

## TAILOR X ECOG-PACCT's Phase III Trial: Personalizing Adjuvant Breast Cancer Treatment

The National Breast Cancer Coalition Fund (NBCCF) is partnering with the Eastern Cooperative Oncology Group (ECOG) and the National Cancer Institute (NCI) on a clinical trial in order to determine whether certain women with early stage breast cancer can forego chemotherapy without having to worry about their breast cancer recurring. Currently, most women with early-stage breast cancer are advised to receive chemotherapy in addition to radiation and hormonal therapy, even though research has not demonstrated that chemotherapy benefits all of them equally.

The trial, known as TAILORx (Trial for Assigning Individualized Options for Treatment (Rx)), will use a laboratory test (Oncotype DX<sup>®</sup>) to determine the best individual therapy for women with early stage, node-negative, and estrogen receptor-positive breast cancer. The results from this study will allow women and clinicians to make more objective and informed decisions about adjuvant treatment, helping target therapies to those women more likely to benefit from them and sparing women unlikely to benefit.

The TAILORx trial will enroll over 10,000 patients from 900 clinical sites in the United States and Canada. What is the Oncotype DX<sup>®</sup> test?

Oncotype DX<sup>®</sup> is a laboratory test that can be used on preserved (formalin-fixed, paraffin-embedded) Stage I or II, hormone receptor-positive breast cancer tumor specimens from women whose tumors have not spread to their axillary lymph nodes. Oncotype DX<sup>®</sup> measures the level of activity (or "expression") of 21 specific genes within a tumor in order to determine how aggressive the tumor is as well as how likely a patient is to respond to certain treatments. Based on those measurements, a "Recurrence Score" (RS) is assigned to the individual tumor.

For more information on the Oncotype DX<sup>®</sup> test, see NBCCF's fact sheet "Prediction of Recurrence Using the Oncotype DX<sup>®</sup> Test." How is the TAILORx Trial Designed?

This is a multicenter, partially randomized study. Patients are assigned to one of three treatment groups based on their risk of recurrence as determined by the Oncotype DX<sup>®</sup> test. Group 2 will include women at intermediate risk of recurrence and is the primary group being studied in this trial. Groups 1 and 3 are considered to be secondary study groups.

- Group 1 (Oncotype DX recurrence score < 11: Includes patients considered at low risk of recurrence. Women will receive standard hormonal therapy (e.g., tamoxifen or an aromatase inhibitor [e.g., anastrozole, letrozole, or exemestane], or tamoxifen followed by an aromatase inhibitor) at the discretion of the treating physician for 5 or 10 years.
- Group 2 (Oncotype DX recurrence score 11 - 25) Includes patients considered at intermediate risk of recurrence. Women will be divided based on their tumor size, menopausal status, planned chemotherapy, and planned radiation therapy. Patients are then randomized to receive either hormonal therapy alone or chemotherapy plus hormonal therapy:
  - Arm I (Experimental): Women will receive hormonal therapy, as in Group 1.
  - Arm II (Standard): Women will receive chemotherapy followed by hormonal therapy, as in Group 3.
- Group 3 (Oncotype DX recurrence score > 25): Includes patients considered at high risk of recurrence. Women will receive chemotherapy followed by hormonal therapy.

All women will be followed periodically for up to 20 years following completion of treatment.

The primary endpoint<sup>1</sup> of this study is to compare disease free survival and overall survival among women at intermediate risk of breast cancer recurrence who were treated either with hormonal therapy alone or chemotherapy plus hormonal therapy (Group 2).

The secondary endpoints include evidence on whether adjuvant hormonal therapy alone is sufficient treatment for patients at low risk of breast cancer recurrence (Group 1), as well as data on the disease free survival and overall survival rates for this group. Who is Eligible for the TAILORx Trial?

This trial is for women who have been recently diagnosed with early-stage breast cancer. A woman must meet all of the following characteristics to be eligible for this study:

- Age: 18 - 75 years
- Disease Characteristics:
  - Estrogen and/or Progesterone Receptor Positive
  - Her2/neu Negative by either fluorescent in situ hybridization (FISH) or immunohistochemistry (IHC) (e.g., 0 or 1+ by DAKO HercepTest)

- Surgery:
    - Either a modified radical mastectomy or a lumpectomy, plus an acceptable axillary procedure (i.e., sentinel lymph node biopsy and/or axillary dissection) within the past 84 days
    - Must have adequate tumor-free margins for invasive and ductal carcinoma in situ
    - Lobular carcinoma in situ involving the resection margins is allowed
    - Negative axillary nodes as determined by a sentinel lymph node biopsy and/or axillary dissection
    - Tumor size 1.1-5.0 cm
    - Tumors that measure 5 mm-1.0 cm are allowed if characteristics are associated with a high risk of relapse
    - If microscopic measurement is used and tumor includes ductal carcinoma in situ, the measurement should include only the invasive component of the tumor
  - Breast Cancer Specimen:
    - Tissue specimen from the primary tumor must be available for diagnostic testing with Oncotype DX to determine Oncotype Recurrence Score
    - No prior Oncotype DX Assay unless patient has a recurrence score of 11-25
  - Prior/Concurrent Therapy:
    - Patients who developed breast cancer while receiving a selective estrogen-receptor modulator (SERM) (e.g., tamoxifen, toremifene, or raloxifene) or an aromatase inhibitor (e.g., anastrozole, letrozole, or exemestane) for breast cancer prevention, or a SERM for other indications (e.g., raloxifene for osteoporosis), are INELIGIBLE
    - Prior SERM or aromatase inhibitor therapy that was administered for up to 8 weeks for this cancer is allowed
    - No prior chemotherapy or radiation therapy for breast cancer
    - No concurrent radiation therapy with chemotherapy
  - Previous Breast Cancer Diagnosis:
    - No prior ipsilateral or contralateral invasive breast cancer, bilateral synchronous cancers, or prior ipsilateral or contralateral ductal carcinoma in situ are allowed
- How is NBCCF involved?  
NBCCF is involved in many aspects of the design and implementation of the TAILORx trial. Representatives of NBCCF are serving on the Steering Committee and Data Monitoring Committee; attending and participating in the investigator meetings; and are helping to accrue patients for the trial.

For more information about the TAILORx trial, including clinical site locations, visit NCI's website or [ClinicalTrials.gov](http://ClinicalTrials.gov).

Footnote

1 National Breast Cancer Coalition Fund. Outcomes in breast cancer clinical trials. Fact sheet, October 2004.