CURRICULUM VITAE
OREGON HEALTH & SCIENCE UNIVERSITY

NAME	**Joe W. Gray**	**DATE**	**March 2014**

PRESENT POSITION AND ADDRESS

Academic Rank:	**Gordon Moore Endowed Chair** **Chair, Department of Biomedical Engineering** **Director, Center for Spatial Systems Biomedicine** **Associate Director for Translational Research, Knight Cancer Institute**
Department/Division:	**Biomedical Engineering, School of Medicine**
Professional Address:	**3303 SW Bond Ave., CH13B** **Portland, OR 97239**
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II. EDUCATION

Undergraduate and Graduate

1964-68	Prof. Engr.	Physics	Colorado School of Mines, Golden, Colorado
1968-72	Ph.D.	Physics	Kansas State University, Manhattan, Kansas

III. PROFESSIONAL EXPERIENCE

Academic

1968-1972	Graduate Student	Kansas State University	Physics Department
1972-1991	Biomedical Scientist	University of California, Livermore Lawrence Livermore National Laboratory	Biomedical Sciences Division
1982-1991	Section Leader	University of California, Livermore Lawrence Livermore National Laboratory	Biomedical Sciences Division
1991-1992	Professor in Residence	University of California, San Francisco	Dept. of Laboratory Medicine and Radiation Oncology
1993-2003	Professor	University of California, San Francisco	Dept. of Laboratory Medicine and Radiation Oncology
2003-2010	Adjunct Professor	University of California, San Francisco	Dept. of Laboratory Medicine and Radiation Oncology

Administrative

1991-2000	Director	University of California, San Francisco	Div. of Molecular Cytometry Dept. of Laboratory Medicine
1995-1997	Interim Director	University of California, San Francisco	UCSF Cancer Center
1995-2004	Program Leader	University of California, San Francisco	Cancer Genetics Program UCSF Cancer Center
1997-2010	Program Leader	University of California, San Francisco UCSF Cancer Center	Breast Oncology Program
2003-2010	Assoc. Lab Director	Lawrence Berkeley National Laboratory	Biosciences
2003-2010	Division Director	Lawrence Berkeley National Laboratory	Life Sciences Division

Other

1976-2010	Member	University of California, San Francisco	Biophysics Graduate Program
1984-1991	Adjunct Professor	University of California, San Francisco	Laboratory Medicine
1992-1998	Senior Scientist	Lawrence Berkeley National Laboratory	
1998-2008	Member	University of California, San Francisco	Program in Biological Sciences Graduate Program (PIBS)
1998-2006	Member	University of California, San Francisco	Biomedical Sciences Graduate Program (BMS)
1999-2007	Member	University of California, San Francisco	Medical Information Sciences Graduate Program (MIS)
2008-2010	Affiliate Member	University of California	California Institute for Quantitative Biosciences (QB3)
2008-2010	Member	University of California, Berkeley	Comparative Biochemistry Graduate Group
2011-Present	Member	Oregon Health & Science University	Graduate Faculty, School of Medicine
2011-Present	Joint Appointment	Oregon Health & Science University	Professor, Dept. of Radiation Medicine, School of Medicine

IV. SCHOLARSHIP

Area(s) of Research / Scholarly Interest

The Gray Laboratory explores mechanisms by which genomic, transcriptional and proteomic abnormalities occur in selected cancers, elucidates how these abnormalities contribute to cancer pathophysiologies and assesses the ways in which these abnormalities influence responses to gene targeted therapies. Current studies focus on developing: (a) integrated analyses of the spectrum of recurrent abnormalities that influence cancer behavior (b) mathematical models that describe how cancer-associated molecular abnormalities influence individual responses to therapeutic inhibitors (c) novel therapeutic approaches to treat breast or ovarian cancer subpopulations that do not respond well to current aggressive chemotherapeutic strategies (d) proteomic strategies for early detection of breast cancer related proteins in blood (e) automated functional assessment of genes deregulated by genomic abnormalities in cancers, (f) molecular imaging for early detection of metastasis prone breast cancer and (g) spatial systems biomedicine.

Integrated analysis We are assessing abnormalities associated with clinical outcome in breast cancers using a combination of comparative genomic hybridization (CGH) with molecular inversion probe technology to assess allele specific genome copy number at ~10Kbp resolution, exon level expression profiling, and reverse phase protein lysate arrays and western analyses to assess protein and phosphoprotein levels in cancer related genes. These studies are being carried out in collaboration with investigators at OHSU, UC San Francisco, UC Berkeley, and the MD Anderson Cancer Center. We are contributing to The Cancer Genome Atlas (TCGA) project managed by the NCI and NHGRI. Work in this area is funded by the NCI Bay Area Breast Cancer SPORE and the NCI/NHGRI TCGA project.

Mathematical models We are developing mathematical methods to predict individual responses to therapeutic agents using information on responses to these agents in a collection of cell lines grown in vitro. Major emphasis in this project is on breast cancer. Current emphasis is on development of statistical, Bayesian and ODE models of Her-family signaling. These studies are being carried out in collaboration with investigators at OHSU, UC San Francisco, UC Berkeley, and the MD Anderson Cancer Center. Work in this area is supported by an NCI Center for Cancer Systems Biology award.

Novel therapeutic approaches We are assessing responses to NCI and private sector compounds measured for our collection of 50 breast cancer cell lines to identify therapeutic agents that will be highly effective against basal and luminal/amplifier breast tumor subtypes that do poorly on aggressive therapy. In addition, we are developing siRNA therapeutic approaches to treat breast and ovarian tumors that amplify and over express transcripts to which the tumors become "addicted". Current emphasis is on development of strategies to identify and inhibit functionally important genes in regions of amplification associated with poor outcome. This work is being carried out in collaboration with investigators at the MD Anderson Cancer Center, and UC San Francisco. It is supported by the NCI Bay Area Breast Cancer SPORE and an AACR Stand Up to Cancer Award.

Early detection We are using information about genomic and transcriptional abnormalities in breast cancer to guide the development of mass spectrometric strategies that can detect breast cancer subtype specific proteins in order to enable early detection of metastasis prone breast cancers. Mass spectrometry and capillary isoelectric focusing approaches are being developed to detect these proteins in the blood, MRI and PET imaging approaches are being developed for anatomic detection and scanned ion beam mass spectrometry is

being developed for improved histopathological analysis. These studies are being carried out in collaboration with investigators at UC Berkeley, UC San Francisco, and the Lawrence Livermore National Laboratory. They are supported by a DOD Innovator award.

Spatial systems biomedicine We are developing the science of Context Dependent Therapy to provide realistic "cancer assembly manuals" describing how molecular aberrations in cancer cells function and influence response to therapy in 4 dimensions (3D space and time). This research is motivated by the appreciation that the omic features of individual tumors evolve over time as they metastasize to different anatomic locations and as they respond to therapies. As a consequence, the responses to treatment will vary during treatment and across anatomic sites. Development of durable treatments will require elucidation of how the spectrum of omic aberrations in individual tumors evolves with time and anatomic location, how these aberrations collaborate to influence cancer pathophysiology and how these functional collaborations vary with anatomic location within individual patients. This will be carried out in the OHSU Center for Spatial Systems Biomedicine created to stimulate development of advanced multi-scale molecular imaging, experimental systems engineered to report on system function, development of reporter chemistries and nanomaterials, dynamic 4D (3D space and time) analytical models of systems behavior, and 3 and 4D visualization programs.

Grants and Contracts

Federal

W81XWH-07-1-0663-BC-061995	*Early Detection of Metastasis-Prone Breast Cancers*			
Principal Investigator		09/17/07 – 09/16/14	U.S. Army Medical Research & Materiel Command (DOD USAMRMC)	$1,080,201
U54 CA112970 (Gray)	*Model-Based Predictions of Responses to RTK Pathway Therapies*			
Principal Investigator	Integrative Cancer Biology Program (ICBP) Center for Cancer Systems Biology (CCSB)			
		09/30/04 – 02/28/15	NIH/NCI	$1,575,971 Core 1: $36,956 Project 3: $149,578
U24 CA143799 (Spellman)	*The Cancer Genome Atlas (TCGA) Data Analysis Center at Berkeley*			
Investigator		09/28/09-07/31/14	NIH/NCI	$537,280
W81XWH-11-1-0549-BC100597P1 (Spellman)	*Enhancing the Breadth and Efficacy of Therapeutic Vaccines for Breast Cancer*			
		09/25/11-09/24/15	DOD USAMRMC	$383,443
U01 CA164720 (Bild)	*Integrative Signaling Models to Decipher Complex Cancer Phenotypes*			
Investigator		08/08/12 – 06/30/17	University of Utah NIH/NCI (Prime) Gray subcontract	$134,528

Other Support

	Integrated Light and Electron Microscopy for Multiscale Structural Epigenomics			
Principal Investigator		09/01/12-08/31/14	W.M. Keck Foundation	$500,000
SAC110012	*Mechanisms of Resistance to Treatment in Metastatic Breast Cancer*			
Principal Investigator		01/24/13-01/23/15	Susan G. Komen Breast Cancer Foundation	$207,931
Komen Promise (O'Malley)	*Restoring Hormone Sensitivity of Late Recurrences in Breast Cancer Patients*			
Investigator		09/13/12-09/12/17	Susan G. Komen	$127,718
Gray subcontract			Baylor College of Medicine (Prime)	
	Development of Multispectral Super Resolution Fluorescence microscopy (MSSRM)			
Principal Investigator		01/01/13-12/31/15	FEI	$261,382
	Preclinical Development of Therapeutic siRNA-nanoparticles			
Principal Investigator		4/15/13-4/14/15	Atwater	$441,913
Development of Therapeutic Strategies to Effectively Treat Molecularly Heterogeneous Breast, Prostate And Pancreatic Cancers				
Principal Investigator		09/03/13 – 10/01/15	Novartis	$422,400
	Multi Spectral Super Resolution Microscope			
Principal Investigator		06/01/13 – 06/31/15	MJ Murdock Charitable Trust	$425,000
SRA-14-040 (N43-CO-2013-00078) (Yantasee)	*Novel siRNA Nanoparticle Platform for Treating Drug-Resistant HER2 Positive Breast Cancer*			
Subcontract PI		10/29/13 – 06/19/14	PDX Pharmaceuticals, LLC NCI	$60,942

Pending Support (Oregon Health & Science University)

SBIR Phase I / NSF 13-546 (Nederlof) Investigator	*Multi Spectral Super Resolution Microscopy Software* 02/01/14 – 07/31/14	NSF/SBIR/ Quantitative Imaging Systems	$25,000
NIH U01 PAR-13-184 (Bandyopadhyay) Investigator	*Integrative Modeling of Cancer Drivers Using an Isogenic Cell Line Encyclopedia* 07/01/14 – 06/30/19	NIH/UCSF	$100,000
DOD W81XWH-13-BCRP-Breakthrough (Xiao) Investigator	*CREB Inhibitors as Novel Therapeutics for Triple Negative Breast Cancer* 10/01/14 – 09/30/17	DOD USAMRMC	$72,187
RFA-RM-13-013 LINCS Principal Investigator	*Extrinsic Perturbations of Cell Physiology and Associated Regulatory Networks* 07/01/14 – 06/30/20	NIH	$1,982,455
BAA N01CO42400-80 (Gray) Principal Investigator	*The Collaborative Cancer Computing Cloud* 10/01/14 – 09/30/16	NIH	$8,335,243

Publications/Creative Work

Peer-reviewed

A1. Gray, J.W., Hartnell, G.W., Legg, J.C. (1971) A Bremsstrahlung method for locating electrical breakdown in a Van de Graaf accelerator tube. Nucl. Instrum. Methods, 96:2l7-8.

A2. Gray, J.W. Legg, J.C. (1974) Analog resonances and possible T mixing in 76Se. Phys. Rev. C., 10(6):2577-83.

A3. Van Dilla, M.A., Steinmetz, L.L., Davis, D.T., Calvert, R.N., Gray, J.W. (1974) High speed cell analysis and sorting with flow systems: Biological applications and new approaches. IEEE Trans. Nucl. Sci., 21(1):714-21.

A4. Gray, J.W. (1974) Cell cycle analysis from computer synthesis of deoxyribonucleic acid histograms. J. Histochem. Cytochem., 22(7):642-50.

A5. Coffino, P., Gray, J.W., Tomkins, G.M. (1975) Cyclic AMP, a nonessential regulator of the cell cycle. Proc. Natl. Acad. Sci. USA, 72(3):878-82.

A6. Gray, J.W., Carrano, A.V., Moore, D.H. II, Steinmetz, L.L., Minkler, J., Mayall, B.H., Mendelsohn, M.L., Van Dilla, M.A. (1975) High-speed quantitative karyotyping by flow microfluorometry. Clin. Chem., 21(9):1258-62.

A7. Gray, J.W., Carrano, A.V., Steinmetz, L.L., Van Dilla, M.A., Moore, D.H. II, Mayall, B.H., Mendelsohn, M.L. (1975) Chromosome measurement and sorting by flow systems. Proc. Natl. Acad. Sci. USA, 72(4):231-4.

A8. Gledhill, B.L., Lake, S., Steinmetz, L.L., Gray, J.W., Crawford, J.R., Dean, P.N., Van Dilla, M.A. (1976) Flow microfluorometric analysis of sperm DNA content: effect of cell shape on the fluorescence distribution. J. Cell. Physiol., 87(3):367-76.

A9. Carrano, A.V., Gray, J.W., Moore, D.H. II, Minkler, J.L., Mayall, B.H., Van Dilla, M.A., Mendelsohn, M.L. (1976) Purification of the chromosomes of the Indian muntjac by flow sorting. J. Histochem. Cytochem., 24(1):348-54.

A10. Heby, O., Gray, J.W., Lindl, P.A., Marton, L.J., Wilson, C.B. (1976) Changes in L-ornithine decarboxylase activity during the cell cycle. Biochem. Biophys. Res. Comm., 71(1):99-105.

A11. Dethlefsen, L.A., Gray, J.W., George, Y.S., Johnson, S. (1976) Flow cytometric analysis of the perturbed cellular kinetics of solid tumors: Problems and promises. Pulse Cytophotometry. European Press, Ghent, Belgium, pp. 188-200.

A12. Gray, J.W. (1976) Cell-cycle analysis of perturbed cell populations: Computer simulation of sequential DNA distributions. Cell Tissue Kinet., 9(6):499-516.

