CURRICULUM VITAE (Academic)

Maria G. Pallavicini, Ph.D.
Dean and Professor, School of Natural Sciences
University of California, Merced
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EDUCATION

1973	University of California at Berkeley, CA	B.A.	Biochemistry
1977	University of Utah, Salt Lake City, UT	Ph.D.	Pharmacology

PROFESSIONAL EXPERIENCE

1977-1978	The Ontario Cancer Institute, Toronto	Post doctoral scholar	Radiation Biology
1978-1991	Lawrence Livermore National Laboratory, Livermore, CA	Biomedical Scientist	Biomedical Sciences Division
1989-1991	University of California, San Francisco	Adjunct Assistant Professor	Dept. of Laboratory Medicine
1991-1994	University of California, San Francisco, CA	Associate Professor	Depts. of Laboratory Medicine and Radiation Oncology
1992 -1997	Lawrence Berkeley National Laboratory, Berkeley, CA	Senior Scientist	Biology
1994-2002	University of California, San Francisco, CA	Professor	Depts. of Laboratory Medicine and Radiation Oncology
2002-present	University of California Merced, CA	Founding Professor	School of Natural Sciences
2002-present	University of California Merced, CA	Founding Dean	School of Natural Sciences

RESEARCH INTERESTS

Genetic and functional changes in stem cells in cancer (leukemia, breast cancer) that impact stem cell fate decisions. Hematopoietic stem cell niches in health and disease. Proteome and transcriptome-mediated response to therapy. Environmental-mediated leukemogenesis.

PROFESSIONAL ORGANIZATIONS

American Association of Cancer Research
American Association of Hematology
Experimental Hematology
International Society of Analytical Cytometry

PEER-REVIEWED PUBLICATIONS

Pallavicini MG, Nichols WK. Inhibition of lymphocyte blastogenesis by factor(s) in alloxan-diabetic rat plasma. Diabetes. 1976;25:614-622.

Pallavicini MG, Cohen AM, Dethlefsen LA, Gray JW. In vivo effects of 5-fluorouracil and ftorafur[1-(tetrahydrofuran-2-yl)-5-fluorouracil] on murine mammary tumors and small intestine. Cell and Tissue Kinetics. 1979;12:177-189.

Pallavicini MG, Hill RP. Relationship of tumor blood flow with radiation and drug response. International Journal of Radiation Oncology, Biology, Physics. 1979; 5:1767-1772.

Pallavicini MG, Lalande ME, Miller RG, Hill RP. Cell cycle distribution of chronically hypoxic cells and determination of the clonogenic potential of cells accumulated in G2 + M phases after irradiation of a solid tumor in vivo. Cancer Research. 1979;39:1891-1897.

Pallavicini MG, Mazrimas JA. High-performance liquid chromatographic analysis of cytosine arabinoside and metabolites in biological samples. Journal of Chromatography. 1980;183:449-458.

Gray JW, Pallavicini MG, George YS, Groppi V, Look M, Dean PN. Rates of incorporation of radioactive molecules during the cell cycle. Journal of Cellular Physiology. 1981;108:135-144.

Pallavicini MG, Folstad LJ, Dunbar C. Solid KHT tumor dispersal for flow cytometric cell kinetic analysis. Cytometry. 1981;2:54-58.

Folstad L, Look M, Pallavicini M. A polycarbonate filter technique for collection of sorted cells. Cytometry. 1982;3:64-65.

Gray JW, Pallavicini MG. Ara-C scheduling: theoretical and experimental considerations. Medical and Pediatric Oncology. 1982;10 Suppl 1:93-108.

Pallavicini MG, Gray JW. Ara-C cytokinetic studies in normal tissues in vivo. Medical and Pediatric Oncology. 1982;10 Suppl 1:109-123.

Pallavicini MG, Gray JW, Folstad LJ. Quantitative analysis of the cytokinetic response of KHT tumors in vivo to 1-beta-D-arabinofuranosylcytosine. Cancer Research. 1982;42:3125-3131.

Dolbeare F, Gratzner H, Pallavicini MG, Gray JW. Flow cytometric measurement of total DNA content and incorporated bromodeoxyuridine. Proceedings of the National Academy of Sciences of the United States of America. 1983;80:5573-5577.

Hill RP, Pallavicini MG. Hypoxia and the radiation response of tumors. Advances in Experimental Medicine and Biology. 1983;159:17-35.

Pallavicini MG, Hill RP. Effect of tumor blood flow manipulations on radiation response. International Journal of Radiation Oncology, Biology, Physics. 1983;9:1321-1325.

Pallavicini MG. Cytosine arabinoside: molecular, pharmacokinetic and cytokinetic considerations. Pharmacology and Therapeutics. 1984;25:207-238.

Pallavicini MG, Ng CR, Gray JW. Bivariate flow cytometric analysis of murine intestinal epithelial cells for cytokinetic studies. Cytometry. 1984;5:55-62.

Pallavicini MG, Ng CR, Gray JW. Relationship between surviving clonogenic crypt fraction and animal lethality after cytosine arabinoside (Ara-C) exposure. Virchows Archiv. B, Cell Pathology Including Molecular Pathology. 1984;46:33-42.

Pallavicini MG, Ng CR, Gray JW. Relationship between surviving clonogeneic crypt fraction and animal lethality after cytosine arabinoside (Ara-C) exposure. Virc Arch. Cell Pathol B. 1984;46:33-42.

