NRG Oncology Strategic Themes
2014-2019

Walter J Curran, Jr, MD
RTOG/NRG Group Chair/PI
Winship Cancer Institute of Emory University
Improve the lives of adult patients with localized or locally advanced cancers through the conduct of high quality NCI-supported multi-institutional clinical trials;
Conduct practice-defining research for the major **gender-specific malignancies** (breast & gynecologic cancers & prostate cancer) while capitalizing on common biologic features and interactive research opportunities among these diseases;
5 NRG Oncology Specific Aims

Investigate new developments in medical technology, including radiation oncology, imaging, surgical technology, & IT, for opportunities to advance the care of patients with localized / locally advanced cancers;
Integrate and expand the legacy groups’ translational science programs to better inform biomarker- and biologic pathway-defined approaches to risk stratification, investigational therapy assignment, & clinical trial decision-making;
5 NRG Oncology Specific Aims

Selectively expand GOG’s developmental therapeutics program to NRG’s other six cancer disease site committees to further strengthen the selection of investigational approaches for phase II & III trials.
NRG’s Unique Research Portfolio

7 Cancer Disease Site Committees

• Gynecologic Cancer
• Brain Tumor
• Breast Cancer
• Gastrointestinal Cancer
• Genito-urinary Cancer
• Head and Neck Cancer
• Lung Cancer
Specific Aim 1: Improving Lives of Pts with Localized/Localized Advanced Cancers

- **Gyn:** Chemo for Endometrial Ca (JCO)
- **Brain:** Radiosurgery for Brain Mets (Lancet)
- **Breast:** Herceptin for HER2+ (NEJM)
- **GI:** Chemo/RT for Pancreatic Ca (JAMA)
- **GU:** Hormone Tx for Early Prostate (NEJM)
- **H/N:** Chemo + RT for High Risk Pts (NEJM)
- **Lung:** SBRT for Med Inoperable Pts (JAMA)
Specific Aim 1: Ongoing/Planned Research Approaches and Engaged Committees

- Immunomodulation: Brain, GI, & Gyn
- Particle vs Photon: Brain, Lung, & GU
- Robotic Surgery: Gyn and H/N
- PARP/HDAC Inhibitors: Brain, GI, & Gyn
Specific Aim 2: Gender-Specific Cancers
Gynecologic, Breast, and Prostate Cancers

- Most NRG Trials, Most Patients Enrolled
- Common Research Opportunities:
  - Understanding Hormone Resistance Pathways
  - Pts at Late Risk for Failure/Progression
  - Patient-Reported Outcome Endpoints
  - Tremendous Biorepository Capacity
  - Biomarker-Based Research
Specific Aim 3: Testing Advanced Technology for Localized/Locally Advanced Cancers

• Radiation Oncology
  – Particle Beam Therapies (Proton, Carbon)
  – Robotic Guidance Systems
  – Image-Guided RT
  – RT “Dose Painting” Using Advanced Imaging
  – Motion Management Systems

• Use of Patient-Reported Outcomes

• Linkage with Pt-Centered Outcome Research
Specific Aim 3: Testing Advanced Technology for Localized/Locally Advanced Cancers

- Imaging
  - Strong History with GOG & RTOG with ACRIN
- IROC (Imaging and Radiation Oncology Center)
- Surgical Innovation Research in all 3 Groups
- NRG’s Center for Innovation in Radiation Oncology
Specific Aim 4: NRG Translational Science and Biomarker-Driven Science

- New GBM Classification using Molecular & Clinical Features (ASCO 2011/2012)
- HPV and Oropharynx Ca (NEJM 2011)
- Oncotype DX in Early Breast Ca (NEJM 2006)
- Gene Signatures for Ovarian Ca (JCI 2013)
- hENT-1 in Pancreatic Ca (Gastroent 2009)
Specific Aim 4: NRG Translational Science and Biomarker-Driven Science

- NRG Oncology Repositories are Integrating
  - UCSF, Nationwide Children’s, NSABP
- Biomarker, Imaging, and Quality of Life Studies
- NRG-Linked Translational U10 Applications
- Ongoing NRG-Linked Grant Submissions:
  - National Human Genome Research Institute
  - Brain Tumor SPORE
  - Prostate Cancer P01
NRG: Other Encompassing Principles

• Career Mentorship
• Rare Tumor Research
• Membership Expansion
• Expand Historically Underserved Enrollment
• Expand Collaboration within NCTN & Beyond
• Improve Group Efficiency
NRG Strategic Themes

Thank you!
Purpose and Goals of NRG
(from Group By-laws)

To improve and expand the clinical research capabilities of the organization; focus research on the most promising scientific discoveries; work closely with other members of the NCTN to accomplish the priorities of the NCI; and improve the care of cancer patients through peer-reviewed research that incorporates multi-disciplinary approach.
Research Themes of NRG