A13. Gray, J.W., Carver, J.H., George, Y.S., Mendelsohn, M.L. (1977) Rapid cell cycle analysis by measurement of the radioactivity per cell in a narrow window in S-phase (RCSi). Cell Tissue Kinet., 10(2):97-109.

A14. Heby, O., Marton, L.J., Wilson, C.B., Gray, J.W. (1977) Effect of methylglyoxal-bis (guanylhydrazone), an inhibitor of spermidine and spermine synthesis, on cell cycle traverse. Eur. J. Cancer, 13(9):1009-17.

A15. Latt, S.A., George, Y.S., Gray, J.W. (1977) Flow cytometric analysis of bromodeoxyuridine-substituted cells stained with 33258 Hoechst. J. Histochem. Cytochem., 25(7):927-34.

A16. Van Dilla, M.A., Gledhill, B.L., Lake, S., Dean, P.N., Gray, J.W., Kachel, V., Barlogie, B., Göhde, W. (1977) Measurement of mammalian sperm deoxyribonucleic acid by flow cytometry. Problems and approaches. J. Histochem. Cytochem., 25(7):763-73.

A17. Hoshino, T., Nomura, K., Wilson, C.B., Knebel, K.D., Gray, J.W. (1978) The distribution of nuclear DNA from human brain-tumor cells. J. Neurosurg., 49(1):13-21.

A18. Sapareto, S.A., Hopwood, L.E., Dewey, W.C., Raju, M.R., Gray, J.W. (1978) Effects of hyperthermia on survival and progression of Chinese hamster ovary cells. Cancer Res., 38(2):393-400.

A19. Heby, O., Andersson, G., Gray, J.W. (1978) Interference with S and G2 phase progression by polyamine synthesis inhibitors. Exp. Cell Res., 111(2):1-464.

A20. Coffino, P., Gray, J.W. (1978) Regulation of S49 lymphoma cell growth by cyclic adenosine 3':5'-monophosphate. Cancer Res., 38(11 Part 2):4285-8.

A21. Gray, J.W., Peters, D., Merrill, J.T., Martin, R., Van Dilla, M.A. (1979) Slit-scan flow cytometry of mammalian chromosomes. J. Histochem. Cytochem., 27(1):441-4.

A22. Merrill, J.T., Dean, P.N., Gray, J.W. (1979) Investigations in high-precision sorting. J. Histochem. Cytochem., 27(1):280-3.

A23. Pinkel, D., Dean, P., Lake, S., Peters, D., Mendelsohn, M., Gray, J., Van Dilla, M., Gledhill, B. (1979) Flow cytometry of mammalian sperm: Progress in DNA and morphology measurement. J. Histochem. Cytochem., 27(1):353-8.

A24. Pallavicini, M.G., Cohen, A.M., Dethlefsen, L.A., Gray, J.W. (1979) In vivo effects of 5-fluorouracil and ftorafur[l-(tetrahydrofuran-2-yl)-5-fluorouracil] on murine mammary tumors and small intestine. Cell Tissue Kinet., 12(2):177-89.

A25. Carrano, A.V., Gray, J.W., Langlois, R.G., Burkhart-Schultz, K.J., Van Dilla, M.A. (1979) Measurement and purification of human chromosomes by flow cytometry and sorting. Proc. Nat. Acad. Sci. USA, 76(3):1382-4.

A26. Gray, J.W., Langlois, R.G., Carrano, A.V., Van Dilla, M.A. (1979) High resolution chromosome analysis: One and two parameter flow cytometry. Chromosoma, 73(1):9-27.

A27. Nakeff, A., Valeriote, F., Gray, J.W., Grabske, R.J. (1979) Application of flow cytometry and cell sorting to megakaryocytopoiesis. Blood, 53(4):732-45.

A28. Langlois, R.G., Carrano, A.V., Gray, J.W., Van Dilla, M.A. (1980) Cytochemical studies of metaphase chromosomes by flow cytometry. Chromosoma, 77(3):229-51.

A29. Twentyman, P.R., Brown, J.M., Gray, J.W., Franko, A.J., Scoles, M.A., Kallman, R.F. (1980) A new tumor model system (RIF-l) for comparison of end-point studies. J. Nat. Cancer Inst., 64(3):595-604.

A30. Macevicz, S., Dean, P., Peters, D., Pinkel, D., Gray, J.W. (1981) A flow system for partial automation of plating efficiency tests. Cytometry, 1(5):346-50.

A31. Gray, J.W., Pallavicini, M.G., George, Y.S., Groppi, V., Look, M., Dean, P.N. (1981) Rates of incorporation of radioactive molecules during the cell cycle. J. Cell. Physiol., 108(2):135-44.

A32. Yu, L.-C., Aten, J., Gray, J.W., Carrano, A.V. (1981) Human chromosome isolation from short-term lymphocyte culture for flow cytometry. Nature, 293(5828):154-5.

A33. Seidenfeld, J., Gray, J.W., Marton, L.J. (1981) Depletion of 9L rat brain tumor cell polyamine content by treatment with D,L-α-difluoromethylornithine inhibits proliferation and the G1 to S transition. Exp. Cell Res., 131(1):209-16.

A34. Cremer, C., Cremer, T., Gray, J.W. (1981) Induction of chromosome damage by ultraviolet light and caffeine: Correlation of cytogenetic evaluation and flow karyotype. Cytometry, 2(5):287-90.

A35. Norgren, R.M., Gray, J.W., Young, I.T. (1982) Restoration of profiles from slit-scan flow cytometry. IEEE Trans. Biomed. Eng., 29(2):101-6.

A36. Cremer, C., Gray, J.W. (1982) Application of the BrdU/thymidine method to flow cytogenetics: Differential quenching/enhancement of the Hoechst 33258 fluorescence of late-replicating chromosomes. Somat. Cell Genet., 8(3):319-27.

A37. Benaron, D.A., Gray, J.W., Gledhill, B.L., Lake, S., Wyrobek, A.J., Young, I.T. (1982) Quantification of mammalian sperm morphology by slit-scan flow cytometry. Cytometry, 2(5):344-9.

A38. Hafeman, D.G., McConnell, H.M., Gray, J.W., Dean, P.N. (1982) Neutrophil activation monitored by flow cytometry: Stimulation by phorbol diester is an all or none event. Science, 215(4533):673-5.

A39. Pallavicini, M.G., Gray, J.W., Folstad, L.J. (1982) Quantitative analysis of the cytokinetic response of KHT tumors in vivo to 1-β-D-arabinofuranosylcytosine. Cancer Res., 42(8):3125-31.

A40. Cremer, C., Gray, J.W., Ropers, H.H. (1982) Flow cytometric characterization of a Chinese hamster X man hybrid cell line retaining the human Y chromosome. Hum. Genet., 60(3):262-6.

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A45. Dean, P.N., Gray, J.W., Dolbeare, F.A. (1982) The analysis and interpretation of DNA distributions measured by flow cytometry. Cytometry, 3(3):188-95.

A46. Cremer, C., Gray, J.W. (1983) Replication kinetics of Chinese hamster chromosomes as revealed by bivariate flow karyotyping. Cytometry, 3(4):282-6.

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A48. Dolbeare, F., Gratzner, H., Pallavicini, M.G., Gray, J.W. (1983) Flow cytometric measurement of total DNA content and incorporated bromodeoxyuridine. Proc. Natl. Acad. Sci. USA, 80(18):5573-7.

A49. Oredsson, S.M., Gray, J.W., Deen, D.F., Marton, L.J. (1983) Decreased cytotoxicity of 1-β-D-arabinofuranosylcytosine in 9L rat brain tumor cells pretreated with α-difluoromethylornithine in vitro. Cancer Res., 43(6):2541-4.

A50. Lucas, J.N., Gray, J.W., Peters, D.C., Van Dilla, M.A. (1983) Centromeric index measurement by slit-scan flow cytometry. Cytometry, 4(2):109-16.

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A54. Pallavicini, M.G., Ng, C.R., Gray, J.W. (1984) Bivariate flow cytometric analysis of murine intestinal epithelial cells for cytokinetic studies. Cytometry, 5(1):55-62.

A55. Rice, G.C., Dean, P.N., Gray, J.W., Dewey, W.C. (1984) An ultra-pure in vitro synchrony method employing centrifugal elutriation and viable flow cytometric cell sorting. Cytometry, 5(3):289-98.

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Books

C1. Gray, J.W. and Mayall, B. Monoclonal Antibodies Against Bromodeoxyuridine, Alan R. Liss, 1985.

C2. Gray, J.W. and Darzynkiewicz, Z. Techniques in Cell Cycle Analysis, Humana Press, 1987.

C3. Gray, J.W. Flow Cytogenetics, Academic Press, Inc.: San Diego, CA, 1989.

C4. Gray, J.W. and van der Ploeg, M., Analytical Cytogenetics, Wiley-Liss, 1989.

C5. Nishiya, I., Cram, L.S., Gray, J.W. Flow Cytometry and Image Analysis, Excerpta Medica: New York, 1991.

C6. Mendelsohn, J., Howley, P.M., Israel, M.A., Gray, J.W., Thompson, C.B. The Molecular Basis of Cancer, 3rd Edition, Saunders / Elsevier: Philadelphia, PA, 2008.

C7. Mendelsohn, J., Howley, P.M., Israel, M.A., Gray, J.W., Thompson, C.B. The Molecular Basis of Cancer, 4rd Edition, Saunders / Elsevier: Philadelphia, PA, 2014.

Patents

Issued US patents (73 total)

Finding leaks in a tandem Van de Graff accelerator

Gray, J.W., Hartnell, G.W., and Legg, J.C. Method of locating defects in a high-voltage insulating tube. U.S. Patent #3,76l,720 (1974)

Flow cytometry and sorting

Gray, J.W., Alger, T.W., and Lord, D. Fluidic assembly for an ultra-high-speed chromosome flow sorter. U.S. Patent #4,361,400 (1982)

Gray, J.W., Hirschfeld, T.B., and Norgren, R.M. Method and apparatus for fringe-scanning chromosome analysis. U.S. Patent #4,596,036 (1986)

BrdUrd/DNA analysis

Dolbeare, F. and Gray, J.W. Flow cytometric measurement of total DNA and incorporated halodeoxyuridine. U.S. Patents #4,585,736 (1986); #4,780,406 (1988); #4,812,394 (1989)

Fluorescence in situ hybridization (FISH)

Gray, J.W. and Pinkel, D. Methods of preparing and applying single stranded DNA probes to double stranded target DNAs in situ. U.S. Patent #5,028,525 (1991)

Gray, J.W. and Pinkel, D. Methods for chromosome-specific staining. U.S. Patents #5,447,841 (1995); #6,596,479 (1995); #6,607,877 (2003); #6,872,817 (2005)

Gray, J.W., Pinkel, D., and Tkachuk, D. Method of detecting genetic translocations identified with chromosomal abnormalities (BCR/ABL translocation). U.S. Patent #6,280,929 (2001)

Gray, J.W. and Pinkel, D. Methods of biological dosimetry employing chromosome-specific staining. U.S. Patent #6,132,961 (2000)

Gray, J.W., Pinkel, D., Kallioniemi, O.-P., Kallioniemi, A., and Sakamoto, M. Methods of staining target chromosomal DNA employing high complexity nucleic acid probes. U.S. Patent #7,115,709 (2006)

Pinkel, D., Kallioniemi, O.-P., Kallioniemi, A., Waldman, F., Gray, J.W., and Sakamoto, M. Genomic probing. U.S. Patent #5,856,097 (1995)

Weier, H.-U. and Gray, J.W. Repeat sequence chromosome specific nucleic acid probes and methods of preparing and using. U.S. Patent #5,427,932 (1995)

Gray, J.W., Stokke, T., and Pinkel, D. Detection of amplified or deleted chromosomal regions. U.S. Patents #5,472,842 (1995); #5,633,365 (1997).

Gray, J.W. and Weier, H.-U. Y-Chromosome specific nucleic acid probe and method for determining the y-chromosome in situ. U.S. Patents #5,840,482 (1998); #5,888,730 (1999); #6,300,066 (2001)

Gray, J. and Weier, H.-U. Quantitative DNA fiber mapping. U.S. Patent #5,851,769 (1998)

Comparative genomic hybridization (CGH)

Pinkel, D., Gray, J.W., Kallioniemi, A., Kallioniemi, O.-P., and Waldman, F. Comparative genomic hybridization (CGH). U.S. Patent #5,665,549 (1997); #5,721,098 (1998); #5,965,362 (1999); #5,976,790 (1999); #6,159,685 (2000); #6,335,167 (2002); #7,238,484 (2007), #7,537,895 (2009)

Pinkel, D., Albertson, D., and Gray, J.W. Comparative fluorescence hybridization to nucleic acid arrays. U.S. Patents #5,830,645 (1998); #6,562,565 (2003)

Pinkel, D. and Gray, J.W. High density array fabrication and readout method for a fiber optic biosensor. U.S. Patents #5,690,894 (1997); #6,146,593 (2000); #6,417,506 (2002)

Pinkel, D., Albertson, D.G., and Gray, J.W. Array-based detection of genetic alterations associated with disease. U.S. Patents #6,210,878 (2001); #7,267,947 (2007); #7,776,536 (2010)

Gray, J.W., Pinkel, D., Albertson, D., Collins, C.C., and Baldocchi, R. Comparative fluorescence hybridization to oligonucleotide microarrays. U.S. Patent #6,465,182 (2002)

Pinkel, D., Albertson, D.G., Gray, J.W., Hamilton, G., Brown, N.W., and Clark, S.M. High-efficiency microarray printing device. U.S. Patent #6,855,538 (2005)

Albertson, D., Pinkel, D., Fridyland, J., Huey, B., Snijders, A., Gray, J.W., Kallioniemi, A., Kallioniemi, O., Waldman, F. Detection of nucleic acid differences by comparative genomic hybridization. U.S. Patent #7,534,567 (2009)

Diagnostic markers

Christman, M.F., Gray, J.W., Levin, N.A., Brzoska, P., and Nakamura, H. Genetic alterations that correlate with lung carcinomas. U.S. Patent #5,670,314 (1997)

Gray, J.W., Pinkel, D. Collins, C., Kallioniemi, O.-P., and Tanner, M. Amplification of chromosomal region 20q13 as prognostic indicator in breast cancer. U.S. Patents #5,801,021 (1998); #6,268,184 (2001)

