-Initiated Trials

Yale Cancer Center, Yale University School of Medicine; Indiana University, Melvin and Bren Simon Cancer Center; Masonic Cancer Center, University of Minnesota; VCU Massey Cancer Center; Simmons Cancer Center, UT Southwestern Medical Center



At left: Each year, all abstracts submitted for the CRI annual meeting are compiled into a booklet that is distributed during the AACI annual meeting and posted on the AACI website. Below, at left (L-R): Amanda Maggiott and Josephine Chan; below at right (L-R), Barbara Vance and Abdul Karim Abdullah.

### **CRI TESTIMONIAL: SHARING BEST PRACTICES ON THE CRI LISTSERV**

Kate Huffman's abstract, presented at the 2015 AACI CRI annual meeting, showed that information shared on the CRI Listserv helped her cancer center reduce the administrative burdens of conducting clinical trials, including pressure to quickly activate trials despite the increasing volume and complexity of those trials.

Using input from colleagues in CRI Listserv discussions, Huffman's center created a new policy regarding the processing of External Safety Reports, revised protocol training policy to address amendment training, and converted to an electronic regulatory binder file structure, among other operational improvements.

*"Leveraging AACI CRI Listserv Benchmarking and Technology to Reduce the Administrative Burden of Conducting Clinical Trials"* — Kate Huffman, RN, NSN, CCRA, University of Michigan Comprehensive Cancer Center



## NETWORKING and Communication

**PROGRESS.**"

"Performing clinical T fansits coverage of the lange by of GRIsinan EFFICIENT. EACH CANCER ENPERADORES/ THESE 135 EVER PORTHLY magazine for cancer care professionals, noted that the initiative was aiming to - James P. Thomas, MD, Pbecome habest practices rietworkingee, quoted Initiative Confronts Commo for that fors An Conducting Canter Stallowing y The

them to share insights with each other on the common challenges inherent in sponsoring trials.

#### **CRI LISTSERV**

One particularly effective and productive way that CRI has fulfilled that best-practices networking role is through the CRI Listserv. Developed in 2010, the CRI Listserv allows members to ask a broad range of clinical research questions and, almost immediately, receive feedback and best practices from their peers. Currently, the Listserv has over 500 subscribers from 81 cancer centers. Only AACI members have access to the Listserv. Forwarding Listserv discussions to non-AACI members is not allowed.

The Listserv can be used to share information about institutional policies and clinical trial operational best practices, along with other tasks and topics (see list at right). For example, in 2015, members asked about implementation of electronic regulatory binders. As a result, several members who had successfully implemented electronic regulatory binders hosted a webinar, attracting nearly 100 attendees.

Similarly, many questions have been asked about implementing and managing NCI-MATCH. As a result, AACI hosted a conference call in 2015 to discuss the general structure of operations, the coordination of patient activities, and the coordination of samples. NCI-MATCH-related conference calls have continued in 2016. Since the implementation of the Listserv, over 300 exchanges of information on various clinical-research-related topics have occurred with this tool.



#### A Short History of Popular **CRI Listserv Topics**

- CTRP reporting
- Definition of rare cancer
- Sponsor visits
- International protocols
- Integrating IT systems
- Chart security
- Study start-up and workload
- Protocol Review Monitoring System and accrual review
- Radiation safety
- Regulatory project management

## **CRI Listserv Participation**



Number of Subscribers

## **CRI TESTIMONIAL: HELPING TO IMPROVE CLINICAL TRIAL MANAGEMENT**

Dr. Gospova Radakovic, director of the Office of Clinical Research at the University of Virginia (UVA) Cancer Center, had been searching for ways to shorten UVA's clinical trials activation timeline. At the 2014 AACI CRI meeting, Dr. Radakovic attended a session titled "Death by Startup: Clinical Trial Activation Challenges." Armed with good ideas from the meeting, Dr. Radakovic formed a Clinical Research Implementation Committee at her center. The new committee improved UVA's clinical research office's communications with internal stakeholders, creating more streamlined and productive site initiation processes. It also helps prioritize applications when there are limited trial resources, leading to a broader range of available trials.

