NRG Oncology Research Recap from ASTRO 2016

NRG Oncology was represented during seventeen presentations at ASTRO's (American Society for Radiation Oncology) 58th annual meeting in Boston, Massachusetts September 25th though the 28th. Below are some highlights of the research that was presented:

**Plenary Session Presentations**

* A Phase III Randomized Study of Hypofractionated 3D-CRT-IMRT Versus Conventionally Fractionated 3D-CRT-IMRT in Patients with Favorable-Risk Prostate Cancer  
**Presenter:** Deborah W. Bruner, PhD - Emory University, Winship Cancer Institute

NRG Oncology investigators found delivering higher doses of radiation therapy over 13 fewer days than conventional therapy was safe, more convenient for patients, and was associated with lower costs and similar quality of life outcomes for patients with favorable-risk prostate cancer. [Read the full press release here](#)

* A Phase III Study Comparing Combined External Beam Radiation and Transperineal Interstitial Permanent Brachytherapy with Brachytherapy Alone for Selected Patients with Intermediate Risk Prostatic Carcinoma  
**Presenter:** Bradley R. Prestidge, MD - DePaul Medical Center, Bon Secours Cancer Institute

NRG Oncology researchers reported that adding external radiation therapy to standard brachytherapy did not improve progression-free survival for men with intermediate-risk prostate cancer. [Read the full press release here](#)

* A Randomized Phase III Study of Standard Versus IMRT Pelvic Radiation for Post-Operative Treatment of Endometrial and Cervical Cancer (Time-C)  
**Presenter:** Ann H. Klopp, MD - MD Anderson Cancer Center

NRG Oncology investigators report better patient-reported quality of life measures for women who received intensity-modulated radiation therapy (IMRT) for their pelvic radiation therapy (RT) than those who received standard RT. [Read the full press release here](#)
NRG Oncology Scientific Session
Friday, February 10, 2016; 8:00AM-10:00AM

The Scientific Session will feature seven NRG Oncology trials including:

A mutation and prognostic biomarker study in grade II and III gliomas utilizing a combined cohort of NRG Oncology/RTOG 9802 and 9813.

Initial report of NRG Oncology/RTOG 0232: A phase III study comparing combined external beam radiation and transperineal interstitial permanent brachytherapy with brachytherapy alone for selected patients with intermediate-risk prostatic carcinoma.


Final results of NRG Oncology RTOG 0246: An organ preserving selective resection strategy in esophageal cancer patients treated with definitive chemoradiation.

A phase III clinical trial of bevacizumab with IV versus IP chemotherapy in ovarian, fallopian tube and primary peritoneal carcinoma: An NRG study

A phase III trial evaluating pCR in patients with HR+,

HER2-positive breast cancer treated with neoadjuvant docetaxel, carboplatin, trastuzumab, and pertuzumab (TCHP) +/- estrogen deprivation: NRG Oncology NSABP B-52.

A randomized, double-blinded, placebo-controlled clinical trial to evaluate extended adjuvant endocrine therapy (5 years of letrozole) in postmenopausal women with hormone-receptor positive breast cancer who have completed previous adjuvant endocrine therapy: Initial results of NRG Oncology NSABP B-42.

Attendees will have the ability to participate in a question and answer segment after each presentation.

General Session
Friday, February 10, 2016; 1:00PM-2:00PM

Join us for the NRG Oncology General Session and be welcomed to Houston, Texas! The General Session will feature the Outstanding Publications Awards for manuscripts and abstracts and the top accruing institutions and membership update for 2016. During the session, updates will also be announced from the NRG Oncology National Cancer Institute (NCI) Community Oncology Research Program (NCORP), the Research Strategy Committee, the Statistics and Data Management Center, and the Biospecimen Bank.

Follow Us On Twitter @NRGOnc for Live Updates from the NRG Oncology Semiannual Meeting

Use the hashtag #NRGMtg17 to stay up-to-date on trending topics regarding the meeting and engage with other attendees on the events taking place.

RT and Imaging Credentialing Webinar

A radiation therapy (RT) and imaging credentialing webinar will be held on Thursday, April 20th from 4-5 PM ET for NCORP sites. CTEP sites are also welcome to attend. The webinar will explore the processes involved in becoming RT and imaging credentialed. This session will also look at the steps that have been taken to maximize efficiency and lessen the workload of the institutions. Questions regarding TRIAD will also be addressed.