Gray, J., Collins, C., Godfrey, T., Kowbel, D., Hwang, S., and Rommens, J. Genes from the 20Q13 amplicon and their uses. U.S. Patents #5,892,010 (1999); # 6,808,878 (2005); # 7,049,424 (2006); # 7,413,899 (2008); # 7,811,986 (2010)

Shayesteh, L. and Gray, J.W. Genetic aberrations associated with cancer (PIK3CA). U.S. Patents #6,110,673 (2000); #6,277,563 (2001); #6,475,732 (2002); #6,537,761 (2003); # 7,670,767 (2010)

Gray, J.W., Pinkel, D., Kallioniemi, O.-P., Kallioniemi, A., and Sakamoto, M. Chromosome-specific staining to detect genetic rearrangements associated with chromosome 3 and/or chromosome 17. U.S. Patents #6,475,720 (2002); #6,344,315 (2002); #RE40,929 (2009)

Gray, J.W., Pinkel, D., Tkachuk, D., and Westbrook, C. Chromosome specific staining to detect genetic rearrangements. U.S. Patent Application #09/765,291 (2001, amendment filed 2007)

Gray, J.W. and Pinkel, D. Methods and compositions for chromosome 21-specific staining. U.S. Patent #6,500,612 (2002)

Albertson, D.G., Pinkel, D., Collins, C., and Gray, J.W. Amplicon in the 20q13 region of human chromosome 20 and uses thereof. U.S. Patent #6,664,057 (2003)

Giacomini, K.M., Gray, J.W., Lapuk, A.V., and Zhang, S. Use of organic cation transporters for cancer diagnosis and therapy. U.S. Provisional Patent Application #60/793,803 (2006)

Albertson, D., Pinkel, D., Collins, C., Gray, J.W., Ystra, B. Detecting CYP24 expression level as a marker for predisposition to cancer. U.S. Patent #7,648,826 (2010)

Hu, Z., Kuo, W.-L., Neve, R.M., Gray, J.W. Annexin A9 (ANXA9) biomarker and therapeutic target in epithelial cancer. U.S. Patent #8,198,254 B2 (2012)

Gray, J.W., Guan, Y., Kuo, W.-L., Firdlyand, J., Mills, G.B. Predictive and therapeutic markers in ovarian cancer. U.S. Patent #8,404,829 B2 (2013)

End sequence profiling (ESP)

Collins, C., Volik, S., and Gray, J.W. End sequence profiling. U.S. Patent #6,785,614 (2004)

Mass spectrometric imaging of mass tag labeled specimens

Felton, James S., Wu, Kuang Jen J., Knize, Mark G., Kulp, Kristen S., Gray, Joe W. Imaging mass spectrometer with mass tags. US Patent #7,728,287 (2010)

Others

Ginzinger, D., Godfrey, T., Jensen, R., and Gray, J.W. Quantitative PCR method to enumerate DNA copy number. U.S. Patent #6,180,349 (2001)

Fulwyler, M.J. and Gray, J.W. Capillary array and related methods. US Patents #6,610,499 (2003); #6,818,184 (2005); #6,898,237 (2006); #7,741,104 (2010); # 8,003,376 (2011)

Meetings organized (2000 to present)

Organizer – Bioinformatics workshop, NCI SPORE Program, Washington D.C., November 2001

Co-organizer – Breast SPORE/Mouse Models of Human Cancer Joint Meeting, Santa Fe, NM, February 2002

Co-organizer – ISAC 4th Annual Samuel A. Latt Conference, Yosemite Park, CA, November 2003

Co-organizer – Biotechnology Resource for Interdisciplinary Discovery and Genome Engineering (BRIDGE), San Francisco, CA, April 2004

Co-organizer – NCI/LBNL Nanobiotechnology Workshop, Half Moon Bay, CA, August 2004

Co-organizer – 50 Years of 46 Human Chromosomes: Progress in Cytogenetics, Bethesda, MD, June 2006

Co-organizer – LBNL / UCSF Physics and Therapeutic Radiology Circa 2012, Berkeley, CA, February 2007

Co-organizer – Gulliver Multiscale Imaging Workshop, Berkeley, CA, May 2007

Co-organizer – Mathematical Sciences Research Institute – Integrated Cancer Biology Program Workshop, Berkeley, CA, October 2007

Co-organizer – Integrated Cancer Biology Program – 2nd Data Integration Workshop, San Francisco, CA, May 2008

Co-organizer – Multiscale Imaging Workshop, Berkeley, CA, June 2008

Organizer – Life Sciences Division Scientific Retreat, Berkeley, CA September 2008

Organizer – 2009 siRNA Consortium meeting, Berkeley, CA, January 2009

Co-organizer – 2009 AACR Translation of the Cancer Genome Special Conference, Boston, MA, February 2009,

Co-chair – NCI Transient Molecular Complexes Workshop, San Francisco, CA, August 2009

Organizer – Transformational Genomics, A Symposium in Honor of Dan Pinkel, Ph.D., San Francisco, CA, February 2010

Co-organizer – Mina J. Bissell Cancer and Complexity Symposium & 70th Birthday, A Systems Approach to Personalized Cancer Treatment, Berkeley, CA, May 2010

Organizer – Stand Up to Cancer (SU2C) Bioinformatics Face-to-Face, Berkeley, CA, June 2011

Organizer – 2012 Biomedicine in 4 Dimensions, Integrated –omics and Systems Microscopy: Turning images and models into therapeutic targets, Portland, OR, March 2012

Organizer – Integrative Cancer Biology Program, Days of Science: the Sequel, Portland, OR, June 2012

Organizer – 2012 Gray / Spellman Laboratory Retreat, Gleneden Beach, OR, June 2012

Co-organizer – Stand Up to Cancer (SU2C) – American Association for Cancer Research (AACR) Progress Review Team Visit, An Integrated Approach to Targeting Breast Cancer: Molecular, Subtypes and Their 'Resistance' Phenotypes, Santa Cruz, CA, July 2012

Organizer – Keck Project Retreat, Integrated Light and Electron Microscopy for Multiscale Structural Epigenomics, Hillsboro and Portland, OR, October 2012

Organizer – Keck Project & Integrative Cancer Biology Program Retreat, Portland, OR, May 2013

Organizer – Cellular Imaging at the Nanoscale, Portland, OR, June 2013

Invited Lectures, Conference Presentations or Professorships

Invited presentations (since 2000)

International

The Molecular Biology of Breast Cancer Symposium, Lillehammer, Norway, 2000

31st Annual Meeting of the Environmental Mutagen Society, New Orleans, LA, April 2000

NCI/EORTC Meeting on Molecular Markers in Cancer, Nyborg, Denmark, 2000

Gordon Research Conferences, Molecular Cytogenetics, Oxford, England, 2000

Leiden University Medical Center (7 lectures), Leiden, the Netherlands, 2000

Delft Technical University, Delft, the Netherlands, 2000

Max Planck Institute for Molecular Biophysical Chemistry, Göttingen, Germany, 2000

Netherlands Cancer Institute, Amsterdam, the Netherlands, 2000

8th International Workshop on Chromosomes in Solid Tumors, Arizona Cancer Center, Tucson, AZ, 2000

2nd Annual International Conference on Ovarian Cancer, New York, NY, 2000

Gordon Conference on Molecular Cytogenetics, Oxford, England, July 2000

Breast Cancer Think Tank 11, Dominican Republic, January 2001

Helene Harris Memorial Trust, 8th International Forum on Ovarian Cancer, Houston, TX, March 2001

48th Annual Meeting of the Radiation Research Society, San Juan, Puerto Rico, April 2001

14th International Congress of Cytology, Amsterdam, the Netherlands, May 2001

XIII Annual Pezcoller Symposium, Focusing Analytical Tools on Complexity in Cancer, Trentino, Italy, May 2001

5th Cancer Research Campaign, Beatson International Cancer Conference and Data Analysis for Microarrays Workshop, Glasgow, Scotland, July 2001

Division of Medical Sciences National Cancer Center, Health Ministry Development Plan, Ministry of Health, Singapore, August 2001

Breast Cancer Symposium Think Tank, Saint Maarten, the Netherlands Antilles, January 2002

Distinguished Lecture Series, Vancouver BC Cancer Research Center, Vancouver, Canada, May 2002

18th UICC International Cancer Congress, Oslo, Norway, June/July 2002

7th Course in Genetics, Bertinoro, Italy, August/September 1, 2002

New Leads in Exp and Clinical Gene Targeting in Cancer, Sao Paulo, Brazil, November 2002

High throughput genomic analysis in cancer research, Hong Kong, December 2002

Japan Society of Cytomics Symposium 2003, Yamaguchi University School of Medicine, Tokyo, Japan, October 2003

Breast Cancer Symposium, Think Tank 14, Saint Kitts, Caribbean, January 2004

International Society for Analytical Cytology (ISAC) XXII, Montpellier, France, May 2004

Gordon Conference – Molecular Cytogenetics, Oxford, England, July 2004

Ovchinnikov Symposium, Moscow, Russia, October 2004

Breast Cancer Symposium, Think Tank 15, Curacao, Netherlands, January 2005

22nd International Papillomavirus Conference and Clinical Workshop, Vancouver, Canada, May 2005

Molecular Biology of Breast Cancer, Molde, Norway, June 2005

Breast Cancer Symposium, Think Tank 16, Grand Cayman Islands, British West Indies, January 2006

Federation of European Cancer Societies, 19th Meeting of the European Association for Cancer Research, Budapest, Hungary, July 2006

25th International Association of Breast Cancer Research, Montreal, Canada, September 2006

National Cancer Institute of Canada, Eagan Program Project Review, Toronto, Ontario, Canada, February 2007

British Columbia Cancer Agency, Genome Sciences Centre, Scientific Advisory Board Meeting, Vancouver, Canada, February 2007

Centre of Excellence on Translational Genome-Scale Biology, Biomedicum, Helsinki, Finland, March 2007

2007 Beatson International Cancer Conference, Molecular Cancer Therapies: New Challenges and Horizons, Glasgow, Scotland, June 2007

Nelly Auersperg Symposium, Vancouver, Canada, September 2007

The European Cancer Conference, Federation of European Cancer Societies (FECS), European Cancer Organization (ECCO 14) Keynote address, Barcelona, Spain, September 2007

Centro Nacional de Investigaciones Oncológicas - Nature Symposium, Oncogenes and Human Cancer: The Next 25 Years, Keynote address, Madrid, Spain, October 2007

American Association for Cancer Research Centennial Conference on Translational Cancer Medicine: Technologies to Treatment, Keynote address, Suntec, Singapore, November 2007

20th Meeting of the European Association for Cancer Research, "Drug targets screening", Lyon, France, July 2008

Japanese Cancer Association – American Association of Cancer Research Special Joint Conference on Breast Cancer, The Latest Advances in Breast Cancer Research: From Basic Science to Therapeutics, Keynote address, Hyogo, Japan, July 2008

International Meeting of the Microarray and Gene Expression Data Society (MGED 11), Keynote address, Trento, Italy, September 2008

National Cancer Research Institute Cancer Conference, Plenary address, Birmingham, England, October 2008

Rosalind & Morris Goodman Cancer Centre, McGill University Lecture, Montreal, Canada, October 2008

Medical College Fudan University, Shanghai, China; Soochow University Suzhou, China; Simcere Pharmaceutical R&D Co., Ltd., Nanjing, China, Keynote address in each city, "Marker guided therapy - Models to humans" September 2009

Joint National Cancer Institute and Chinese Academy of Medical Sciences Meeting, Cancer Genomics: State-of-the-Science and Future Directions, Beijing, China, November 2009

Biomedicum Helsinki Seminar, "Omic approaches to improved cancer management" Helsinki, Finland, November 2009

Keystone Symposium on New Paradigms in Cancer Therapeutics, "Omics based approaches to predict cancer therapy" Victoria, British Columbia, Canada, March 2010

Second AACR Dead Sea International Conference on Advances in Cancer Research: From the Laboratory to the Clinic, "New technologies for early cancer detection" Dead Sea, Jordan, March 2010

Research in Computational Molecular Biology (RECOMB) Satellite Workshop on Computational Cancer Biology, Keynote lecture on "Breast cancer systems biology" Oslo, Norway, June 2010

The European Association for Cancer Research 21st Annual Meeting, "A systems approach to identification of therapy response subsets in breast cancer" Oslo, Norway, June 2010

Beatson International Cancer Conference, Multiple Tiers of RNA Regulation in Cancer, Keynote lecture: "A systems approach to identification of therapy response subtypes in breast cancer" Glasgow, Scotland, July 2010

European Society for Medical Oncology (ESMO), IMProving cAre and Knowledge through Translational research (IMPAKT) 2011 Breast Cancer Conference, Keynote lecture: "Breast cancer genomes - making sense of complexity" Brussels, Belgium, May 2011

Cambridge Research Institute Annual International Symposium, Keynote lecture: "Systems biology approaches to predictive markers in breast cancer" Cambridge, England, November 2011

Leadership Conference, HPC for Life Sciences, "Understanding complex biological systems: Genomics and beyond" Brussels, Belgium, May 2012

University of Helsinki, Institute for Molecular Medicine (FIMM) Special Guest Seminar, "Systems approaches to breast cancer management - genomics and beyond" Helsinki, Finland, August 2012

University of Turku and Åbo Akademi University 22nd Annual BioCity Symposium, Personal Genomics – From Technologies to Applications, "Systems approaches to breast cancer management - genomics and beyond" Turku, Finland, August 2012

Japanese Breast Cancer Society10th Breast Cancer Frontier Meeting, Translational genomic research in breast cancer management, Special Invited Lecture, "A systems approach to improving breast cancer management" Tokyo, Japan, November 2012

Think Tank 23 – Breast Cancer Symposium, "Functional interpretation of breast cancer genomes" Cap Cana, Dominican Republic, January 2013

Samsung Advanced Institute for Technology (SAIT), " Spatial systems biology and cancer" Seoul, South Korea, June 2013

Daegu Gyeongbuk Institute of Science and Technology (DIGST) Distinguished Lecture "Functional interpretation of cancer genomes" Daegu, South Korea, June 2013

23rd Annual Meeting of the Japan Cytometry Society, "Cytometry and cancer-enabling: a systems view of breast cancer" Tokyo, Japan, June 2013