Dolbeare F, Beisker W, Pallavicini MG, Vanderlaan M, Gray JW. Cytochemistry for bromodeoxyuridine/DNA analysis: stoichiometry and sensitivity. Cytometry. 1985;6:521-530.

Pallavicini MG, Summers LJ, Dean PN, Gray JW. Enrichment of murine hemopoietic clonogenic cells by multivariate analyses and sorting. Experimental Hematology. 1985;13:1173-1181

Pallavicini MG, Summers LJ, Dolbeare FD, Gray JW. Cytokinetic properties of asynchronous and cytosine arabinoside perturbed murine tumors measured by simultaneous bromodeoxyuridine/DNA analyses. Cytometry. 1985;6:602-610.

Pallavicini MG, Summers LJ, Giroud FJ, Dean PN, Gray JW. Multivariate analysis and list mode processing of murine hemopoietic subpopulations for cytokinetic studies. Cytometry. 1985;6:539-549.

Shao-Bai X, Pallavicini MG, Gray JW. Double label radioactivity per cell (RC) analyses in vivo: rapid cytokinetic analyses of KHT tumors. Acta. Biolog. Sinica. 1985;18:215-224.

Gray JW, Dolbeare F, Pallavicini MG, Beisker W, Waldman F. Cell cycle analysis using flow cytometry. International Journal of Radiation Biology and Related Studies in Physics, Chemistry and Medicine. 1986;49:237-255.

Matsson P, Pallavicini MG, Summers L. Quantitative flow cytometric and clonogenic evaluation of glass bead affinity fractionation of antibody-labeled murine bone marrow. Journal of Immunological Methods. 1987;105:45-53.

Pallavicini MG, Levin J, Summers L, Levin F. Multivariate flow cytometric characterization and enrichment of murine megakaryocyte progenitors (CFU-Meg). Experimental Hematology. 1987;15:704-709.

Pallavicini MG, DeTeresa PS, Wurm FM. Use of fluorescence in situ hybridization to detect and monitor transfected and amplified sequences in recombinant CHO cells. Developments in Biological Standardization. 1989;70:165-172.

Pallavicini MG, Haendel S, Rosette C, Barlett R. Rapid screening and selection of monoclonal antibodies by bivariate flow cytometric analyses. Journal of Immunological Methods. 1989;117:99-106.

Pallavicini MG, DeTeresa PS, Rosette C, Gray JW, Wurm FM. Effects of methotrexate on transfected DNA stability in mammalian cells. Molecular and Cellular Biology. 1990;10:401-404.

Pallavicini MG, Rosette C, Reitsma M, Deteresa PS, Gray JW. Relationship of c-myc gene copy number and gene expression: cellular effects of elevated c-myc protein. Journal of Cellular Physiology. 1990;143:372-380.

Rosette CD, DeTeresa PS, Pallavicini MG. Simultaneous flow cytometric detection of cellular c-myc protein, incorporated bromodeoxyuridine, and DNA. Cytometry. 1990;11:547-551.

Amendola R, Haendel S, Weier HU, Pallavicini MG. Transgene integration in hair follicles and peripheral blood cells measured by in vitro DNA amplification and fluorescence in situ hybridization. DNA and Cell Biology. 1991;10:311-317.

Neben S, Redfearn WJ, Parra M, Brecher G, Pallavicini MG. Short- and long-term repopulation of lethally irradiated mice by bone marrow stem cells enriched on the basis of light scatter and Hoechst 33342 fluorescence. Experimental Hematology. 1991;19:958-967.

Zanjani ED, Pallavicini MG, Harrison MR, Tavassoli M. Successful stable xenograft of human fetal hemopoietic cells in preimmune fetal sheep. Transactions of the Association of American Physicians. 1991;104:181-186.

Gray JW, Kallioniemi A, Kallioniemi O, Pallavicini M, Waldman F, Pinkel D. Molecular cytogenetics: diagnosis and prognostic assessment. Current Opinion in Biotechnology. 1992;3: 623-631.

Pallavicini MG, Flake AW, Madden D, Bethel C, Duncan B, Gonzalgo ML, Haendel S, Montoya T, Roberts L. Hemopoietic chimerism in rodents transplanted in utero with fetal human hemopoietic cells. Transplantation Proceedings. 1992;24:542-543.

Pallavicini MG, Langlois RG, Reitsma M, Gonzalgo M, Sudar D, Montoya T, Weier HU, Haendel S. Comparison of strategies to detect and quantitate uniquely marked cells in intra- and inter-species hemopoietic chimeras. Cytometry. 1992;13:356-367.

Wurm FM, Pallavicini MG, Arathoon R. Integration and stability of CHO amplicons containing plasmid sequences. Developments in Biological Standardization. 1992;76:69-82.

Zanjani ED, Pallavicini MG, Ascensao JL, Flake AW, Langlois RG, Reitsma M, MacKintosh FR, Stutes D, Harrison MR, Tavassoli M. Engraftment and long-term expression of human fetal hemopoietic stem cells in sheep following transplantation in utero. Journal of Clinical Investigation. 1992;89:1178-1188.

Brecher G, Bookstein N, Redfearn W, Necas E, Pallavicini MG, Cronkite EP. Self-renewal of the long-term repopulating stem cell. Proceedings of the National Academy of Sciences of the United States of America. 1993;90:6028-6031.

Brecher G, Pallavicini MG, Cronkite EP. Competitive repopulation in leukemic and normal bone marrow. Blood Cells. 1993;19:691-697; discussion 698-707.

