

NCI's Evolving Clinical Trials System

NCI National Clinical Trials Network (NCTN)

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on behalf of the

Division of Cancer Treatment & Diagnosis:

*Biometric Research Branch, Cancer Diagnosis Program,
Cancer Imaging Program, Cancer Therapy Evaluation Program,
Radiation Research Program*

Division of Cancer Prevention:

NCI Community Oncology Research Program (NCORP)

NCTN Milestones

May 2010

NCI conducts an extensive review of its late-phase Cooperative Group clinical trials program with widespread stakeholder input on revising the program

November 2011

NCI Board of Scientific Advisors approves plan to transform former Cooperative Group Program with a Request for Application (RFA) for an integrated National Clinical Trials Network (NCTN) - plan includes a consolidated organizational structure with funding for 1 pediatric group and up to 4 adult groups

July 2012

NCI releases NCTN Funding Opportunity Announcements

January 2013

NCTN applications due January 15, 2013

July 2013

Peer-Review of NCTN applications

March 1, 2014

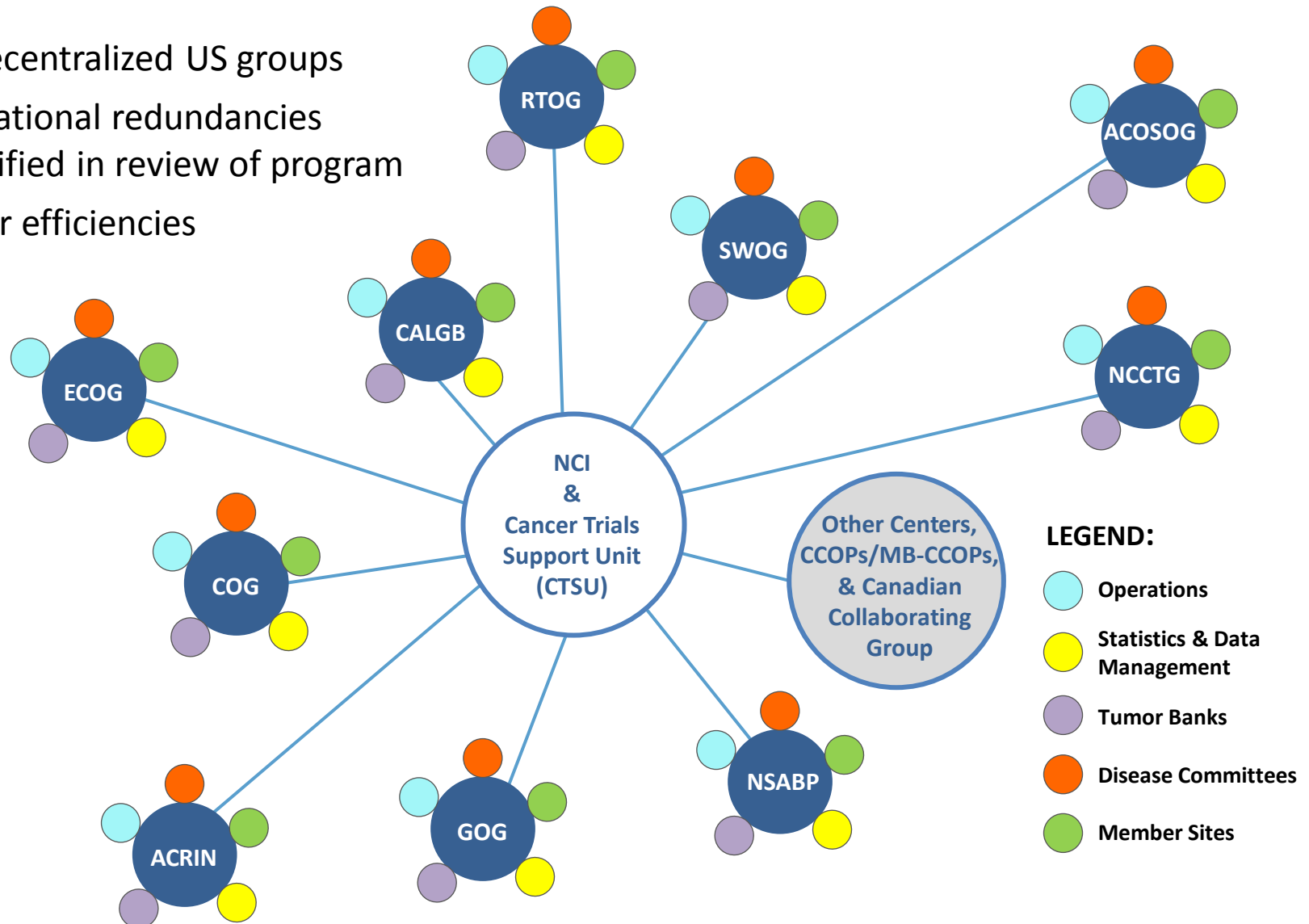
NCI launches the National Clinical Trials Network (NCTN)