If you are interested in attending or have any questions regarding this webinar, please contact Marge Good at goodmj@mail.nih.gov
Protocol Support Committee Column

It is time to start looking forward to the winter NRG Oncology Semiannual meeting. The Education and Training Working Group organizes many hours of educational sessions to enhance CRA and CTN knowledge and efficacy in the clinical trial coordination role. CRAs and CTNs can expect to gain valuable information about the general practices in clinical trial conduct, specific clinical trials and disease sites, and the varied treatment modalities utilized in NRG Oncology trials.

The February 2017 Education Session Highlights

- TRIAD, Image and Data Transmission, RT Credentialing presented by Jessica Lowenstein
- Neurocognitive Testing and Credentialing presented by Dr. Jeffery Wefel
- Electronic Recruitment Survey presented by Kate Yeager
- New for 2017 but will be a recurring session is an information session by NRG Operations and/or Statistics and Data Management Center, this year presented by Mary Jo Antonelli.
- NIH Pharmaceutical Electronic Investigator Registration and Drug Accountability presented by Tali Johnson from the PMB.

We hope to see you in Houston. If you have topics for future educational sessions, please let us know.

Sally Brown
Melinda Weiblen
Co-facilitators
PSC Education and Training working group

Registration Reminder for New Nurses and CRAs!

If you are a nurse or CRA who has been involved in clinical trial procedures for one year or less, consider registering for the “Introduction to Clinical Trials: Principals of Clinical Trial Management” session. This is a full-day program scheduled from 7:30 am to 4:30 pm on Thursday, February 9, 2017, at the NRG Oncology Semi-Annual meeting in Houston. Topics to be presented include:

- NRG Oncology History and Contributions
- NRG Membership
- IRB Requirements
- Serious Adverse Event Reporting
- Investigational Drug Management
- Quality Assurance Audits
- Medidata RAVE

- RECIST Criteria
- Quality of Life/Patient Reported Outcome
- Procedures
- Mentorship Program
- Patient Screening and Enrollment
- Treatment Modalities in Clinical Trial Management
- Data Management Procedures

The morning session will consist of several presentations by NRG Oncology Headquarters staff and CRA and CTN Subcommittee representatives. The afternoon session, consisting of four breakout sessions on various topics, will offer an interactive question-and-answer format.

PLEASE NOTE: This orientation session is for CRAs and nurses who are new to NRG Oncology and who have one year or less of clinical trial experience. The content of the session will be similar to that presented at the previous orientation session in January 2016.

CTN/CRA Information Table

To meet more of the needs of CTNs and CRAs who attend the NRG Oncology semiannual meetings, the Protocol Support Committee (PSC) will sponsor an Information Table. The table will be staffed by volunteer CTNs and CRAs on the respective sub-committees as well as the working groups (Education and Training, Protocol Review, Mentorship, Quality Assurance).

Stop by with any questions that you have about the NRG Oncology protocols. If the volunteer does not have an answer, your question will be forwarded until we find someone to answer it.

Note: the table will be staffed during PSC sponsored sessions.

We look forward to seeing you at the NRG meeting!
NRG-GI002: A Phase II Clinical Trial Platform of Sensitization Utilizing Total Neoadjuvant Therapy (TNT) in Rectal Cancer (NCT02921256)

Background
Improving outcomes for patients with locally advanced rectal cancer has proven challenging, in part, because a large proportion of patients fail to receive all effective therapies. Attempts to improve preoperative downstaging and survival, including the testing of truly novel radiosensitizers, cannot be realized until this is corrected. NRG Oncology’s recently activated NRG-GI002 clinical trial will provide a systematic approach to study novel systemic therapeutics, and identify patients at exceptionally high risk for recurrence in the setting of locally advanced rectal adenocarcinoma. This study incorporates all known effective therapy into the neoadjuvant setting. The Total Neoadjuvant Therapy approach (“TNT” for short) then allows for optimal testing of new therapies through this modular trial design. The success of any intervention is defined by a demonstrated improvement in the Neoadjuvant Rectal Cancer (NAR) score for an experimental arm compared to the control arm.

Yothers, et al developed the NAR score as a short term clinical trial surrogate endpoint to consistently measure treatment effect beyond pCR. The NAR score uses variables commonly available in rectal cancer neoadjuvant clinical trials, does not require central pathology review and was proven to predict recurrence free and overall survival more accurately than pathologic complete response (pCR).

This study is intended to serve as a platform with additional arms considered through scientific review and protocol amendments individually compared to a continuously enrolling control arm. NRG-GI002 could present an opportunity for the development of more potent radiosensitizers in rectal cancer. This could be clinically meaningful for patients with advanced disease who may benefit from more effective local control, those with earlier stage disease who may benefit from non-surgical or less radical interventions and those who desire a greater likelihood of organ (sphincter) preservation. Through serial blood, radiologic and tumor testing, we plan to undertake correlative biomarker refinement, less invasive measures of response and identification of potential mechanisms of resistance. The first experimental arm incorporates the PARP inhibitor, veliparib, as a radiosensitizer based on strong preclinical rationale and demonstrated safety in a recently completed phase I study.