Busch MP, Lee TH, Donegan E, Pallavicini M. Use of an inbred mouse model system for studies of allogeneic transfusion-induced immunosuppression . Blood. 1993;82:3509-3511.

Gray JW, Pallavicini MG. Molecular cytogenetics: solid tumors and leukemia. Blood Cells. 1993;19:677-683.

Reitsma MJ, Harrison MR, Pallavicini MG. Detection of a male-specific sequence in nonhuman primates through use of the polymerase chain reaction. Cytogenetics and Cell Genetics. 1993;64:213-216.

Willman CL, Sever CE, Pallavicini MG, Harada H, Tanaka N, Slovak ML, Yamamoto H, Harada K, Meeker TC, List AF, et al. Deletion of IRF-1, mapping to chromosome 5q31.1, in human leukemia and preleukemic myelodysplasia. Science. 1993;259:968-971.

Andrews RG, Bryant EM, Muirhead DY, Bartelmez SH, Bensigner W, Pallavicini MG, Bernstein ID. Long term reconstitution of in vivo lymphohematopoiesis by purified allogeneic CD34+, T and B lymphocyte-depleted marrow cells. J. Hematotherapy. 1994;35:46-53.

Miyashita K, Vooijs MA, Tucker JD, Lee DA, Gray JW, Pallavicini MG. A mouse chromosome 11 library generated from sorted chromosomes using linker-adapter polymerase chain reaction. Cytogenetics and Cell Genetics. 1994;66:54-57.

Pallavicini MG, George T, Deteresa PS, Amendola R, Gray JW. Intracellular dynamics of c-myc mRNA traffic in single cells in situ. Journal of Cellular Physiology. 1994;158:223-230.

Goodarzi MO, Lee TH, Pallavicini MG, Donegan EA, Busch MP. Unusual kinetics of white cell clearance in transfused mice. Transfusion. 1995;35:145-149.

Mehrotra B, George TI, Kavanau K, Avet-Loiseau H, Moore D, 2nd, Willman CL, Slovak ML, Atwater S, Head DR, Pallavicini MG. Cytogenetically aberrant cells in the stem cell compartment (CD34+lin-) in acute myeloid leukemia. Blood. 1995;86:1139-1147.

Litle VR, Lockett SJ, Pallavicini MG. Genotype/phenotype analyses of low frequency tumor cells using computerize image microscopy. Cytometry. 1996;23:344-349.

Miles DK, Freedman MH, Stephens K, Pallavicini M, Sievers EL, Weaver M, Grunberger T, Thompson P, Shannon KM. Patterns of hematopoietic lineage involvement in children with neurofibromatosis type 1 and malignant myeloid disorders. Blood. 1996;88:4314-4320.

Stiehm ER, Roberts RL, Hanley-Lopez J, Wakim ME, Pallavicini MG, Cowan MJ, Ettenger RB, Feig SA. Bone marrow transplantation in severe combined immunodeficiency from a sibling who had received a paternal bone marrow transplant New England Journal of Medicine. 1996;335:1811-1814.

Avet-Loiseau H, Andree-Ashley LE, Moore D, 2nd, Mellerin MP, Feusner J, Bataille R, Pallavicini MG. Molecular cytogenetic abnormalities in multiple myeloma and plasma cell leukemia measured using comparative genomic hybridization. Genes, Chromosomes and Cancer. 1997;19:124-133.

Litle VR, Warren RS, Moore D, 2nd, Pallavicini MG. Molecular cytogenetic analysis of cytokeratin 20-labeled cells in primary tumors and bone marrow aspirates from colorectal carcinoma patients. Cancer. 1997; 79:1664-1670.

Moore DH, II, Pallavicini M, Cher ML, Gray JW. A t-statistic for objective interpretation of comparative genomic hybridization (CGH) profiles. Cytometry. 1997;28:183-190.

Pallavicini MG, Redfearn W, Necas E, Brecher G. Rescue from lethal irradiation correlates with transplantation of 10-20 CFU-S-day 12. Blood Cells, Molecules, and Diseases. 1997;23:157-168

Quijano CA, Moore D, 2nd, Arthur D, Feusner J, Winter SS, Pallavicini MG. Cytogenetically aberrant cells are present in the CD34+CD33-38-19- marrow compartment in children with acute lymphoblastic leukemia. Leukemia. 1997;11:1508-1515.

Mueller P, Carroll P, Bowers E, Moore D, 2nd, Cher M, Presti J, Wessman, M, Pallavicini MG. Low frequency epithelial cells in bone marrow aspirates from prostate carcinoma patients are cytogenetically aberrant Cancer. 1998;83:538-546.

Green WB, Slovak ML, Chen IM, Pallavicini M, Hecht JL, Willman CL. Lack of IRF-1 expression in acute promyelocytic leukemia and in a subset of acute myeloid leukemias with del(5)(q31). Leukemia. 1999;13:1960-1971.

Ginzinger DH, Godfrey TE, Nigro J, Moore II DH, Suzuki S, Pallavicini MG, Gray JW, Jensen RH. Measurement of DNA copy number at microsatellite loci using quantitative PCR analysis. Cancer Research. 2000; Cancer Research 60: 5405-9.

Giver C, Moore II DH, Pallavicini MG. Radiation Induced Translocations in Mice: Persistence, Chromosome Specificity and Influence of Genetic Background Radiation Research 2000. 154: 283-292.

Mullaney BM, Ng V, Herndier B, Pallavicini MG. Comparative genomic analyses of primary effusion lymphoma. Arch. Lab. Med. Path. 2000; 124:824-826.