Vision for Transformation of System for NCI Late-Phase Tx/Imaging Trials - 2014 and Beyond

- **Launch trials rapidly & complete accrual per defined guidelines through integrated national network sites**
- **Promote user-friendly, harmonized processes to extramural community (investigators, patients, advocates, & industry) & facilitate collaborations with partners**
- **Provide common infrastructure to perform large scale testing of increasingly smaller subsets of molecularly-defined cancers (Examples: LUNG-Map, ALCHEMIST, MATCH)**
- **Focus on research questions not well supported in a commercial environment**

Structure of Late-Phase Clinical Trials Program Prior to NCTN

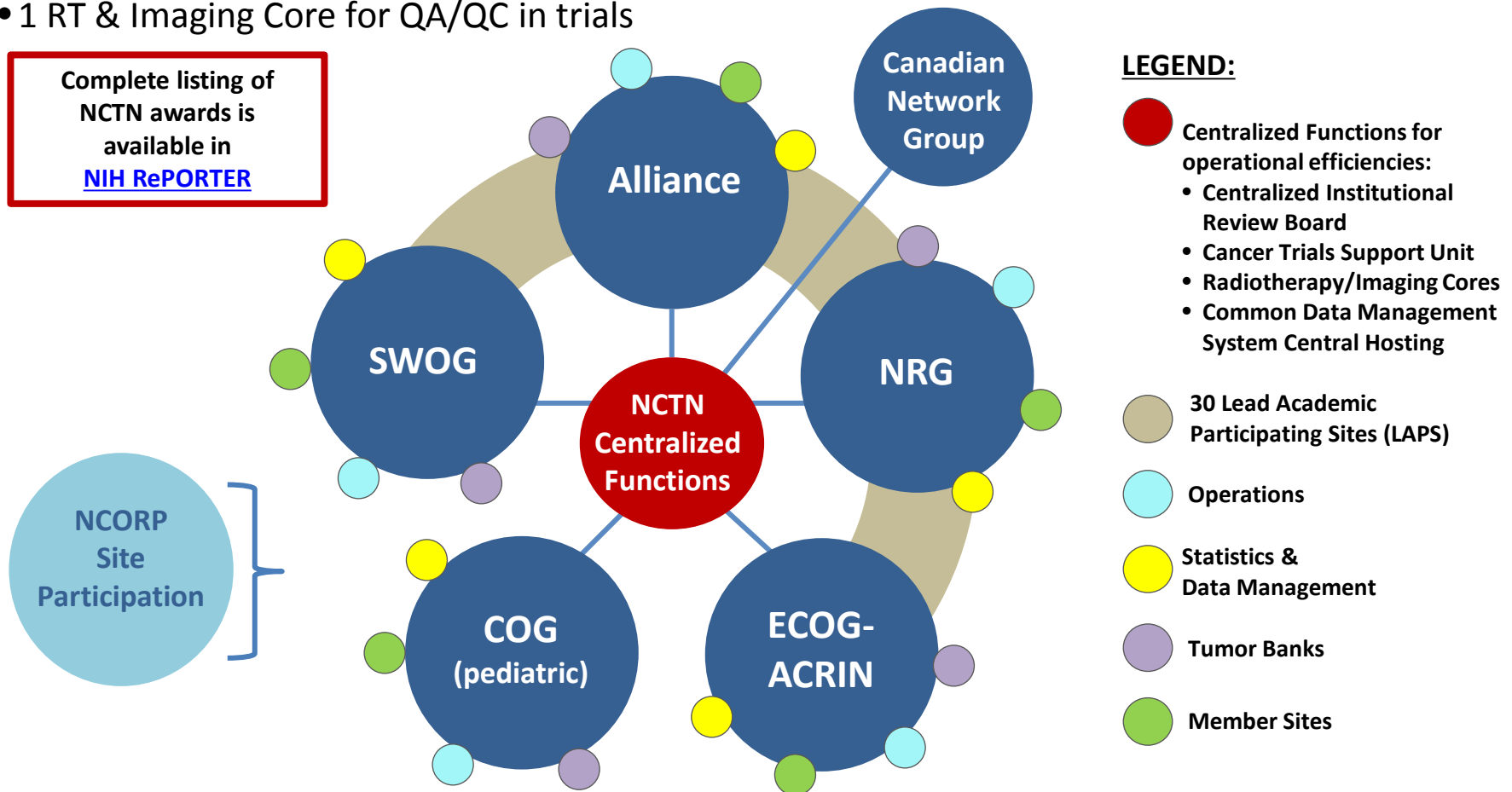
- 10 decentralized US groups
- Operational redundancies identified in review of program
- Fewer efficiencies