- Curative-Intent Multi-modality therapy.
- Gender-Specific Cancers.
- Advanced Radiation Oncology.
- Biomarker-driven Translational Science.
Types of Research

- Phase III, practice changing trials.
- Phase II (mostly IIR) ‘screening’ trials.
- Phase I/II (Developmental Therapeutics) trials.
- Translational research: discovery and validation.
- Patient Centered Outcomes Research
- Cancer Control and Chemoprevention.
- Secondary Analyses, Meta-analyses, and Data Sharing for Hypothesis Generation.
Primary Scope of Research
i.e. Disease Sites

- Breast Cancer
- Brain Tumors
- Gastrointestinal Cancers
- Genitourinary Cancers
- Gynecologic Cancers
- Head and Neck Cancers
- Lung Cancer

Initiatives in other Disease Sites are possible, based upon science and resources
Non-Disease Site Committees that may Develop Protocols

- Developmental Therapeutics (DT)
- Translational Science
- Cancer Prevention and Control
- Patient Centered Outcomes Research

* These Groups will work collaboratively with the Disease Site Committees, to avoid competitive and/or duplicative research strategies.
Non-Disease Site Committees that will not Develop Protocols

- Surgical Oncology
- Medical Oncology
- Radiation Oncology
- Pathology
- Protocol Support (RN/RA)
- Special Populations
- Patient Advocacy

These Scientific Core Committees are advisory, providing support and QA for the Group.
NRG Mega-Core Facilities

Providing both Vision and Service

- Statistical Data Management Center (SDMC). Funded under a separate NCI grant. Led by the 3 Group Statisticians.
- Center for Innovation in Radiation Oncology (CIRO). Led by Rad Onc Committee Chairs and the Group Physicists.
NRG Scientific Committees

Research Strategy Committee

Disease Site Committees
- Breast
- Brain
- Gastrointestinal
  - Colorectal
  - Non-colorectal
- Genitourinary
- Gynecologic
  - Ovarian
  - Cervix
  - Uterine Corpus
  - GYN Rare Tumors
- Head & Neck
- Lung

Non-Disease Site Scientific Committees
- Developmental Therapeutics (DT)
- Cancer Prevention & Control (CPC)
- Patient Centered Outcomes Research (PCOR)
- Translational Science

Scientific Core Committees
- Medical Oncology
- Pathology
- Radiation Oncology
- Medical Physics
- Surgical Oncology
- Protocol Support
  - Clinical Research Associates
  - Nursing
  - Patient Advocates
  - Special Populations

Administrative Committees
- Audit/Quality Control
- Communications
- Membership
- Investigator Training
- Publications

NRG Biorepository

Center for Innovation in Radiation Oncology (CIRO)
The NRG Research Strategy Committee (RSC)

• Chaired by the Deputy Chair for Research Strategy, with two co-chairs.

• Members: 6 Deputy Chairs and the chairs and co-chairs of the scientific committees.
  – Approx. 30 ‘voting’ members.
  – Appointed by the Group Chairs.

• Face-to-face meetings at each NRG Semi-annual meeting, plus multiple interim mtgs.
The NRG Research Strategy Committee (RSC) Functions:

- Coordinate the scientific agenda of NRG in accordance with the priority themes:
  - Evaluate new concepts/proposals.
  - Approved Concepts are forwarded to the Concept Prioritization Advisory Committee (CPAC).
  - Oversight of existing research efforts.
  - Recommend major amendments.
  - Consider recommendation study probation, closure and/or termination.
The NRG Research Strategy Committee (RSC) Votes:

• Decisions of the RSC are Advisory to the Group Chairs.

• The RSC may choose to “vote” on protocol concepts and/or other topics:
  – Approved.
  – Disapproved.
  – Pending (return to RSC for more vetting).
Great Deliberative Body

NRG Committees hard at work .....
NRG Oncology
Concept Prioritization

Tate Thigpen, M.D.
Deputy Chair for Protocol Prioritization and Conduct
Concept Prioritization Advisory Committee (CPAC)

- Chaired by the Deputy Group Chair for Study Prioritization and Conduct
- Oversees:
  - Study prioritization
  - Study conduct from activation to completion of accrual
  - Enforcement of publication deadlines
CONCEPT REVIEW
AND
PRIORITIZATION
COMMITTEE
CONCEPT REVIEW AND PRIORITIZATION COMMITTEE
Concept Prioritization Advisory Committee (CPAC)

- Chaired by the Deputy Group Chair for Study Prioritization and Conduct
- Oversees:
  - Study prioritization
  - Study conduct from activation to completion of accrual
  - Enforcement of publication deadlines
Study Prioritization

• Prioritization Components
  – Scientific merit score
  – Feasibility score
  – Overall rank among proposals from that particular committee
# Prioritization Components