72nd Annual Meeting of the Japanese Cancer Association, AACR Joint Symposium "Cancer Research Providing Hope to Fight Against Cancer, "Genomics by sequencing, today and future", Yokohama, Japan, October 2013

17th Fritz Bender-Foundation International Symposium: Progress Towards Individualized Cancer Treatments, Vall D'Hebron Institute of Oncology, Session IV: Therapeutic Targets I "A multiscale architectural analysis of cancer genome aberration function" Barcelona, Spain, November 2013

British Columbia Cancer Research Centre (BCCRC), Canada Bennett Family Distinguished Lecturer Series, "Spatial systems biology of cancer", Vancouver, BC, Canada, March 2014

National

American Association for Cancer Research Special Conference, DNA Repair Defects, San Diego, CA, 2000

Huntsman Cancer Institute Ovarian Cancer Research Group, University of Utah, Ovarian Cancer Talk, Salt Lake City, UT, 2000

Society for Gynecologic Investigation, Ovarian Cancer Symposium, Chicago, IL, 2000

National Cancer Institute Ovarian Cancer Prevention Workshop, San Francisco, CA, 2000

Fragile Sites, Gene Amplification and Cancer, Rochester, MN, August 2000

Gordon Conference on Cancer, Newport, RI, August 2000

Colorado State University, Fort Collins, CO, September 2000

CTCR Breast Cancer Meetings, San Antonio, TX, December 2000

AACR meeting, Modifiers of Cancer Susceptibility, Lake Tahoe, NV, February 2001

National Institute of Standards and Technology, Gaithersburg, MD, May 2001

Whitehead Institute, MIT Center for Genome Research, Cambridge, MA, May 2001

3rd Samuel A. Latt / Motown Microarray Meeting, Genomics and Proteomics in Cancer, Detroit, MI, May 2001

The University of Texas Health and Science Center at San Antonio, Seminar Department of Cellular and Structural Biology, San Antonio, TX, May 2001

The University of Michigan, Ann Arbor, MI, June 2001

Pathobiology, Oncology, and Molecular Medicine Seminar Series, University of Rochester Medical Center, Rochester, NY, September 2001

Symposium of Oncological Sciences, Roswell Park Cancer Center, Buffalo, NY, November 2001

Pennsylvania State University, Cell Molecular Biology, Harrisburg, PA, November 2001

Oncology Rounds, Lombardi Cancer Center, Georgetown University, Washington, D.C., December 2001

Mammary MMHCC/Breast SPORE Exploratory Workshop (Co-chair), Santa Fe, NM, February 2002

Baylor College of Medicine, Houston, TX, April 2002

Frank S. Moran Endowed Lecture, Field of Dreams Breast Cancer Symposium, Dearborn, MI, April 2002

Distinguished Lecture Series, Vancouver BC Cancer Research Center, Vancouver, Canada, May 2002

American Association of Pharmaceutical Scientists (AAPS) First Annual National Biotechnology Meeting, San Diego, CA, June 2002

Lecture UNMC Eppley Institute, Omaha, NE, October 2002

MMHCC Workshop, Newport Beach, CA, December 2002

CFR Breast Scientific Conference, HI, January 2003

Dana-Farber Cancer Institute Oncology Seminar Series, Boston, MA, February 2003

Edward Rotan Seminar Series, The University of Texas, MD Anderson Cancer Center, Houston, TX, February 2003

Wendy and Emery Reves International Breast Cancer Symposium, Arlington, TX, February 2003

University of California San Diego Annual Cancer Center Retreat, Anza-Borrego Desert, CA, April 2003

Washington University, The Genetics Department Seminar Series, St. Louis, MO, May 2003

ASCO 2003 industry-sponsored satellite Symposium, Chicago, IL, May 2003

Breast Cancer Symposium, The Cancer Institute of New Jersey, NJ, June 2003

Gordon Research Conference, New Frontiers in Cancer Detection and Diagnosis, Andover, NH, August 2003

Imaging in 2020, Jackson Hole, WY, September 2003

University of Texas, McDermott Center for Human Growth and Development, Human Genetics Lecture Series, Dallas, TX, September 2003

US Department of Energy, BER Medical Sciences, Workshop on Targeted Radionuclide Therapy of Solid Tumors, Washington, D.C., September 2003

American Society for Therapeutic Radiology and Oncology (ASTRO) 45th Annual Meeting, Salt Lake City, UT, October 2003

National Institutes of Health, Genome Reviewers Meeting, Bethesda, MD, October 2003

University of Southern California, 8th Annual Symposium of the Institute for Genetic Medicine, Los Angeles, CA, November 2003

Ohio State University, Mathematical Biosciences Institute, Cell Proliferation and Cancer Therapy, Columbus, OH, November 2003

AstraZeneca R&D Boston, Breast Cancer Symposium, Waltham, MA, November 2003

University of Texas, MD Anderson Cancer Center, Department of Gastrointestinal Medical Oncology and Gastrointestinal Cancer Research Program Seminar Talk, Houston, TX, January 2004

NIH, NCI Nanotechnology Conference: Visualizing and Targeting Cancer, La Jolla, CA, March 2004

University of California, San Diego Seminar, San Diego, CA, April 2004

National Cancer Institute, National Human Genome Research Institute, Workshop, Exploring Cancer through Genomic Sequence Comparisons, Bethesda, MD, April 2004

Cold Spring Harbor Laboratory, Breast Cancer Research: A Critical Review for Future Strategies, Cold Spring Harbor, NY, May 2004

General Motors Cancer Research Foundation Conference on Genome Integrity and Cancer, Bethesda, MD, June 2004

Early Detection Research Network, Rockville, MD, June 2004

Gordon Research Conference – Molecular Therapeutics of Cancer, New London, NH, July 2004

Presidents Cancer Panel, San Francisco, CA, August 2004

Abbott Laboratories, Chicago, IL, September 2004

Human Heritable Mutation Workshop, Bar Harbor, ME, October 2004

Fox Chase Cancer Center, Philadelphia, PA, December 2004

University of Toronto, Toronto, Canada, December 2004

ASIP Experimental Biology Meeting, San Diego, CA, April 2005

New York University Cancer Institute, New York, NY, April 2005

AACR Annual Meeting, Genomics Symposium, Anaheim, CA, April 2005

Colorado Cancer Center, Denver, CO, May 2005

Gordon Research Conference, Mammary Gland Biology, Newport, RI, June 2005

Cold Spring Harbor Symposium on Molecular Approaches to Controlling Cancer, Cold Spring Harbor, NY, June 2005

University of Michigan Medical School, Genomics Medicine Lecture, Ann Arbor, MI, September 2005

AACR Special Conference, Advances in Breast Cancer Research, La Jolla, CA, September 2005

GlaxoSmithKline Medical Genetics & Oncology Lecture, Philadelphia, PA, October 2005

Predictive Models of Cancer Susceptibility: Integrated Strategies, Newport Beach, CA, December 2005

Timberline Symposium on Epithelial Biology, Epithelial Cancer: Regulation by Intrinsic and Microenvironmental Factors, Timberline, OR, February 2006

Baylor College of Medicine, Breast Disease Research Seminar, Houston, TX, February 2006

Expedition Inspiration Tenth Annual Laura Evans Memorial Breast Cancer Symposium, Sun Valley, ID, March 2006

New York University, Cancer Institute Seminar Series, New York, NY, March 2006

AACR 97th Annual Meeting, Washington, D.C., April 2006

General Motors Cancer Research Conference, Genomics and Cancer, Washington, D.C., June 2006

NIH, NCI, Innovative Molecular Analysis Technologies (IMAT) Program, Keynote, Washington, D.C., September 2006

Dana Farber Harvard Breast SPORE Seminar Series, Boston, MA, September 2006

GRC New Frontiers in Cancer Detection & Diagnosis, Ventura, CA, January 2007

University of Alabama, Birmingham, Birmingham, AL, March 2007

University of California, Berkeley, Tumor Biology Symposium, Berkeley, CA, March 2007

AACR, 98th Annual Meeting, Los Angeles, CA, March 2007

M.D. Anderson Cancer Center, Melvin Samuels Lectureship, Houston, TX, March 2007

Massachusetts General, Cancer Research Seminar, Boston, MA, April 2007

Vanderbilt-Ingram 2007 Breast Cancer Retreat, Nashville, TN, May 2007

The Cardiovascular Research Center at Massachusetts General Hospital, Days of Molecular Medicine 2007 Symposium: Emerging Technologies and Cancer Biology, Cambridge, MA, May 2007

15th SPORE Investigators' Workshop, Baltimore, MD, July 2007

CBCRP Biennial Breast Cancer Research Symposium, Los Angeles, CA, September 2007

Institute of Medicine, National Cancer Policy Forum Workshop on Improving the Quality of Cancer Clinical Trials, Washington, D.C., September 2007

AACR Advanced Breast Cancer Research: Genetics, Biology, Clinical Applications Meeting, San Diego, CA, October 2007

Integrative Cancer Biology Program Steering Committee Meeting, Washington, D.C., November 2007

Clinical Proteomics Technologies for Cancer Retreat, Tucson, AZ, December 2007

Bebee Symposium, The Omics Revolution and Epidemiology, Keynote address to the National Academies celebrating the 60th Year Anniversary of the Atomic Bomb Casualty Commission / Radiation Effects Research Foundation (RERF), Washington, D.C., December 2007

San Antonio Breast Cancer Conference, Susan G. Komen for the Cure 2007 Brinker Award for Scientific Distinction, Recipient Acceptance lecture, San Antonio, TX, December 2007

siRNA Consortium Meeting, Houston, TX, December 2007

Breast Cancer Symposium, Think Tank 18, Kailua Kona, Hawaii, HI, January 2008

Salk Institute Seminar Series, San Diego, CA, February 2008

Arizona Cancer Center, Tucson, AZ, March 2008

Tucson Symposium, Tucson, AZ, March 2008

National Institutes of Health, National Cancer Institute, Early Detection Research Network, 5th Annual Workshop, Biomarkers at the Crossroads, Keynote address, Bethesda, MD, March 2008

Ceil Mortel Visiting Scholar in Cancer Research Lecture, Hershey, PA, March 2008

AACR Annual Meeting, Translating the Latest Discoveries into Cancer Prevention and Cures, San Diego, CA, April 2008

Baylor University, Dan L. Duncan Cancer Center, Houston, TX, April 2008

ICG Lecture, Columbia University, New York, NY, April 2008

CCMB Distinguished Lecture, Brown University, Providence, RI, April 2008

Scripps Cancer Affinity Group lecture, La Jolla, CA, May 2008

National Institutes of Health, National Cancer Institute, The Role of Biomedical Informatics in Overcoming Current Barriers in Cancer Research, Workshop, Keynote address, Columbus, OH, May 2008

American Society of Clinical Oncology, (ASCO) Symposium, Advances in Translational Breast Cancer Research, Chicago, IL, June 2008

Bio International Conference, San Diego, CA, June 2008

7th Annual International Congress on the Future of Breast Cancer, Keynote address, Koloa, Kauai, HI, July 2008

Molecular Diagnostics in Cancer Therapeutic Development, Keynote address, Philadelphia, PA, September 2008

National Human Genome Research Institute, Lecture, Bethesda, MD, September 2008

61st Annual Symposium on Cancer Research Systems Biology of Cancer, Houston, TX, November 2008

Siteman Cancer Center, Basic Science Seminar, St. Louis, MO, November 2008

AVEO Pharmaceuticals, Inc., Scientific Advisory Board, Cambridge, MA, November 2008

NCI Think Tank in MicroRNA in Cancer Biology, Bethesda, MD, December 2008

CTCR-AACR San Antonio Breast Cancer Symposium, San Antonio, TX, December 2008

Systems Biology Meeting, New Approaches to Personalized Medicine: Inflammation, Healing, and Regeneration as Prototypes "Pathophysiology and systems biology approaches in breast cancer" Keynote address, University of California, Riverside, CA, January 2009

National Cancer Institute (NCI), Integrative Cancer Biology Program (ICBP) and Tumor Microenvironment Network (TMEN) Joint Meeting, "RTK signaling in single cells" Keynote address, Bethesda, MD, January 2009

AACR Translation of the Cancer Genome Special Conference, "Omics and Predictive Biomarkers" Keynote address, Boston, MA, February 2009

AACR 100th Annual Meeting, HER2-Targeting Therapies, Resistance, and Counter-Acting Strategies Session, Chairperson: Dihua Yu, "Novel and not so novel biomarkers of response and resistance to inhibitors of HER2 (ErbB2)" Denver, CO, April 2009

American Society of Clinical Oncology, (ASCO) Symposium, Systems Biology, Cancer Therapeutics, and Personalized Medicine, "Systems biology approaches to marker guided therapy in breast cancer" Orlando, FL, June 2009

Herbert Irving Comprehensive Cancer Center, Columbia University Distinguished Scientist Lecture, "Marker guided therapy in breast cancer" New York, NY, June 2009

AACR Pathobiology of Cancer Workshop, "Systems approaches to marker guided therapy" Snowmass, CO, July 2009

NCI Clinical Proteomic Technologies Strategy Workshop, Keynote address, "Biologically informed biomarkers: Handling the multifaceted essence of cancer" Bethesda, MD, September 2009

Oregon Health & Science University, Scientific Seminar, "Omics, systems biology & marker guided therapy" Portland, OR, September 2009

National Functional Genomics Consortium Meeting, Keynote address, Oncogenomics Session, "A systems approach to improved breast cancer management" Clearwater, FL, September 2009

American Society of Human Genetics Annual Conference, Session on Impact of Large-scale Genomics on Target Discovery in Cancer, Co-Moderators: Daniela S. Gerhard and Joseph G. Vockley, "Translation of discoveries from large-scale genomics studies in ovarian cancer" Honolulu, HI, October 2009

2nd Annual Beth Israel Deaconess Cancer Center Symposium, "Omics approaches to breast cancer detection and treatment" Boston, MA, November, 2009

Breast Cancer Symposium, Think Tank 20, "Pharmacogenomic insights from assessments of responses to 20 drugs in 50 breast cancer cell lines" Bridgetown, Barbados, January 2010

Translating Scientific Breakthroughs to the Radiation Oncology Patient, Gordon Research Conference, Keynote Address "Translating insights from the cancer genome into clinical practice" Galveston, TX, January 2010