NCTN Structure - Optimize Scientific Opportunities

- 5 US Network Groups (4 adult & 1 pediatric) with Operations & Statistics/Data Mgt Ctrs and 1 Canadian Collaborating Network Group
- 30 Lead Academic Participating Sites (LAPS) to provide leadership in development, accrual & conduct of clinical trials in association with the adult US trial Groups
- 7 Integrated Translational Science awards to help incorporate translational science into trials
- 1 RT & Imaging Core for QA/QC in trials

Complete listing of
NCTN awards is
available in
[NIH RePORTER](#)



Major Components of NCTN Program

5 US Network Operations Centers (4 adult & 1 pediatric)

- Provide scientific leadership for developing & implementing multi-disciplinary, multi-site trials in a range of diseases and special populations with specific scientific strategies and goals

With 5 Associated US Network Statistics and Data Management Centers

- Provide statistical expertise to ensure effective scientific design & conduct of trials as well as innovation in statistical methodology in addition to data mgt and analysis of all NCTN studies

1 Canadian Collaborating Network Group

- Partners with the US Network Groups in the conduct of selected, late-phase, multi-site clinical trials, helping to reduce regulatory barriers & expanding the geographic extent of patient accrual

30 Lead Academic Participating Sites (LAPS)

- Provide scientific leadership in the development & conduct of trials in association ≥ 1 adult US Network Groups as well as substantial accrual to trials conducted across the entire NCTN

7 Integrated Translational Science Awards

- Provide support for leadership and expertise to facilitate incorporating translational science into Network Group clinical trials