<table>
<thead>
<tr>
<th>Score</th>
<th>Scientific Merit Score</th>
<th>Adjectival Descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Outstanding</strong></td>
<td>(top 20%, worth finding resources)</td>
</tr>
<tr>
<td>2</td>
<td><strong>Excellent</strong></td>
<td>(worth conducting if resources available)</td>
</tr>
<tr>
<td>3</td>
<td><strong>Good</strong></td>
<td>(conduct only if excess resources available)</td>
</tr>
<tr>
<td>4</td>
<td><strong>Poor</strong></td>
<td>(near fatal flaw, conduct only if desperate)</td>
</tr>
<tr>
<td>5</td>
<td><strong>Do not consider further</strong></td>
<td>(even if desperate)</td>
</tr>
</tbody>
</table>
## Prioritization Components

<table>
<thead>
<tr>
<th>Score</th>
<th>Adjectival Descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fully feasible (answers study questions, patients available)</td>
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<tr>
<td>2</td>
<td>Partially feasible (only one of above two criteria present)</td>
</tr>
<tr>
<td>3</td>
<td>Not feasible (neither of two criteria present)</td>
</tr>
</tbody>
</table>
## Prioritization Components

### NRG ONCOLOGY PRIORITIZATION FORM

Committee: ____________________________________ Date: ________________

Persons completing form: _____________________________________________

<table>
<thead>
<tr>
<th>Priority Score:</th>
<th>Scientific Merit Score:</th>
<th>Feasibility Score:</th>
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<tbody>
<tr>
<td>Study #:</td>
<td>Site:</td>
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<tr>
<td>Comments:</td>
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</tbody>
</table>
Study Prioritization

• Prioritization Components
  – Scientific merit score
  – Feasibility score
  – Overall rank among proposals from that particular committee

• Prioritization Process
Prioritization Process

• Each protocol-generating committee submits new proposals quarterly
• Prioritization will include: scientific merit score, feasibility score, and rank
• Individuals responsible for submitted prioritizations: committee co-chairs
Prioritization Process

• CPAC reviews scores and establishes overall prioritization list.
• CPAC recommendations submitted to Group Chairs for final decision
• Once final prioritizations are completed:
  – Appeals by committees to Group Chairs
  – Monitoring of study development returned to Research Strategy Committee
Concept Prioritization Advisory Committee (CPAC)

- Chaired by the Deputy Group Chair for Study Prioritization and Conduct
- Oversees:
  - Study prioritization
  - Study conduct from activation to completion of accrual
  - Enforcement of publication deadlines
Study Conduct

• Upon study activation, the RSC hands the study back to CPAC for management

• Elements of management: accrual, toxicity, amendments, overall progress

• Monthly conference calls
  – Set firm deadlines for tasks
  – Monitor and enforce deadlines
Concept Prioritization Advisory Committee (CPAC)

- Chaired by the Deputy Group Chair for Study Prioritization and Conduct
- Oversees:
  - Study prioritization
  - Study conduct from activation to completion of accrual
  - Enforcement of publication deadlines
Publications Deadlines

• Set by Publications Committee and Deputy Chair for Publications

• Deadlines reviewed at monthly conference calls and enforced
CPAC

• Composition: group chairs, deputy group chairs, statistical leaders

• Functions:
  – Prioritizes study development and resources
  – Monitors study conduct and reporting
  – Sets and enforces deadlines

• Mechanism: monthly conference call to monitor all tasks
Membership in NRG Oncology
<table>
<thead>
<tr>
<th>NSABP</th>
<th>RTOG</th>
<th>GOG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gosik, Chris</td>
<td>Boparai, Karen</td>
<td>Campbell, Katie</td>
</tr>
<tr>
<td>Gosik, Diana</td>
<td>Boyle, Elaine</td>
<td>Griffin, Shawn</td>
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<tr>
<td>Junio, Elaine</td>
<td>Brantley, Yvette</td>
<td>LeMar, Tivona</td>
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<tr>
<td>Ketner, Mary</td>
<td>Brasteter, Henry</td>
<td>Mackey, Denise</td>
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<tr>
<td>Kiniry, Darlene</td>
<td>Gore, Elizabeth MD</td>
<td>Romond, Edward MD</td>
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<tr>
<td>Passarello, Mimi</td>
<td>Hartson, Sharon</td>
<td>Rocreto, Thomas MD</td>
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<tr>
<td>Romond, Edward MD</td>
<td>Machtay, Mitchell MD</td>
<td>Stonebraker, Bette</td>
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<tr>
<td>Wickerham, DL MD</td>
<td>O’Meara, Elizabeth</td>
<td>Waggoner, Steven MD</td>
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<tr>
<td></td>
<td>Suntha, Mohan MD</td>
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Membership Categories