Primary Objective
To demonstrate an absolute improvement in Neoadjuvant Rectal Cancer (NAR) score for the experimental regimen as compared to control.

Secondary Objectives
• To compare:
  • overall survival (OS)
  • disease-free survival (DFS)
  • the rate of pathologic complete response (nodes and tumor)
  • the rate of clinical complete response rate (cCR)
  • the rate of negative circumferential margin
  • the rate of completion of all cycles of neoadjuvant chemotherapy
  • the rate of completion of full course of chemoradiation
  • the rate of sphincter preservation
  • the toxicity and safety between interventions
• To estimate the rate of disease progression during chemotherapy (prior to chemoradiation)
• To explore the correlative molecular predictors of response and distant failure
• To explore the relationship between radiographic findings and pathologic outcomes

Target Accrual
174 Patients (87 patients per each experimental and concurrent control arm)

Patient Population
Biopsy proven stage II or III rectal adenocarcinoma with ECOG PS 0-2 and locally advanced disease as determined by any ONE of the following:
• distal location: cT3-4 ≤ 5 cm from the anal verge, any N
• bulky: any cT4 with the majority of tumor < 12cm from the anal verge or evidence that the tumor is adjacent to (defined as within 3 mm of) the mesorectal fascia on imaging
• high risk for metastatic disease with 4 or more regional lymph nodes (cN2)
• not a candidate for sphincter-sparing surgical resection prior to neoadjuvant therapy (as planned by the primary surgeon)

The stage of the primary tumor may be determined by endoscopic ultrasound or MRI (MRI is preferred) and adequate untreated tumor specimen must be available for mutational profiling.

continued
Clinical Trial Highlights (continued)

NRG-RTOG 0848: A Phase II-R and a Phase III Trial Evaluating Both Erlotinib (Ph II-R) and Chemoradiation (Ph III) as Adjuvant Treatment for Patients with Resected Head of Pancreas Adenocarcinoma.

Amended Protocol

NRG-RTOG 0848 initially opened in 2009 and has since evolved to accommodate the many chemotherapy regimens now available that have shown improved tumor effect in the metastatic context for patients with resected pancreatic adenocarcinoma. The five-year survival rate for patients with pancreatic adenocarcinoma is less than 20% despite potentially curative resection. Typically, patients with this resected head of pancreas adenocarcinoma are treated with chemotherapy.

This important protocol presents an opportunity to determine whether the addition of radiotherapy after chemotherapy improves the current standard of care for this patient population. The trial was recently amended to facilitate accrual, so that the trial can be completed. NRG-RTOG 0848 now allows patients the opportunity to begin chemotherapy prior to entering the trial, with any one of the several available regimens that their medical oncologist determines is best for the patient, and not just gemcitabine alone.

Patients can be enrolled into NRG-RTOG 0848 either before chemotherapy treatment has started or after up to 3 months of chemotherapy has been given, regardless of whether the patient is receiving or will receive gemcitabine alone or combination chemotherapy. After enrollment, patients will receive up to 5 months of chemotherapy, depending on how much they received prior to study entry, for a total of 5 months of chemotherapy, and will then be assessed for progression. Patients who have not progressed at this point will be randomized to receive, or not receive, radiotherapy with chemosensitizing doses of a fluoropyrimidin (either 5-fluorouracil or capecitabine) after one more month of their original chemotherapy.

When the trial first started, patients were first randomized to treatment with erlotinib plus gemcitabine versus treatment with gemcitabine alone, before being assessed for progression in order to move onto the second randomization regarding radiation. In 2013, after over 250 patients had been entered to the first randomization, new information became available about erlotinib. In a study performed in Europe, the addition of erlotinib to gemcitabine was shown not to be helpful for patients with locally advanced pancreatic cancer. As a result of that study, the erlotinib randomization part of NRG-RTOG 0848 was closed and the trial was amended in order to still answer a Phase II level question regarding the erlotinib based on following the patients who had entered the study before the erlotinib portion was closed.

continued
Clinical Trial Highlights (continued)

Primary Objectives

Phase II-R:
To determine whether the addition of erlotinib to gemcitabine adjuvant chemotherapy shows a signal for improved survival as compared to gemcitabine alone following R0 or R1 resection of head of pancreas adenocarcinoma (including adenocarcinoma of the head, neck, and uncinate process).

