



Imaging and Radiation Oncology Core Cooperative: QA Center Organization and Core Services

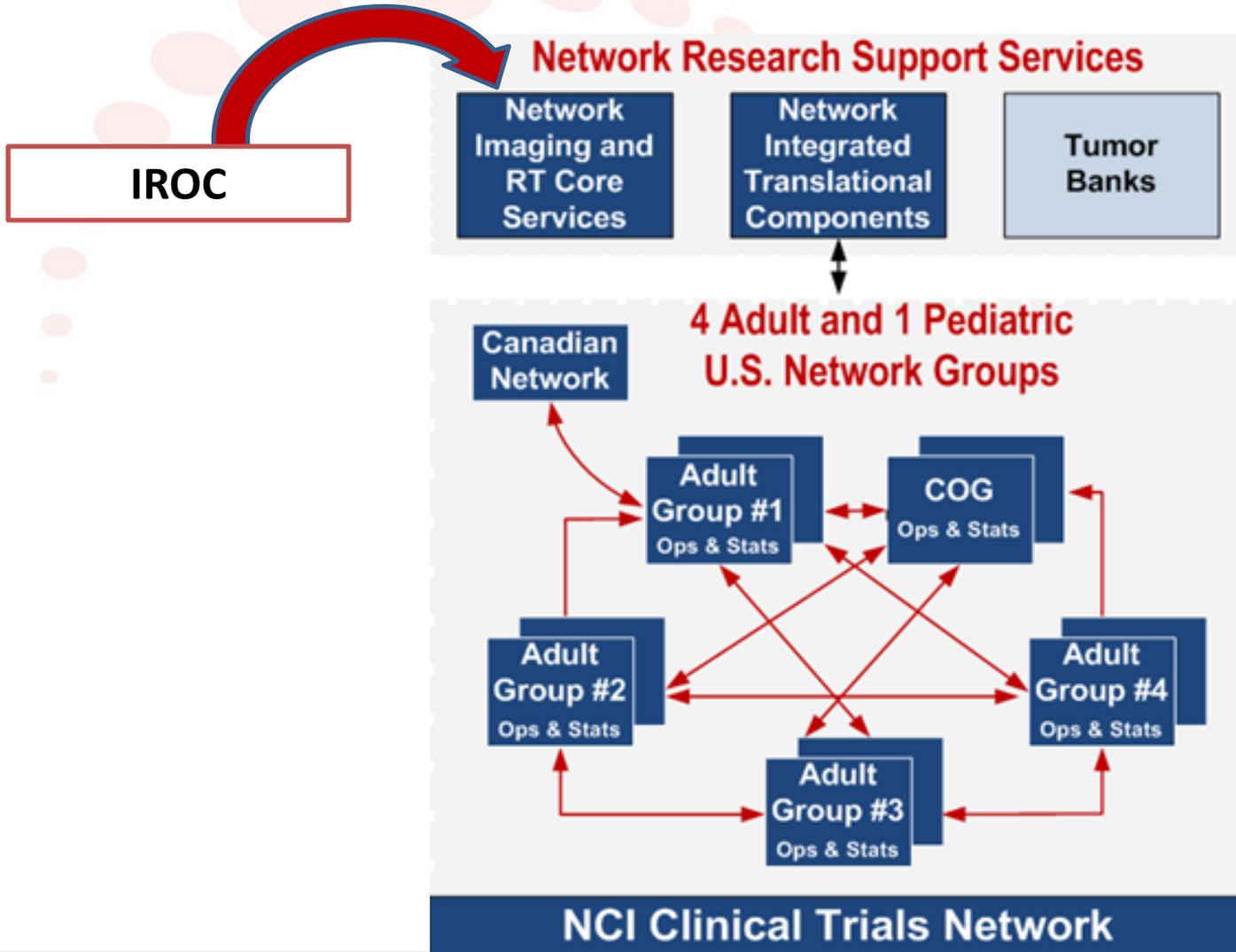


IROC[™]
IMAGING AND
RADIATION ONCOLOGY CORE
Global Leaders in Clinical Trial Quality Assurance

