Breast Cancer Steering Committee (BCSC)
Clinical Trials Planning Meeting (CTPM)

Next Generation Trials for Estrogen Receptor (ER)-positive Breast Cancer
May 14-15, 2012

Meeting Co-chairs: Karen Gelmon, M.D. and Fraser Symmans, M.D.
BCSC Co-chairs: Nancy Davidson, M.D. and Tom Buchholz, M.D.

Introduction/Meeting Description

The National Cancer Institute (NCI) Breast Cancer Steering Committee (BCSC) convened a Clinical Trials Planning Meeting for the Next Generation Trials in Estrogen Receptor (ER)-positive Breast Cancer on May 14 -15, 2012 in Bethesda, MD. The goals of the meeting were to address strategies to improve outcomes from clinical trials of any class of treatment in any stage of ER-positive breast cancer with a scientific focus on overcoming mechanisms of resistance to hormonal therapy. This included developing an understanding of key molecular and genetic 'drivers' of ER-positive cancers that may be targeted to improve outcomes and recommending directions for future clinical trials in the treatment of ER-positive breast cancer. The meeting attendees included BCSC members, breast cancer clinicians, clinical trials experts, biostatisticians, translational scientists, basic scientists, patient advocates, FDA staff, and NCI staff.

Background/Importance of Research Topic/Disease/Limitations

Estrogen receptor (ER)-positive breast cancer leads to for the thousands of lives lost per year in the United States.[1] This breast cancer subtype has a relatively good 5-year prognosis; however, individuals with ER-positive breast cancer continue to relapse over time, making ER-positive breast cancer responsible for the majority of breast cancer deaths.[2] Patients can exhibit *de novo* hormonal resistance or acquired hormonal resistance and there is a need for effective targeted therapies for hormone refractory breast cancer.[3] ER-positive breast cancer is comprised of a very heterogeneous group of tumors.[3] Understanding the very diverse biology of ER-positive breast cancer, mechanisms by which it becomes resistant to hormonal therapy, and identifying promising targeted agents is a high priority. Efforts are ongoing to define molecular markers that could be used to determine which patients with ER-positive disease benefit from chemotherapy and other therapies in addition to hormonal treatment.[4-10]

Consensus

The current North American Cooperative Group system includes several large adjuvant clinical trials, leaving no space for an additional large randomized adjuvant trial of hormonal therapy due to a limited number of patients and resources. Similarly, the current platform in front line hormonal therapy trials for stage IV disease also leaves no space for trial development.

The Cooperative Groups should utilize smaller pre-operative studies and neoadjuvant trials space to address endocrine response. The Cooperative Groups have committed to a large neoadjuvant trial (ALTERNATE).

Considering all of the patients who are just finishing large adjuvant trials, the registry mechanism, as long as it is linked to a parent trial, should be considered for following patients from those trials so that their data can be used to inform the field and future trials.

For premenopausal women with ER-positive breast cancer, results from the SOFT and TEXT trials should be used to determine the next important questions and to design the next trials.

Recommendations

- There is a need for common definitions/clinical classification for endocrine resistance, considering early stage and metastatic disease.

- There is a need for standardized guidance on biopsies (compulsory and non-compulsory) and specimen storage.

- The next hormone responsive clinical studies should include the following:
  1. Randomized phase II neoadjuvant studies
  2. Variable designs in metastatic setting
  3. Studies of endocrine therapy backbone plus targeted therapy(ies) or alternating between endocrine therapy plus or minus targeted therapy(ies)
  4. Mandatory biopsies of relapsed disease
  5. Integral biomarkers with clinical assay development plan

This Executive Summary presents the consensus arising from the CTPM. These recommendations are not meant to address all clinical contexts, but rather represent priorities for publicly funded clinical research.

Anticipated Action(s)

- Publish white papers for scientific and lay communities including key strategic priorities, both near-term and long-term, for future trials.