"Case Study: How AACI's Clinical Research Initiative Helps to Improve Clinical Trial Management," AACI CancerBlog, February 6, 2015.

In other efforts to promote the initiative's work among its members and to the broader cancer research community, the summer 2013 AACI Commentary was devoted to a topic of particular CRI interest: "The Right Drug for the Right Patient: Optimizing Clinical Trials Management," authored by then-CRI Steering Committee chair Tony R. Reid, MD, PhD.

In addition, the initiative circulates an occasional email newsletter and reports on its work through the *AACI CancerBlog*, the *AACI Update*—a monthly newsletter—and the AACI annual report.

"CLINICAL TRIAL SUCCESS CAN BE

COMPROMISED BY MANY VARIABLES

INCLUDING PROLONGED APPROVAL

TIMES, SLOW ACCRUAL,

INSUFFICIENT DATA COLLECTION

AND MANAGEMENT, EXCESSIVE

**BUREAUCRACY, CUMBERSOME PROCEDURES** 

#### AND POOR COORDINATION."

—Tony R. Reid, MD, PhD, past chair, AACI Clinical Research Initiative Steering Committee, "The Right Drug for the Right Patient: Optimizing Clinical Trials Management," *AACI Commentary*, summer 2013. ssociation of American Cancer Institute

COMMENTARY

The Right Drug for the Right Patien Optimizing Clinical Trials Managers #7 Tays 5, 523, 50, 760

AACI

# **TOOLS AND SURVEYS**

RI's activities are led by a steering committee of oncology clinical trials medical and administrative directors who are experts in clinical trials operations, and its success is driven by the working groups that create and implement new tools to share across the AACI cancer center network.

The steering committee has identified areas of focus (see chart) that guide the development of new tools for use across the AACI cancer center network. Initially, working groups were established exclusively around these areas of focus to share best practices, promote the efficient operations of cancer center research facilities, and leverage the ability of the AACI cancer center network to advocate for change in the national clinical enterprise. Now, groups are also formed as needed around a particular task, like developing best practices for e-regulatory file management.

CRI has developed common templates that are shared with AACI members through the AACI website's member portal. These include the AACI CRI Trial Budgeting Template, Clinical Trials Office (CTO) Site Monitoring Visit Policy, and the Trial Complexity Review Tool.

CRI has also conducted a number of surveys over the years, including most recently a CTO Funding Allocation Survey and a CTO Medical Director Survey. The latter survey identified CTO medical directors and defined their primary responsibilities at both the cancer center and the CTO.

CRI has also completed a survey about trial activation times, which revealed a number of redundant steps in the trial activation process. CTOs can minimize the time it takes to start a cancer clinical trial by adopting a common cancer protocol template that specifies the required trial elements. Such a tool can reduce the number of protocol errors, leading to fewer delays in trial activation. Using information gathered from both the survey and CRI working group discussions, some CTO directors implemented new practices at their centers. For example, directors created a dedicated protocol team of experts focused on new trial submissions, leaving other staff time to complete other critical regulatory responsibilities like submitting trial safety reports to the institutional review board.



### CRI TESTIMONIAL: TACKLING NCI-MATCH TRIALS

To address the challenges of screening multidisease site patients for the NCI-MATCH Trial, Helen Peck, executive director of the CTO at the Barbara Ann Karmanos Cancer Institute, Wayne State University, used information that she gathered at the 2015 AACI CRI annual meeting to create a temporary dedicated study-screening staff position to help a research team of nurses, physicians, and trial coordinators tackle screening challenges. Peck's team is now exploring ways to utilize the position for other active trials similar to NCI-MATCH.