First Annual Cancer Biology Retreat, Keynote Address "Insights on predictive markers from preclinical models" University of Colorado, Denver, Anschutz Medical Campus, Denver, CO, February 2010

Huntsman Cancer Institute Scientific Seminar, "Systems approaches to marker guided therapy in breast cancer" Salt Lake City, UT, March 2010

Society of Gynecologic Oncologists (SGO) Annual Meeting on Women's Cancer, Hugh R.K. Barber MD Endowed Lectureship: Presidential Speaker, Translational Cancer "Omics" Focus on Breast and Ovarian Cancer, "An 'omic' approach to personalized cancer management" San Francisco, CA, March 2010

AACR 101st Annual Meeting, Meet the Expert Session: "Functional breast cancer genomics;" Forum on Molecular Diagnostics "Advancing cancer biomarkers to cancer diagnostics: Increasing the pace of progress;" Major symposium, Breast Cancer Systems Biology, "Applications of systems biology approaches to cancer" Washington DC, April 2010

Herbert Irving Comprehensive Cancer Center Annual Symposium on Advances in Cancer Research; Systems Approaches to Cancer, "In vitro systems approaches to breast cancer" New York, NY, May 2010

Mouse Models of Human Cancer Consortium Steering Committee meeting, "Lessons from The Cancer Genome Atlas project" Rockville, MD, June 2010

Origins of Cancer Symposium, Keynote address "A Systems genomics approach to personalized cancer management" Grand Rapids, MI, June 2010

AACR Conference on Molecular Diagnostics, "An in vitro system to model therapeutic response to breast cancer" Denver, CO, September 2010

University of Chicago: Personalize Cancer Therapeutics Symposium, Keynote Address, "A systems approach to maker guided therapy in breast cancer" Chicago, IL, October 2010

Novartis Oncology and Dana Farber 2009 Annual Joint Retreat, Keynote Address "An omics approach to marker guided therapy" Incline Village, NV, October 2009

MD Anderson Cancer Center: Symposium on Cancer Research, Personalized Cancer Therapy and Prevention: Keynote address, "A systems approach to maker guided therapy in breast cancer" Houston, TX, October 2010

NIH NCI Innovative Molecular Analysis Technologies (IMAT) Program, Keynote address "Concept, challenges, and paradigms in molecularly informed cancer care" San Francisco, CA, October 2010

Association for Molecular Pathology (AMP) Meeting, Panel: Plenary Session I, Solid Tumors, Molecular Diagnosis and Prognosis for Breast Cancer, "Genomic approaches to predictive and prognostic markers in breast cancer" San Jose, CA, November 2010

Hollings Cancer Retreat, "A systems approach to maker guided therapy in breast cancer" Charleston, SC, November 2010

SU2C Summit Meeting, "An integrated approach to targeting breast cancer" Miami, FL, January 2011

Cancer Genetics and Epigenetics Gordon Research Conference, Keynote address "Therapeutic insights from an integrated genomics" Ventura Beach, CA, January, 2011

AACR-NCI Cancer Systems Biology Meeting, "Modeling molecular diversity in breast cancer" La Jolla, CA, February 2011

AACR Annual Meeting, Major Symposia: A Systems Biology Approach to Cancer Therapeutics, "A systems approach to identification of genomic determinants of therapeutic response" Orlando, FL, April 2011

Breast Cancer Research Program Annual Retreat, "A systems approach to predictive markers in breast cancer" Houston, TX, April 2011

University of California, San Diego, Pharmacology Seminar Series, "Linking the clinic and the 'ome' - systems approaches to marker guided therapy" San Diego, CA, April 2011

Pacific Northwest National Laboratory, Frontiers in Biological Sciences Lecture Series, "A systems approach to breast cancer - carcinogenesis to therapy" Richland, WA, April 2011

2011 ASCO Annual Meeting, "The future of genomics in directing personalized cancer therapy" Chicago, IL, June 2011

University of Pittsburgh Cancer Institute Scientific Retreat, Keynote address: "Systems approaches to predictive markers in breast cancer" Pittsburgh, PA, June 2011

Association Pathology Chairs Summer Meeting, "What is coming in proteomics and translational research" Monterey, CA, July 2011

NCI Translational Science Meeting, Keynote address: "Translational Science – Genomics and Beyond" Washington, DC, July 2011

U.S. Department of Defense's Era of Hope Conference, "Early Detection of metastasis prone breast cancers" Orlando Fl, August 2011

Norris Grand Rounds, University of Southern California, Keynote address, "A systems approach to breast cancer management – omics and beyond" Los Angeles, CA, September 2011

Selventa Sponsored Symposium, Keynote address: "A systems approach to breast cancer management - omics and beyond" Princeton, NJ, September 2011

Translation of Cancer Genome Conference, "Models and processes to facilitate preclinical to clinical translation" San Francisco, CA, October 2011

Southwest Oncology Group, Keynote address: "Next generation sequencing: Where can SWOG get involved?" San Antonio, TX, October 2011

San Antonio Breast Cancer Symposium, William L. McGuire Memorial Award Lecture, "Translating genomic insights into improved breast cancer management" San Antonio, TX, December 2011

Spore at Mayo Clinic, Keynote address: "A systems biology approach to breast cancer" Rochester, MN, January 2012

UCSF Breast Oncology Program Scientific Retreat, "Spatial systems biology" San Francisco, CA, February 2012

NCI Quantitative Imaging Network Annual Meeting, "Imaging and correlation with genomics" Bethesda, MD, March 2012

AACR Annual Meeting, Methods Workshop Session: Omics Approach to Adaptive Clinical Trials, "Omics and systems biology analysis strategies in I-SPY"; Scientist<->Survivor Program, "Physical & Biological Sciences", Major Symposium:Interrogating the Logic of the Cancer Cell: Lessons From Integrative and Systems Biology Approaches, "Novel models and treatments targeting the HER-AKT pathway in cancers that overexpress HER2"; Minisymposium: Steroid Hormone Receptors in Breast and Prostate Cancer, "Critical mediation of E2-induced apoptosis through c-Src in long-term estrogen deprived breast cancer cells"; Science Policy

Session: Evolution of Translational Omics: Lessons Learned and the Path Forward, "Best practices in omics-based clinical discovery"; SU2C Special "Open" Session: Maximizing Innovation Through Translational Research and Team Science, "An integrated approach to targeting breast cancer molecular subtypes" Chicago, IL, April 2012

Stanford CCSB Seminar Series, "A systems approach to breast cancer - genomics and beyond" Stanford, CA, April 2012

Roswell Park Cancer Institute, Keynote Address: "Systems approaches to breast cancer - genomics and beyond" Buffalo, NY, May 2012

Arizona State University Complex Adaptive Systems Initiative (CASI) and the University of Southern California Physical Sciences Oncology Center (USC-PSOC), Complex Adaptive Systems (CAS): Leveraging Advances in the CAS Sciences, "A complex disease – cancer" Scottsdale, AZ, June 2012

SU2C-AACR Progress review team visit, An Integrated Approach to Targeting Breast Cancer Molecular Subtypes and Their 'Resistance' Phenotypes, "Bio discovery / Informatics" Santa Cruz, July, 2012

I-SPY Science Retreat, San Francisco, CA, July 2012

NIH National Cancer Institute – Frederick Advisory Committee (NFAC) Advisory Committee Meeting, Bethesda, MD, September 2012

Physical Sciences in Oncology National Cancer Institute Site Visit, Session II: Translating Fundamentals. Deliverables: Model Systems, Screens, Drug Discovery, "Dynamic measurement and modeling of spatially complex signaling networks", San Francisco, CA, September 2012

Department of Defence, Congressionally Directed Medical Research Programs (CDMRP), Breast Cancer /Ovarian Cancer Research Programs (BC/OCRP) Panel Chairperson, Grant Peer Review, Reston, VA, September 2012

SU2C Team Meeting, An Integrated Approach to Targeting Breast Cancer Molecular Subtypes and Their "Resistance" Phenotypes, Bioinformatics and Discovery Subgroup Update: Part 2 – Database and Sequencing, Dallas, TX, September 2012

International Conference on Genomics (ICG), The Children's Hospital of Philadelphia (CHOP), "Genomic approaches to predicting responses to breast cancer treatment", Philadelphia, PA, September 2012

Simon M. Shubitz Award Lecture, University of Chicago, "The impact of measurement science on cancer management" Chicago, IL, October 2012

Lawrence Livermore National Laboratory, 60th Anniversary Science Day, Induction into the Entrepreneurs' Hall of Fame, Livermore, CA, October 2012

National Academy of Science, Institute of Medicine Annual Meeting, Washington, DC, October 2012

University of California, San Diego, Nature / Institute for Genomic Medicine, Session I: Cancer Genomics, "Understanding and translating the breast cancer genome" San Diego, CA, November 2012

Intel, Meet the European Exascale Labs, "Genomics and spatial systems biomedicine: Cancer as a use case" presentation with Dr. Paul Spellman, Santa Clara, CA, November 2012

International Society for Computational Biology, RECOMB Conference on Regulatory and Systems Genomics, with DREAM Challenges, Keynote address "An in vitro system for identification of predictive markers", Redwood City, CA, November 2012

NCI Breast Cancer Models Summit, University of Pennsylvania Cancer Center, Philadelphia, PA, November 2012

Colorado School of Mines, Commencement Address, Denver, CO, December 2012

AACR Special Conference, Tumor Invasion and Metastasis, Session 8: Treatment of Metastatic Cancer, "Omic and imaging approaches to understanding breast cancer progression", San Diego, CA, January 2013

University of California, San Francisco, Breast Oncology Program Scientific Retreat, Tumor Heterogeneity (session moderator), San Francisco, CA, January 2013H. Lee *Moffitt Cancer Center* & Research Institute presentation, "Biomarkers in breast cancer", (remotely) Tampa, FL, January 2013

Personalized Medicine World Conference "Understanding and translating the breast cancer genome", Mountain View, CA, January 2013

Stand Up to Cancer (SU2C) Scientific Summit, Breast Cancer Dream Team Progress Report presentation; "Sharing of Genome and Other Research Data" Panelist, Phoenix, AZ, January 2013

National Cancer Institute, Frederick Advisory Committee Meeting, Berkeley, CA, February 2013

20th Molecular Medicine Tri-Conference presentation, "Pre-clinical models for prediction of therapeutic response in breast cancer" San Francisco, CA, February 2013

Ninth AACR-Japanese Cancer Association Joint Conference: Breakthroughs in Basic and Translational Cancer Research, Signaling and Systems Biology Session, "A systems approach to understanding and predicting therapeutic response" Maui, HI, February 2013

National Cancer Institute, Systems Biology Think Tank, Cambridge, MA, February, 2013

Susan G. Komen Peer Review and Scholars Meeting, "A Future for breast cancer research" Grapevine, TX, March 2013

Case Western Reserve University, Cancer Center Seminar Series, "System approaches to breast cancer management" Cleveland, OH, March 2013

9th Annual Breast International Group (BIG) and the North American Breast Cancer Group (NABCG) Meeting, Washington DC, April 2013

AACR Annual Meeting, SU2C/PI3K Group, "PI3K Analysis: micro and nano architecture of signaling"; The Breast Cancer Genome and its Implications for Therapy, Chairpersons: José Baselga and Joe W. Gray, presentation "In vitro approaches to functional assessment of breast cancer "omic" features: *Concepts from spatial systems biomedicine*"; Update and Dialogue: A Meeting with the Chair and Co-Chairs of the SU2C Scientific Advisory Committee (SAC); Komen Tissue Bank Think Tank, Rational Therapy for Breast Cancer (RATHER) Scientific Board Meeting; Washington DC, April 2013

Institute of Electrical and Electronics Engineers (IEEE) International Symposium on Biomedical Imaging (ISBI): From Nano to Macro: "Systems biology and cancer management", San Francisco, April 2013

Integrative Cancer Biology Program Annual Principal Investigators Meeting, Rockville, MD, May 2013

XXVIII Congress of the International Society for Advancement of Cytometry (CYTO 2013), Innovation, Discovery and Translation, Wallace H. Coulter Centennial Lecture, "Spatial systems biology" San Diego, CA, May 2013

Wayne State University, Karmanos Cancer Institute, Grand Rounds, "Spatial systems biology and cancer" Detroit, MI, May 2013

H. Lee Moffitt Cancer Center & Research Institute presentation, "New approaches to breast cancer Management: From genomics to architectural therapeutics" Tampa, FL, June 2013

The Innovation Economy: Information Revolution Transforming Health Care Through Big Data, Bipartisan Policy Center, Panelist, Examples of How Big Data Has Driven Improvements in Health and Health Care: The Opportunities and the Challenges, keynote remarks, Washington, DC, June 2013

The 28th Annual Aspen Cancer Conference, Mechanisms of Toxicity, Carcinogenesis, Cancer Prevention and Cancer Therapy" presentation, "Spatial systems biomedicine and breast cancer"Aspen, CO, July 2013

Fifth Annual Next Generation Dx Summit: Moving Assays to the Clinic, Chair, 6th Annual Cancer Molecular Markers to Guide Therapy, Biomarker Discovery session; Keynote Presentation, Biomarker Analysis Session, "Identifying tumor intrinsic and extrinsic predictive markers" Washington, DC, August 2013

Integrative Cancer Biology Program (ICBP) Collaboratoin Kickoff presentation, "ICBP Cancer Systems Biology: In vitro approaches to breast cancer", Seattle, WA, September 2013

59th Radiation Research Society Annual presentation, "Spatial systems biomedicine – toward a multi scale, structural interpretation of the cancer 'ome'", New Orleans, LA, September 2013

National Cancer Institute, Frederick National Laboratory for Cancer Research, Advanced Technology Research Facility (ATRF) Advisory Committee meeting, Frederick, MD, September 2013

Novartis Institutes for BioMedical Research, Collaboration meeting, Cambridge, MA, September 2013

University of New Mexico Cancer Center, UNM Cancer Center Lectureship Series, "Spatial systems biology of cancer", Albuquerque, NM, October 2013

Tulane Cancer Center, Louisiana Cancer Research Center Seminar Series, "Spatial systems biology of cancer", New Orleans, LA, October 2013

University of Notre Dame, College of Science, Nieuland Lecture Series, "A systems biology view of breast cancer"; "From genome to structure: Spatial systems biology of cancer" and "Impact of technology on science" South Bend, IN, October 2013