- Develop and publish common definitions/clinical classification/lexicon for endocrine resistance, standardized guidance on biopsies (compulsory and non-compulsory) and standardized guidance on specimen storage.

- Design concepts for studies as recommended above with input from Cooperative Group representatives, industry, Food and Drug Administration (FDA), Centers for Medicare & Medicaid Services (CMS), and Patient Advocates.

References/Literature

1. American Cancer Society: Cancer Facts and Figures 2012. Atlanta, Ga: American Cancer Society, 2012
2. Giuliano M, Schifp R, Osborne CK, et al: Biological mechanisms and clinical implications of endocrine resistance in breast cancer. Breast 20 Suppl 3:S42-9, 2011
3. Lim E, Metzger O, Winer E: The Natural History of Hormone Receptor–Positive Breast Cancer. Oncology: 26.8, 2012
4. Loi S, Piccart M, Sotiriou C, et al: Predicting prognosis using molecular profiling in estrogen receptor-positive breast cancer treated with tamoxifen. BMC Genomics: 9:239, 2008
5. Gökmen-Polar Y and Badve S: Molecular Profiling Assays in Breast Cancer: Are We Ready for Prime Time? Oncology: 26.4, 2012
6. Nagaraj G, Ellis M, Ma C: The Natural History of Hormone Receptor–Positive Breast Cancer: Attempting to Decipher an Intriguing Concept. Oncology: 26.8, 2012
7. Ellis MJ, Ding L, Shen D, et al. Whole-genome analysis informs breast cancer response to aromatase inhibition. Nature. 2012;486: 353-60.
8. Liu MC, Dixon JM, Xuan JJ, et al: Molecular signaling distinguishes early ER-positive breast cancer recurrences despite adjuvant tamoxifen. 2011 San Antonio Breast Cancer Symposium. Abstract S1-8. Presented December 7, 2011.
9. Bianchini G, Pusztai L, Iwamoto T, et al: Molecular tumor characteristics influence adjuvant endocrine treatment outcome. 2011 San Antonio Breast Cancer Symposium. Abstract S1-7. Presented December 7, 2011.
10. http://www.ascopost.com/issues/february-15-2012-supplement/can-molecular-profiling-identify-er-positive-patients-destined-for-relapse.aspx

National Cancer Institute Breast Cancer Steering Committee (BCSC)
Clinical Trials Planning Meeting
Next Generation Trials for Estrogen Receptor (ER)-positive Breast Cancer
Monday and Tuesday, May 14-15, 2012

Hyatt Regency Bethesda*
One Bethesda Metro Center (7400 Wisconsin Avenue), Bethesda, MD 20814

AGENDA

DAY 1: MONDAY, MAY 14, 2012

7:30 AM **REGISTRATION** **Cabinet/Judiciary Suite – Conference Level**

8:30 AM – 8:35 AM **Welcome and Introduction to the NCI Clinical Trials Planning Meeting**
Nancy Davidson and Tom Buchholz, BCSC Co-Chairs

8:35 AM – 8:45 AM **Charge for the Clinical Trials Planning Meeting**
Karen Gelmon and Fraser Symmans, Meeting Co-Chairs

8:45 AM – 11:50 AM **SESSION 1: ENDOCRINE RESISTANCE IN THE CONTEXT OF BIOLOGICAL MODELS**
Moderator: Kent Osborne

8:45 – 9:05 **Estrogen Receptor and alternative signaling pathways in endocrine resistance**
Kent Osborne

9:05 – 9:25 **Genomic expression and sequence for endocrine resistant tumors**
Matt Ellis

9:25 – 9:35 **API activation: the role of AP-1 in endocrine-resistant breast cancer**
Rachel Schiff

9:35 – 9:45 **ER coregulators**
Steffi Oesterreich

9:45 – 9:55 **Novel ER-ligands in breast cancer pathogenesis**
Donald McDonnell

9:55 – 10:05 **Epigenetics of Hormone Resistance**
Sara Sukumar

10:05 – 10:25 **BREAK**

10:25 – 11:40 **Moderated panel and audience discussion**
Moderator: Kent Osborne
Panel Members: Matt Ellis, Rachel Schiff, Steffi Oesterreich, Donald McDonnell, Sara Sukumar, Patty Spears (Patient Advocate)