Phase III:
To determine whether the use of concurrent fluoropyrimidine and radiotherapy following adjuvant gemcitabine-based chemotherapy or non-gemcitabine-based chemotherapy, such as modified FOLFIRINOX, further enhances survival for such patients who are without evidence of progressive disease after five months of adjuvant chemotherapy.

Secondary Objectives
• To evaluate:
  • disease-free survival of adjuvant chemotherapy followed by radiotherapy and concurrent fluoropyrimidine for patients with resected head of pancreas adenocarcinoma who are disease-free after five months of adjuvant chemotherapy;
  • adverse events with and without erlotinib for patients with resected head of pancreas adenocarcinoma;
  • disease-free survival of standard adjuvant gemcitabine chemotherapy with and without erlotinib for patients with resected head of pancreas adenocarcinoma;
  • adverse events of adjuvant chemotherapy ± radiation therapy and concurrent fluoropyrimidine for patients with resected head of pancreas adenocarcinoma who are disease-free after adjuvant chemotherapy;
  • and, preoperative cross-sectional imaging of the primary head of pancreas adenocarcinoma in order to determine the frequency with which objective criteria of resectability are present.

• To determine if patients reporting low baseline fatigue, as measured by the FACIT-Fatigue, predicts survival and to explore correlations between baseline fatigue as measured by PROMIS, and survival.

Target Accrual
950 Patients Randomized to the Radiotherapy Question

Patient Population
Patients with histologic proof of primary head of pancreas invasive adenocarcinoma managed with a potentially curative resection involving a classic pancreaticoduodenectomy.

Schema
Note: Up to 3 months of chemotherapy may be initiated prior to registration - refer to Sections 3.1.2 and 7.1.1 of the protocol.

A Phase I and Expansion Cohort Study of Adjuvant Cisplatin, Intensity-Modulated Radiotherapy, and MK-3475 (Pembrolizumab) in High-Risk Head and Neck Squamous Cell Carcinoma (HNSCC)

Background
Head and neck squamous cell carcinoma (HNSCC) is the 6th leading cancer worldwide. Despite advance in cancer detection and multimodality treatments including surgery, radiation therapy, and chemotherapy, the five-year overall survival for this disease is only 40-60%. Currently, the standard of care for adjuvant management of locally advanced, HPV-negative HNSCC is determined by pathologic risk. MK-3475 (pembrolizumab) is a potent and highly selective humanized monoclonal antibody of the IgG4/kappa isotype designed to directly block the interaction between PD-1 and its ligands, PD-L1 and PD-L2. Pembrolizumab is not a part of the usual treatment of high-risk head and neck cancer and the combination of pembrolizumab with radiation therapy and chemotherapy is still investigational in this disease setting.
**Background (continued)**
NRG-HN003 is an open label, schedule-finding phase I trial with a planned expansion cohort. This study will test the timing of the dose of pembrolizumab paired with the timing of radiation and chemotherapy to the safest schedule for patients. This trial will proceed in two stages: Phase I (schedule-finding), which will enroll patients to descending schedule levels and determine the recommended phase II schedule for the combination based upon dose-limiting toxicity, and the expansion cohort, which will improve estimates of the safety and feasibility of the recommended phase II schedule within the NCTN protocol organization setting.

In this study, all patients will receive eight doses of pembrolizumab in addition to the standard treatment of six weeks of radiation therapy and cisplatin chemotherapy. Each group will receive pembrolizumab, but on a different treatment schedule. Once the best schedule is determined, 20 patients will receive pembrolizumab on that schedule in an expansion cohort.

**Primary Objective**
To determine the recommended phase II schedule for the combination of MK-3475 (pembrolizumab) and standard, adjuvant cisplatin-radiotherapy in patients with high-risk, HPV-negative head and neck squamous cell carcinoma, based upon dose-limiting toxicity.

**Secondary Objectives**
- To describe 1-year disease-free survival, overall survival, local-regional failure, and rate of distant metastases following treatment with adjuvant cisplatin-radiotherapy and MK-3475 (pembrolizumab);
- To describe the toxicity of the combination of cisplatin-radiotherapy and MK-3475 (pembrolizumab) according to CTCAE v. 4, including immune-related adverse events;
- To describe the relationship between baseline PD-L1 expression and 1-year disease-free survival;
- To describe baseline immune-inflammatory biomarkers in both tumor and tumor-infiltrating lymphocyte, and correlate them with 1-year disease-free survival;
- and, to describe baseline and change in expression of peripheral immune-inflammatory biomarkers, including a panel of candidate tumor antigen-specific memory T cells, and correlate with 1-year disease-free survival.