University of California, San Francisco Pancreas Sponsored Programs of Research Excellence (SPORE) Executive Advisory Board review, San Francisco, CA, November 2013

National Institutes of Health, National Cancer Institute, Board of Scientific Advisors (BSA) Meeting, Bethesda, MD, November 2013

Vanderbilt University, NCI Current Topics in Cancer Systems Biology: Tumor Cell Heterogeneity Workshop, "Understanding and managing heterogeneity in differentiation status" Nashville, TN, December 2013

National Cancer Institute 2014 Intramural Scientific Investigators Retreat, 18th Annual Alfred G. Knudson Award Lecture in Cancer Genetics, "Exploiting the cancer 'ome'—from molecular markers to architectural therapeutics", Washington, DC, January 2014

University of Virginia, Department of Biomedical Engineering Seminar Series, "Spatial systems biology of cancer" Charlottesville, VA, January 2014

NCI-Frederick Advisory Committee Meeting, "Advancing research in tumor cell heterogeneity" Bethesda, MD, February 2014

Health Care Innovation Day 2014, Ignite Talks: Stakeholder Perspectives session, "Research data sharing – Technical issues impacting genomics & cancer research", Washington, DC, February 2014

Ventana Medical Systems 10th Annual Tucson Symposium, Chair, Sessioin on Innovations in Technology, and presentation "Spatial systems biology of cancer", Tucson, AZ, February 2014

Janelia Farm Site Visit, Ashburn, VA, March 2014

University of Texas MD Anderson, Institute for Personalized Cancer Therapy, External Advisory Board review and Department of Bioinformatics and Computational Biology presentation, "Spatial systems biology of cancer" Houston, TX, March 2014

Regional and Local

Laboratory Medicine and Pathology Grand Rounds, UCSF, San Francisco, CA, 2000

Breast Oncology Program Seminar, UCSF, San Francisco, CA, 2000

Stanford University Cancer Biology Course, Palo Alto, CA, 2000

Bay Area Cancer League, Piedmont, CA, October 2000

UC Irvine Avon Breast Cancer meeting, Irvine, CA, November 2000

UC Irvine Molecular Genetics Seminar, Irvine, CA, May 2001

Berlex Laboratories, Inc., Richmond, CA, August 2001

Course lecture, "Study and treatment of cancer" Stanford University, Stanford, CA, November 2001

UCSF Biophysics and Biochemistry Retreat, Asilomar, CA, December 2001

Annual meeting of American Society of Breast Disease, Keynote Talk, San Francisco, CA, April 2002

UCSF Brain Tumor Research Center (BTRC) - Scientific Symposium, UCSF, San Francisco, CA, September 2002

Lawrence Livermore National Laboratory Science Day: Science Day 2002 - Our Heritage, Our Future, Livermore, CA, September 2002

UCI/AVON Symposium, UC Irvine, Irvine, CA, October 2002

24th Congress of the International Association for Breast Cancer Research, Sacramento, CA, November 2003

Mathematical Sciences Research Institute, Genetics of Complex Disease Workshop, Berkeley, CA, January 2004

Genentech Presentation and Roundtable Discussion, South San Francisco, CA, February 2004

UC Presidents Council Presentation, LBNL, Berkeley, CA, February 2004

LBNL Life Sciences Division Retreat, Asilomar, CA, April 2004

Avon Foundation, Second Annual Symposium, Delivering the Continuum of Breast Cancer Care to the Underserved, San Francisco, CA, May 2004999

Photonic Applications, Systems and Technologies (PhAST) Conference Keynote Address, San Francisco, CA, May 2004

California State Senate Joint Committee, Preparing California for the 21st Century, Emerging Biotechnology, Sacramento, CA, May 2004

High Content Imaging, San Francisco, CA, January 2005

Kansas State University, Manhattan, KS, March 2005

Medical Grand Rounds, Genentech Inc., South San Francisco, CA, March 2005

LBNL Life Sciences Division Retreat, Berkeley, CA, March 2005

Amgen Seminar, South San Francisco, CA, July 2005

American Society for Human Genetics Mentor Program, Terra Linda, CA, April 2006

2006 International Brain Tumor Research and Therapy Meeting, Napa, CA, April 2006

Novel Trial Designs in the Setting of Neoadjuvant Therapy for Breast Cancer, St. Helena, CA, April 2006

Mathematical Sciences Research Institute, Mathematical Systems Biology of Cancer, Berkeley, CA, May 2006

Workshop on Statistics for Genome-Wide Copy Number Analysis in Cancer Research, Palo Alto, CA, September 2006

University of California, San Francisco Molecular Pathology and Biology of Neoplasia Course, San Francisco, CA, January 2007

NIH, National Cancer Institute, Translational Research Working Group, San Francisco, CA, January 2007

NIH, NCI, Ductal Carcinoma In Situ, Tumor Biology & Population Sciences, San Francisco, CA, February 2007

University of California, Berkeley, Tumor Biology Symposium, Berkeley, CA, March 2007

American Association of Cancer Research, Translational Cancer Medicine Think Tank, Santa Rosa, CA, July 2007

Mathematical Sciences Research Institute – Integrated Cancer Biology Program Workshop, Berkeley, CA, October 2007

Third Annual Personalized Medicine Meeting, San Francisco, CA, November 2007

Stanford Seminar, Stanford, CA, January 2008

I-SPY 2 Workshop, St. Helena, CA, February 2008

Roche Molecular Systems Seminar, Pleasanton, CA, March 2008

Genentech Seminar, South San Francisco, CA, April 2008

Pancreas Cancer SPORE External Advisory Board Retreat, San Francisco, CA, May 2008

Integrative Cancer Biology Program (ICBP) Data Integration Workshop, San Francisco, CA, May 2008

Applied Biosystems Seminar, Foster City, CA, June 2008

UCSF Breast, Cervical and Colon Cancer Surveillance Conference, San Francisco, CA, August 2008

UCSF Imaging Cancer: From Cell to Man, San Francisco, CA, December 2008

Cambridge Healtech Institute 16th International, Molecular Medicine Tri-Conference, Cancer Profiling & Pathways Conference, Keynote Address, San Francisco, CA, February 2009

UCSF Breast Cancer SPORE, Internal and External Advisory Board Meeting, San Francisco, CA, April 2009

Canary Foundation Early Detection Symposium, Stanford University, Stanford, CA, May 2009

NIH, National Cancer Institute, Integrative Cancer Biology Program Steering Committee, Stanford, CA, June 2009

Pfizer / UCSF / LBNL Collaboration, San Francisco, CA, July 2009

Molecular Therapeutics of Cancer Research Conference, Cancer Molecular Therapeutics Research Association, Stanford, CA, July 2009

Personalized Medicine, Silicom Ventures, "New diagnostic approaches to tailoring treatment to specific patients" Mountain View, CA, August 2009

Berkeley Lab's Summer Lecture Series, "Genome science and personalized cancer treatment" Berkeley, CA, August 2009

Gray Lab Retreat, Cancer Detection, Treatment, and Biology: What We've Learned and Where We're Going, Pacific Grove, CA, October 2009

BiPar Sciences Presentation, South San Francisco, CA, October 2009

2010 Breast Oncology Program Retreat, "Preclinical models for response prediction" San Francisco, CA, January 2010

Pinkel Symposium on Transformational Genomics, "Personalized breast cancer treatment: Insights from an in vitro cell line system" San Francisco, CA, February 2010

Lawrence Berkeley National Laboratory, Life Sciences and Genomics Division Seminar, "Therapeutic insights into breast cancer treatment from a preclinical systems biology approach" Berkeley, CA, April 2010

Cancer, Complexity and the Microenvironment: A Scientific Symposium and Celebration in Honor of Mina Bissell, "A systems approach to personalized cancer treatment" and Closing Remarks, Berkeley, CA, May 2010

AACR Translational Cancer Medicine, "New indications for old (and new) drugs" San Francisco, CA July 2010

Center for Cancer Nanotechnology Excellence (CCNE) and Molecular Imaging Program Seminar, "An omic view of signaling in breast cancer" Stanford, CA, August 2010

NIH NCI Integrative Cancer Biology Program (ICBP) Mathematical Modeling Meeting, Berkeley, CA, October 2010

NIH NCI Small Business Information Research Investor (SBIR) Forum, Panel: "Game changers in oncology: What's on the horizon?" Stanford, CA, November 2010

Gray Laboratory Retreat, Napa, CA, December 2010

University of California, San Francisco, Breast Oncology Program Scientific Retreat, San Francisco, CA, January 2011

Oregon Health & Science University and Agilent Partnership Meeting, Santa Clara, CA, February 2011

2011 Northwest Regional Cytometry Meeting, "Spatial systems biology – the central role of cytometry in the interpretation of the genome" Portland, OR, March 2011

Oregon Health & Science University Lecture, "Genomics and beyond – a rationale for spatial systems biomedicine" Portland, OR, April 2011

Oregon Health & Science University Knight Cancer Institute, Solid Tumors and Hematologic Malignancies Translational Retreat, Translational Research Challenges and Opportunities Panel, "Multidisciplinary teams in breast cancer"; and presentation "Modeling mechanisms of response to RTK targeted therapies in breast cancer" Portland, OR, June 2011

Program in Molecular and Cellular Biosciences, Keynote address, Welches (Mt. Hood), OR, September 2011

Oregon Bioscience Association Annual Conference 2011, Platforms, Pathways and Pioneers: Oregon's Bioscience Progress, Keynote presentation, "Translational cancer research - Genomics and beyond" Portland, OR, September 2011

Providence Cancer Center Presentation, "Genomics and beyond – a case for spatial systems biomedicine" Portland, OR, September 2011

Mirabella Retirement Community Presentation, Portland, OR, October 2011

World Presidents' Organization Presentation, "Exploring the Newest Dimension in Cancer Research: OHSU Center for Spatial Systems Biomedicine" Portland, OR, November 2011

Oregon Health & Science University Knight Cancer Center 4th Annual Esophageal Cancer Research Forum Presentation, "Team science: Promoting collaborative research with UGI cancer to promote personalized cancer" Portland, OR, January 2012

FEI Board Meeting Living Lab Vision Presentation, Hillsboro, OR, February 2012

Oregon Health & Science University 2012 Heart Research Center Scientific Retreat, Keynote presentation, "Spatial Systems Biomedicine, Cancer as a use case example" Portland, OR, March 2012

Portland State University Physics Department Lecture, "Learning through measuring – the impact of technology on cancer research" Portland, OR, March 2012

National Association of Cancer Center Development Officers (NACCDO), PAN Conference, Plenary Speaker, Portland, OR, May 2012

Gray / Spellman Laboratory Retreat, Gleneden Beach, OR, June 2012

Fred Hutchinson Cancer Research Center, Pacific Northwest Prostate Cancer Research Specialized Programs of Research Excellence (SPORE) presentation, "Functional interpretation of cancer genomes" Videoconference from Portland, OR, to Seattle, WA, July 2012

University of Oregon, Institute of Molecular Biology (IMB), Research, Innovation and Graduate Education (RIGE) Seminar Series, "Spatial systems biology and cancer", Portland, OR, October 2012

West Coast Association of Core Directors Conference, Building Bridges for Shared Resources Innovation, Keynote address, "Measuring better to understand better" Portland, OR, November 2012

Oregon Health & Science University, Marquam Hill Lecture, "Creating a google map of cancer: New ways of looking at and managing cancer" Portland, OR, March 2013

Keck Project & Integrative Cancer Biology Program Retreat, "Progress toward Keck goals and new thoughts on the project" Portland, OR, May 2013

Multnomah Athletic Club, "Creating a google map of cancer?" Portland, OR, August 2013

Adleson Medical Research Foundation, "Spatial Systems Biology of Cancer: We have the genome – now what?" presentation online from Portland, OR, September 2013

Oregon Health & Science University, Shriners Research Center Retreat, "From the genome to structure - A multidisciplinary approach to the development of architectural therapeutics", Portland, OR, September 2013

Portland State University, Biology Department, "Spatial systems biology of cancer - from genome to architecture", Portland, OR, November 2013

Surgery Grand Rounds, "New approaches to managing treatment of heterogeneous cancers", Oregon Health & Science University, Portland, OR, December 2013

Oregon Biosciences Association, Ending Cancer as We Know It, Portland, OR, January 2014

V. SERVICE

Membership in Professional Societies

American Association for Cancer Research

American Association for the Advancement of Science

American Society for Human Genetics

Human Genome Organization

International Society for Analytical Cytology

Radiation Research Society

Granting Agency Review Work

2012 Chair, Congressionally Directed Medical Research Programs (CDMRP) Breast Cancer/Ovarian Cancer Research Programs (BC/OCRP) proposals peer review

2012 Review Committee, Susan G. Komen for the Cure™, Investigator-Initiated Research Grants (IIR) Review, Novel Therapeutics and /or Resistance (NTR) Targeted therapies for triple negative breast cancer proposals peer review
2012 – 2013 Full Application Review Committee, Therapeutic implications of tumor genomics

2012 Collaborative Project Review, University College Dublin, National University of Ireland, Dublin, Rational Therapy for Breast Cancer (RATHER) Individualized Treatment for Difficult-to-Treat Breast Cancer Subtypes

2013 Selection Committee, American Association for Cancer Research, Team Science Award

2013 Review Committee, Columbia University Medical Center Multiscale Analysis of Genomic and Cellular Networks (MAGNet) Driving Biological Projects (DBPs) grant applications

2013 Selection Committee, American Association for Cancer Research -Women in Cancer Research Charlotte Friend Memorial Lectureship Award Committee

2013 Branch Review Committee, University of San Diego, Collaborative Sciences, Ludwig Institute for Cancer Research

2013 Chair, Review Panel, DOD Innovator Award, Breast Cancer Research Program (BCRP), Department of Defense Congressionally Directed Medical Research Programs (CDMRP)

2013-2014 Executive Advisory Board review, proposed projects in Pancreatic Neuroendocrine Tumor (PNET) and Pancreatic ductal adenocarcinoma (PDAC), Pancreatic Specialized Program of Research Excellence (SPORE), Pancreas Cancer Program, Division of Hematology/Oncology, Department of Medicine, University of California, San Francisco.