11:40 – 11:50 **Session 1 summary**
Steffi Oesterreich, Paul Haluska

11:50 AM – 1:00 PM BREAK

1:00 PM – 3:45 PM **SESSION 2: TRANSLATIONAL RESEARCH OF ENDOCRINE RESISTANCE IN HUMAN SUBJECTS**
Moderator: Charles Geyer

1:00 – 1:20 **Defining endocrine resistance in the clinical setting**
Stephen Johnston

1:20 – 1:30 **Tissue issues in endocrine resistance**
Fraser Symmans

1:30 – 1:40 **Breast Cancer Pharmacogenomics**
Matt Goetz

1:40 – 2:00 **Dealing with large cohorts to define resistance and translating pathway science to clinical samples**
Mitch Dowsett

2:00 – 2:10 **Expectations for integral versus integrated diagnostics within prospective clinical trial designs**
Mickey Williams

2:10 – 2:20 **Tissue-based research in clinical trials: Patient Advocate perspective**
Mary Lou Smith

2:20 – 3:35 **Moderated panel and audience discussion**
Moderator: Charles Geyer
Panel Members: Stephen Johnston, Fraser Symmans, Matt Goetz, Mitch Dowsett, Mickey Williams, Mary Lou Smith (Patient Advocate)

3:35 – 3:45 **Session 2 summary**
Lajos Pusztai, Antonio Wolff

3:45 PM – 3:55 PM BREAK

3:55 PM – 4:10 PM **Accrual issues and NCI AccrualNet**
Linda Parreco

4:10 PM – 4:40 PM **Tackling endocrine resistance – the pharmaceutical industry's perspective**
Stephen Johnston

4:40 PM – 6:00 PM **Discussion and wrap-up of day 1**
Karen Gelmon and Fraser Symmans

DAY 2: TUESDAY, MAY 15, 2012

7:30 AM **REGISTRATION** **Cabinet/Judiciary Suite – Conference Level**

8:00 AM – 8:10 AM **Welcome and charge for day 2**
Karen Gelmon and Fraser Symmans

8:10 AM – 11:00 AM **SESSION 3: ENDOCRINE RESISTANCE IN THE CONTEXT OF PROSPECTIVE CLINICAL TRIALS**
Moderator: Karen Gelmon

8:10 – 8:25 **Defining who are likely cured from current chemotherapy +/- endocrine therapy**
Fabrice Andre

8:25 – 8:40 **Neoadjuvant clinical trial opportunities for ER-positive breast cancer**
Angela Demichele

8:40 – 8:50 **The most pressing loco-regional questions for clinical trials of ER-positive breast cancer**
Marilyn Leitch

8:50 – 9:00 **Addressing compliance in clinical trials of oral therapies**
Dawn Hershman

9:00 – 9:10 **One clinical trial approach to overcome *de novo* endocrine resistance**
Cynthia Ma

9:10 – 9:20 **One clinical trial approach to overcome *acquired* endocrine resistance**
Paul Haluska

9:20 – 9:40 **How do we design the best trials to address endocrine resistance?**
Eric Winer

9:40 – 9:50 **BREAK**

9:50 – 10:50 **Moderated panel and audience discussion**
Moderator: Karen Gelmon
Panel Members: Fabrice Andre, Angela Demichelle, Marilyn Leitch, Dawn Hershman, Cynthia Ma, Paul Haluska, Eric Winer, Liz Frank (Patient Advocate)

10:50 – 11:00 **Session 3 summary**
Cliff Hudis, Edith Perez

11:00 AM – 12:45 PM **SESSION 4: WORKING SESSION**

11:00 – 11:30 **Break-out group charge and audience discussion**
Karen Gelmon and Fraser Symmans