-Main Members-

• Required to credit 15 patient cases per year to NRG
• Maintain satisfactory data quality and audit performance
• CCOP’s and NCCCP sites eligible to be members
• 15 cases from the entire NRG portfolio
• Affiliate accrual will count toward the 15 case requirement
• NCTN accrual credited to NRG will also count
Main Members will be able to designate up to 3 PIs

- Should represent different medical specialties
- Not necessary for many sites
# NRG Member Institutions Summary

<table>
<thead>
<tr>
<th>Cooperative Group Members</th>
<th># Members/ CCOPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSABP (N) only</td>
<td>96</td>
</tr>
<tr>
<td>RTOG (R) only</td>
<td>18</td>
</tr>
<tr>
<td>GOG (G) only</td>
<td>29</td>
</tr>
<tr>
<td>NR</td>
<td>26</td>
</tr>
<tr>
<td>NG</td>
<td>24</td>
</tr>
<tr>
<td>RG</td>
<td>15</td>
</tr>
<tr>
<td>NRG</td>
<td>25</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>233</strong></td>
</tr>
</tbody>
</table>
Membership Categories

Main Members (cont.)

• Per case reimbursement for affiliates will go to the Main Member

• Some current group affiliates will now be able to become Main Members
Current Estimate of Main Members – 233

- 48 states
- 5 Canadian provinces
- Puerto Rico
- 7 Foreign countries
- 76 Comprehensive cancer centers
- 58 CCOPs
Voting Members

• Main members that credit NRG Oncology with 40 or more cases per year

• Initially voting members will be selected by the Group Chairs

• Beginning on 2015 voting members status will be based on NRG accrual
Affiliate Members / CCOP Component

• Aligned with a Main Member

• Affiliates permitted to contract with only one Main Member

• North American affiliates required to accrue 3 cases per year

• International affiliates required to accrue 7 cases per year
NRG Oncology Membership Affirmation
Please complete one form per institution. Principal Investigators at institutions that participate in more than one NRG Oncology legacy group should collaborate on the submission. If help is needed to determine your institution’s participation in a legacy group and contact information please contact your group’s Membership Department.

Institution Information
Institution Name:
CTEP ID (e.g., PA001): Radiation Therapy Facility# (RTF):

| Current Membership Type in the NRG Legacy Groups |
| NSABP | Main Member | Affiliate | CCOP | CCOP Component | NA |
| RTOG  | Main Member | Affiliate | CCOP | CCOP Component | NA |
| GOG   | Main Member | Affiliate | CCOP | CCOP Component | NA |

Street Address:
City State ZIP Code:

Affirmation of Continued Membership in NRG Oncology
Please indicate if you wish to continue your participation as an NRG Oncology member.

NSABP Principal Investigator
Name: NCI # (e.g., 12345):
Mailing Address:
City State ZIP Code:
Telephone Number: Email Address:
☐ I affirm my continued membership in NRG Oncology and/or want to become a member
☐ My site is not an NSABP Member

RTOG Principal Investigator
Name: NCI # (e.g., 12345):
Mailing Address:
City State ZIP Code:
Telephone Number: Email Address:
☐ I affirm my continued membership in NRG Oncology and/or want to become a member
☐ My site is not an RTOG Member
Transforming the NCI’s Clinical Trials System

James H. Doroshow, M.D.
Division of Cancer Treatment and Diagnosis, NCI
6 FOA’s Released 7.23.12

1. Operations Center (≤ 5)
2. Biostatistical Center (≤ 5)
3. Translational Science Center (5-7)
4. U-10 Academic Centers (30-40)
5. Radiotherapy and Imaging Core (≤ 1)
6. Canadian Collaborators (≤ 1)

Permit multiple PI’s to help transition
Allow distributed data and ops centers
Combine rather than disband disease com

Due Date: Jan 15 ‘13; award Mar ‘14
NRG Oncology

scientific merger
Advantages of NRG Oncology

The scientific merger is not elective
(1 Ops; 1 Biostat)

No competition between scientific programs

NRG is a unique scientific entity

Whole is greater than the component parts
NRG Oncology: New Strengths

Developmental therapeutics and early-phase trials expertise

Outstanding translational science capabilities

Combined well annotated tissue banks and bio-repositories (~900,000)
International Expertise in Gender-Specific Cancer Research

Women’s Cancer

• Exceptional programs in breast and gynecologic malignancies
• Cancers of other sites in women
• Broad program: includes clinical trials, health outcomes, quality of life, and cancer survivorship
NRG ONCOLOGY

Grant submitted Jan 15, 2013

Esprit de corps and commitment

Collegiality and enthusiasm

Industriousness and resourcefulness

Integrity and trust
NRG ONCOLOGY

We will emerge as a stronger entity