**Target Accrual**
32-56 Patients

**Patient Population**
Patients with stage III-IVb, high-risk squamous cell carcinoma of the oral cavity, oropharynx (HPV-negative), hypopharynx, or larynx who have undergone primary oncologic surgery and demonstrate a high risk pathologic feature (extracapsular nodal extension or positive surgical margin).

---

**Schema**

**Step 1 Registration:** For oropharynx cancer patients, the institution will do p16 testing and analysis of the patient pathology material and must submit H&E and p16 stained slides to the Biospecimen Bank at UCSF for central review prior to Step 2 Registration. Oral cavity, larynx and hypopharynx cancer patients proceed to Step 2 registration. Note: A paraffin block or punch is required for all patients for retrospective testing of PD-L1.

**Phase I Schedule Finding**

<table>
<thead>
<tr>
<th>Schedule Level</th>
<th>n=12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Schedule Level 1</strong>, n=12</td>
<td>Starting Schedule</td>
</tr>
<tr>
<td>MK-3475 (pembrolizumab):</td>
<td></td>
</tr>
<tr>
<td>-Loading Dose: 200 mg IV, Week -1</td>
<td></td>
</tr>
<tr>
<td>-Concurrent: None</td>
<td></td>
</tr>
<tr>
<td>-Maintenance: 200 mg IV, q3 weeks for 7 doses (Weeks 9, 12, 15, 18, 21)</td>
<td></td>
</tr>
<tr>
<td>Cisplatin, 40 mg/m2/week for 6 doses, starting week 1 of IMRT (Weeks 1-6)</td>
<td></td>
</tr>
<tr>
<td>IMRT, 60 Gy over 30 fractions, 5 fractions per week (Weeks 1-6)</td>
<td></td>
</tr>
</tbody>
</table>

**Schedule Level 2**, n=12

<table>
<thead>
<tr>
<th>MK-3475 (pembrolizumab):</th>
<th>Loading Dose: 200 mg IV, Week -1</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Concurrent: 200 mg IV, Week 6 of CRT</td>
<td></td>
</tr>
<tr>
<td>-Maintenance: 200 mg IV q3 weeks for 6 doses (Week 9, 12, 15, 18, 21, 24)</td>
<td></td>
</tr>
<tr>
<td>Cisplatin, 40 mg/m2/week for 6 doses, starting week 1 of IMRT (Weeks 1-6)</td>
<td></td>
</tr>
<tr>
<td>IMRT, 60 Gy over 30 fractions, 5 fractions per week (Weeks 1-6)</td>
<td></td>
</tr>
</tbody>
</table>

**Schedule Level 3**, n=12

<table>
<thead>
<tr>
<th>MK-3475 (pembrolizumab):</th>
<th>Loading Dose: 200 mg IV, Week -1</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Concurrent: 200 mg IV, Weeks 3 and 6 of CRT</td>
<td></td>
</tr>
<tr>
<td>-Maintenance: 200 mg IV, q3 weeks for 5 doses (Weeks 9, 12, 15, 18, 21)</td>
<td></td>
</tr>
<tr>
<td>Cisplatin, 40 mg/m2/week for 6 doses, starting week 1 of IMRT (Weeks 1-6)</td>
<td></td>
</tr>
<tr>
<td>IMRT, 60 Gy over 30 fractions, 5 fractions per week (Weeks 1-6)</td>
<td></td>
</tr>
</tbody>
</table>

**Expansion Cohort**

Expansion Cohort, n=20

At a to-be-specified schedule for the combination of fixed-dose MK-3475 (pembrolizumab), cisplatin, and IMRT.
Clinical Trial Highlights (continued)

SWOG S1418/NRG-BR006: A Randomized, Phase III Trial to Evaluate the Efficacy and Safety of MK-3475 (Pembrolizumab) as Adjuvant Therapy for Triple Receptor-Negative Breast Cancer with ≥ 1 cm Residual Invasive Cancer or Positive Lymph Nodes (Ypn+) after Neoadjuvant Chemotherapy

Background
The prognosis of patients with triple negative breast cancer (TNBC) who have extensive residual cancer after neoadjuvant chemotherapy is poor. Most recurrences occur within the first 5 years of diagnosis and represent metastatic disease that is uniformly fatal. The risk of distant recurrence can be as high as 40-50% within the first 3-5 years. Despite the poor prognosis, the current standard of care is no further adjuvant systemic therapy because there is no proven effective treatment for these patients. Due to the guarded prognosis of these patients, physicians sometimes prescribe adjuvant chemotherapy in the hope of improving survival.