11:30 – 11:45 **Move to break-out rooms**

11:45 – 12:45 **Break-out Group Discussions**

1. **Biological strategy and targeted therapy**
   Location: Susquehanna/Severn/Potomac Suite – Conference Level
   Chair: Jim Ingle

2. **Translational research**
   Location: Old Georgetown Room – Conference Level
   Chair: Dan Hayes

3. **Clinical trial strategies**
   Location: Cabinet/Judiciary Suite – Conference Level
   Chair: Gabe Hortobagyi

12:45 PM – 12:50 PM BREAK

12:50 PM – 2:30 PM **<u>SESSION 5</u>: REPORT-OUT, DISCUSSION AND ACTION PLAN**
Location: Cabinet/Judiciary Suite – Conference Level
Moderators: Nancy Davidson and Tom Buchholz

12:50 – 1:00 **Report-out from biological strategy and targeted therapy break-out group**
Chair: Jim Ingle

1:00 – 1:10 **Report-out from translational research break-out group**
Chair: Dan Hayes

1:10 – 1:20 **Report-out from clinical trial strategies break-out group**
Chair: Gabe Hortobagyi

1:20 – 2:00 **Moderated panel and audience discussion of priorities and post-meeting action plan**
Moderators: Nancy Davidson and Tom Buchholz
Panelists: Fraser Symmans, Kent Osborne Jim Ingle, Steffi Oesterreich, Paul Haluska, Dan Hayes, Lajos Pusztai, Antonio Wolff, Karen Gelmon, Gabe Hortobagyi, Cliff Hudis, Edith Perez, Patty Spears (Patient Advocate)

2:00 – 2:30 **Meeting summary and action plan**
Nancy Davidson and Tom Buchholz

CTPM-BCSC Next Generation Trials for ER-positive Breast Cancer

May 14–15, 2012 | Bethesda, MD

Participant List

Jeff Abrams, M.D.
Associate Director
Cancer Therapy Evaluation Program
Division of Cancer Treatment and Diagnosis
National Cancer Institute
Rockville, MD

Eitan Amir, M.D.
Medical Oncologist
Princess Margaret Hospital
Toronto, ON Canada

Fabrice Andre, M.D., Ph.D.
Associate Professor
Medical Oncology Department
Institut Gustave Roussy
Villejuif, France

William Barlow, Ph.D.
Senior Biostatistician
Southwest Oncology Group
Seattle, WA

Thomas Buchholz, M.D.
Professor and Division Head
Department of Radiation Oncology
The University of Texas
MD Anderson Cancer Center
Houston, TX

Lynn Butler, M.S.
Contractor
The EMMES Corporation
Rockville, MD

Lisa Carey, M.D.
Distinguished Professor
Division of Hematology/Oncology
University of North Carolina
Lineberger Comprehensive Cancer Center
Chapel Hill, NC

Cynthia Chauhan
Patient Advocate
Mayo Clinic
Wichita, KS

Mariana Chavez Mac Gregor, M.D.
Assistant Professor
Division of Cancer Medicine
The University of Texas
MD Anderson Cancer Center
Houston, TX

Alice Chen, M.D.
Medical Officer
National Cancer Institute
Rockville, MD

Stephen Chia, M.D.
Medical Oncologist
British Columbia Cancer Agency
Vancouver, BC Canada

Mark Clemons, M.D.
Medical Oncologist
Ottawa Hospital Cancer Centre
Ottawa, ON Canada

Roisin Connolly, M.D.
Assistant Professor of Oncology
Sidney Kimmel Comprehensive Cancer Center
at Johns Hopkins
Baltimore, MD

Patricia Cortazar, M.D.
Clinical Lead Breast Oncology Group
Office of Hematology Oncology Products
U.S. Food and Drug Administration
Silver Spring, MD