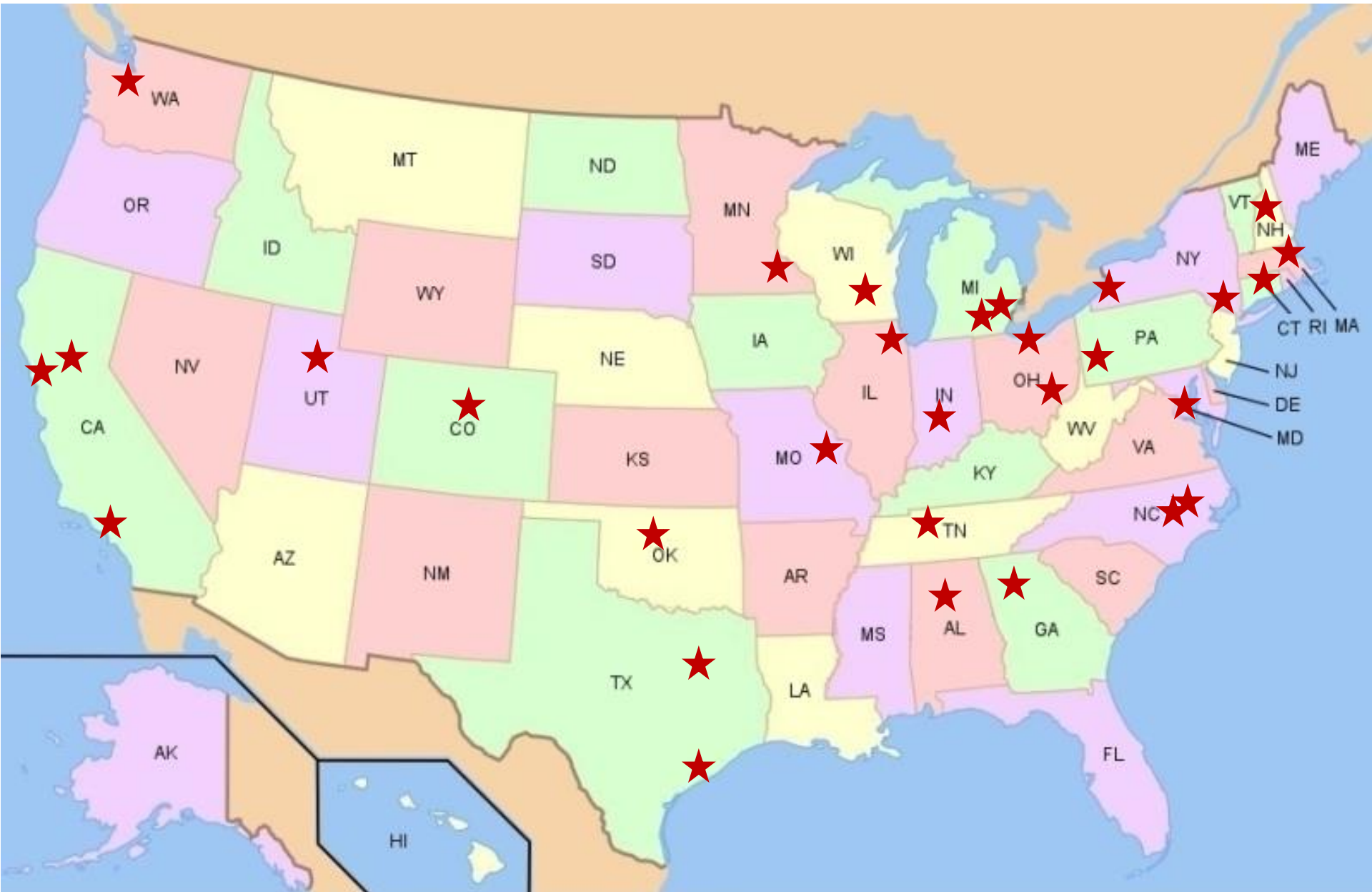
1 Radiotherapy & Imaging Core Services Center

- Provides scientific and technical expertise for incorporating quality assurance and image data management for applicable clinical trials conducted by the NCTN that require specialized QA/QC