An association between survival and immune cells in the breast cancer microenvironment has been described in the literature. These associations are particularly strong in TNBC and raise the possibility that immune cells mediate the observed favorable clinical outcome. Immune infiltration is most prevalent in TNBC followed by HER2-positive and highly proliferative estrogen receptor (ER) positive cancers. Among TNBC patients who received adjuvant chemotherapy, tumor infiltrating lymphocyte (TIL) counts are strongly predictive of cancer-free survival; each 10% increase in TIL count is associated with an 18% reduction of risk of distant recurrence. However, TNBC even with moderate amounts of TILs has guarded prognosis, which indicates that the immune system exerts only partial control over the cancer. Consequently, inhibiting immune checkpoint mechanisms may increase the efficacy of the local anti-tumor immune response, particularly against micro-metastatic cancer, which could translate into increased recurrence-free survival and higher cure rates for TNBC patients.

An immune checkpoint inhibitor, MK-3475 (pembrolizumab), which is an anti-PD-L1 antibody, is being evaluated to determine whether adjuvant therapy with this agent for 52 weeks will improve disease-free and overall survival for this population of patients at high-risk of disease recurrence.

Primary Objective
To compare invasive disease-free survival of patients with TNBC who have either ≥1 cm residual invasive breast cancer and/or positive lymph nodes (> ypN+) after neoadjuvant chemotherapy randomized to receive 1 year of MK-3475 (pembrolizumab) adjuvant therapy compared to no MK-3475 (pembrolizumab), in both the entire study population and also in the PD-L1 positive subset.

Secondary Objectives (Summary)
- To compare the effects of MK-3475 (pembrolizumab) on overall survival and distant recurrence-free survival between the two randomized arms for the PD-L1 positive patients and then all patients.
- To assess the toxicity and tolerability of MK-3475 (pembrolizumab) in this patient population with or without radiation therapy.
- To examine the association between biomarkers of inflammation and quality of life and patient reported outcomes between the two groups during and at the end of therapy and the long-term and late effects of treatment on patient-reported outcomes.

Patient Population
Patients with TNBC, ≥1 cm residual invasive breast cancer, or any + LN after neoadjuvant chemotherapy.

Schema

<table>
<thead>
<tr>
<th>Arm 1</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm 2</td>
<td>MK-3475 (pembrolizumab) IV every 3 weeks for 52 weeks</td>
</tr>
</tbody>
</table>

Note: Radiation therapy may be given concurrently on Arm 1 and Arm 2.

NRG-RTOG 1308 Patient Video

The patient video for NRG-RTOG 1308: Phase III Randomized Trial Comparing Overall Survival After Photon Versus Proton Chemoradiotherapy for Inoperable Stage II-IIIIB Non-Small Cell Lung Cancer (NSCLC) is now available on the Patient Resources page of the NRG Oncology website.

In the video, study investigator Charles Simone II, MD, Medical Director at the University of Maryland Proton Treatment Center, explains the background, goals, and therapies involved in the clinical trial.

Click here to watch the video.
A secondary analysis of the NRG Oncology, National Surgical Adjuvant Breast and Bowel Project (NSABP) C-07 trial suggests that patients with different subtypes of colon cancer have different prognoses and may obtain differential benefit from oxaliplatin added to fluorouracil plus leucovorin therapy. Further testing needs to occur to determine which specific subtypes would derive a significant benefit from oxaliplatin. These results were published in the Journal of the American Medical Association (JAMA) Oncology.

Initially, the NRG-NSABP C-07 clinical trial determined that oxaliplatin added to fluorouracil and leucovorin therapy significantly improved disease-free survival (DFS) and established oxaliplatin as part of the standard of care for the adjuvant treatment of patients with early-stage colon cancer. However, this regimen produced acute and chronic neurotoxic effects associated with the exposure to oxaliplatin. The secondary analysis sought to prospectively identify patients that would benefit from oxaliplatin therapy so that patients can avoid the adverse effects of a non-effective treatment. The hypothesis of the secondary analysis of NRG-NSABP C-07 was that colorectal subtypes would differ in residual risk after fluorouracil-leucovorin adjuvant chemotherapy and the degree of benefit derived from the addition of oxaliplatin.

