

FY2003 Early Detection, Diagnosis, and Prognosis Projects

Table B-24

NCI Projects Supported in 2003 Addressing the PRG Priority: Determine the potential of newer imaging technologies (e.g., magnetic resonance imaging, positron emission tomography, digital mammography, mammoscintigraphy, sentinel lymph node localization/sampling, magnetic resonance elastography, electrical impedance imaging, microwave spectroscopy, near-infrared spectroscopy) to detect and diagnose clinically significant breast disease better than is currently done by physical examination and conventional mammography.

Principal Investigator	Title	RFA or PA	Project ID
Baker, James	Novel Technologies for Noninvasive Detection, Diagnosis and Treatment of Cancer		CO027173
Barbour, Randall L	Functional Optical Mammography	PAR01-102	CA096102
Besson, Guy M	Integrated Ultrasound and Digital Mammography System	PAR01-102	CA100959
Boas, David A	3D Optical Imaging and Digital X-ray of Breast Lesions		CA097305
Bond, Essex	Microwave Imaging for Breast Cancer Detection		CA099933
Burgess, Arthur E.	Lesion Detection in Digital Mammograms	PA99-082	CA087738
Carr, Kenneth L	Microwave Radiometry as an Adjunct to Mammography		CA091500
Cherry, Simon R	Avalanche Photodiode-based PET Detector Modules for Breast Imaging	PA98-008	CA096537
Cutter, Gary R	Breast Cancer Surveillance Research in Colorado	CA98-025	CA063736
Daniel, Bruce L	Magnetic Resonance Imaging of Breast Cancer		CA066785
Dougherty, Lawrence	Simultaneous Dynamic and Architectural MR Breast Imaging		CA090699
Ehman, Richard L.	Magnetic Resonance Elastography in Breast Cancer		CA091959
Ferrara, Katherine W	Contrast Assisted Ultrasound Imaging of Tumors		CA076062
Galons, Jean-Philippe	Mechanisms of Diffusion MRI with Chemotherapy		CA088285
Garwood, Michael G	MRS and MRI of Breast Cancer at Very High Magnetic Field		CA092004
Gauntt, David M	Practical and Compact High Ratio Mammography Grid System		CA083425
Greene, Mark	Breast Imaging Studies in Women at High Genetic Risk of Breast Cancer		CP010145-Sub-07040
Hagness, Susan C	Space-Time Microwave Imaging for Breast Cancer Detection	PA01-030	CA092188
Henderson, Scott C.	Advanced Microscopy Shared Resource Facility	CA01-020	CA095823
Henrichs, P. M	Commercial Prototype of Optoacoustic Breast Imager		CA089959
Herschman, Harvey R.	The UCLA Center for In Vivo Imaging in Cancer Biology	CA99-004	CA086306
Hoffman, Timothy	Development of GRP Receptor Avid Radiopharmaceuticals		CA072942
Hylton, Nola M.	Anatomic and Biologic Staging of Breast Disease with MRI		CA069587
Insana, Michael F	Ultrasonic Elasticity Imaging of the Breast		CA082497
Iwanczyk, Jan S	High Resolution, High Sensitivity CT Imager		CA103454

Principal Investigator	Title	RFA or PA	Project ID
Jaszczak, Ronald J	Breast Cancer Imaging Using Non-Parallel Beam SPECT		CA076006
Jiang, Huabei	Optical Imaging of Breast Cancer		CA090533
Kinahan, Paul E	Strategies for Clinical Oncology Imaging with 3D PET		CA074135
Kline-Schoder, Robert J	MR Elastography for Breast Cancer Detection		CA101241
Krag, David N	Sentinel Node Versus Axillary Dissection--Breast Cancer		CA074137
Levin, Craig S	A New Photon Sensor to Improve Molecular Cancer Imaging	PA01-030	CA098691
Lewellen, Thomas K	Tumor Detection & Quantitation with Emission Tomography		CA042593
Meyer, Charles R.	Automatic 3D Registration for Enhanced Cancer Management		CA087634
Moses, William W	Breast Cancer-specific PET Instrumentation		CA067911
Ning, Ruola	High Resolution Cone Beam Volume CT for Breast Imaging	PAR01-101	CA094300
Ning, Ruola	Cone Beam Volume CT Breast Imaging Scanner	PAR01-102	CA103236
Oraevsky, Alexander A	Diagnostic Imaging of Blood in Breast Tumor Angiogenesis	PAR01-101	CA095883
Ouwerkerk, Ronald	²³ Na MRI of Breast Cancer		CA095907
Patt, Bradley E	High-Resolution 3D Breast Tomograph for Early Cancer Detection	PAR01-102	CA096015
Paulsen, Keith D.	Frequency Domain Optical Imaging of Breast Cancer		CA069544
Paulsen, Keith D.	Alternative Breast Cancer Imaging Modalities		CA080139
Piestrup, Melvin A	Quasi-Monochromatic X-ray Source for Mammography		CA086545
Rao, Devulapalli V	Medical Image Processing Using Optical Fourier Technique	PA01-030	CA089673
Raylman, Raymond R	A Positron Emission Mammography/Tomography Biopsy Device	PAR99-009	CA094196
Rubashov, Igor B	Combined MR-PET Tomograph for Breast Imaging	PAR01-102	CA096055
Saykin, Andrew J	Neural Mechanisms of Chemotherapy-Induced Cognitive Dis		CA101318
Saylor, Charles	MR Noise Tomography	PAR01-102	CA102864
Schnall, Mitchell D	Clinical Study of MRI in Breast Cancer	CA96-012	CA074680
Sehgal, Chandra M	Doppler Vascularity/Sonography--Breast Cancer Diagnosis		CA087526
Sevick-Muraca, Eva M	Fluorescence Imaging for Sentinel Lymph Node Mapping	PAR01-101	CA096305
Spielman, Daniel M	Magnetic Resonance Spectroscopic Neoplasm Imaging		CA048269
Squillante, Michael R	High Resolution Mammography Sensor	PAR01-102	CA099104
Tang, Cha-Mei	Focused Collimator for Dual Modality Breast Imaging	PAR01-102	CA099433
Toker, Emre	Sentinel Lymph Node Biopsy System for Breast Cancer		CA092917
Tornai, Martin P	Simultaneous Emission and Transmission Mammotomography	PAR99-009	CA096821
Tornai, Martin P	Workshop on the Nuclear Radiology of Breast Cancer		CA100761
Tromberg, Bruce J	Breast Cancer Multi-Dimensional Diffuse Optical Imaging	CA03-002	CA105480
Vaughan, J Thomas	New Radiofrequency Technology for Improved Breast Cancer Diagnostics	PA02-011	CA094200
Vaughan, J Thomas	High Field MR Coils for Improved Breast Cancer Detection	PAR00-089	CA094318