Stock W, Tsai T, Golden C, Rankin C, Sher D, Slovak ML, Pallavicini MG, Radich JP, Boldt DH. Cell cycle regulatory gene abnormalities are important determinants of leukemogenesis and disease biology in adult acute lymphoblastic leukemia. Blood. 2000;95:2364-2371.

Stull RA, Hyun WC, Pallavicini MG. Simultaneous flow cytometric analyses of enhanced green and yellow fluorescent proteins and cell surface antigens in doubly transduced immature hematopoietic cell populations. Cytometry. 2000;40:126-134.

Giver CR, Wong RW, Moore II DH, Pallavicini MG. Dermal benzene and trichlorethylene induce aneuploidy in immature murine hematopoietic subpopulations in vivo. Envir. Molecular Mutagenesis. 2001. 37(3):185-94.

Tiirikainen M, Mullaney B, Ng V, Herndier B, McGrath M, Pallavicini MG and Jensen R: DNA Copy Number Alterations in HIV Positive and Negative Patients with Diffuse Large-Cell Lymphoma. Journal of Acquired Immune Deficiency Syndromes 2001;27:272-276.

Mullaney, BP and Pallavicini, MG. Protein-Protein Interactions in Hematology Using Phage Display. Exp. Hematology, 2001. 29: 1136-1146.

Giver, CR. Wong, R, Moore II, DH and Pallavicini, MG. Persistence of aneuploid immature/primitive hemopoietic sub-populations in mice 8 months after benzene exposure in vivo. Mutation Research 2001 12: 127-38.

Mullaney BP, Pallavicini MG, and Marks JD. Epitope mapping of neutralizing botulinum neurotoxin A antibodies by phage display. Infect Immun. 2001 69:6511-4.

Mullaney, B, Marks, J, Pallavicini, MG. Mimotopes and proteome analyses using human genomic and cDNA epitope phage display. Comparative and Functional Genomics.3: 254-263, 2002.

Johnston DL, Meshinchi S, Opheim KE, Pallavicini MG, Feusner J, Woods WG, Lange BJ, Radich JP, Bernstein ID.. Progenitor cell involvement is predictive of response to induction chemotherapy in paediatric acute myeloid leukemia. Br J Haematol. 2003 Nov;123(3):431-5, 2003.

Wang D, Jensen RH, Williams KE, Pallavicini MG.. Differential protein expression in MCF7 breast cancer cells transfected with ErbB2, neomycin resistance and luciferase plus yellow fluorescent protein. Proteomics. 2004 Jul;4(7):2175-83, 2004.

Wang D, Jensen R, Gendeh G, Williams K, Pallavicini MG.Proteome and transcriptome analysis of retinoic acid-induced differentiation of human acute promyelocytic leukemia cells, NB4. J Proteome Res. 2004 May-June 3(3):627-35, 2004.

Drummond, DC, Marx, C, Guo Z, Scott G, Noble, C, Wand, D. Pallavicini, MG, Kirpotini DB, Benz, CC. Enhanced pharmacodynamic and antitumor properties of a histone deacetylase inhibitor

encapsulated in liposomes or ErbB2-targeted immunoliposomes. Clinical Cancer Research. 2005 May 1;11(9):3392-401, 2005.

Li, KL, Wilmes, LJ, Henry Rg, Pallavicini MG, Park JW Hu-Lowe DD, McShane TM, Shalinsky DR, Fu YJ, Brasch RC, Hylton NM. Heterogeneity in the angiogenic response of a BT474 human breast cancer to a novel vascular endothelial growth factor-receptor tyrosine kinase inhibitor: assessment by voxel analysis of dynamic contrast-enhanced MRI. J Magn Reson Imaging. 2005 Oct 22(4):511-9, 2005.

Wang H, Qian WJ, Mottaz HM, Clauss TR, Anderson DJ, Moore RJ, Camp DG 2nd, Khan AH, Sforza DM, Pallavicini M, Smith DJ, Smith RD. Development and evaluation of a micro- and nanoscale proteomic sample preparation method. J Proteome Res. 2005 Nov-Dec 4(6):2397-403.

Patwardhan AJ, Strittmatter EF, Camp DG 2nd, Smith RD, Pallavicini MG. Quantitative proteome analysis of breast cancer cell lines using 18O-labeling and an accurate mass and time tag strategy. Proteomics. 2006 May;6(9):2903-15, 2005.

Patwardhan AJ, Strittmatter EF, Camp DG 2nd, Smith RD, Pallavicini MG.. Comparison of normal and breast cancer cell lines using proteome, genome, and interactome data. J Proteome Res. 2005 Nov-Dec;4(6):1952-60.

Park CC, Zhang H, Pallavicini M, Gray JW, Baehner F, Park CJ, Bissell MJ. Beta1 integrin inhibitory antibody induces apoptosis of breast cancer cells, inhibits growth, and distinguishes malignant from normal phenotype in three dimensional cultures and in vivo.
Cancer Res. 2006 Feb 1 66(3):1526-35.

Sanchez M, Weissman IL, Pallavicini M, Valeri M, Guglielmelli P, Vannucchi AM, Migliaccio G, Migliaccio AR Differential amplification of murine bipotent megakaryocytic/erythroid progenitor and precursor cells during recovery from acute and chronic erythroid stress.
Stem Cells. 2006 Feb 24(2):337-48.