This study divided 1,729 participants into discovery (n=848) and validation (n=881) cohorts. A reestimated centroid using 72 genes was used to determine Colorectal Cancer Assigner subtypes and their association with oxaliplatin benefit in the discovery cohort. The validation cohort was examined with a locked-down algorithm for subtype classification and statistical analysis plan. Post hoc analysis included examination of the entire cohort with Colorectal Cancer Assigner, Colorectal Cancer Subtype (CCS), and Consensus Molecular Subtype (CMS) methods. Participants with stage III disease with an enterocyte subtype showed a statistically significant benefit from oxaliplatin in the discovery cohort and no significant benefit was observed in the validation cohort. The stemlike subtype was associated with poor prognosis and lack of benefit from oxaliplatin treatment and the examination of the different subtyping methods shows all three methods robustly identified patients with poor prognosis in both stage II and III.

The subtyping of patients with colorectal cancer may provide a rationale for the assignment of patients to different regimens, such as oxaliplatin-based chemotherapy for patients with enterocyte tumors, immune checkpoint inhibitors for inflammatory cancer, anti-MUC1 antibodies for goblet cancers, and new targeted therapies for stemlike cancers. This would require validation in independent clinical trial cohorts.

Debra P. Ritzwoller, PhD, has been named co-chair of the NRG Oncology National Cancer Institute (NCI) Community Oncology Research Program (NCORP) Cancer Care Delivery Research Committee. Dr. Ritzwoller is a health economist and health services researcher and the Co-Director of the Center for Excellence in Cancer and Genomics at the Institute for Health Research at Kaiser Permanent Colorado. Her expertise is in the variation in cancer treatment, outcomes and costs in community settings; the impact of insurance benefit design on cancer patient cost-sharing; and cost estimation and cost-effectiveness. She has published a number of papers related to the identification and capture of systemic cancer therapies, and she has led comparative effectiveness studies related to the variation in cancer care treatment patterns and outcomes.
NRG Oncology Research Recap from ASTRO 2016 (cont’d)

**Oral Presentations**

**Intensity-Modulated Radiotherapy versus Three-Dimensional Conformal Radiotherapy in Head and Neck Squamous Cell Carcinoma: A Pooled Analysis of NRG Oncology/RTOG 0129 and 0522**

**Presenter:** Min Yao, MD - Case Western Reserve University School of Medicine

NRG Oncology studies RTOG 0129 and 0522 compared IMRT with 3D-CRT for patients treated for locally advanced head and neck squamous cell carcinoma. The results of this pooled analysis found that IMRT was associated with significantly reduced xerostomia and feeding tube dependency after treatment, especially in oropharyngeal cancer patients. [Read the full press release here](https://www.nrgoncology.org)

**Seamless Phase I/II Study of Stereotactic Lung Radiotherapy (SBRT) for Early Stage, Centrally Located, Non-Small Cell Lung Cancer (NSCLC) in Medically Inoperable Patients**

**Presenter:** Andrea Bezjak, MD - Princess Margaret Cancer Centre Sunday

NRG-RTOG 0813 tested SBRT on 110 patients with medically inoperable, centrally located NSCLC and found that higher doses could be delivered with acceptable toxicity and produce outcomes similar to those for patients with peripheral disease. [Read the full press release here](https://www.nrgoncology.org)

**A Mutation and Prognostic Biomarker Study in Grade II and III Gliomas Utilizing a Combined Cohort of NRG Oncology/RTOG 9802 and 9813**

**Presenter:** Erica H. Bell, PhD - Ohio State University

NRG Oncology investigators have identified two biomarkers that are prognostic of overall and progression-free survival for patients with lower-grade gliomas. [Read the full press release here](https://www.nrgoncology.org)

**Advances in Prostate Care**

**Hypofractionated RT Can Reduce Treatment Time by One-third with Comparable QOL for Prostate Cancer Patients**

**Presenter:** Deborah W. Bruner, PhD - Emory University, Winship Cancer Institute

[View the news briefing slides here](https://www.nrgoncology.org)

**Intermediate Risk Prostate Cancer May be Well Controlled with Brachytherapy Alone**

**Presenter:** Bradley R. Prestidge, MD - DePaul Medical Center, Bon Secours Cancer Institute

[View the news briefing slides here](https://www.nrgoncology.org)

NRG Oncology Research Represented in Seven Presentations at the 2016 San Antonio Breast Cancer Symposium

NRG Oncology researchers presented seven abstracts at the San Antonio Breast Cancer Symposium December 7-11, 2016. Below are highlights of the research that was presented orally during the symposium:

**NSABP B-52**

**A phase III trial evaluating pCR in patients with HR+, HER2-positive breast cancer treated with neoadjuvant docetaxel, carboplatin, trastuzumab, and pertuzumab (TCHP) +/- estrogen deprivation: NRG Oncology/ NSABP B-52**