# LOOKING AHEAD

s one of AACI's signature initiatives, CRI is integrated with many of the association's other programs, in particular the Physician Clinical Leader Initiative (PCLI), the Corporate Roundtable, and the annual meeting. For instance, an upcoming PCLI webinar will focus on interactions between clinical trials office leaders and chief medical officers.

Building on growing interest in CRI areas of focus among pharmaceutical partners, **AACI's Corporate Roundtable** will meet during CRI's 2016 annual meeting. At the 2015 CRI annual meeting, topics like how to operationalize complex immunotherapy trials and targeted therapies at cancer centers, oncology research process improvements, and trends in clinical trials safety and compliance fostered productive discussions between clinical trials office leaders and pharmaceutical sponsors.

As CRI looks to the future, it will continue to enhance its working relationships with stakeholders, including its own members, pharmaceutical sponsors, and like-minded organizations. Recent examples of such linkages include:

Route planner

- An initiative launched by AACI and the American Society for Clinical Oncology (ASCO), through CRI, to identify best practices in cancer clinical trials. As part of the partnership, a workshop, composed of experts from various medical specialties and professional groups, was conducted to promote practical solutions to meeting existing regulatory and administrative requirements on research. ASCO President Dr. Julie Vose presented results of the workshop at the 2016 ASCO annual meeting.
- Seeking clarification from the Centers for Medicare and Medicaid Services (CMS) regarding clinical trials payment rules implemented through the Affordable Care Act, CRI joined forces with five like-minded organizations: the American Association for Cancer Research; the American Cancer Society Cancer Action Network; the American Heart Association; ASCO; and the National Coalition for Cancer Research. Based in part on input from this collaboration, CMS distributed updated information about coverage for individuals participating in approved clinical trials.

#### Thanks to CRI's Supporters

Since 2010, many supporters have helped enable CRI to extend the highest degree of service to its members in their ongoing efforts to deliver compassionate, quality care to their patients. CRI looks forward to continued partnerships.

AACI extends its gratitude to the following supporters who have committed resources over the years to advancing CRI's work: Aegis; Amgen; Astellas; ASCO; Bristol-Myers Squibb; The Biomedical Research Alliance of New York (BRANY); BURG Translations; Essex Management; Forte; Gilead; Pfizer; Precision Metrics; Takeda Oncology; United States Diagnostics Standards (USDS); Velos; Virtify; and WIRB-Copernicus Group.

# AACI MEMBERS

Abramson Cancer Center of the University of Pennsylvania

Albert Einstein Cancer Center Montefiore Medical Center

Barbara Ann Karmanos Cancer Institute Wayne State University

Boston University Cancer Center

Cancer Therapy and Research Center at the University of Texas Health Science Center

Cardinal Bernardin Cancer Center of Loyola University Chicago

Case Comprehensive Cancer Center Case Western Reserve University Seidman Cancer Center at University Hospitals Case Medical Center

City of Hope Comprehensive Cancer Center

Cleveland Clinic Taussig Cancer Institute The Cleveland Clinic Foundation

Comprehensive Cancer Center St. Jude Children's Research Hospital

The Dan L Duncan Comprehensive Cancer Center at Baylor College of Medicine

Dana-Farber Cancer Institute Harvard Medical School

Dartmouth-Hitchcock Norris Cotton Cancer Center

Duke Cancer Institute Duke University Medical Center

Feist-Weiller Cancer Center LSU Health Sciences Center in Shreveport

Fox Chase Cancer Center Temple Health

Fred and Pamela Buffett Cancer Center

Fred Hutchinson Cancer Research Center George Washington Cancer Institute

Georgetown Lombardi Comprehensive Cancer Center

Georgia Cancer Center Augusta University

Herbert Irving Comprehensive Cancer Center Columbia University Medical Center Holden Comprehensive Cancer Center University of Iowa