Principal Investigator	Title	RFA or PA	Project ID
Wallace, Anne M	A Phase II Study of a New Sentinel Node Radiotracer	PA00-047	CA097643
Weinberg, Irving N	Would Perioperative PET Imaging Improve Lumpectomy?		CA082042
Weinberg, Irving N.	Could Dedicated Breast PET Predict Multifocality?	PAR01-102	CA103102
Wiener, Erik C	Dynamic Magnetic Resonance Mammography: Source of Specificity Errors and Solutions		CA098717
Williams, Mark B	Application of Breast Imaging Technologies to Molecular Imaging	PA94-020	CA069452
Xu, Xiaorong Ronald	Breast Cancer Metabolic Imaging with Near Infrared Light		CA103170
Zalutsky, Michael R	Astatine and Iodine Radiolabeled Monoclonal Antibodies		CA042324

Table B-25

NCI Projects Supported in 2003 Addressing the PRG Priority: Can computer-aided technologies further improve the interpretation of conventional mammography?

Principal Investigator	Title	RFA or PA	Project ID
Baker, Jay A	Reducing Benign Breast Biopsies with Computer Modeling		CA095061
Besson, Guy M	Nine Mega-Pixel Digital Mammography Display Workstation	PAR01-102	CA099068
Chan, Heang-Ping	Digital Mammography: Advanced Computer-Aided Breast Cancer Diagnosis		CA095153
Crouch-Baker, Steven	CDTE-based Detectors for Digital Mammography	PAR01-101	CA100969
Giger, Maryellen L.	Computer Aided Diagnosis in Breast Imaging		CA089452
Good, Walter F	Investigations of Multi-View CAD for Mammography		CA080836
Gur, David	Rule-Based Computer-aided Diagnosis of Digitized Mammograms		CA077850
Jiang, Yulei	Computer-Aided Diagnosis of Breast Lesions in Mammograms		CA092361
Jiang, Yulei	Estimating neural Network Precision for Cancer Diagnosis	PA01-030	CA093989
Lo, Joseph Y	Predicting Breast Cancer with Ultrasound and Mammography	PA01-030	CA093461
Nishikawa, Robert M	Improving the Softcopy Reading of Mammograms Using Computer-aided Diagnostics		CA102337
Penn, Alan I	Computer-Aided Decision Model for Interpreting Breast MR	PAR01-102	CA085101
Qian, Wei	Multi-View Computer-aided Diagnosis System for Breast Cancer Early Detection	PAR01-101	CA099046
Samei, Ehsan	Resolution Requirements for Mammographic Displays		CA095308
Taplin, Stephen H	Breast Cancer Surveillance in a Defined Population	CA98-025	CA063731
Vachon, Celine M	A Mayo Cohort Study of Mammographic Breast Density		CA097396
Wernick, Miles N	Content Based Mammogram Retrieval as a Diagnostic Aid	PA01-030	CA089668

Table B-26

NCI Projects Supported in 2003 Addressing the PRG Priority: What are the imaging characteristics of specific types of benign and malignant breast lesions detected by newer imaging technologies? Can standardized interpretation rules be developed to identify these lesions for any of these modalities? Can they replace or augment conventional mammography in screening general or high-risk populations?