ACR
AMERICAN COLLEGE OF
RADIOLOGY

David Followill, Ph.D.
AAPM Summer Meeting
Austin, TX
July 22, 2014

NCI National Clinical Trials Network



Clinical Trial Groups

Current

RTOG

NSABP

GOG

NCCTG

CALGB

ACOSOG

ECOG

ACRIN

SWOG

COG

March 1, 2014

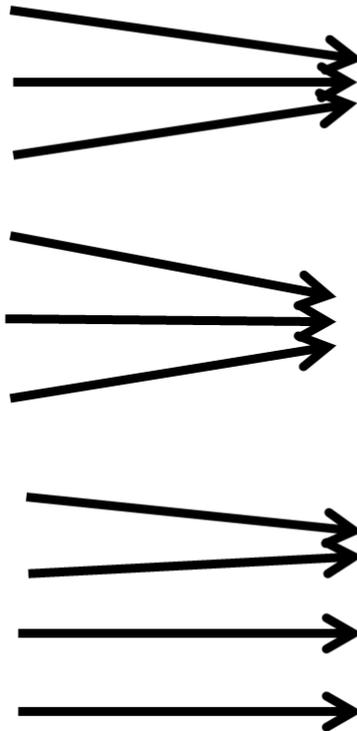
NRG Oncology

Alliance

ECOG/ACRIN

SWOG

COG



IROC's Definition Who Are WE?

The Imaging and Radiation Oncology Core Cooperative better known as IROC:

- ❖ Is A New Clinical Trial Quality Assurance Organization comprised of 6 QA Centers with multiple PIs. Began operation on March 1, 2014
- ❖ IROC RT and Imaging Centers have an extensive and impressive amount of experience, knowledge and infrastructure to aid in the improvement of clinical outcomes for cancer patients.

IROC's Mission

Provide **integrated** radiation oncology and diagnostic imaging **quality control programs** in support of the NCI's NCTN Network thereby **assuring high quality data** for clinical trials designed to improve the clinical outcomes for cancer patients worldwide

IROC Principal Investigators



David S. Followill, PhD, IROC Co-director
and principal investigator for radiation oncology
and chief of outreach physics in the Department of
Radiation Physics at the University of Texas MD
Anderson Cancer Center in Houston



Michael V. Knopp, MD, PhD, IROC Co-director
and principal investigator for imaging
and the director of the Wright Center of Innovation in
Biomedical Imaging at Ohio State University in
Columbus, Ohio

Former
ACRIN
Core Lab

Former
RTOG
QA Office

Former
CALGB Imaging
Core Lab
at Ohio State

Former
Image Guided
Therapy Center
at Wash U

Former
Radiological
Physics Center
(RPC)

Former
Quality
Assurance
Review Center
(QARC)