Operations and Statistics/Data Mgt Centers

Network Group	Operations Center Principal Investigator (*contact PI)	Statistics/Data Mgt Ctr Principal Investigator (*contact PI)
Alliance for Clinical Trials in Oncology (Alliance)	Brigham & Women's Hospital, Inc. Monica Bertagnolli (*)	Mayo Clinic Dan Sargent
Children's Oncology Group (COG)	Children's Hospital of Philadelphia Peter Adamson	University of Florida Meenaski Devidas
ECOG-ACRIN Cancer Research Group (ECOG-ACRIN)	ECOG-ACRIN Medical Research Foundation Robert Comis (*)	Dana-Farber Cancer Institute Robert Gray
NCIC Clinical Trials Group (NCIC-CTG)	Queen's University (Kingston, Ontario) Elizabeth Eisenhauer	N/A
NRG Oncology (NRG)	NRG Oncology Foundation, Inc. Norman Wolmark (*)	University of Pittsburgh Joseph Costantino (*)
SWOG	Oregon Health & Sci University Charles Blanke (*)	Fred Hutchinson Can Research Ctr Michael LeBlanc

Geographic Locations of the Main Academic Centers for the 30 NCTN Lead Academic Participating Site (LAPS)



Research Agenda for Late-Phase Clinical Trials System

- **Emphasis on phase 3, practice-changing, treatment and advanced imaging trials, especially in research areas that are not well supported in a commercial environment**
- **Combinations of novel & molecularly targeted agents developed by different sponsors**
- **Integration of new agents & imaging approaches into standard of care**
- **Evaluation of multi-modality regimens (e.g., Surgery, Radiotherapy, IP therapy)**
- **Therapies for pediatric cancers, rare cancers, and uncommon presentations of more common cancers**
- **Different treatment and imaging approaches already approved for clinical care**

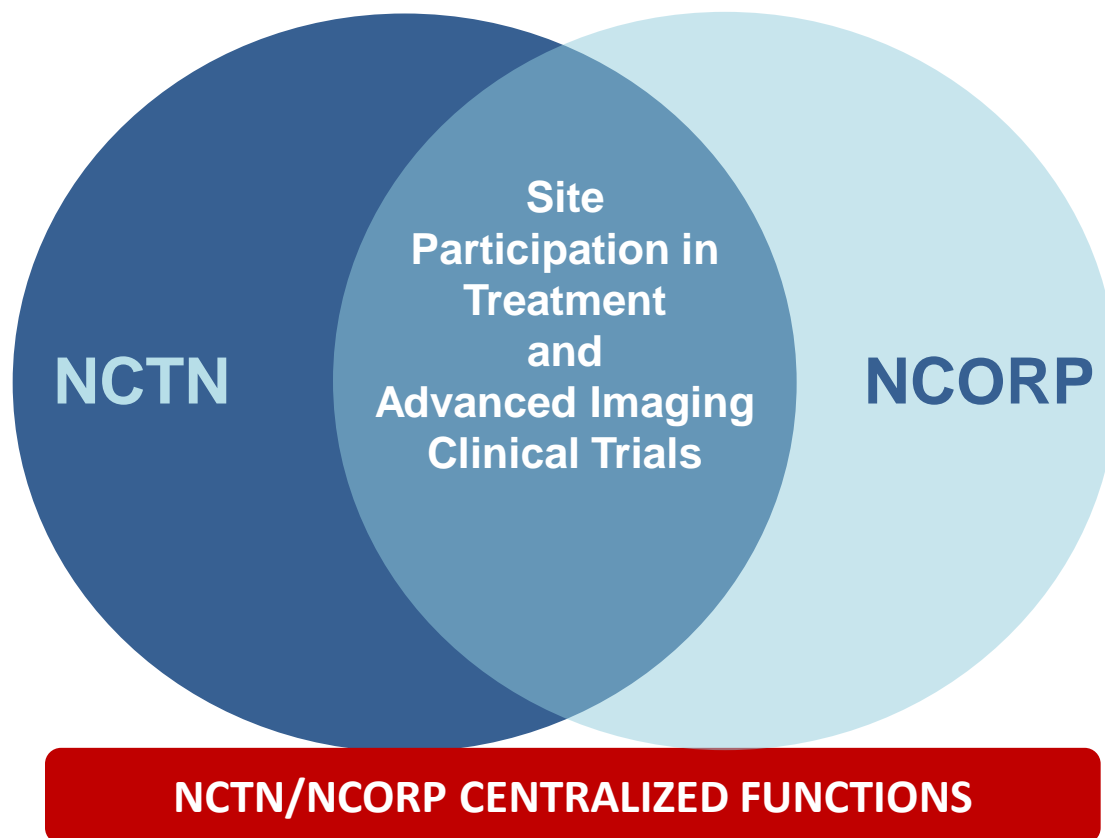
Relationship of NCTN and NCORP

NCTN Focus:

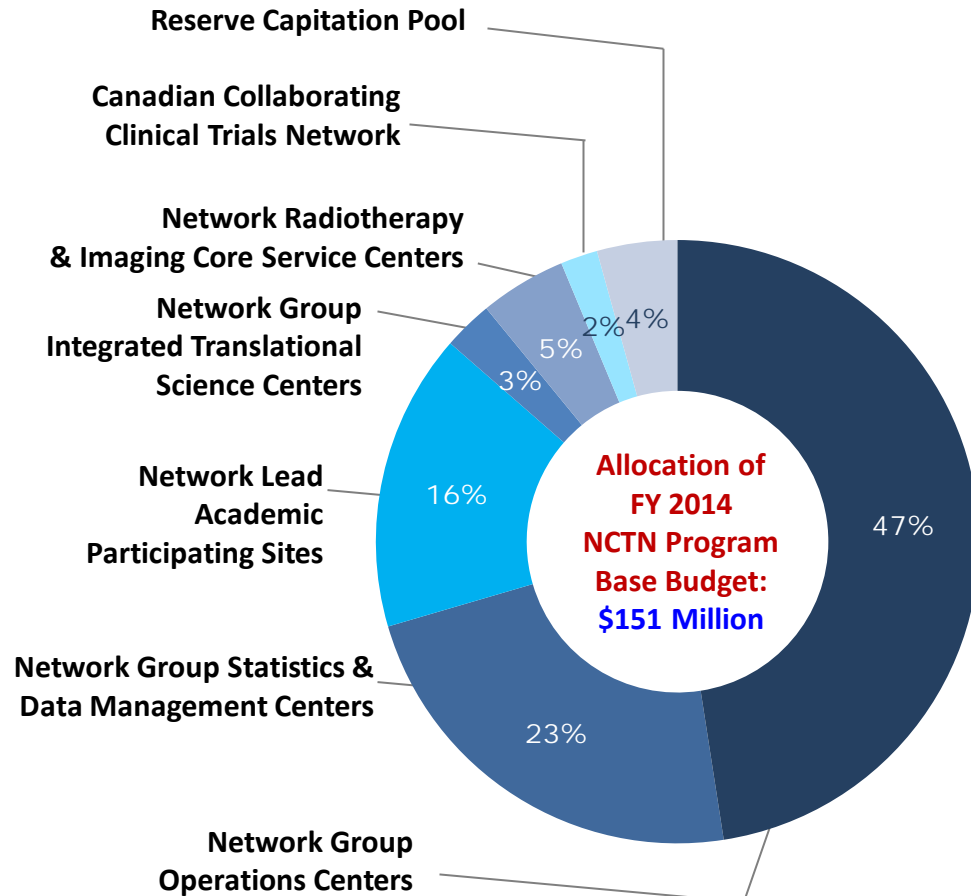
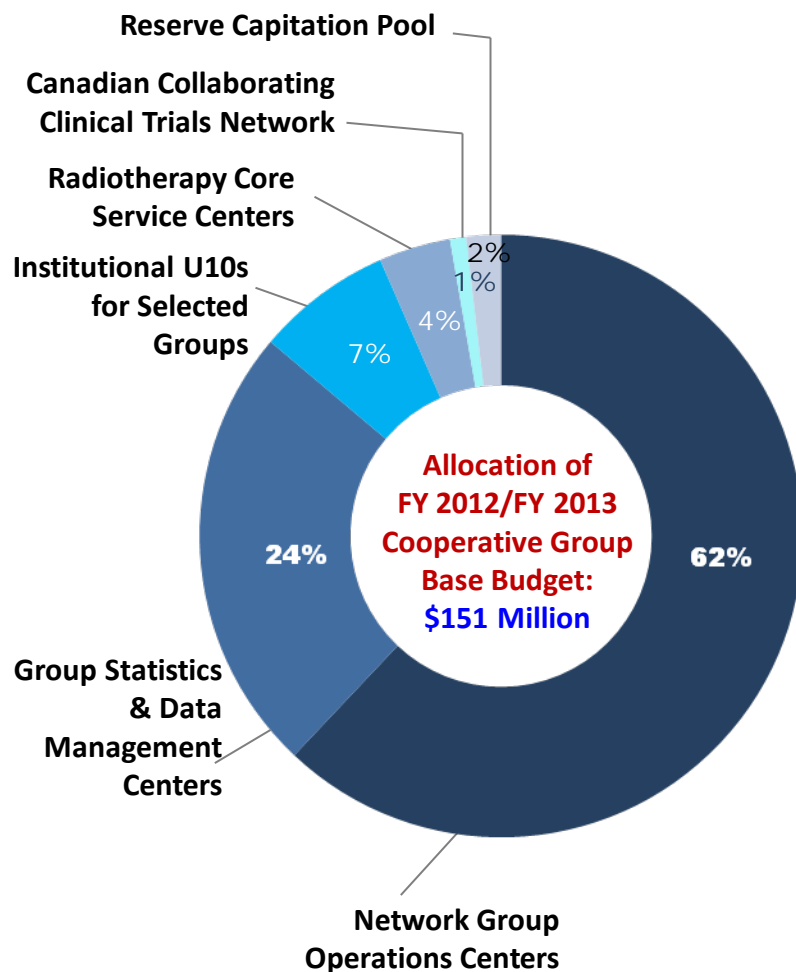
- Late-Phase Treatment Trials
- Advanced Imaging Trials