[NSABP B-52 ACR Press Release](https://www.nrgoncology.org) / [NSABP B-52 NRG Oncology Summary](https://www.nrgoncology.org)

[NSABP B-52 Video Summary](https://www.nrgoncology.org)

**NSABP B-42**

**A randomized, double-blinded, placebo-controlled clinical trial to evaluate extended adjuvant endocrine therapy (5 years of letrozole) in postmenopausal women with hormone-receptor positive breast cancer who have completed previous adjuvant endocrine therapy: Initial results of NRG Oncology/NSABP B-42**

[NSABP B-42 ACR Press Release](https://www.nrgoncology.org)

**SWOG/NRG/Alliance S1202**

**Randomized placebo-controlled trial of duloxetine for aromatase inhibitor (AI)-associated musculoskeletal symptoms (AIMSS) in early stage breast cancer (SWOG 1202)**

[NSABP B-42 Video Summary](https://www.nrgoncology.org)
In the News

Drs. Bruner and Gillison Elected to National Academy of Medicine

Deborah Watkins Bruner, R.N., Ph.D., FAAN and Maura Lianne Gillison, M.D., Ph.D. were among 79 members internationally to be elected into the National Academy of Medicine on October 17, 2016. Members are elected based on the individual’s major contributions and commitment to the advancement of the medical sciences, health care, and public health. Election into the National Academy of Medicine is considered one of the highest honors in the health and medicine fields.

Dr. Bruner is the associate director of mentorship, education, and training at the Winship Cancer Institute of Emory University, a professor of nursing at the Nell Hodgson Woodruff School of Nursing, and a professor in the Department of Radiation Oncology at the Emory University School of Medicine. Bruner is an internationally renowned cancer researcher, scholar, and mentor. She has worked for over two decades with the NCI National Clinical Trials Network and, as one of the principal investigators for NRG Oncology National Community Oncology Research Program (NCORP), Bruner is the first and only nurse to lead a National Cancer Institute sponsored clinical trial program.

Dr. Gillison is a professor of internal medicine at the Ohio State University College of Medicine and the Jeg Coughlin Chair of Cancer Research. Dr. Gillison collaborated with NRG Oncology to establish HPV as a strong, independent prognostic factor for head and neck cancer and is the principal investigator for several ongoing phase III randomized clinical trials in the head and neck committee. Gillison is also a member of the American Society of Clinical Investigation, a fellow of the American Association for the Advancement of Science, and has previously received the Richard and Hilda Rosenthal Award from the American Association for Cancer Research in 2012. Her laboratory studies focus on the role of human papillomavirus in the pathogenesis of head and neck cancer and improving the prevention, diagnosis, and treatment of these cancers.

Dr. Small Recipient of Stritch School of Medicine Senior Scientist of the Year Award

William Small Jr., MD FACRO, FACS, FASTRO chair of the Department of Radiation Oncology at Loyola University Chicago Stritch School of Medicine, immediate past chair of the Gynecological Cancer Intergroup (GCIG), and co-chair of the NRG Oncology Gynecological Committee was selected to receive the 2016 Stritch School of Medicine Senior Scientist of the Year Award. The Senior Scientist of the Year awards are based on scientific productivity, scholarly service in professional society activities, editorial board and peer-reviewed activities, service to the institution, research funding and mentoring of students and trainees. This award was presented during the school’s 37th Annual St. Albert’s Day event which celebrates the commitment to research on Loyola’s Health Sciences Campus.

Dr. Bearden Recognized by National Institutes of Health with Harry Hynes Award

James Bearden, MD, co-principal investigator for the NCI Community Oncology Research Program (NCORP) and hematology-oncologist with Gibbs Cancer Center & Research Institute, was recognized by the National Institutes of Health with the Harry Hynes Award in Washington, DC, on October 18, 2016. The National Cancer Institute’s (NCI) Community Clinical Oncology Program established the Harry Hynes Award to recognize and acknowledge individuals displaying outstanding commitment to clinical research by community investigators. The honor recognizes Dr. Bearden’s extensive efforts in research with the Community Clinical Oncology Program (CCOP) and NCORP. Dr. Bearden has served as president of South Carolina’s Oncology Society and led initiatives to support statewide NCI trials in concert with a local university, two medical schools and four of the state’s largest hospitals. He has also championed clinical trials within Gibbs Cancer Center & Research Institute through involvement in multiple committees and administrative roles. He has worked extensively within the community to build additional care networks for the indigent and underserved populations. Dr. Bearden is the sixth person to receive this prestigious award since its inception in 2001.