**IROC
Philadelphia
Imaging**

**IROC
Philadelphia
RT**

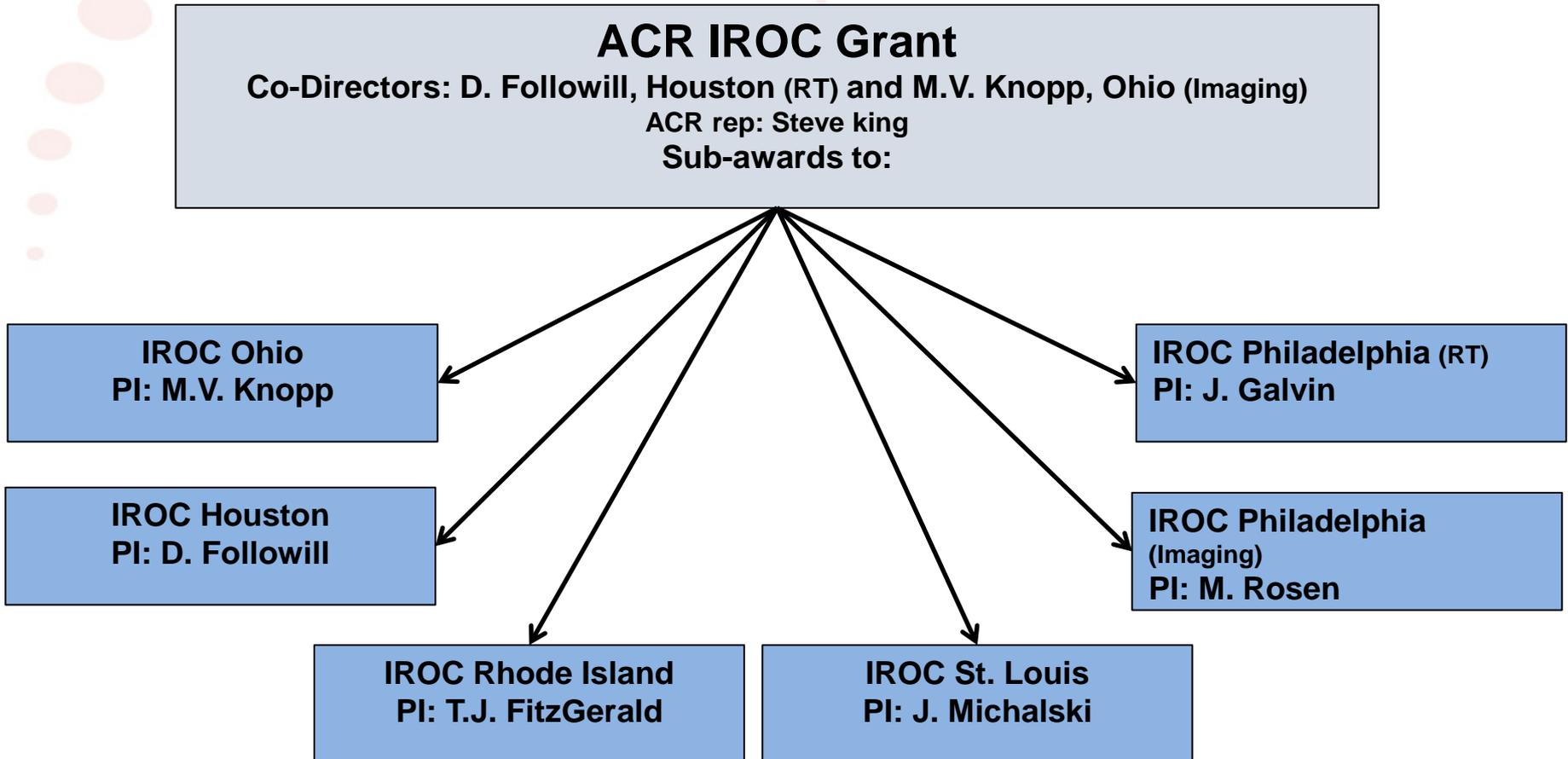
**IROC
Ohio**

**IROC
St. Louis**

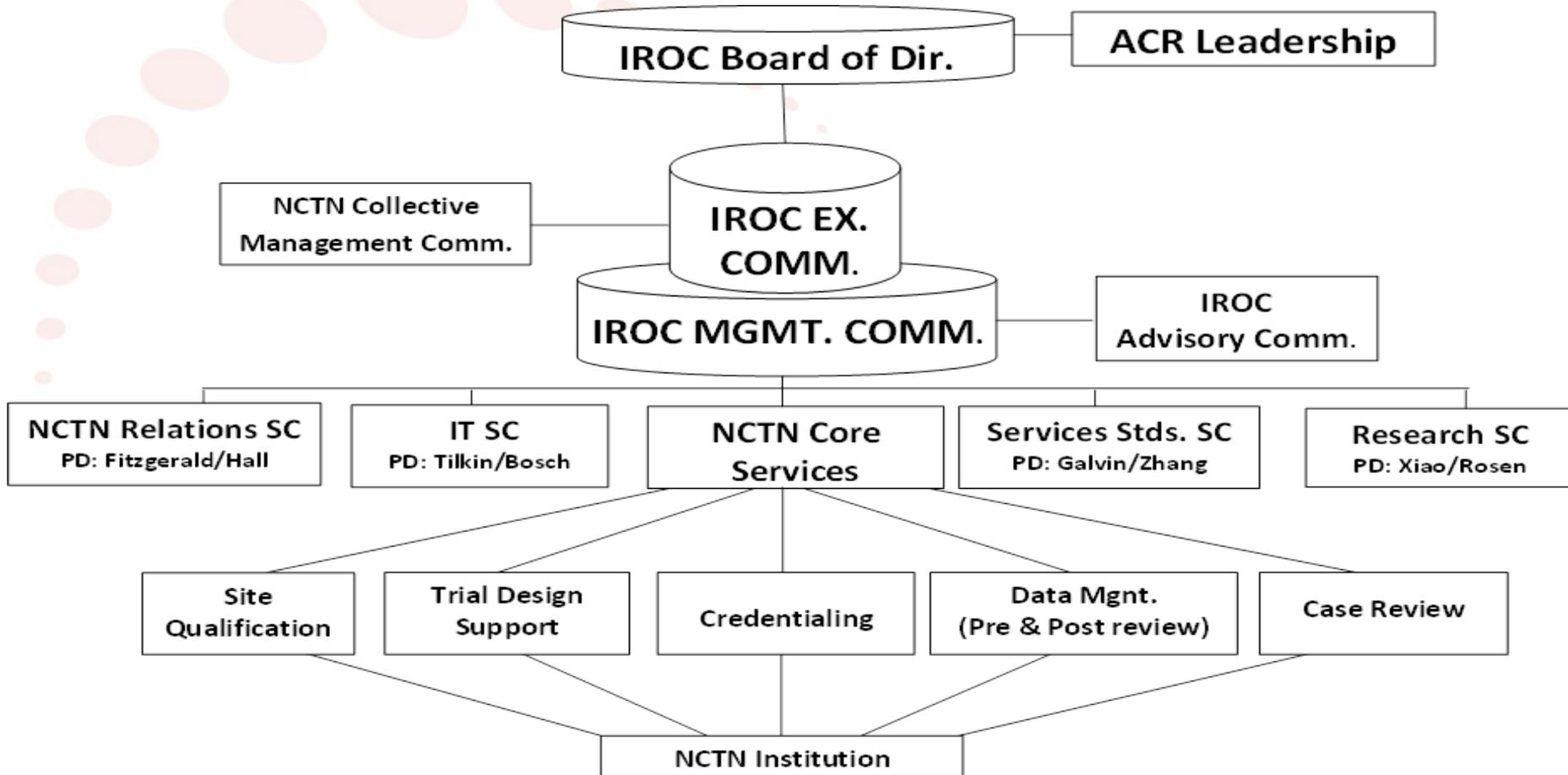
**IROC
Houston**

**IROC
Rhode
Island**

IROC Board of Directors Members



IROC Leadership Structure



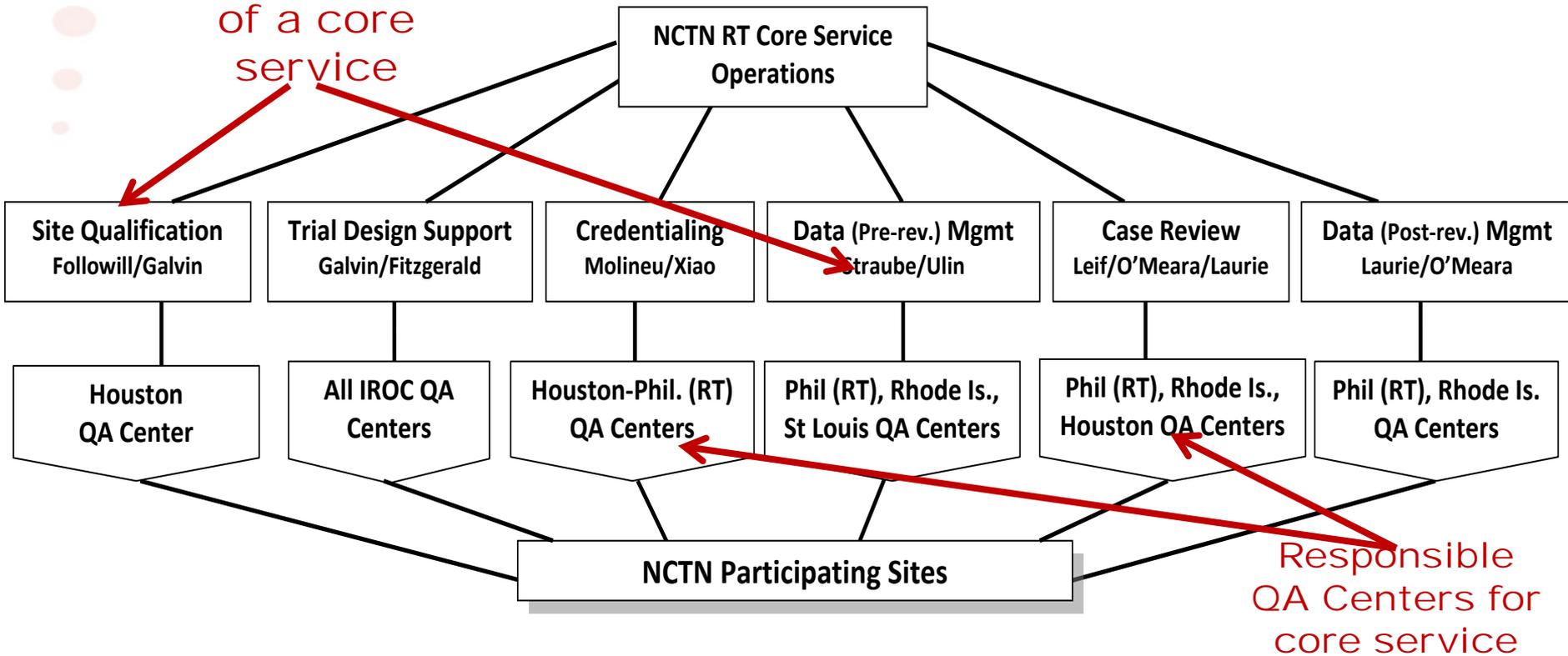
IROC Executive Committee

Co-Directors: Followill/Knopp

IROC Admin: King/O'Meara/Laurie

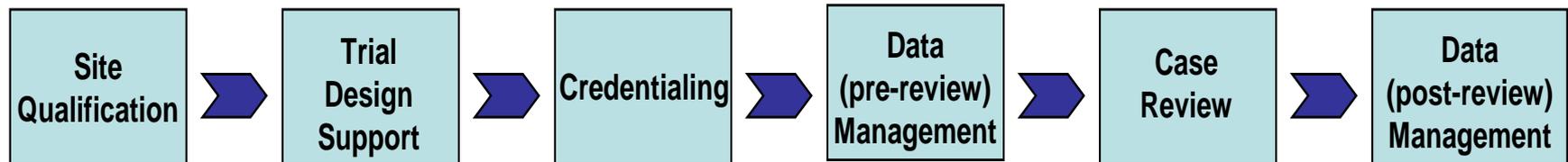
IROC's NCTN RT Core Services

Principal supervisors of a core service



IROC's Five General Core Services

- 1. Site Qualification (Houston)**
(FQs, ongoing QA (OSLD, visits), proton approval, resources)
- 2. Trial Design Support/Assistance (All IROC QA Ctrs)**
(protocol review, templates, help desk, key contact QA centers)
- 3. Credentialing (Houston, Philly (RT))**
(tiered system to minimize institution effort)
- 4. Data Management (Houston, Philly(RT), Rhode Is.)**
(pre-review, use of TRIAD, post-review for analysis)
- 5. Case Review (Houston, Philly(RT), Rhode Is.)**
(Pre-, On-, Post-Treatment, facilitate review logistics for clinical reviews)



Web Link for Procedures and Instructions: http://irochouston.mdanderson.org				
RT Credentialing Requirements	Treatment Modality			Key Information