NCORP Focus:

- Cancer Prevention & Control Trials
- Cancer Care Delivery
- Comparative Effectiveness Research



Comparison of Cooperative Group Program Funding and NCTN Program Funding



NCI provided approximately \$24 million to consolidate infrastructures & more than \$40 million to transition to a common data management system (Medidata Rave®), develop an integrated IT system for the tumor banks, and implement specific precision medicine clinical trials.

NCTN-Related Annual Funding

Additional Estimated Annual NCI Support

(This is an approximation and is dependent on annual NCI appropriations)

NCI Central IRBs (Adult & Pediatrics)	\$4.5 Million
Cancer Trials Support Unit	\$14.0 Million
Tumor Banks	\$8.6 Million
BIQSFP	\$10.0 Million
NCORP Treatment Trials (estimated)	\$33.1 Million
TOTAL:	<u>\$70.2 Million</u>

Other NCI support includes but is not limited to:

- Common Data Management System (Medidata Rave®)
- Clinical Trials Monitoring
- Drug Storage and Distribution
- Regulatory Oversight & Monitoring (CTEP IND Studies)

NCTN Accrual Projections

Average Annual Total Accrual (Intervention & Screening)

FY 2007 – FY 2013 (7 Yr Avg): ≈ 23,670

FY 2010 – FY 2013 (3 Yr Avg): ≈ 20,900

Projection for Year 1 of NCTN: ≈ 19,000 to 20,500

With new Network, accrual reporting can now be done in real-time across a variety of accrual categories to help with collaborative planning & development of new trials