Principal Investigator	Title	RFA or PA	Project ID
Abbey, Craig Kendall	Quantitative Assessment of Murine Tumors with MicroPET	PA01-030	CA102733
Barbour, Randall L	Functional Optical Mammography	PAR01-102	CA096102
Beitz, Alvin J	In Vivo Analysis of Tumor Peptide Secretion	PAR01-106	CA086330
Boone, John M	Feasibility of CT in High Risk Breast Cancer Patients	PAR99-009	CA089260
Carr, Kenneth L	Microwave Radiometry as an Adjunct to Mammography		CA091500
Carson, Paul L	Combined Digital X-ray and Ultrasound Breast Imaging	PA01-024	CA091713
Daniel, Bruce L	Magnetic Resonance Imaging of Breast Cancer		CA066785
Dougherty, Lawrence	Simultaneous Dynamic and Architectural MR Breast Imaging		CA090699
Galons, Jean-Philippe	Mechanisms of Diffusion MRI with Chemotherapy		CA088285
Garwood, Michael G	MRS and MRI of Breast Cancer at Very High Magnetic Field		CA092004
Hagness, Susan C	Space-Time Microwave Imaging for Breast Cancer Detection	PA01-030	CA092188
Hylton, Nola M.	Anatomic and Biologic Staging of Breast Disease with MRI		CA069587
Lo, Joseph Y	Predicting Breast Cancer with Ultrasound and Mammography	PA01-030	CA093461
Mankoff, David A	Diagnosis of Internal Mammary Nodal Metastases in Breast Cancer		CA090771
Maskarinec, Gertraud	Soy Effects on Estrogens and Mammographic Densities		CA080843
Nalcioglu, Orhan	Prognosis of Metastatic Disease in Early Breast Cancer		CA090437
Schnall, Mitchell D	Clinical Study of MRI in Breast Cancer	CA96-012	CA074680
Schnall, Mitchell D	Evaluation of Multi Modality Breast Imaging		CA085424
Sehgal, Chandra M	Doppler Vascularity/Sonography--Breast Cancer Diagnosis		CA087526
Spielman, Daniel M	Magnetic Resonance Spectroscopic Neoplasm Imaging		CA048269
Vaughan, J Thomas	New Radiofrequency Technology for Improved Breast Cancer Diagnostics	PA02-011	CA094200
Wallace, Anne M	A Phase II Study of a New Sentinel Node Radiotracer	PA00-047	CA097643
Weichert, Jamey P	Evaluation of NM404 in Endogenous Breast Cancer Models	PA01-030	CA095249
Weinberg, Irving N.	Could Dedicated Breast PET Predict Multifocality?	PAR01-102	CA103102
Zalutsky, Michael R	Astatine and Iodine Radiolabeled Monoclonal Antibodies		CA042324

Table B-27

NCI Projects Supported in 2003 Addressing the PRG Priority: Can tumor-specific biomarkers be identified and used as imaging agents to improve the performance of any imaging modality?

Principal Investigator	Title	RFA or PA	Project ID
Abeita, Cathy	Early Clinical Trials of Imaging Agents		CM027165
Anderson, Carolyn J	Targeting Matrix Metalloproteinases for Tumor Imaging	PA01-030	CA098698
Bernard, Ora	The Involvement of Lim Kinase in Metastases	PA01-020	CA098229
Bhujwala, Zaver M	Johns Hopkins University-- ICMIC Program	CA03-015	CA103175
Bluemke, David	Early Clinical Trials of Imaging Agents		CM027018
Chance, Britton	Two- and Three-dimensional Imaging of Contrast Agents in Animal Models		CA072895
Ferrara, Katherine W	Contrast Assisted Ultrasound Imaging of Tumors		CA076062
Forsberg, Flemming	Contrast-Enhanced Ultrasound Detection of Angiogenesis	PA01-030	CA093907
Garwood, Michael G	MRS and MRI of Breast Cancer at Very High Magnetic Field		CA092004
Hamilton, Richard T	Smart Probes for Imaging Cancer	PAR01-102	CA100977
Hoffman, Timothy	Development of GRP Receptor Avid Radiopharmaceuticals		CA072942
Katzenellenbogen, John A.	Radiopharmaceuticals for Breast Tumor Imaging & Therapy		CA025836
Louis, David N.	Molecular Immunology and Tumor Biology		CA009216
Rajopadhye, Milind	Metabolite Probes for Molecular Optical Imaging		CA101374
Sevick-Muraca, Eva M	Fluorescence Imaging for Sentinel Lymph Node Mapping	PAR01-101	CA096305
Shields, Anthony F	Labeled Thymidine--Development as a PET Imaging Agent		CA039566
Wheatley, Margaret A	Contrast Enhanced Ultrasound with Therapeutic Modality	PA01-030	CA102238

Table B-28

NCI Projects Supported in 2003 Addressing the PRG Priority: Does early detection by any imaging modality truly change the mortality from breast cancer?

Principal Investigator	Title	RFA or PA	Project ID
Barlow, William E	Statistical Coordinating Center for the Breast Cancer Surveillance Consortium	CA98-025	CA086076
Carney, Patricia A	Strategic Studies in Breast Cancer Surveillance	CA98-025	CA086082
Cutter, Gary R	Breast Cancer Surveillance Research in Colorado	CA98-025	CA063736
Geller, Berta M	Vermont Breast Cancer Surveillance System	CA98-025	CA070013
Kerlikowske, Karla M	San Francisco Mammography Registry--A Research Resource	CA98-025	CA063740
Rosenberg, Robert D	New Mexico Mammography Project	CA98-025	CA069976
Shen, Yu	Statistical Methods for Breast Cancer Screening Studies		CA079466
Smith-Bindman, Rebecca	Outcomes of Screening Mammography in Elderly Women		CA086032
Taplin, Stephen H	Breast Cancer Surveillance in a Defined Population	CA98-025	CA063731
Yankaskas, Bonnie C	Breast Cancer Surveillance Research in North Carolina	CA98-025	CA070040

Table B-29

NCI Projects Supported in 2003 Addressing the PRG Priority: Develop new methods to diagnose clinically significant breast disease and predict clinical outcomes better than conventional histologic examination and the few available biomarker assays (e.g., S-phase fraction, estrogen receptor, progesterone receptor, c-erbB-2).