Wilmes LJ, Pallavicini MG, Fleming LM, Gibbs J, Wang D, Li KL, Partridge SC, Henry RG, Shalinsky DR, Hu-Lowe D, Park JW, McShane TM, Lu Y, Brasch RC, Hylton NM. AG-013736, a novel inhibitor of VEGF receptor tyrosine kinases, inhibits breast cancer growth and decreases vascular permeability as detected by dynamic contrast-enhanced magnetic resonance imaging. 2007 Magnetic Resonance Imaging. 25(3):319-27.

NON-PEER REVIEWED PUBLICATIONS

Pallavicini MG, Cohen AM, Dethlefsen LA, Gray JW. Dispersal of solid tumors for flow cytometer (FCM) analyses. In: Buchner TH, Gohde W, Schuman J, eds. Pulse Cytophotometry Part III. Ghent, Belgium: European Press; 1978:473-482.

Gray JW, Pallavicini MG. Quantitative cytokinetic analyses reviewed. In: Rotenberg M, ed. Biomathematics and Cell Kinetics. New York, NY: Elsevier/North-Holland Biomedical Press; 1981:107-123.

Wurm FM, Gwinn KA, Papoulas O, Pallavicini MG, Kingston RE. Use of transfected and amplified drosophila heat shock promoter construction for inducible production of toxic mouse c-myc proteins in CHO cells. In: Spier RE, Griffiths JB, eds. Modern approaches to animal cell technology. New York, NY: Butterworth Publishers; 1987:215-241.

Pallavicini MG. Characterization of cell suspensions from solid tumors. In: Kallman RF, ed. Rodent Tumor Models in Experimental Cancer Therapy. New York, NY: Pergammon Press; 1987:76-81.

Pallavicini MG, Taylor IW, Vindelov LL. Preparation of cell/nuclei suspensions from solid tumors for flow cytometry. In: Melamed MR, Lindmo T, Mendelsohn ML, eds. Flow Cytometry and Sorting (ed 2). New York, NY: Wiley Liss; 1990:187-194.

Gray JW, Dolbeare F, Pallavicini MG. Quantitative cell cycle analysis. In: Melamed MR, Lindmo T, Mendelsohn ML, eds. Flow Cytometry and Cell Sorting (ed 2). New York, NY: Wiley- Liss; 1990:445-467.

Pallavicini MG, Litle VR, Mueller PM. Genotype and Phenotype Analyses of Micrometastases. In: Introduction to Fluorescence In Situ Hybridization: Principles and Clinical Applications Eds, Andreef M, Pinkel D,. John Wiley & Sons; NY, 1999 455.

INVITED SCIENTIFIC PRESENTATIONS

International

International Society for Analytical Cytology, Bergen, Norway, 1991
Stem Cell Involvement in Leukemia and Myelodysplasia. Paris, France, 1993
Fluorescence In Situ Hybridization in Human Malignancy, Villejuif, France 1995
Genotype/Phenotype Analysis of Micrometastases in Prostate Cancer, Rimini Italy, 1996
Stem Cells and Megakaryocytopoiesis, Paris, France, 1998
Antibody Generation using Epitope Trapping, Kannenaskis, Canada, 2000
Stem Cells and Leukemogenesis, Montpellier, France, 2000.
Proteomics in Cancer Research, Ottawa, Canada, 2001
Novel Methodologies in Proteome Research, Roche, Basel Switzerland, 2001
Breast Cancer Proteomics, Cardiff, Wales, 2003
Leukemia Proteomics, Paris, France, 2003
Stem Cell Protein Signatures, Naples, Italy, 2003
Transcriptome and Proteome Analysis of Breast Cancer and Leukemic Cells, Rome, Italy, 2003

National and Regional

International Congress on Xenotransplantation, Minneapolis, MN, 1991
Genetically Aberrant Cells in Bone Marrow; Geraldine Brush Cancer Res. Inst. 1992
Rare Metastatic Cells in Prostate Cancer, Stanford University, 1992
Fluorescence In Situ Hybridization Approaches to Detection of Micrometastases, NIH, 1992
Cancer Micrometastases: Biology, Methodology and Clinical Significance. Wash DC 1992.
Normal and Aberrant Hemopoiesis. Lawrence Berkeley Laboratory, CA, 1992
Molecular Cytogenetics in Cancer Diagnosis, New Orleans, 1993.
Hematopoietic Stem Cell Transplantation Washington DC 1993
Clinical Applications of Rare Event Detection. *First Distinguished Wallace Coulter Lecturer, International Society of Clinical Cytometry,* Charleston, SC, 1993
Hemopoietic Stem Cell Biology, National Advisory Council, National Institutes of Allergy and Infectious Disease, NIH, Washington DC 1993
Molecular Cytogenetic Analysis of Hematologic Malignancies Miami, 1996
Molecular Cytogenetics of Rare Tumors cells in Leukemia and Solid Tumors, Albuquerque, 1996
Genotypic analyses of Tumor Subpopulations in Marrow Aspirates, Stanford University, 1996
Hemopoietic stem cells:vivo biodosimeters of induced genomic damage Center for Environmental Biotechnology, Berkeley, 1996
Genotype/Phenotype Analysis of Low Frequency Tumor Subpopulations, Atlanta, 1997
Cytogenetically Aberrant Stem Cells In Acute Myeloid Leukemia, Seattle, WA 1997