2013 Internal Advisory Committee, candidate review for award in career development and women's health impact, Building Interdisciplinary Research Careers in Women's Health (BIRCWH)

2013-2014 Full Application Review Committee, Postdoctoral Fellowship Basic and Translational Grant, Susan G. Komen for the Cure™

2013 Reviewer, Cell and Molecular Fluorescence Imaging Facility Phase IV: Equipment for Advanced Immunological Analysis (proposal by Montana State University, MSU), M.J. Murdock Charitable Trust

2014 Screening Committee for the election of new member to the National Academy of Sciences, Institute of Medicine (IOM)

2014 Peer reviewer, Society for Biomolecular Sciences Award, Medical Research Council, United Kingdon

2014 Chair, Terry Fox Research Institute (TFRI), Peer review committee (PRC) program project grant (PPG) competition

2014 Reviewer, The National Academies, Board on Life Sciences report on convergence (approaches to biomedical research and beyond), "Convergence: Nurturing Transdisciplinary Efforts in the Life Sciences, Physical Sciences, Engineering, and Beyond" consensus report

Editorial and Ad Hoc Review Activities

1980-1990 Cell and Tissue Kinetics

1981-1983 Cell Biophysics

1979-1984 Journal of Histochemistry and Cytochemistry

1984-1993 Cytometry

1988-2000 Analytical Cellular Pathology

1990-2000	Cytometry Research
1992-1999	Bioimaging
1995-2004	Cancer Research
1995-1998	Chromosome Research
1995-2000	Advisory Board Member, Cytometric Cellular Analysis Series
1998-Present	Genes, Chromosomes & Cancer
1999-Present	Cancer Letters
2001-Present	Cancer Biology and Therapy
2001-2004	Laboratory Investigation
2001-Present	Molecular Cancer Therapeutics
2001-Present	International Journal of Oncology
2002-Present	Breast Cancer Research
2003-2009	Clinical Cancer Research
2003-Present	Cancer Genomics and Proteomics
2007-2009	Senior Editor, Cancer Research: Systems Biology
2010-Present	Molecular Cancer
2012-Present	Cancer Cell
2013-Present	PLOS Currents: Precision Oncology

Committees

International / National

1981	Cell Kinetics Society	Councilor, 1982 Vice President, 1983 President
1982-1986	American Cancer Society	Advisory Committee on Cell & Developmental Biology
1990-1994	International Society for Analytical Cytology	Councilor, 1994-1996 President elect, 1996-1998 President, 1998-2000 Past President
1992-1999	Los Alamos National Laboratory	National Flow Cytometry Resource Chairman; Advisory Committee
1990-1995	National Institutes of Health	Advisory Council for National Institute for Human Genome Research
1992-2002	Radiation Effects Research Foundation, Hiroshima, Japan	Scientific Consultant, Department of Genetics, 1997-2002 Advisory Council
1998-2000	American Association of Cancer Research Region)	California State Legislative Committee (Northern
1999-2002	NSF Advanced Technological Program, City College of San Francisco	National Visiting Committee; Biolinks
1999-2004	National Institutes of Health	Genome Study Section, 2002-2004 Chair
2000-2004	National Institutes of Health	Program for Assessment of Clinical Cancer Tests
2001-2002	American Association of Cancer Research	Local organizing committee, National meeting
2004-Present	NIH, NCI, Board of Scientific Advisors	2011-2013 BSA liaison to the NCI-Frederick Advisory Committee (NFAC)
2005-2007	NIH, National Cancer Institute	Translational Research Working Group
2006-Present	The National Academies of Science, National Research Council	Committee on the State of the Science of Nuclear Medicine

2006-Present	Radiation Effects Research Foundation Hiroshima, Japan	Senior Review Panel on Future Planning
2008-2009	AACR Pezcoller Foundation International Award	Nomination Committee, 2009 Chairman
2007-Present	Foundation for the NIH Biomarkers Consortium	Steering Committee
2007-Present	American Association of Cancer Research	2009 Board of Directors, Publications, 2008 National Organizing and Team Science Award Selection Committees, 2009 Selection Committee, next Editor-in-Chief of Cancer Research, 2011 Scientific Program Committee, 2013-2016 Nominating Committee
2007-Present	Susan G. Komen for the Cure	Grants Review Committee, 2008 Chairperson, Molecular & Cellular Biology & Genetics, 2009 Promise Grants
2008-Present	NIH, National Cancer Institute	Process to Accelerate Translational Science (PATS)
2009	Department of Defense, Congressionally Directed Medical Research Programs	Chairperson, Breast Cancer Research Program, Era of Hope Scholar-Innovator Grants Review
2009-2011	The National Academies of Science National Research Council	Member, Nuclear Radiation Studies Board
2011-2012	Institute of Medicine (IOM) Board on Health Care Services and National Cancer Policy Forum	Member, Committee on Review of Omics-Based Tests for Predicting Patient Outcomes in Clinical Trials
2011-2013	caBIG® Ad Hoc Information Technology Working Group	NIH, National Cancer Institute National Cancer Advisory Board
2013-Present	Frederick Advisory Committee to the Director, NCI, and the Associate Director ad hoc Ras Subcommittee	Chair, NIH, National Cancer Institute Frederick National Laboratory for Cancer Research (FNLCR)

Institutional

1983-1992	Advisory Committee, University of California Program for Analytical Cytology
1991-1998	Biophysics Program Executive Committee
1992-1994	Bioscience Advisory Committee, Lawrence Berkeley National Laboratory
1992-Present	Chairman's Advisory Committee, UCSF Department of Laboratory Medicine
1992-1995	Basic Science Advisory Committee, UCSF Cancer Center
1992-1996	Advisory Committee, University of California Center for Molecular Cytometry
1993-1995	Human Genome Center Advisory Committee, Lawrence Berkeley National Laboratory
1993-1995	Promotion Committee, UCSF, Department of Laboratory Medicine
1993-1996	Compensation Committee, UCSF, Department of Laboratory Medicine
1993-1996	Task Force with Pathology, UCSF, Department of Laboratory Medicine
1994-1995	Joint UCB-LBNL Committee on Structural Biology, University of California Berkeley / Lawrence Berkeley National Laboratory
1994-1995	Committee on Research, University of California Academic Senate, San Francisco Division
1994-1995	Life Sciences Division Advisory Committee, Lawrence Berkeley National Laboratory
1995-2007	Cancer Genetics Program Leader, UCSF, Cancer Center
1997-2010	Breast Oncology Program Leader, UCSF, Cancer Center
2000-2008	Brain Tumor SPORE Advisory Committee, UCSF
2001-2010	Prostate Cancer SPORE Advisory Committee, UCSF
2008-2010	Pancreatic Cancer SPORE Advisory Committee, UCSF

2001-2010	Tissue Core Oversight Committee, UCSF Helen Diller Family Comprehensive Cancer Center
2011-Present	American Institute for Medical and Biological Engineering (AIMBE) Advocacy Committee
2011-Present	Bioimaging Advisory Committee, Oregon Health & Science University (OHSU)
2011-Present	Computational Biology Group, OHSU
2012-Present	Scientific Advisory Board, OHSU Portland Shriners Research Center
2012-Present	Council for Research Opportunities and Strategies (CROS), OHSU
2014-Present	Search Committee for the Vice President and Director of Technology Transfer and Business Development (TTBD), OHSU

ADVISORY BOARDS

Consultation

New Leaf Ventures, Susan G. Komen for the Cure, KromaTiD, Agendia, Abbott, Cepheid, Samsung, Intel, FEI, Prospect Creek Foundation, Keck Foundation, Nanotech Biomachines, Murdock Trust, PDX Pharmaceuticals, Novartis, Organovo, Merrimack

Academic

British Columbia Cancer Agency, Genome Sciences Centre, Vancouver, Canada; MD Anderson Cancer Center, Institute for Personalized Cancer Therapy, Houston, Texas; Ontario Cancer Institute, PMH / UHN, Ontario Research Fund Gl2 grant - cancer gene encyclopedia, Toronto, Ontario, Canada; Sheikh Khalifa Bin Zayed Al Nahyan Institute for Personalized Cancer Therapy, MD Anderson Cancer Center, Houston, TX; Helen Diller Family Comprehensive Cancer Center, San Francisco, CA; Seattle Cancer Consortium Breast SPORE & FHCRC / UW Consortium Biospecimen Program, Fred Hutchinson Cancer Research Center; POETIC Advisory Board, Translational Research, Breakthrough Research Centre, London, England; University of California, San Francisco, Cardiovascular Research Institute Program, "Molecular Pathology of Cancer"; National Cancer Institute, Frederick National Laboratory for Cancer Research; OHSU & Intel QBR Advisory Committee, Portland, OR; Stand Up to Cancer (SU2C), Washington, DC; Rational Therapy for Breast Cancer (RATHER); University of Chicago Specialized Program in Research Excellence (SPORE) in Breast Cancer, Chicago, IL; OHSU Clinical and Translational Research Internal, Portland, OR; OHSU Dermatology Research Division,Training Program in the Molecular Basis of Skin / Mucosa Pathobiology (NIH / NCI Training Program) and Skin Diseases Research Cores Center, Portland, OR; University of Washington, Fred Hutchinson Cancer Research Center , Consortium Biospecimen Program, Seattle Cancer Consortium Breast SPORE, Seattle, WA

VI. TEACHING

Informal Teaching

RESIDENTS (3 month rotation)

1.	October-December 1994	Daniel Sudilovsky
2.	January-March 1995	Samuel Smoot
3.	July-September 1995	Mike Teitell
4.	January-March 1996	Doug Ross
5.	March-June 1997	Jonathan Pollack

1994-1995	Discussion Leader, Pediatrics 100: Medical Genetics
1995-1996	Discussion Leader, Pediatrics 100: Medical Genetics Co-organizer, Biophysics 309: Cancer Genetics
1997-1998	Co-organizer, Spring Biomedical Sciences Graduate Program Symposium: Genomics Technology
2001-2002	Co-organizer, BMS 255: Genetics Faculty, 7th European Course in Genetics, Bertinoro, Italy
2002-2004	Co-organizer, Lab Med: 180.03: Biology of Breast Cancer
2005-2006	Co-organizer, Lab Med: 180.03: Breast Cancer Today and Tomorrow
2006-2007	Faculty, Biochem 297, Molecular Pathology and Biology of Neoplasia
2010	Co-organizer & Faculty Lecturer, Lab Med 180.03 Fall, Biology of Breast Cancer: Focus on Translation
2011	Faculty, OHSU Department of Public Health and Preventive Medicine, Genomics and Public Health Policy, "Genome (whole and deep exome) sequencing with a focus on personalized medicine"

2013 Instructor, 1097 CANB 601 02 Research, Basic Science Division, Cancer Biology Department, School of Medicine, Oregon Health & Science University

Curriculum Development

Students Supervised

1. Maria Pallavicini, Ph.D. (Provost, University of the Pacific)
2. Larry Scherr, Ph.D. (Ph.D. advisor)
3. Glenn Rice, Ph.D. (Research advisor; CEO and President, Bridge Pharmaceuticals)
4. David Benaron, M.D. (Research advisor; Assistant Professor of Pediatrics, Stanford University)
5. John Halamka, M.D. (Research advisor; Chief Information Officer, Harvard Medical School; Chief Information Officer, Beth Israel Deaconess Medical Center; Chairman, New England Health Electronic Data Interchange Network (NEHEN); Chief Information Officer, Harvard Clinical Research Institute (HCRI); Associate Professor, Emergency Medicine, Harvard Medical School)
6. Mary Helen Barcellos-Hoff, Ph.D. (Research Advisor; Faculty, Departments of Radiation Oncology and Cell Biology, NYU Langone Medical Center, New York, NY)
7. Ms. Karen Han (Thesis committee, 1992)
8. Jennifer Fung, Ph.D. (Thesis committee, 1992-1996)
9. Laleh Daneshvar, Ph.D. (Ph.D. advisor, 1993-1998)
10. Nalin Gupta, M.D., Ph.D. (Thesis committee, 1993; Director, Pediatric Neurological Surgery Program, UCSF)
11. Brian Patrick Harmon, Ph.D. (Thesis committee chair, 1998-2002)
12. Gregory Frost, Ph.D. (Thesis committee chair, 1999)
13. Robert Otillar, Ph.D. (Thesis committee, 2000-2001)
14. Hosein Kouros-Mehr, Ph.D. (MSTP student rotation, 2001; Medical Student, UCSF)
15. Dr. David Rosen (BMS rotation student, 2002)
16. Mr. Alika Maunakea (BMS rotation student, 2002)
17. Anil Patwardhan, Ph.D. (Thesis committee, 2003; Senior Scientist, Panasonic San Jose Laboratory)
18. Ms. Monica Miranda (Thesis committee, 2005)
19. Jean-Philippe Coppé, Ph.D. (Thesis committee, 2005; Member, Campisi Lab, Lawrence Berkeley National Laboratory)
20. Dr. Christopher Kingsley (Thesis committee, 2006)
21. Ms. Molly Klein-McDowell (Thesis committee, 2008)
22. Ms. Jenny Hung (Graduate student intern, 2009)
23. Ms. Katherine Schultz (high school student, 2009)
24. Ms. Thea Atwater (high school student, 2009)
25. Ms. Zhiyuan Li (Graduate student intern, 2010)
26. Mr. Chun-Han Lin (Graduate student, 2010)
27. Mr. Tim Butler (Thesis committee, 2012)
28. Mr. Spencer Watson (Graduate Student, 2012)
29. Mr. Worapol Ngamcherdtrakul (Thesis committee, 2012)
30. Mr. Ted Laderas (Thesis committee, 2013)
31. Ms. Danielle Jorgens (Dissertation committee, 2013)