Principal Investigator	Title	RFA or PA	Project ID
Aldaz, C Marcelo	Gene Expression Signature of Early Breast Cancer	CA98-027	CA084978
Allen, Antonette C	Multimarker Detection of Breast Metastases in PET Nodes	PAR01-062	CA095534
Bailey, George S	Comparative Mechanisms of Cancer Chemoprevention		CA090890
Barron, Annelise E	Fast Mutation Detection by Tandem SSCP/Heroduplex Analysis on Microchips		CA092752
Beitz, Alvin J	In Vivo Analysis of Tumor Peptide Secretion	PAR01-106	CA086330
Benaron, David A	Spectroscopic Dye Localization: Sentinel Lymph Nodes		CA083597
Bernard, Philip S	Molecular Diagnostics for Breast Cancer	PAR01-061	CA097769
Bhujwalla, Zaver M	Johns Hopkins University-- ICMIC Program	CA03-015	CA103175
Bitter, Grant A	Functional Genetic Tests for Breast Cancer Diagnosis		CA101254
Bondy, Melissa L	Determinants of Breast Cancer Survival		CA089608
Boss, Gerry R	Automated Measurement of RAS & RHO Activation in Cancer	PAR99-102	CA089828
Brock, Graham J	Identification of M5 CpG Alterations in Breast Carcinomas	PAR99-102	CA086305
Brown, Patrick O	A Cancer Taxonomy Based on Gene Expression Patterns	CA98-027	CA085129
Caligiuri, Michael A.	Cancer and Leukemia Group B--Leukemia Correlative Science		CA101140
Chang, Helena R	Ethnicity-Based Proteomic Biomarkers in Breast Cancer		CA093736
Cheng, Leo L	Defining Signatures of Breast Cancer Cells by High Resolution Magic Angle Spinning Magnetic Resonance Spectroscopy		CA095624
Churchill, Gary A.	Experimental Design & Analysis for Expression Microarray	PAR99-100	CA088327
Clarke, Robert	Molecular Analysis of Human Breast Cancer	PAR02-010	CA096483
Claus, Elizabeth B	Long Term Outcomes for Women with Breast Cancer In Situ	PA98-027	CA081393
Clelland, Catherine L	Breast Cancer Diagnosis: Blood-Cell Multigene Signatures	PA01-010	CA102552
Condeelis, John S	Novel Imaging Methods for Gene Discovery in Cancer	PAR99-100	CA089829
Couch, Fergus J	Characterization of the Chromosome 17q23 Amplicon		CA087898
Darzynkiewicz, Zbigniew	Probes for Cytometry		CA028704
De, Siddhartha	FRET-Based High Throughput Screening Assay for Estrogen Receptor Modulators		CA099295
Drees, Beth E	Phosphoinositide 3-Kinase Assays in Cancer Diagnosis	PAR01-105	CA081835
Ehman, Richard L.	Magnetic Resonance Elastography in Breast Cancer		CA091959
Ferrari, Mauro	Nanomechanical Method for Molecular Analysis of Cancer	PAR01-104	CA099089
Fleming, Timothy P	Mammaglobin as a Marker for Breast Cancer Detection	PA03-003	CA098021
Fresco, Jacques R.	Fluorescent Tish Probes for Cancer Revelant Sequences	PAR99-100	CA088547

Principal Investigator	Title	RFA or PA	Project ID
Galons, Jean-Philippe	Mechanisms of Diffusion MRI with Chemotherapy		CA088285
Gascoyne, Peter R	Integrated Isolation & Molecular Analysis of Tumor Cells	PAR99-100	CA088364
Gazdar, Adi F	Markers for Risk Assessment/Early Detection of Lung and	CA98-028	CA084971
Gillanders, William E	Molecular Detection of Breast Cancer in Peripheral Blood		CA093419
Gite, Sadanand	Novel Technology for the Analysis of Gene Expression	PAR99-101	CA083396
Guthold, Martin	Novel, Single-molecule Aptamer Selection Method	PAR01-105	CA103120
Hagness, Susan C	Dielectric Characterization of Human Breast Tissue		CA087007
Herschman, Harvey R.	The UCLA Center for In Vivo Imaging in Cancer Biology	CA99-004	CA086306
Heyduk, Tomasz	Molecular Beacons for Protein Detection		CA094356
Hoffman, Timothy	Development of GRP Receptor Avid Radiopharmaceuticals		CA072942
Huang, Tim H	Novel Tool for Analysis of Promoter Hypermethylation	PAR99-100	CA094441
Huang, Tim H.	DNA Hypermethylation in Breast Cancer		CA069065
Issa, Jean-Pierre J	Neoplasia and Methylated CpG Islands Amplification	PAR99-100	CA089837
Katzenellenbogen, John A.	Radiopharmaceuticals for Breast Tumor Imaging & Therapy		CA025836
Krohn, Kenneth A	Metabolic Imaging of Cancer and Its Response to Therapy		CA042045
Ling, C. C	Multimodality Biological Imaging of Cancer/Tumor Hypoxia	PAS00-006	CA084596
Lu, Lee-Jane W	Mammographic Density and Soy Isoflavones		CA095545
Mach, Robert H	PET Imaging of Breast Cancer via Sigma-2 Receptors	PAR01-101	CA102869
Mankoff, David A	Imaging the Response of Locally Advanced Breast Cancer		CA072064
Mc Garrity, Gerard J.	Pre-mRNA Trans-splicing for Molecular Imaging of Cancer	PAR01-105	CA097507
Nalcioglu, Orhan	Prognosis of Metastatic Disease in Early Breast Cancer		CA090437
Nieto, Yago	Prognostic Modeling of High-Risk Primary Breast Cancer	PA01-010	CA095762
Ouwerkerk, Ronald	²³ Na MRI of Breast Cancer		CA095907
Powell, Richard D	Chromogenic HER-2/neu Gene Amplification Assay		CA083618
Press, Michael F	Pathobiology of Breast Cancer and Hormone Receptors		CA048780
Rimm, David L	AQUA: A New Quantitative In Situ Proteomic Assay	PA01-010	CA100825
Ross, Jeffrey	Human RNA Binding Protein as a Cancer Marker	PA01-010	CA094082
Sauter, Edward R	Protein Profiling in Nipple Aspirate Fluid	PAR01-061	CA095484
Schneider, Luke V	IDBESTt Differential Display on Protein Chips	PAR01-105	CA103085
Semmes, Oliver J.	Early Detection of Cancer by Affinity Mass Spectrometry	CA98-028	CA085067
Sommer, Steve S	Artificial Nanotube Gels for Mutation Detection	PAR99-100	CA094408
Trock, Bruce J.	Detecting Breast Cancer Protein Signatures in Body Fluid	CA98-028	CA085082
Tung, Ching-Hsuan	In Vivo Imaging of Matrix Metalloprotease	PAR99-100	CA088365
Vanbroeklin, Henry F.	Targeted Molecular Probes for Tumor Imaging		CA094253