Joseph Costantino, Dr.P.H.
Director
National Surgical Adjuvant Breast and Bowel Project
Biostatistical Center
University of Pittsburgh
Pittsburgh, PA

Nancy Davidson, M.D.
Director
University of Pittsburgh Cancer Institute
Pittsburgh, PA

Angela DeMichele, M.D., M.S.C.E.
Associate Professor of Medicine and Epidemiology
University of Pennsylvania
Philadelphia, PA

Maura Dickler, M.D.
Associate Attending Physician
Breast Cancer Medicine Service
Memorial Sloan-Kettering Cancer Center
New York, NY

Mitch Dowsett, Ph.D.
Professor
Academic Department of Biochemistry
Royal Marsden Hospital
London, United Kingdom

John Ellerton, M.D.
Principal Investigator
Nevada Cancer Research Foundation CCOP
Las Vegas, NV

Matthew Ellis, M.B., B.Chir., Ph.D.
Professor of Medicine
Oncology
Washington University School of Medicine
St. Louis, MO

Elizabeth Frank
Patient Advocate
Breast Program
Dana-Farber Cancer Insitute
Boston, MA

Karen Gelmon, M.D.
Professor of Medicine
University of British Columbia
British Columbia Cancer Agency
Vancouver, BC Canada

Charles Geyer, M.D.
President and Chief Medical Officer
Clinical Trials Network of Texas
Addison, TX

Matthew Goetz, M.D.
Associate Professor of Oncology and Pharmacology
Department of Medical Oncology
Mayo Clinic
Rochester, MN

Ana Gonzalez-Angulo, M.D.
Associate Professor
The University of Texas
MD Anderson Cancer Center
Houston, TX

Paul Goss, M.D., Ph.D.
Director of Breast Cancer Research
Cancer Center
Massachusetts General Hospital
Boston, MA

Paul Haluska, M.D., Ph.D.
Assistant Professor of Oncology
Mayo Clinic
Rochester, MN

Daniel F. Hayes, M.D.
Professor
Department of Internal Medicine
University of Michigan Medical School
Ann Arbor, MI

Jennifer Hayes, Ph.D.
Program Director
Coordinating Center for Clinical Trials
National Cancer Institute
Rockville, MD

Dawn Hershman, M.D.
Associate Professor
Division of Medical Oncology
Columbia University
New York, NY

Gabriel Hortobagyi, M.D.
Chairman and Professor
Department of Breast Medical Oncology
The University of Texas
MD Anderson Cancer Center
Houston, TX

Clifford Hudis, M.D.
Chief, Breast Cancer Medicine Service
Memorial Sloan-Kettering Cancer Center
New York, NY

Sally Hunsberger, Ph.D.
Biostatistician
Biometric Research Branch
Division of Cancer Treatment and Diagnosis
National Cancer Institute
Rockville, MD

Kelly Hunt, M.D.
Professor of Surgery
The University of Texas
MD Anderson Cancer Center
Houston, TX

E. Shelley Hwang, M.D.
Chief of Breast Surgery/Professor of Surgery
Division of Surgical Oncology
Duke University Medical Center
Durham, NC

James Ingle, M.D.
Professor of Oncology
Department of Medical Oncology
Mayo Clinic
Rochester, MN

Deborah Jaffe, Ph.D.
Program Director
National Cancer Institute
Rockville, MD

Rachel Jankowitz, M.D.
Assistant Professor
Division of Hematology/Oncology
University of Pittsburgh Cancer Institute
Pittsburgh, PA

Stephen Johnston, M.D., Ph.D.
Professor of Breast Cancer Medicine
Royal Marsden Hospital
London, United Kingdom

Thomas Julian, M.D.
Surgeon
Allegheny General Hospital
National Surgical Adjuvant Breast and Bowel Project
Pittsburgh, PA

Larissa Korde, M.D., M.P.H.
Assistant Professor of Medicine
Medical Oncology
University of Washington
Seattle, WA

Ian Krop, M.D., Ph.D.
Associate Professor of Medicine
Dana-Farber Cancer Institute
Boston, MA