Hollings Cancer Center Medical University of South Carolina

Huntsman Cancer Institute University of Utah

Indiana University Melvin and Bren Simon Cancer Center

The Jackson Laboratory Cancer Center

Jonsson Comprehensive Cancer Center UCLA

Kentuckyone Health James Graham Brown Cancer Center

Knight Cancer Institute Oregon Health and Science University

Laura and Isaac Perlmutter Cancer Center at NYU Langone

Loma Linda University Cancer Center

Louisiana Cancer Research Consortium of New Orleans at the Stanley S. Scott Cancer Center

Louisiana Cancer Research Consortium of New Orleans at the Tulane Cancer Center

Masonic Cancer Center University of Minnesota

Mayo Clinic Cancer Center

Mayo Clinic Cancer Center, Arizona

Mayo Clinic Cancer Center, Florida

Medical College of Wisconsin Cancer Center

Memorial Sloan Kettering Cancer Center

Moffitt Cancer Center

Mount Sinai Health System Tisch Cancer Institute

Murtha Cancer Center at Walter Reed

The Ohio State University Comprehensive Cancer Center James Cancer Hospital & Solove Research Institute

Peggy and Charles Stephenson Cancer Center University of Oklahoma Health Sciences Center

Penn State Hershey Cancer Institute

Princess Margaret Cancer Centre University Health Network

Puerto Rico Cancer Center University of Puerto Rico

Purdue Center for Cancer Research

The Robert H. Lurie Comprehensive Cancer Center of Northwestern University

Roswell Park Cancer Institute

Rutgers Cancer Institute of New Jersey

Samuel Oschin Comprehensive Cancer Institute Cedars-Sinai Medical Center

Sanford Burnham Prebys Medical Discovery Institute

Sidney Kimmel Cancer Center at Thomas Jefferson University

Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins University

Simmons Comprehensive Cancer Center UT Southwestern Medical Center

Siteman Cancer Center

Stanford Cancer Institute

Stony Brook University Cancer Center State University of New York

Sylvester Comprehensive Cancer Center University of Miami Health System

UAB Comprehensive Cancer Center University of Alabama at Birmingham

UAMS Winthrop P. Rockefeller Cancer Institute

UC Davis Comprehensive Cancer Center

UC San Diego Moores Cancer Center

UCI Chao Family Comprehensive Cancer Center University of California at Irvine

UCSF Helen Diller Family Comprehensive Cancer Center, University of California, San Francisco

UK Markey Cancer Center

UNC Lineberger Comprehensive Cancer Center University of North Carolina at Chapel Hill

The University of Arizona Cancer Center

The University of Chicago Medicine Comprehensive Cancer Center

University of Cincinnati Cancer Institute

University of Colorado Cancer Center

University of Florida Health Cancer Center

University of Hawaii Cancer Center University of Hawaii at Manoa

University of Illinois Cancer Center

University of Kansas Cancer Center

University of Maryland Marlene and Stewart Greenebaum Comprehensive Cancer Center

University of Michigan Comprehensive Cancer Center

University of Mississippi Medical Center Cancer Institute

University of New Mexico Comprehensive Cancer Center

University of Pittsburgh Cancer Institute UPMC CancerCenter

University of Texas MD Anderson Cancer Center

University of Texas Medical Branch Cancer Center

The University of Vermont Cancer Center

University of Virginia Cancer Center

University of Wisconsin Carbone Cancer Center

USC Norris Comprehensive Cancer Center University of Southern California

Vanderbilt-Ingram Cancer Center

VCU Massey Cancer Center

Wake Forest Baptist Comprehensive Cancer Center

Wilmot Cancer Institute University of Rochester Medical Center

Winship Cancer Institute of Emory University

The Wistar Institute

WVU Cancer Institute

Yale Cancer Center Yale School of Medicine



Association of American Cancer Institutes

3708 Fifth Avenue Medical Arts Building, Suite 503 Pittsburgh, PA 15213

Phone: 412-647-6111

www.aaci-cancer.org