Principal Investigator	Title	RFA or PA	Project ID
Weichert, Jamey P	Evaluation of NM404 in Endogenous Breast Cancer Models	PA01-030	CA095249
Weissleder, Ralph	Center for Molecular Imaging Research	CA99-004	CA086355
Welch, Michael J.	Research Resource in Radionuclide Research		CA086307
Yeatman, Timothy J	Screening for Breast Cancer Using Molecular Signatures		CA098522
Zhu, Bao T	2-Methoxyestradiol & Hormonal Cancer		CA097109
Zipfel, Warren R	Nonlinear Intrinsic Microspectroscopy of Cancer	PAR00-089	CA094311

Table B-30

NCI Projects Supported in 2003 Addressing the PRG Priorities:

Str-B: Are there biomarkers that predict the clinical outcome of precancerous and cancerous breast lesions if left untreated (i.e., prognostic factors) with a high degree of certainty?

Str-C: Are there biomarkers that predict the response of precancerous and cancerous breast lesions to specific types of therapy (i.e., predictive factors) with a high degree of certainty?

Principal Investigator	Title	RFA or PA	Project ID	Str-B	Str-C
Aldaz, C Marcelo	Gene Expression Signature of Early Breast Cancer	CA98-027	CA084978	X	X
Aldaz, C Marcelo	Characterization of WXOX, the Cancer Gene Spanning FRA16D		CA102444	X	
Ambrosone, Christine B	Pharmacogenetics: Breast Cancer Treatment and Prognosis	PA01-015	CA095222	X	X
Artemov, Dmitri Y	MR Pharmacoangiography-Vascular Modulation of Delivery		CA097310		X
Bailey, George S	Comparative Mechanisms of Cancer Chemoprevention		CA090890		X
Benaron, David A	Spectroscopic Dye Localization: Sentinel Lymph Nodes		CA083597	X	X
Benz, Christopher C	Defective Estrogen Receptors in Breast Tumors		CA071468		X
Berg, Patricia E	A Novel HOX Gene Target in Breast Cancer	PAR01-045	CA091149	X	
Bernard, Philip S	Molecular Diagnostics for Breast Cancer	PAR01-061	CA097769	X	X
Bitter, Grant A	Functional Genetic Tests for Breast Cancer Diagnosis		CA101254		X
Blumenthal, Rosalyn D	Pre-clinical Combination Chemotherapy and Radioantibody Therapy		CA099529		X
Bondy, Melissa L	Determinants of Breast Cancer Survival		CA089608	X	
Brock, Graham J	Identification of M5 CpG Alterations in Breast Carcinomas	PAR99-102	CA086305	X	
Brown, Patrick O	A Cancer Taxonomy Based on Gene Expression Patterns	CA98-027	CA085129	X	
Caligiuri, Michael A.	Cancer and Leukemia Group B--Leukemia Correlative Science		CA101140	X	X
Chang, Helena R	Ethnicity-Based Proteomic Biomarkers in Breast Cancer		CA093736	X	X
Charlier, Henry	Anthracycline Specificities of Carbonyl Reductases		CA102119		X