Propagation of Genetically Damaged Stem Cells, Lawrence Berkeley Laboratory, 1997
Leukemogenesis and Clonal Genetically Aberrant Stem Cells, UCSF, 1997
Identification of DNA Sequence Copy Number Changes in Malignancy, Miami Beach, 1998
Fetal Stem Cells and Gene Therapy, Bethesda, MD 1999
Environmentally Induced Genomic Aberrations, San Francisco State University, 2000
Molecular Diversity Libraries, NCI, Washington DC, 2000
Gel Array Pixelation: NCI, Washington DC, 2001
Leukemia Protein Signatures, San Diego, CA, 2002
Novel Mass Spectrometry-based Strategies to Identify Low Abundance Proteins in Leukemic Cells, Washington DC, 2002.
Stem Cells, Cancer and Stem Cell Fate Decisions, Cancer Center Symposium – UC Davis Keynote Speaker, 2005
Stem Cell Niches, UC Davis Stem Consortium, 2007
AICHE- Stem Cell Fate Decisions, 2008

TEACHING AND MENTORING

Lawrence Livermore National Laboratory (LLNL) (1978-1991)
As a national laboratory, LLNL, does not sponsor formal instructional programs. However, there are opportunities, many self-made, to participate in teaching. While at LLNL, I mentored undergraduate students from UC Berkeley in summer research internships in my laboratory, as well as post-doctoral fellows. I co-taught a course at California State University Hayward-extension equivalent for two years and was involved in the science-teacher education programs (LESSON) that LLNL sponsored for high school teachers.

University of California, San Francisco (1991-2002)
My teaching responsibilities at UCSF involved undergraduates, graduate students, post-doctoral fellows and residents. Undergraduate involvement included multiple summer internship opportunities that I provided for students from UC Berkeley, community colleges and private higher education institutions. I also participated in laboratory experiences and problem-based sections for medical students in the areas of genetics and hematologic malignancies. I was an advisor for graduate students in the Biomedical Sciences Graduate Program, numerous medical students and residents.

University of California, Merced (2002-present)
BIS 1 - Contemporary Biology- Summer 2004 (co-instructor with Mike Colvin- new course)
BIS 3 - Know Thyself: Molecular Basis of Health and Disease – Fall 2005 (new course)
BIS 90 – Stem Cells and Regenerative Medicine – Fall 2005
BIS 10 - Stem Cells, Genes and Development (co-instructor with Keith Alley; new course) – Spring 2006
Core 090X – Breast Cancer Biology – Spring 2006
Core 90x Teaching and Learning – Spring 2006
QSB 290 – Current Topics in Quantitative Systems Biology – Spring 2007
CORE 90X – Stem Cells and Regenerative Medicine – Spring 2007
Cancer Biology and Genetics - 2007 (new course)
4 freshman seminars 2005, 2006 (new)
Graduate Journal Club

Current UC Merced Students:
Graduate:
Basha Stankovich- PhD candidate: 2004
Heather Bryan- PhD candidate 2006
Eric Lau- PhD candidate 2007

Undergraduate:

Nathan Levy: February 2005 – June 2005
Esmeralda Aguayo: June 2005 – present
Raman Nazari: September 2005 – May 2006
Meg Grossman: May 2006 – August 2006
Sam Solis: June 2007 – July 2007
Patricia Soto: June 2007 – July 2007
Paulina Price: June 2007 – July 2007
Fatima Barragan: August 2006 – present
Aniket Sharma: August 2007 - present
Evelyn Damate: May 2008 – present
Demseen Danielson: September 2005 – December 2005
Thomas Giagou: September 2005 – December 2005
Solomon Estifanos: September 2006 – June 2007
Sara Zimmermann: May 2006 – June 2007
Vera Diaz: September 2007 – present
Yimdriuska Magan: September 2007 – present
Deven Roy: September 2007 – January 2008

A listing of students that have had research experiences in my laboratory follows:

Undergraduate

Trainee	**Status**	**Training Period**	**Current Position/Location**
E. Bower	Undergrad UCSC	1990-1992	Research Assistant, Biotech
M. Gonzalgo	Undergrad UCB	1991-1993	UCSF Med School Graduate; Urology Resident John Hopkins
M. White	Undergraduate UCSD	1991	Harvard Medical School
T. George	Undergraduate UCB UCSF Med Thesis	1990 1992-1993	UCSF Medical School Graduate, Private Practice
S. Khurana	Undergraduate UCB	1992	UCSD Medical School Graduate Private Practice
M. Constantino	Undergraduate UCB	1993	Medical School Graduate
A. Sheikh	Undergraduate UCB Honors Thesis	1995-1996	UCSF Medical School Grad. Ortho Surgery Boston
S. Thind	Undergraduate UCB Honors Thesis	1996-1997	USC Medical School
P. Abeyeta	Undergraduate UCB Honors Thesis	1995-1996	UCSF Medical School Graduate
R. Gilliland	Undergraduate, St. Mary's College	1996-1998	Dartmouth Medical School
C.F Chang	Undergraduate UCB	1993	Biotech
F. Macay	Undergraduate UCB	1996-1998	UCB undergraduate
L. Preza	Undergraduate, Skyline College	1996-1998	School of Pharmacy applicant

E. Yang	Undergraduate UCB	2000	UCB undergraduate
P. Sekella	Undergraduate Univ. Michigan	1999, 2000	University Michigan Graduate student
S. Vitko	Undergraduate UCSD	1998, 1999	Cell/Molecular Biology Graduate Program, SUNY
A. Kane	Undergraduate UCB	2000, 2001	UCB undergraduate
M. Miller	Undergraduate Redwood College	2001	Undergraduate
R. Thondapu	Undergraduate- Duke	2002	Medical School
Brian Carter	Undergraduate- UCSD	2003	UCSD
M. Lau	Undergraduate- UCB	2004	UCB