	SBRT	IMRT	Proton	
Facility Questionnaire	X	X	X	The IROC Houston electronic facility questionnaire (FQ) should be completed or updated with the most recent information about your institution. To access this FQ, email irochouston@mdanderson.org to receive your FQ link.
Credentialing Status Inquiry Form	X	X	X	To determine whether your institution needs to complete any further credentialing requirements, please complete the "Credentialing Status Inquiry Form" found under credentialing on the IROC Houston QA Center website (http://irochouston.mdanderson.org)
Knowledge Assessment	N/A	N/A	N/A	
Benchmark Cases	N/A	N/A	N/A	
Phantom Irradiation	X	X	X	A liver phantom study provided by the IROC Houston QA Center must be successfully completed. Instructions for requesting and irradiating the phantom are found on the IROC Houston web site (http://irochouston.mdanderson.org). Note that only the most sophisticated technique needs to be credentialed, e.g., if credentialed for IMRT, 3DCRT may be used. VMAT, Tomotherapy, Cyberknife and proton treatment delivery modalities must be credentialed individually.
IGRT Verification Study	X	X	X	The institution must submit a sample of verification images showing their ability to reproducibly register daily IGRT information with a planning CT dataset (i.e., the GTV falls within the CT simulation defined PTV). The patient ("as if patient") used for this study must have a target (or mock target) in the liver. The information submitted must include 2 IGRT datasets (from 2 treatment fractions) for a single patient and must employ the method(s) that will be used for respiratory control for patients entered from a particular institution (e.g. abdominal compression, breath hold, etc...). This information with a spreadsheet (the spreadsheet is available on the IROC Houston web site, http://irochouston.mdanderson.org)
Pre-Treatment Review	X	X	X	The first patient to be enrolled from each institution will be planned per NRG-G1001 specifications and submitted via TRIAD for evaluation by the IROC Houston QA Center and the trial PI or designee. Feedback will be given to the institution within 3 business days regarding any concerns prior to the patient being treated. Any required treatment plan modifications must be resubmitted for evaluation prior to treatment.
Credentialing Notification Issued to:				
Institution				IROC Houston QA Center will notify the institution and NRG Headquarters that all desired credentialing requirements have been met.