Principal Investigator	Title	RFA or PA	Project ID	Str-B	Str-C
Cheng, Leo L	Defining Signatures of Breast Cancer Cells by High Resolution Magic Angle Spinning Magnetic Resonance Spectroscopy		CA095624	X	
Clarke, Robert	Molecular Analysis of Human Breast Cancer	PAR02-010	CA096483	X	
Clinton, Gail M	Truncated HER2/neu Protein in Breast Cancer		CA083970	X	
Condeelis, John S	Novel Imaging Methods for Gene Discovery in Cancer	PAR99-100	CA089829		X
Couch, Fergus J	Characterization of the Chromosome 17q23 Amplicon		CA087898	X	
Croce, Carlo M.	8p22 Alterations, in Prostate, Breast and Esophageal Cancer		CA083698	X	
Daling, Janet R	Tamoxifen & Second Breast Cancer: Epidemiology/ Pathology		CA097271		X
Darzynkiewicz, Zbigniew	Probes for Cytometry		CA028704	X	X
De Luca, Luigi M.	Retinoids in Differentiation and Neoplasia		BC004798		X
Demichele, Angela	Age, Cell Cycle Markers and Breast Cancer Outcomes		CA081009		X
Drees, Beth E	Phosphoinositide 3-Kinase Assays in Cancer Diagnosis	PAR01-105	CA081835	X	
Ehman, Richard L.	Magnetic Resonance Elastography in Breast Cancer		CA091959	X	
Ellis, Matthew J	Novel Biomarkers for Aromatase Inhibitor Therapy	PA00-001	CA095614		X
Ethier, Stephen P.	Breast Cancer Oncogenes on the 8p11 Amplicon.		CA100724	X	X
Fabian, Carol	A Study to Identify Biomarker Modulation by Cyclooxygenase-2 (COX-2) Inhibitors in Breast Tissue of Premenopausal Women		CN015135		X
Ferrari, Mauro	Nanomechanical Method for Molecular Analysis of Cancer	PAR01-104	CA099089		X
Fleming, Timothy P	Mammaglobin as a Marker for Breast Cancer Detection	PA03-003	CA098021	X	X
Fresco, Jacques R.	Fluorescent Tish Probes for Cancer Revelant Sequences	PAR99-100	CA088547	X	
Galons, Jean-Philippe	Mechanisms of Diffusion MRI with Chemotherapy		CA088285	X	
Gascoyne, Peter R	Integrated Isolation & Molecular Analysis of Tumor Cells	PAR99-100	CA088364	X	X
Gazdar, Adi F	Markers for Risk Assessment/Early Detection of Lung and	CA98-028	CA084971	X	
Graham, Michael M.	Molecular Imaging of Responses to Cancer Therapy	CA01-010	CA091709		X
Hagness, Susan C	Dielectric Characterization of Human Breast Tissue		CA087007	X	
Hartman, Anne-Renee	Genetic Alterations in Breast Cells From BRCA1 Carriers		CA098246	X	
Hayes, Daniel F	Correlative Studies of ErbB-2/HER2 and p53 in a CALGB Protocol	PA98-099	CA092461		X
Hazan, Rachel B	Mechanisms of N-Cadherin Mediated Breast Cancer Metastasis		CA090872	X	
Herlyn, Dorothee M	EGF-RvIII in Breast Cancer		CA090748	X	
Herschman, Harvey R.	The UCLA Center for In Vivo Imaging in Cancer Biology	CA99-004	CA086306	X	X
Hershman, Dawn	Osteoporosis Prevention in Early Stage Breast Cancer		CA095597		X
Huang, Sui	Perinucleolar Compartment as Breast Cancer Marker		CA097761	X	X
Huang, Tim H.	DNA Hypermethylation in Breast Cancer		CA069065	X	
Kacinski, Barry M	CSF1 and CSF1R and Breast and Ovarian Carcinoma	CA92-18	CA047292	X	

Principal Investigator	Title	RFA or PA	Project ID	Str-B	Str-C
Katzenellenbogen, John A.	Radiopharmaceuticals for Breast Tumor Imaging & Therapy		CA025836		X
Kleer, Celina G	Role of LIBC in Inflammatory Breast Cancer Phenotype		CA090876	X	
Konstantin, Christov	Preclinical Evaluations of Intermediate Endpoints and Their Modulation of Chemoprevention		CN015112		X
Krohn, Kenneth A	Metabolic Imaging of Cancer and Its Response to Therapy		CA042045	X	X
Kumar, Rakesh F	Targeting Urokinase Pathway for Breast Cancer Therapy		CA088923	X	
Lampe, Johanna W	Hormone Status Postmenopause: Colonic Bacterial Effects	PAR00-025	CA097475		X
Lucito, Robert D	Application of Genomic Microarrays to Breast Cancer		CA093634	X	
Malkhosyan, Sergei R	Comparative Hybridization of AP-PCR Arrays	PAR99-100	CA083241	X	
Meric, Funda	Role of Nuclear Tyrosine Rak in Breast Cancer		CA091834	X	
Merino-Neumann, Maria J.	Gene Expression Profiling of Microdissected Normal, Invasive and In Situ Carcinoma of Breast through the use of Nucleic Acid Array.		SC009361	X	X
Miksicek, Richard J	Characterization of a Novel Breast-Specific Mucin Gene	PA01-010	CA094943		X
Milligan, Jamie R	Biologically Significant Damage in DNA		CA046295		X
Nakshatri, Harikrishna	Akt Mediated Tamoxifen Resistance in Breast Cancer Cells		CA089153		X
Nalcioğlu, Orhan	Prognosis of Metastatic Disease in Early Breast Cancer		CA090437	X	
Overmoyer, Beth	Translational Research in Breast Cancer		CA087725		X
Pagano, Michele	F Box Proteins and Deregulated Proteolysis in Cancer		CA076584	X	
Pollack, Jonathan R	Role of Gene Amplification in Breast Cancer		CA097139	X	
Powell, Richard D	Chromogenic HER-2/neu Gene Amplification Assay		CA083618	X	
Press, Michael F	Pathobiology of Breast Cancer and Hormone Receptors		CA048780	X	X
Ried, Thomas	Identification of Chromosomal Aberrations in Human Epithelial Cancers and Hematological Malignancies and their Respective Murine Model Systems (Comparative Cancer Cytogenetics)		SC010298	X	
Rimm, David L	AQUA: A New Quantitative In Situ Proteomic Assay	PA01-010	CA100825	X	X
Ross, Jeffrey	Human RNA Binding Protein as a Cancer Marker	PA01-010	CA094082	X	
Russo, Jose	Fox Chase Cancer Center Breast Cancer Tissue Resources	CA03-503	CA062779		X
Sauter, Edward R	Protein Profiling in Nipple Aspirate Fluid	PAR01-061	CA095484	X	
Seiden, Michael	Identification of Paclitaxel Resistance Genes		CA089150		X
Semmes, Oliver J.	Early Detection of Cancer by Affinity Mass Spectrometry	CA98-028	CA085067	X	
Shields, Peter G	Molecular Epidemiology of Secondary Lung Cancer		CA092705		X
Stern, David F	Signaling by neuregulins and ErbB4 in Breast Cancer	PA99-162	CA080065	X	
Swisshelm, Karen L	Retinoic Acid Receptor Beta and Breast Cancer		CA082455	X	
Tang, Careen K	Coexpression of EGFRvIII/ErbB2 in Human Breast Cancer		CA088871	X	X