30 Lead Academic Participating Site (LAPS) Awardees

Institution	PI
CASE WESTERN RESERVE UNIVERSITY	MACHTAY, MITCHELL (contact)
DANA-FARBER CANCER INST	BURSTEIN, HAROLD JOHN (contact)
DARTMOUTH COLLEGE	DRAGNEV, KONSTANTIN H.
DUKE UNIVERSITY	CRAWFORD, JEFFREY (contact)
EMORY UNIVERSITY	RAMALINGAM, SURESH S. (contact)
FRED HUTCHINSON CAN RES CTR	APPELBAUM, FREDERICK
JOHNS HOPKINS UNIVERSITY	BRAHMER, JULIE RENEE (contact)
INDIANA UNIV-PURDUE UNIV AT INDIANAPOLIS	MILLER, KATHY D
MAYO CLINIC ROCHESTER	ALBERTS, STEVEN R (contact)
OHIO STATE UNIVERSITY	GOLDBERG, Richard (contact)
ROSWELL PARK CANCER INSTITUTE CORP	LEVINE, ELLIS G (contact)
SLOAN-KETTERING INST CAN RES	AGHAJANIAN, CAROL (contact)
STANFORD UNIVERSITY	WAKELEE, Heather (contact)
UNIVERSITY OF ALABAMA AT BIRMINGHAM	ALVAREZ, RONALD DAVID (contact)
UNIVERSITY OF CALIFORNIA DAVIS	GANDARA, DAVID R (contact)
UNIVERSITY OF CHICAGO	KINDLER, HEDY L (contact)
UNIVERSITY OF COLORADO DENVER	ELIAS, ANTHONY D

30 Lead Academic Participating Site (LAPS) Awardees

Institution	PI
UNIVERSITY OF MICHIGAN	ZALUPSKI, MARK M
UNIV OF NORTH CAROLINA CHAPEL HILL	CAREY, LISA A
UNIVERSITY OF OKLAHOMA HLTH SCIENCES CTR	MANNEL, ROBERT S (contact)
UNIVERSITY OF PITTSBURGH AT PITTSBURGH	BRUFISKY, ADAM M (contact)
UNIVERSITY OF SOUTHERN CALIFORNIA	LENZ, HEINZ JOSEF (contract)
UNIVERSITY OF TX MD ANDERSON CANCER CTR	ENG, CATHY (contact)
UNIVERSITY OF TX SOUTHWESTERN MEDICAL CENTER	SCHILLER, JOAN H.
UNIVERSITY OF UTAH	GAFFNEY, DAVID K
UNIVERSITY OF WISCONSIN-MADISON	KAHL, BRAD (contact)
VANDERBILT UNIVERSITY MED CTR	BERLIN, JORDAN D
WASHINGTON UNIVERSITY	BARTLETT, NANCY L (contact)
WAYNE STATE UNIVERSITY	FLAHERTY, LAWRENCE E
YALE UNIVERSITY	HOCHSTER, HOWARD S (contact)

1 Radiation Therapy/Imaging Core Services Center

Institution	Title of Award Application	PI
AMERICAN COLLEGE OF RADIOLOGY	IROC (IMAGING AND RADIATION ONCOLOGY CORE)	FOLLOWILL, D (contact)

7 Integrated Translational Science Awards (ITSAs)

Institution	Title of Award Application	PI
CHILDREN'S HOSPITAL OF PHILADELPHIA	COG SOLID TUMOR MALIGNANCIES	ADAMSON, P (contact)
COLD SPRING HARBOR LABORATORY	SWOG TRANSLATIONAL (XENOGRAFT-DRUG DISCOVERY)	TUVESON, D (contact)
EMORY UNIVERSITY	ECOG-ACRIN THORACIC MALIGNANCIES RESEARCH	RAMALINGHAM, S
MONTEFIORE MEDICAL CENTER (BRONX, NY)	ECOG-ACRIN LEUKEMIA TRANSLATIONAL RESEARCH	PAIETTA, E (contact)
OHIO STATE UNIVERSITY	ALLIANCE -SWOG LEUKEMIA RESEARCH	MARCUCCI, G (contact)
UNIV OF NORTH CAROLINA CHAPEL HILL	ALLIANCE-NRG ONCOLOGY RNA/DNA SEQUENCING	HAYES, D (contact)
WASHINGTON UNIVERSITY	NRG ONCOLOGY GENOPROTEOMICS CENTER	Mutch, D (contact)