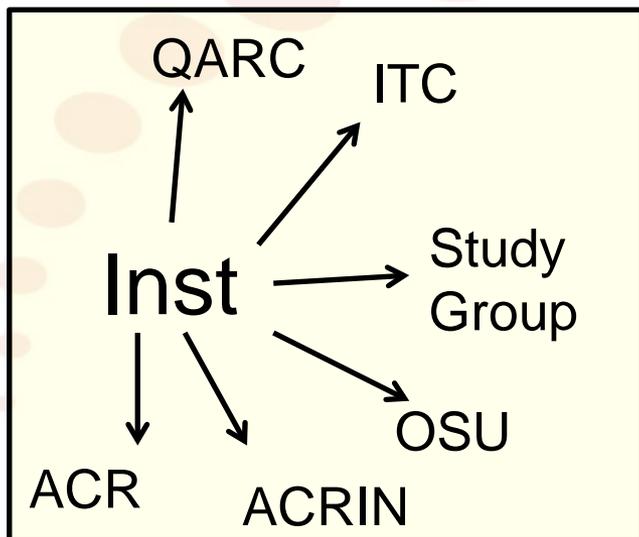
IROC QA Centers Key Support

(IROC Support Contacts for NCTN Groups)

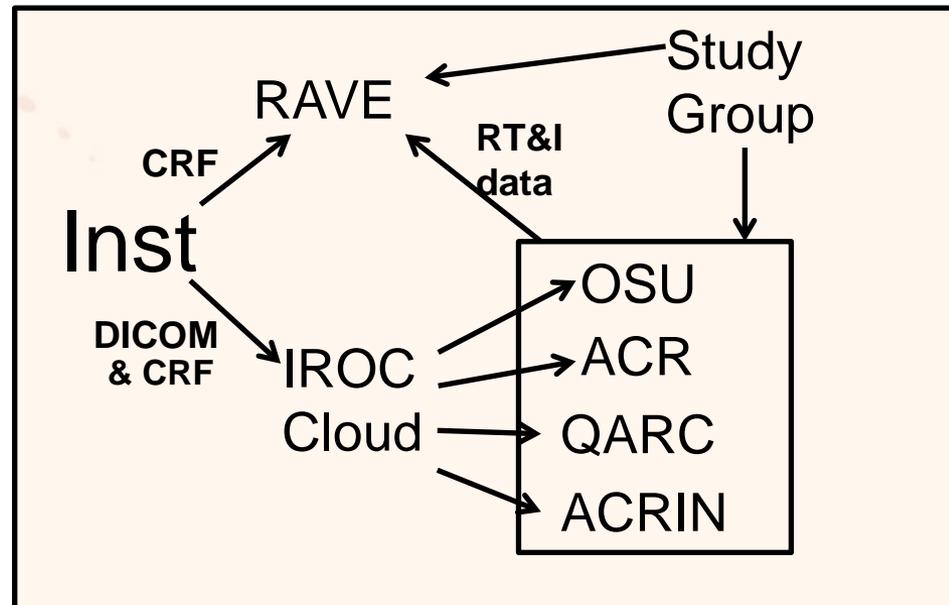
NCTN GROUP	RADIATION ONCOLOGY	IMAGING
Alliance	Rhode Island	Ohio
COG	Rhode Island	Rhode Island
ECON-ACRIN	Rhode Island	Philadelphia (I)
NRG Oncology	Philadelphia (RT)	Philadelphia (I)
SWOG	Rhode Island	Ohio