Graduate/Medical Students

Trainee	**Status**	**Training Period**	**Current Position/Location**
T. George	Medical Student, Honors Thesis, UCSF	1992-1993	UCSF Med School Graduate, Physician, Private Practice
C. Mars	Medical Student, UCSF	1992	Physician, Private Practice
D. Kelly	Post graduate Student Children's Hospital	1998-1999	Ph.D. Candidate Boston
K. Gregg	UCSF-CSUSF Joint MS/Ph.D. Program	2001-2003	Graduate student, Biological Sciences Graduate Program
A. Patwardhan	UCSF, Ph.D. program	2002-2005	Graduate student, Biomedical Informatics Graduate Program

Post Graduate (Postdoctoral Scholars, Residents)

Trainee	**Status**	**Training Period**	**Current Position/Location**
P. Matsson, Ph.D.	Postdoctoral Scholar	1985-1986	Director of Immunology, Pharmacia, Uppsala Sweden
L. Watson, M.D.	Postdoctoral Scholar	1989-1990	Associate Pathology Director American Labs , Las Vegas, NV
R. Amendola, Ph.D	Postdoctoral Scholar	1989-1990	Scientist, ENEA, Rome, Italy
C. Bethel, M.D.	Resident, UCSF	1991-1992	Chief, Pediatric Surgery UMDNJ, New Jersey
K. Miyashita, M.D.	Postdoctoral Scholar	1991-1992	Physician-Scientist, Staff, University of Tokyo, Japan
B. Mehrotra, M.D.	Postdoctoral Scholar	1992- 1993	Assistant Professor, Wayne State University Medical School

E. Grady, Ph.D.	Postdoctoral Scholar	1992-1993	Assistant Adjunct Prof, UCSF
V. Litle, M.D.	Resident UCSF Surgery	1993-1995	Physicians Faculty, University of Pittsburgh
R. Nath, M.D.	Postdoctoral Scholar	1993-1995	Postgraduate Researcher, UCSF
P. Mueller, M.D.	Postdoctoral Scholar	1994-1995	Physician, Germany
P. Matsson, Ph.D.	Postdoctoral Scholar	1985-1986	Director of Immunology, Pharmacia, Uppsala Sweden
L. Watson, M.D.	Postdoctoral Scholar	1989-1990	Associate Pathology Director American Labs , Las Vegas, NV
R. Amendola, Ph.D	Postdoctoral Scholar	1989-1990	Scientist, ENEA, Rome, Italy
C. Bethel, M.D.	Resident, UCSF	1991-1992	Chief, Pediatric Surgery UMDNJ, New Jersey
K. Miyashita, M.D.	Postdoctoral Scholar	1991-1992	Physician-Scientist, Staff, University of Tokyo, Japan
B. Mehrotra, M.D.	Postdoctoral Scholar	1992- 1993	Assistant Professor, Wayne State University Medical School
E. Grady, Ph.D.	Postdoctoral Scholar	1992-1993	Assistant Adjunct Prof, UCSF
V. Litle, M.D.	Resident	1993-1995	Physicians Faculty, University of Pittsburgh
R. Nath, M.D.	Postdoctoral Scholar	1993-1995	Postgraduate Researcher, UCSF
P. Mueller, M.D.	Postdoctoral Scholar	1994-1995	Physician, Germany
H. Avet-Loiseau, M.D.	Postdoctoral Scholar	1993-1994	Scientist, Laboratoire d'Anatomie Pathologique et d'Hématologie Clinique, Nantes, France
S. Tamaki, Ph.D.	Postdoctoral Scholar	1994-1997	Staff Scientist, Systemix, Palo Alto, CA
C. Quijano, M.D.	Postdoctoral Scholar	1984-1996	Physician, San Francisco
D. Ross, M.D., Ph.D	Resident	1998	Chief Scientific Officer, Applied Genomics, Mountain View, CA
S. Pedersen, Ph.D.	Postdoctoral Scholar	1996-1997	Genetics Department, Aarhus University, Denmark
R. Stull, Ph.D.	Postdoctoral Scholar	1996-2000	Scientist and Technology Core Director, PPD, Menlo Park, CA
C. Golden, M.D.	Postdoctoral Scholar	1996-1998	Pediatrician, Children’s Hospital Oakland

P. Kelley, M.D.	Postdoctoral Scholar	1996-1998	Assistant Professor St. Jude's Cancer Center, Memphis, TN
C. Golden, M.D.	Postdoctoral Scholar	1996-1998	Pediatrician, Children's Hospital Oakland
C. Giver, Ph.D.	Postdoctoral Scholar	1997-2000	Post-graduate Researcher, Atlanta University, GA
M. Tiirikainen, Ph.D.	Postdoctoral Scholar	1999-2001	Post-graduate Researcher, UCSF
M. Pauling, Ph.D.	Postdoctoral fellow	1999-2000	Staff Scientist, Genetastix, CA
K. Anh, M.D.	Resident	2000	Laboratory Medicine, UCSF
E. Geva. M.D.	Postdoctoral Scholar	2000-2001	Assistant Professor Tel Aviv University Israel
R. Laposa, Ph.D.	Postdoctoral Scholar	2001-present	UCSF Postdoctoral Scholar
S. Dutta	Postdoctoral Scholar	2002-2004	Research Scientist, Stanford