Igor Kuzmin, Ph.D.
Program Director
National Cancer Institute
Rockville, MD

A. Marilyn Leitch, M.D.
Professor of Surgery
University of Texas Southwestern Medical Center
Dallas, TX

Anna Levy, M.S.
Program Director
Coordinating Center for Clinical Trials
National Cancer Institute
Rockville, MD

Hannah Linden, M.D.
Associate Professor
Division of Oncology
University of Washington
Seattle, WA

Wolf Lindwasser, Ph.D.
Program Director
Coordinating Center for Clinical Trials
National Cancer Institute
Rockville, MD

Minetta Liu, M.D.
Associate Professor of Medicine and Oncology
Hematology/Oncology
Georgetown Lombardi Comprehensive Cancer Center
Washington, DC

Tracy Lively, Ph.D.
Deputy Associate Director
Cancer Diagnosis Program
National Cancer Institute
Rockville, MD

Jean Lynn, R.N., M.P.H.
Program Director
Coordinating Center for Clinical Trials
National Cancer Institute
Rockville, MD

Cynthia Ma, M.D., Dr.P.H.
Assistant Professor of Medicine
Washington University School of Medicine
St. Louis, MO

Eleftherios Mamounas, M.D.
Medical Director
Aultman Hospital
Canton, OH

Elizabeth Marcus, M.D.
Chair, Division of Breast Oncology
Stroger Hospital of Cook County
Chicago, IL

Heather McArthur, M.D.
Assistant Attending
Breast Cancer Medicine Service
Memorial Sloan-Kettering Cancer Center
New York, NY

Worta McCaskill-Stevens, M.D.
Chief, Community Oncology
Division of Cancer Prevention
National Cancer Institute
Rockville, MD

Donald McDonnell, Ph.D.
Professor and Chairman
Department of Pharmacology and Cancer Biology
Duke University School of Medicine
Durham, NC

Lisa McShane, Ph.D.
Mathematical Statistician
Biometric Research Branch
Division of Cancer Treatment and Diagnosis
National Cancer Institute
Rockville, MD

Amal Melhem-Bertrandt, M.D.
Assistant Professor
The University of Texas
MD Anderson Cancer Center
Houston, TX

Meg Mooney, M.D.
Chief, Clinical Investigations Branch
Cancer Therapy Evaluation Program
DIvision of Cancer Treatment and Diagnosis
National Cancer Institute
Rockville, MD

Steffi Oesterreich, Ph.D.
Professor
University of Pittsburgh
Pittsburgh, PA

Kent Osborne, M.D.
Professor of Medicine and Molecular and Cellular Biology
Dan L. Duncan Cancer Center & Lester and Sue Smith Breast Center
Baylor College of Medicine
Houston, TX

Soonmyung Paik, M.D.
Director
Pathology
National Surgical Adjuvant Breast and Bowel Project
Pittsburgh, PA

Linda Parreco, R.N.
Public Health Advisor
Office of Communications and Education
National Cancer Institute
Rockville, MD

Edith Perez, M.D.
Group Vice Chair, Alliance for Clinical Trials in Oncology
Mayo Clinic
Jacksonville, FL

Ray Petryshyn, Ph.D.
Program Director
Coordinating Center for Clinical Trials
National Cancer Institute
Rockville, MD

Sheila Prindiville, M.D.
Director
Coordinating Center for Clinical Trials
National Cancer Institute
Rockville, MD

Kathleen Pritchard, M.D.
Clinician Scientist
Department of Medical Oncology
Sunnybrook Odette Cancer Centre
Toronto, ON Canada

Tatiana Prowell, M.D.
Medical Officer, Breast Oncology Group
U.S. Food and Drug Administration
Ellicott City, MD

Lajos Pusztai, M.D., Ph.D.
Professor
Cancer Medicine
The University of Texas
MD Anderson Cancer Center
Houston, TX