Data Transfer

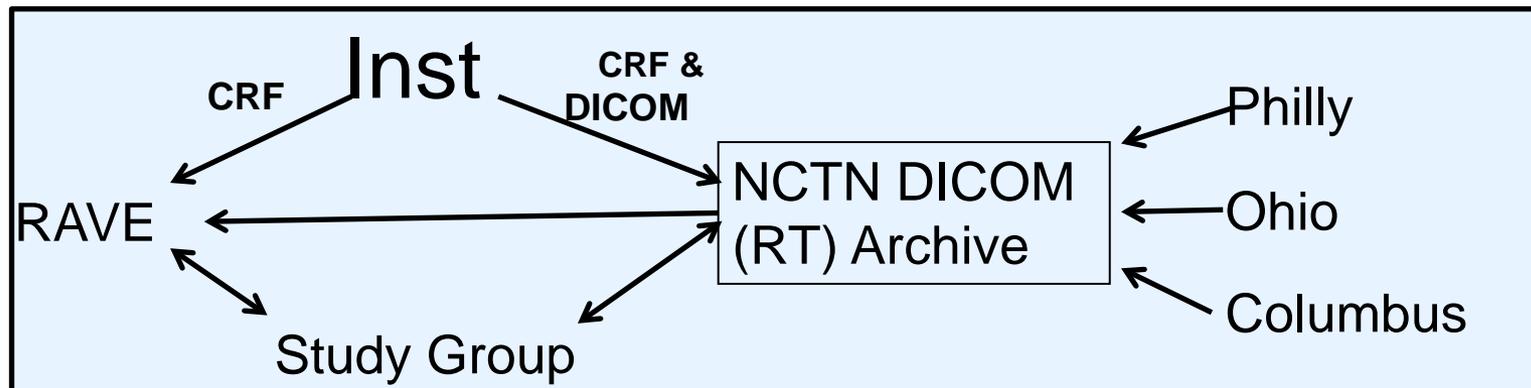
2012



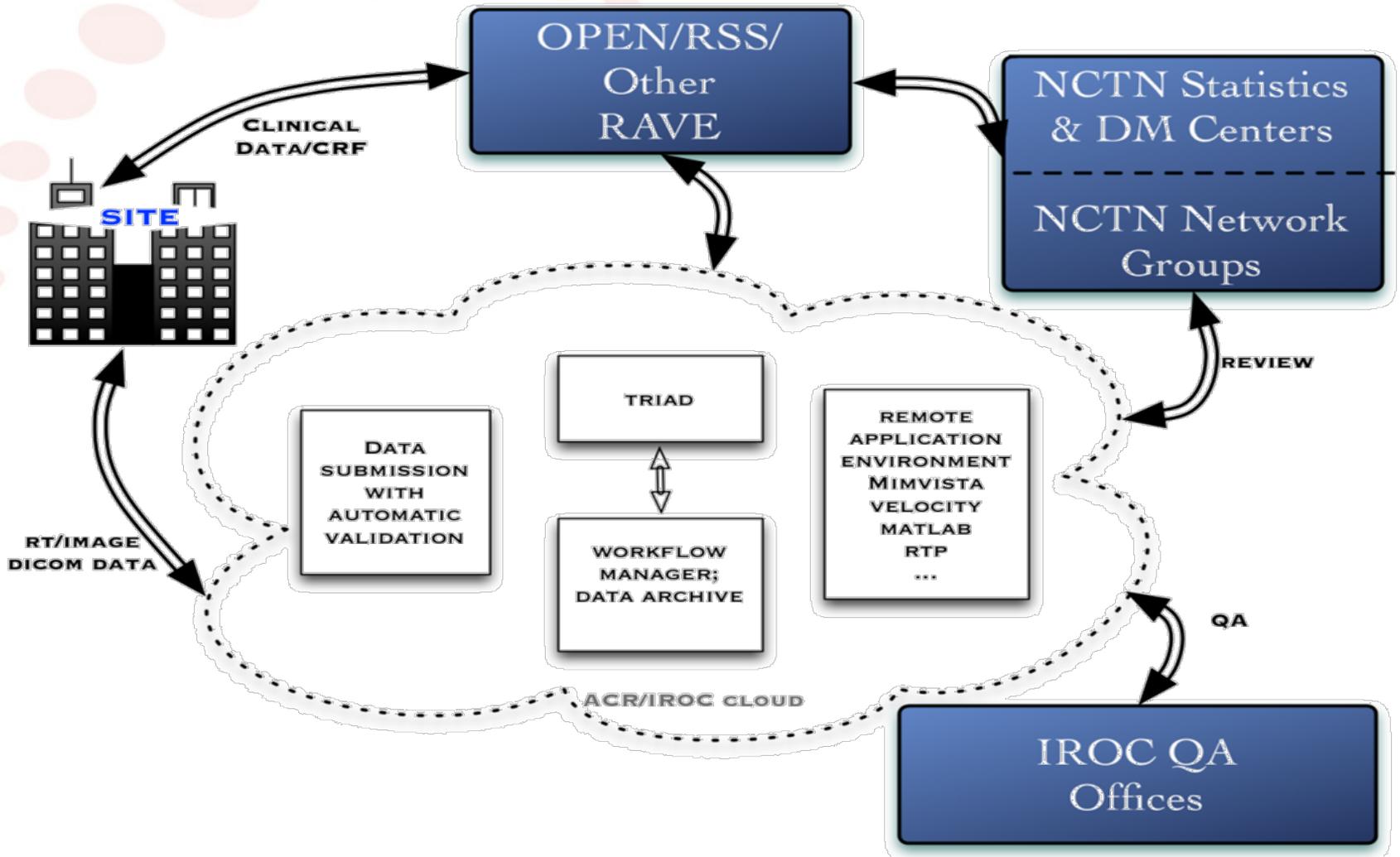
2014-2015



2017



The ACR/IROC Cloud



TRIAD

What is TRIAD

TRIAD™ is the American College of Radiology's (ACR's) image and data exchange platform. TRIAD is a standards based open architecture platform that supports HIPAA security rules relevant to Clinical Trials. It automatically de-identifies the DICOM headers and cleans the PHI from the DICOM images before submission via the internet. Access to the application is role-based and controlled by username and password.

Accessing TRIAD

- Integrated with CTSU log in using CTEP-IAM username and password
- Any staff who will be submitting RT digital data **MUST** be listed on the site roster as TRIAD SITE USER
- The Lead RA must update their roster with the staff members that need to submit via TRIAD on the CTSU website
- NON- RTOG sites need to update their rosters directly through the CTSU helpdesk
- After March 1st RT data for all NSABP, GOG and RTOG (NRG) trials will be submitted via TRIAD



Global Leaders
 in Imaging and
 Radiation Oncology
 Clinical Trial
 Quality Assurance

Welcome

Welcome to the recently launched Imaging and Radiation Oncology Core (IROC) website. Our overarching goal is to provide easy access to information about IROC quality assurance (QA) services and processes for individuals at sites participating in NCI-sponsored trials. As the National Clinical Trials Network gets underway, the IROC team will work to make this website a comprehensive resource for imaging and radiotherapy quality assurance activities.

We welcome your comments and suggestions. Please contact us!

[Contact Us](#)

[View Our Services](#)

[Why Is QA Important?](#)

Announcements



IROC launched its website to support the continuum of imaging and radiotherapy quality assurance services for the National Cancer Institute's National Clinical Trials Network.

[read more ...](#)