UNIVERSITY SERVICE AND OUTREACH

UCSF

Graduate Council; Member 1992-1991; Vice Chair (1994-1995); Chair (1996-1999)
UC-System-wide Council on Graduate Student Affairs (1996-1997)
Committee on Academic Personnel (2001-2002)
Academic Senate Coordinating Committee (1996-2001)
UCSF Division Academic Senate, Secretary (1999-2001)
Executive Committee, Academic Senate (1999-2001)
UC Merced Task Force, UCSF Academic Senate Representative (2000-2002)
Recruitments and Academic Advancement: (1998-2002); Ad Hoc Faculty Promotion Committee and Stewardship Reviews, Search Committees, UCSF, Radiology Chair, UCSF Librarian, Executive Vice Chancellor of Research
Mission Bay Campus Planning Committee (1997-1998)
Campus Animal Users Committee, Chair (1997-2002)
UCSF Cancer Center Animal Facility Faculty Oversight, Chair (1997-2002)
UCSF Animal Facility Building Planning Advisory Team (1998-2002)
UCSF IACUC Committee on Animal Research (2001-2002)
Coordinating Committee for Interschool Teaching, UCSF (1997-1999)
Advisor, UCSF Cancer Center/SFSU Joint Masters/PhD program (2001-2002)
UC Merced Science and Engineering Building Advisory Team (2000-2002)
Steering Committee Hematologic Malignancies (2000-2002)
Mentoring Program for Junior Faculty, Cancer Center UCSF (1998-2002)
Co-Director Protein Analyses Core, UCSF Cancer Center (2000-2002)

UC MERCED (non-Dean)

Health Careers Day for Junior High & High School Students, UC Merced, Organizer (2004)

Community Forum Including High Schools – Stem Cells and Regenerative Medicine (2004)
Modesto Junior College, Stem Cell Biology Seminar Speaker (2004)
Castle Science on Saturday, Technology Lecture – Origins of Life, Seminar Speaker (2004)
Stem Cell Lecture, Bakersfield High School, (2006, 2007)
Science Math Initiative- Administrative Director (2005- present)

UC MERCED (Dean)

Founding Dean, School of Natural Sciences (2002 – Present)

PROFESSIONAL SERVICE AND ACTIVITIES

Reviewer: National Institutes of Health; National Cancer Institute, National Institute of Allergy and Infectious Disease. Member and chair for numerous scientific review panels for NIH to evaluate the scientific merit and infrastructure of intra-disciplinary Program Projects, Cancer Centers and Research Grants.

1987-1988	NCI; Member Cancer Therapeutics Program Project Review Parent Committee
1993-1997	NCI: Experimental Therapeutics Study Section, Member
1995-1999	Research America: lobby for research funding by meeting with state legislators
1999	American Cancer Society: lobby for research funding by meeting with state legislators
2000	National Cancer Institute Molecular Diversity Advisory Panel
2000	National Cancer Institute Hematologic Malignancies Advisory Group
2001	National Cancer Institute Innovative Technologies Scientific Advisory Panel
2002- 2004	National Institutes of Health – Ad Hoc Member for Grant Reviews
2002- 2005	National Cancer Institute Parent Committee for Cancer Program Projects. Parent Committee Member. 'On site' program reviews at 18 institutions. Chaired eight reviews

PROFESSIONAL SOCIETIES

1983-1985	Cell Kinetics Society, Councilor
1985-1987	Cell Kinetics Society, Treasurer
1990-1994	Bay Area Hemopoiesis Association, Founder
1993	International Society for Analytical Society, Strategic Planning Committee
1994-1998	International Society for Analytical Society, Councilor
1995-1998	International Society for Analytical Society Scientific Program, Scientific Program Co-Chair
1996-1998	American Society of Hematology, Subcommittee, Clinical Laboratory Scientific Program, Member
1998-present	International Society for Analytical Society, Executive Committee Member
1998-2002	International Society for Analytical Society, Treasurer
2002-2003	International Society for Experimental Hematology, Chair, Scientific Program, France
2002-2003	International Congress Society of Analytical Cytology, Chair, Scientific Program, France
2002-2004	International Society for Analytical Cytology (Cytometry), President-elect
2004-2006	International Society for Analytical Cytology (Cytometry), President

EDITORIAL BOARDS AND ADVISORY BOARDS

1995-present	Reviewer: Cancer Research, Leukemia, Leukemia Research, Blood, J. Histochemisty Cytochemistry, Cytometry, Radiation Research, Cancer Genetics, Environmental Mutagenesis, Proteomics, Cytometry, Experimental Hematology
1998-present	Leukemia Research Program Advisory Committee M.D. Anderson Cancer Center, Houston, TX

1998-2003	Cytometry, Editorial Board
2000-present	Fanconi Anemia Foundation Advisory Board, Member
2000-2002	Guest Editor Experimental Hematology Editor, Emerging Technologies Series, Experimental Hematology
2002-present	Member and Chair, External Advisory Board Pacific Northwest National Laboratory Center of Excellence-Proteomics- NCRR
2003- present	Acute Myelogenous Leukemia Program, M.D. Anderson Tumor Hospital and Cancer Research Institute

RESEARCH AND CREATIVE ACTIVITIES

Patents Pending/ Issued

1999	Interferon Regulatory Factors in the Diagnosis of Tumorigenicity Patent # 5,652,095
2001	Method for Gene ID and Function. Disclosure: Patent application pending
2001	Making Chimeric DNA Libraries Patent # 6,322,599
2001	Method of Isolating Monoclonal Antibody-expressed cDNA Binding Pairs Disclosure