32. Ms. Lillian Welch (Qualifying committee, 2013)

33. Ms. Xiaoming Ouyang (Thesis committee, 2014)

Supervision

1. Heinz-Ulrich Weier, Ph.D. (Staff Scientist, Life Sciences Division, Lawrence Berkeley National Laboratory, Berkeley, CA)
2. Wen-Lin Kuo, Ph.D. (Retired Scientist, Former Gray Laboratory Manager, Life Sciences Division, Lawrence Berkeley National Laboratory, Berkeley, CA)
3. Damir Sudar, Ph.D. (Biophysicist Staff Scientist at, Division Deputy for Science - Life Sciences Division, Lawrence Berkeley National Laboratory, Berkeley, CA)
4. Toshihiro Tenjin, M.D. (Second Department of Surgery, Nippon Medical School, Tokyo, Japan)
5. Hisako Tenjin, M.D. (Gynecologist, Nippon Medical School, Tokyo, Japan)
6. Mayumi Matsuta, M.D. (Professor of Dermatology, Iwate Medical University, Morioka, Japan)
7. Morimasa Matsuta, M.D. (Medical Doctor, Department of Obstetrics and Gynecology, Iwate Medical University, Morioka, Japan)
8. Douglas Tkachuk, M.D. (Department of Laboratory Medicine and Pathobiology, University of Toronto; Toronto Medical Laboratories, Princess Margaret Hospital, University Health Network, Toronto)
9. Herman van Dekken, M.D., Ph.D. (Professor of Pathology, Erasmus Universiteit, Rotterdam, Netherlands)
10. Barbara Trask, Ph.D. (Director, Fred Hutchinson Cancer Research Center Human Biology Division; Professor of Molecular Biotechnology, Genome Sciences, University of Washington)
11. Jacob Aten, Ph.D. (Department of Cell Biology and Histology, Center for Microscopical Research, University of Amsterdam, Netherlands)
12. Dr. James Landegent (Kreatech Diagnostics, Amsterdam, The Netherlands)
13. Masaru Sakamoto, M.D. (Deputy Director of Gynecology, Sasaki Institute, Tokyo, Japan)
14. Olli Kallioniemi, M.D., Ph.D. (Professor and Director, Institute for Molecular Medicine Finland (FIMM), Nordic EMBL Partnership for Molecular Medicine, University of Helsinki, Finland)
15. Anne Kallioniemi, M.D., Ph.D. (Professor of Cancer Genomics, Institute of Medical Technology, University of Tampere, Finland)
16. Haruhiko Nakamura, M.D., Ph.D. (Department of Chest Surgery, Atami Hospital, International University of Health and Welfare, Shizuoka, Japan)
17. Curtis Thompson, M.D. (Dermatopathologist, Curtis M. Thompson, M.D. and Associates, Portland, OR; Clinical Assistant Professor, Department of Dermatology, School of Medicine, Oregon Health & Science University, Portland, OR)
18. Hotaka Sakunaga, M.D. (Department of Gynecology, Sasaki Institute, Kyoundo Hospital, Tokyo, Japan)
19. Mary Hintz, Ph.D. (Faculty, Department of Chemistry and Biochemistry, Middlebury College, Middlebury, VT)
20. Trond Stokke, Ph.D. (Senior Scientist, Department of Radiation Biology, Comprehensive Cancer Center, Norwegian Radium Hospital, Oslo, Norway)
21. Nikki Levin, M.D., Ph.D. (Dermatologist, University of Massachusetts Memorial Medical Center, Worcester, MA)
22. Colin Collins, Ph.D. (Senior Scientist, Vancouver Prostate Cancer Centre, and Director, Laboratory for Advanced Genome Analysis (LAGA), Vancouver, British Columbia, Canada; Associate Adjunct Professor, Helen Diller Family Comprehensive Cancer Center, UCSF, San Francisco, CA)
23. Hiroshi Iwabuchi, M.D. (Department of Gynecology, Sasaki Institute, Kyoundo Hospital, Tokyo, Japan)
24. Shunsuke Hiraguri, M.D., Ph.D. (Department of Thoracic Surgery, Hachioji Medical Center, Tokyo Medical University)
25. Maija Wessman, Ph.D. (Research Scientist, Department of Diabetes Genetics, University of Helsinki, Finland)
26. Tony Godfrey, Ph.D. (Associate Professor, Department of Surgery, and Research Associate Professor, the University of Rochester Medical Center, Rochester, NY)
27. Jack Cronin, Ph.D. (Research Director, Alza, Palo Alto, CA)
28. Carsten Brandt, M.D., Ph.D. (Institute of Human Genetics, University of Aarhus, Aarhus, Denmark)
30. Kenji Umayahara, M.D. (Department of Obstetrics and Gynecology, Yamaguchi University School of Medicine, Yamaguchi, Japan)

31. Marlena Schoenberg-Fejzo, Ph.D. (Division of Hematology / Oncology, Department of Medicine, UCLA School of Medicine, Los Angeles, CA)
32. Soo-In Hwang, Ph.D. (Manager, Genomics, PE GenScope, Foster City, CA)
33. Genevieve Nonet, Ph.D. (Senior Scientist, Xoma, Berkeley, CA)
34. Kristina Arheden, Ph.D. (Department of Clinical Genetics, University Hospital, Lund, Sweden)
35. Gayatry Mohapatra, Ph.D. (Instructor in Pathology, Harvard Medical School; Assistant in Molecular Pathology, Massachusetts General Hospital, Boston, MA)
34. Russ Baldocchi, Ph.D. (Dako North America, Inc., Carpinteria, CA)
35. Seiji Suzuki, M.D. (Second Department of Internal Medicine, Nagoya City University Medical School, Nagoya, Japan)
36. Pierre Massion, M.D. (Associate Professor of Medicine, Allergy, Pulmonary & Critical Care and Cancer Biology, Vanderbilt University; Pulmonary and Critical Care Medicine Doctor, Vanderbilt-Ingram Cancer Center, Nashville, TN)
37. J. Graeme Hodgson, Ph.D. (Senior Principal Scientist, Oncology Research Unit,, Pfizer, La Jolla, CA)
38. Janyaporn Phuchareon, Ph.D. (Department of Pathology, School of Medicine; UCSF Helen Diller Family Comprehensive Cancer Center and Cancer Research Institute, San Francisco, CA)
39. Kyosuke Yamada, M.D. (Department of Obstetrics and Gynecology, Jikei University School of Medicine, Tokyo, Japan)
40. Richard Neve, Ph.D. (Scientist, Genentech, South San Francisco, CA)
41. Anna Lapuk, Ph.D. (Vancouver Prostate Centre, Vancouver, British Columbia, Canada)
42. Yinghui Guan, Ph.D. (Senior Research Associate, Genentech, South San Francisco, CA)
43. Hirokuni Takano, M.D., Ph.D. (Department of Obstetrics and Gynecology, Jikei University School of Medicine, Tokyo, Japan)
44. Alistaire MacDonald, Ph.D. (Research position)
45. Anguraj Sadanandam, Ph.D. (Assistant Professor, The Institute of Cancer Research (ICR), London, England)
46. William J. Gibb, Ph.D. (Sr. Bioinformatics Scientist, Genomic Health, Redwood City, CA)
47. Heidi S. Feiler, Ph.D. (Research Associate Professor, Deputy Director of the OHSU Center for Spatial Systems Biomedicine, Biomedical Engineering Department, Oregon Health & Science University, Portland, OR)
48. Laura Heiser, Ph.D. (Research Assistant Professor, Biomedical Engineering Department, Oregon Health & Science University, Portland, OR)
49. Lakshmi Jakkula, Ph.D. (Former Research Scientist, Life Sciences Division, Lawrence Berkeley National Laboratory, Berkeley, CA)
50. Denise Wolf, Ph.D. (Bioinformatics Specialist, University of California, San Francisco, CA)
51. Mara Jeffress, Ph.D. (Associate Consultant, Kantar Health, San Francisco, CA)
52. Raymond Cho, M.D., Ph.D. (Assistant Clinical Professor, Department of Dermatology, University of California, San Francisco, CA)
53. Steffen Durinck, Ph.D. (Computational Biologist, Genentech, South San Francisco, CA)
54. Nicholas Wang, Ph.D. (Research Assistant Professor, Biomedical Engineering Department, Oregon Health & Science University, Portland, OR)
55. James Korkola, Ph.D. (Research Assistant Professor, Biomedical Engineering Department, Oregon Health & Science University, Portland, OR)
56. Zhi Hu, Ph.D. (Research Assistant Professor, Biomedical Engineering Department, Oregon Health & Science University, Portland, OR)
57. Eric Collisson, M.D. (Assistant Professor in Residence, Divisions of Hematology and Oncology, University of California, San Francisco, CA)
58. Jing Huang, Ph.D. (Former Postdoctoral Fellow, Life Sciences Division, Lawrence Berkeley National Laboratory, Berkeley, CA)
59. Demetris Iacovides, Ph.D. (Research Fellow, Department of Biological Sciences, University of Cyprus, Greece)
60. Xiaolin Nan, Ph.D. (Assistant Professor, Biomedical Engineering Department, Oregon Health & Science University, Portland, OR)
61. François Pepin Ph.D. (Scientist II, Genetic Analysis Department, Sequenta, South San Francisco, CA)

62. Obi Griffith, Ph.D. (Research Assistant Professor, Washington University, St. Louis, MO)

63. Anneleen Daemen, Ph.D. (Computational Biologist, Genentech, South San Francisco, CA)

64. John Muschler, Ph.D. (Research Associate Professor, Biomedical Engineering Department, Oregon Health & Science University, Portland, OR)

65. Amanda Esch, Ph.D. (Postdoctoral Fellow, Biomedical Engineering Department, Oregon Health & Science University, Portland, OR)

66. Juha Rantala, Ph.D. (Research Assistant Professor, Biomedical Engineering Department, Oregon Health & Science University, Portland, OR)

67. Summer Gibbs, Ph.D. (Assistant Professor, Biomedical Engineering Department, Oregon Health & Science University, Portland, OR)

68. Shanta Boddapati, Ph.D. (Postdoctoral Fellow, Oregon Health & Science University, Portland, OR)

69. Trevor Levin, Ph.D. (Postdoctoral Fellow, Oregon Health & Science University, Portland, OR)

70. Joe Garay, Ph.D. (Postdoctoral Fellow, Oregon Health & Science University, Portland, OR)

71. Koei Chin, M.D., Ph.D. (Research Associate Professor, Biomedical Engineering Department, Oregon Health & Science University, Portland, OR)

72. Sunjong Kwon, Ph.D. (Research Assistant Professor, Biomedical Engineering Department, Oregon Health & Science University, Portland, OR)

73. Kristiina Iljin, Ph.D. (Senior Scientist, VTT Technical Research Centre of Finland, Espoo, Finland)

74. Anke Mulder, Ph.D. (Research Assistant Professor, Biomedical Engineering Department, Oregon Health & Science University, Portland, OR)

75. Danielle Jorgens, Ph.D. (Postdoctoral Fellow, Biomedical Engineering Department, Oregon Health & Science University, Portland, OR)

Visiting faculty supervised

1. Manabu Takahashi, M.D. (Yamaguchi University, Ube, Japan)

2. Marshall Edgell, Ph.D. (Distinguished Professor, Department of Microbiology and Immunology, University of North Carolina)

3. Gerrit van den Engh, Ph.D. (Research Professor, School of Oceanography, University of Washington, Seattle; President CTO, Cytopia, Seattle, WA)

4. Frederic Waldman, M.D., Ph.D. (Professor, Laboratory Medicine and Urology, University of California, San Francisco, CA)

5. Kohsuke Sasaki, M.D. (Professor, Iwate Medical University, Morioka, Japan)

6. Adrian Begg, Ph.D. (Professor, Molecular Radiobiology, Radboud University Medical Center, Nijmegen, Netherlands; Head, Radiobiology Group, The Netherlands Cancer Institute, Amsterdam, Netherlands)

7. Lars Bolund, M.D. (Professor of Clinical Genetics, Institute of Human Genetics, University of Aarhus, Aarhus, Denmark)

8. Kurt Hirschhorn, M.D. (Mt. Sinai Hospital, New York, NY)

9. Marc Lenburg, Ph.D. (Associate Professor of Pathology and Laboratory Medicine; Adjunct Associate Professor, Bioinformatics Program; Co-Director, Microarray Resource, Boston University School of Medicine, Boston MA)

10. Jeffrey E. Green, M.D. (Chief, Transgenic Oncogenesis and Genomics Section, Laboratory of Cancer Biology and Genetics, National Cancer Institute, Bethesda, MD)

11. Juan Carlos Martinez, M.D. & (M.Sc. Candidate, Biochemistry and Molecular Biology, Universidad Peruana Cayetano Heredia, UPCH), Lima, Peru

12. Saima Hassan, M.D., Ph.D. (Fellow of the Royal College of Surgeons of Canada, Surgical Oncology University of Toronto, Toronto, Canada)

Honors and Awards for Education

1968-1969 Fellowship, National Defense Education Act

1969-1971 Fellowship, National Science Foundation Fellowship

1985 Research Award, Radiation Research Society

1986 Distinguished Lectureship, Smith-Kline & French

1986 E.O. Lawrence Award, United States Department of Energy

1996 Fellow, American Association for the Advancement of Science

1997 Biological and Environmental Research Program Recognition Award, United States Department of Energy

1999 Shiffer Award, Cell Proliferation Society

2000 Boerhave Professor, Leiden University, the Netherlands

2001 Curt Stern Award, American Society for Human Genetics

2003 Sponsored Projects of Research Excellence Leadership Award, SPORE Program, National Cancer Institute

2005 Alumni Fellow, Kansas State University

2005 Distinguished Achievement Award, Colorado School of Mines

2005 Honorary Doctorate, University of Tampere, Tampere, Finland

2007 Innovator Award, United States Department of Defense

2007 Brinker Award for Scientific Distinction, Susan G. Komen Foundation

2008 Team Science Award, American Association for Cancer Research

2009 Stand Up to Cancer Award, American Association for Cancer Research, Entertainment Industry Foundation

2010 Elected Fellow, American Institute for Medical and Biological Engineering

2010 Zero Breast Cancer, Community Breast Cancer Research, Honor Thy Healer Award

2010 Fulwyler Award, International Society for Analytical Cytology

2011 Elected Member, Institute of Medicine, National Academy of Sciences

2011 The William L. McGuire Memorial Lecture Award, San Antonio Breast Cancer Symposium

2012 Induction into the Lawrence Livermore National Laboratory Entrepreneur's Hall of Fame
(Development of genome analysis technologies)

2012 The Simon M. Shubitz Cancer Prize and Lectureship Award for work in genome science, University of Chicago

2012 Honorary Doctorate of Engineering, Colorado School of Mines

2013 Technology Transfer Achievement Award, Technology Transfer and Business Development, Oregon Health & Science University

2013 Nieuwland Lecture Series, College of Science, University of Notre Dame

2014 18th Annual Alfred G. Knudson Award Lecture in Cancer Genetics, National Cancer Institute, National Institutes of Health