Quality Assurance Centers

- ACE Diagnostic Imaging Core Laboratory
IROC Philadelphia - Imaging
- Imaging Core Laboratory
IROC Ohio
- Image Guided Therapy Center
IROC St. Louis
- Quality Assurance Review Center
IROC Rhode Island
- ACE Radiation Oncology Core Laboratory
IROC Philadelphia - RT
- Radiological Physics Center
IROC Houston

Where to find information on TRIAD (www.irocqa.org)

The screenshot shows the IROC website homepage. At the top left is the IROC logo with the tagline "IMAGING AND RADIATION ONCOLOGY CORE" and "Global Leaders in Clinical Trial Quality Assurance". At the top right, it says "Administered by the American College of Radiology" and features the ACR logo. A search bar and home icon are also present. The main navigation menu includes "About Us", "Services", "Trial Credentialing", "Resources", and "News & Events". A dropdown menu is open under "Resources", listing "TRIAD", "Contouring Atlases", "QA Publications", and "Contact Us". A red arrow points from the left side of the page to the "TRIAD" link in this dropdown menu. Below the navigation is a large image of two people in a clinical setting, with a red arrow pointing from the image towards the TRIAD link. To the right of the image is a section titled "Announcements" with the text "Global Leaders in Imaging and Radiation Oncology Clinical Trial Quality Assurance". At the bottom left is a "Welcome" section with a paragraph of text. At the bottom right is an "Announcements" section with a small image of a computer monitor.

Summary

- **The NCI NCTN Reorganization is how IROC started.**
- **IROC RT QA centers have decades of experience, knowledge and infrastructure.**
- **Protocol review as early as possible is critical to establishing appropriate QA procedures.**
- **Patient case reviews require IROC and Groups to work together.**
- **RT and Imaging are working closely together**
- **Be Patient, this is new to us as well!**

Thank You



Questions