Principal Investigator	Title	RFA or PA	Project ID	Str-B	Str-C
Telang, Nitin	Preclinical Evaluation of Intermediate Endpoints and their Modulation by Chemoprevention Agents		CN025018		X
Tempero, Margaret A	Mechanism-Based Evaluations of ErbB-Targeted Agents	CA00-001	CA090788	X	X
Tonetti, Debra A	PKC as a Marker in Tamoxifen Resistant Breast Cancer	PA01-010	CA097045		X
Tung, Ching-Hsuan	In Vivo Imaging of Matrix Metalloprotease	PAR99-100	CA088365	X	X
Vanbrocklin, Henry F.	Targeted Molecular Probes for Tumor Imaging		CA094253	X	
Weinberg, Irving N	Would Perioperative PET Imaging Improve Lumpectomy?		CA082042		X
Weissleder, Ralph	Center for Molecular Imaging Research	CA99-004	CA086355	X	X
Yeaman, Timothy J	Screening for Breast Cancer Using Molecular Signatures		CA098522	X	
You, Ming	Preclinical Evaluation of Intermediate Endpoints and their Modulation by Chemopreventive Agents		CN025123		X
Zipfel, Warren R	Nonlinear Intrinsic Microspectroscopy of Cancer	PAR00-089	CA094311	X	

Table B-31

NCI Projects Supported in 2003 Addressing the PRG Priority: Premalignant and malignant breast lesions often have complex phenotypes involving abnormalities in many biomarkers simultaneously. How do we interpret and use this information?

Principal Investigator	Title	RFA or PA	Project ID
Aickin, Mikel G	Development of a Model for Causal Latent Factors	PA01-021	CA094750
Bernard, Philip S	Molecular Diagnostics for Breast Cancer	PAR01-061	CA097769
Caligiuri, Michael A.	Cancer and Leukemia Group B--Leukemia Correlative Science		CA101140
Churchill, Gary A.	Experimental Design & Analysis for Expression Microarray	PAR99-100	CA088327
Clelland, Catherine L	Breast Cancer Diagnosis: Blood-Cell Multigene Signatures	PA01-010	CA102552
Cuttitta, Frank	Growth of Human Tumor Cell Lines in Protein-free/Hormone-free Media		SC000192
Demichele, Angela	Age, Cell Cycle Markers and Breast Cancer Outcomes		CA081009
Fryback, Dennis G.	Simulating Breast Cancer in Wisconsin	CA99-013	CA088211
Gascoyne, Peter R	Integrated Isolation & Molecular Analysis of Tumor Cells	PAR99-100	CA088364
Herschman, Harvey R.	The UCLA Center for In Vivo Imaging in Cancer Biology	CA99-004	CA086306
Huang, Tim H.	DNA Hypermethylation in Breast Cancer		CA069065
Labaer, Joshua	Functional Proteomics of Breast Cancer	PAR01-106	CA099191
Lemkin, Peter F.	MicroArray Explorer for the Data Mining of Expression Profiles of DNA Microarrays		BC010303
Li, Honghua	A Genetic Approach to Genome-Scale Analysis of Cancers	PAR01-104	CA096309
Lin, Xihong	Statistical Methods for Correlated Biomedical Data		CA076404
Lucito, Robert D	Application of Genomic Microarrays to Breast Cancer		CA093634
Mandelblatt, Jeanne S.	Outcomes Across the Spectrum of Breast Cancer Care	CA99-013	CA088283
Marks, Jeffrey R.	Expression Based Markers for Breast Cancer Detection	CA98-028	CA084955

Principal Investigator	Title	RFA or PA	Project ID
Mincey, Betty A	Mammographic Density as a Predictor of Breast Cancer		CA094974
Nathanson, Katherine L	Identifying Modifying Genes in BRCA1 Mutation Carriers		CA084030
Nieto, Yago	Prognostic Modeling of High-Risk Primary Breast Cancer	PA01-010	CA095762
Ogunyemi, Omolola I	Breast Cancer Risk Assessment with Bayesian Networks	PAR00-025	CA099099
Plevritis, Sylvia K	Breast Cancer Trend Analysis Using Stochastic Simulation	CA99-013	CA088248
Seewaldt, Victoria L	p53 Loss in HMECs: A Model of Breast Cancer Prevention		CA098441
Speicher, David W	Novel Comprehensive Proteome Analyses of Metastasis	PAR99-102	CA092725
Tung, Ching-Hsuan	In Vivo Imaging of Matrix Metalloprotease	PAR99-100	CA088365
Weissleder, Ralph	Center for Molecular Imaging Research	CA99-004	CA086355
Yeatman, Timothy J	Screening for Breast Cancer Using Molecular Signatures		CA098522
Zelen, Marvin	Breast Cancer: Early Detection, Treatment and Prevention	CA99-013	CA088270