James Rae, Ph.D.
Assistant Professor
University of Michigan Comprehensive Cancer Center
Ann Arbor, MI

Priya Rastogi, M.D.
Senior Associate Medical Director, NSABP Medical Affairs
National Surgical Adjuvant Breast and Bowel Project
Operations Center
Pittsburgh, PA

Steve Reeves, Ph.D.
Program Director
Coordinating Center for Clinical Trials
National Cancer Institute
Rockville, MD

Meredith Regan, Sc.D.
Associate Professor
Department of Biostatistics and Computational Biology
Dana-Farber Cancer Institute
Boston, MA

Mothaffar Rimawi, M.D.
Assistant Professor
Baylor College of Medicine
Houston, TX

Ken Rowland, M.D.
Oncologist
Mills Breast Cancer Institute
Urbana, IL

Rachel Schiff, Ph.D.
Associate Professor
Lester and Sue Smith Breast Center
Baylor College of Medicine
Houston, TX

Victoria Seewaldt, M.D.
Professor
Duke University
Durham, NC

Lalitha Shankar, M.D., Ph.D.
Branch Chief
Diagnostic Imaging
Division of Cancer Treatment and Diagnosis
National Cancer Institute
Rockville, MD

Mary Lou Smith, J.D.
Co-Founder
Research Advocacy Network
Naperville, IL

George Somlo, M.D.
Director, Breast Oncology
Department of Medical Oncology
City of Hope Medical Center
Duarte, CA

Joseph Sparano, M.D.
Associate Chairman, Department of Oncology
Albert Einstein College of Medicine
Bronx, NY

Patty Spears
Patient Advocate
Breast Cancer Steering Committee
Raleigh, NC

Vered Stearns, M.D.
Associate Professor of Oncology
Breast Cancer Program
Johns Hopkins School of Medicine
Baltimore, MD

Patricia Steeg, Ph.D.
Chief, Women's Cancer Section
Laboratory of Molecular Pharmacology
Center for Cancer Research
National Cancer Institute
Bethesda, MD

Saraswati Sukumar, Ph.D.
Professor of Oncology
Co-Director of the Breast Cancer Program
Sidney Kimmel Comprehensive Cancer Center
Johns Hopkins School of Medicine
Baltimore, MD

W. Fraser Symmans, M.D.
Professor
Department of Pathology
The University of Texas
MD Anderson Cancer Center
Houston, TX

Abdul Tawab-Amiri, Ph.D.
Program Director
Coordinating Center for Clinical Trials
Office of Director
National Cancer Institute
Rockville, MD

Bhadrasain Vikram, M.D.
Chief
Clinical Radiation Oncology Branch
Division of Cancer Treatment and Diagnosis
National Cancer Institute
Rockville, MD

Julia White, M.D.
Professor and Vice Chair of Clinical Research
Department of Radiation Oncology
The Ohio State University
James Cancer Hospital and Solove Research Institute
Columbus, OH

Robert Wieder, M.D., Ph.D.
Professor
Department of Medical Oncology
University of Medicine and Dentistry, New Jersey
New Jersey Medical School
Newark, NJ

Mickey Williams, Ph.D.
Director, Molecular Characterization Laboratory
SAIC-Frederick
Frederick, MD

Eric Winer, M.D.
Chief, Division of Women's Cancers
Dana-Farber Cancer Institute
Boston, MA

Antonio Wolff, M.D.
Professor of Oncology
Sidney Kimmel Comprehensive Cancer Center
at Johns Hopkins
Baltimore, MD

Wei Yang, M.D.
Professor
The University of Texas
MD Anderson Cancer Center
Houston, TX

Richard Zellars, M.D.
Associate Professor
Sidney Kimmel Comprehensive Cancer Center
Johns Hopkins University
Baltimore, MD

Jo Anne Zujewski, M.D.
Senior Investigator
Division of Cancer Treatment and Diagnosis
National Cancer Institute
Rockville, MD