Table B-32

Additional Breast Cancer Early Detection, Diagnosis, and Prognosis Projects

Principal Investigator	Title	RFA or PA	Project ID
Abeloff, Martin D	Howard/Hopkins Cancer Centers Partnership	CA01-002	CA091409
Adams-Campbell, Lucile L	Howard/Hopkins Cancer Center Partnership	CA01-002	CA091431
Barton, Mary B	Breast Cancer Screening in the Elderly		CA085587
Bodurtha, Joann N	Breast Cancer Risk-Tailored Messages for More Women		CA094213
Camphausen, Kevin A.	Molecular Profiling of Patients Undergoing Radiotherapy		SC010372
Chen, Moon S	Asian American Network for Cancer Awareness, Research & Training	CA99-003	CA086322
Clark, Melissa P	Comprehensive Cancer Screenings Among Unmarried Women		CA087070
Coltman, Charles A	Breast Cancer Symposium		CA083702
Costanza, Mary E	Enhanced Intervention for Mammogram-resistant Women	PA02-001	CA100286
Felmlee, Joel P	Improved MRI Guided Thermal Treatment of Cancer		CA095683
Fernandez, Maria	Repeat Mammography Among Low Income and Minority Women		CA079759
Gany, Francesca	Cancer Awareness Network for Immigrant Minority Population	CA99-003	CA086286
Gillies, Robert J	Causes and Consequences of Acid pH in Tumors		CA077575
Glass, Andrew G	Cooperative Breast Cancer Tissue Resource	CA03-503	CA062938
Godbold, James	Biostatistical CORE for Cancer Research	CA01-020	CA088282
Henkens, Robert W	Innovative Technology for Gene Expression Studies	PAR99-101	CA094361
Henry-Tillman, Ronda	Arkansas Special Populations Access Network (A-SPAN)	CA99-003	CA086081
Hong, Keelung	Immunliposome Technology for Tumor-targeted Drug/Probe Delivery		CO027176
Hubbell, F A	Pacific Islander Cancer Control Network	CA99-003	CA086073

Principal Investigator	Title	RFA or PA	Project ID
Jacobs, Elizabeth	Trust and Cancer Screening in African American Women		CA089421
Jerry, Joseph D	Profiling Modifications of p53 by Mass Spectrometry	PAR00-079	CA094312
Jolesz, Ferenc A	Magnetic Resonance-guided Therapy		CA067165
Kasthuri, Ushapriya	Breast Cancer Detection System		CA103306
Kendziorski, Christina	Pooling Designs for Microarray Studies	PA01-021	CA103522
Kondo, Norman S	University of the District of Columbia & Lombardi Cancer Center Partners in Cancer Research, Training, Education, & Outreach	CA01-003	CA091432
Lazar, James G	Development of pp32 Gene Family-Based Cancer Diagnostics		CA099853
Levenson, Richard M.	Simple, Low-Cost, Ultra-Rapid Spectral Imaging Platform	PAR99-101	CA088684
Liang, Wenchi	Impact of Culture on Cancer Screening in Chinese Women		CA090352
Macher, Bruce A	SFSU/UCSF Comprehensive Cancer Partnership Program	CA02-007	CA096217
Magai, Carol L	Cancers in Older Minority Populations	CA01-003	CA091367
Mayo, Matthew S.	Biostatistics/Informatics Shared Resource	CA01-020	CA095835
Milikowski, Clara	Cooperative Breast Cancer Tissue Resource (CBCTR)	CA03-503	CA062772
Moskaluk, Christopher A	Tissue Procurement and Processing for Molecular Analysis	CA01-009	CA091654
Muller, Keith E	Internal Pilots for Repeated Measure Anova		CA095749
Myers, Ronald E	Increasing Access to Clinical and Educational Studies	CA99-003	CA086084
Neugut, Alfred I	Cancer in Older Minority Populations	CA01-003	CA091372
Partridge, Edward E	Deep South Network for Cancer Control	CA99-003	CA086128
Pasick, Rena J	Behavioral Contracts and Culture in Cancer Screening		CA081816
Rakowski, William	Diverse Screening Histories--Persons, Groups, Behaviors		CA090485
Ramirez, Amelie G	Redes En Accion--Cancer Awareness, Training and Research	CA99-003	CA086117
Raubitschek, Andrew A	Bioengineered Antibodies in Cancer Imaging and Therapy		CA043904
Rimer, Barbara K	Finding the Minimum Intervention Needed for Change (MINC) for Mammography Maintenance	OD03-003	CA105786
Roach, Mack	SFSU/UCSF Comprehensive Cancer Partnership Program	CA02-007	CA096216
Satcher, David	National Black Leadership Initiative on Cancer II: Cancer Control, Research and Training Network	CA99-003	CA086274
Soper, Steven A	Microsampling Unit for Capturing Low Abundant Cells	PAR01-106	CA099246
Strecher, Victor J	Michigan Center for Health Communications Research	CA03-007	CA101451
Umbricht, Christopher B	Fixation of Breast and Prostate Cancer Tissue	PAR00-079	CA091238
Wyatt, Stephen	The Appalachia Cancer Network	CA99-003	CA086096
Yeoman, Lynn	Cancer Prevention In Medical Education Practice		CA077407
Zehnbauer, Barbara A	St. Louis Breast Cancer Tissue Registry	CA03-503	CA062773
Zeltser, Gregory	Microchannel Proteomic Array		CA101274