CURRICULUM VITAE

I. Personal Data

Name:	HUANG, Tim Hui-Ming
Place and Date of Birth:	Tainan, Taiwan; November 6, 1957
Home Address:	2286 Picket Post Lane Columbus, OH 43220 Tel: 614-459-1418
Office Address:	Room 514B Human Cancer Genetics Program Department of Molecular Virology, Immunology, and Medical Genetics Comprehensive Cancer Center The Ohio State University 420 W. 12th Avenue Columbus, OH 43210 Tel: 614-688-8277 Fax: 614-292-5995 E-mail: tim.huang@osumc.edu
Marital Status:	Married, Susan Leu Huang
Children:	Victor Samuel Huang (17 years old) Emanuel Deren Huang (14 years old)

II. Education

1980	Tunghai University, Taichung, Taiwan Bachelor of Science in Biology
1982 - 1983	University of California, Los Angeles, CA Graduate Studies/Biology
1985	California State University, Dominquez Hills, CA Human Cytogenetics Certificate

1989	University of California, Davis, CA Ph.D. in Genetics, 1989. Mentor: Dr. Reen Wu

III. Postdoctoral Training

1989 - 1991	Clinical Cytogenetics Fellow at Baylor College of Medicine, Houston, TX. Mentor: Dr. David H. Ledbetter

IV. Academic Appointment and Professional Experience

1984	Laboratory Assistant, Male Reproduction Center, Harbor-UCLA Medical Center, Carson, CA
1984 - 1985	Cytogenetics Technologist, Department of Cytogenetics and Cytology, City of Hope Medical Center, Duarte, CA
1985 - 1989	Postgraduate Researcher, California Primate Research Center, Davis, CA
1989 - 1991	Fellow in Clinical Cytogenetics, Institute for Molecular Genetics, Baylor College of Medicine, Houston, TX
1991 - 1997	Assistant Professor, Department of Pathology and Anatomical Sciences, University of Missouri School of Medicine, Columbia, MO
1991 - 2003	Laboratory Director of Cytogenetics, Department of Pathology, Ellis Fischel Cancer Center, University of Missouri Health Sciences Center, Columbia, MO
1997 - 2003	Associate Professor, Department of Pathology and Anatomical Sciences, University of Missouri School of Medicine, Columbia, MO
2000 - 2003	Director, DNA Microarray Laboratory, Molecular Biology Program, University of Missouri, Columbia, MO
2003	Professor, Department of Pathology and Anatomical Sciences, University of Missouri School of Medicine, Columbia, MO
2003 - 2005	Associate Professor, Division of Human Cancer Genetics, Department of Molecular Virology, Immunology, and Medical Genetics, The Ohio State University, Columbus, OH
2003 - present	Member, The Ohio State University Comprehensive Cancer Center, Columbus, OH
2003 – present	Graduate Faculty, Integrated Biomedical Graduate Program, The Ohio State University
2005 - present	Professor, Division of Human Cancer Genetics, Department of Molecular Virology, Immunology, and Medical Genetics, The Ohio State University, Columbus, OH
2004 - present	Director, Integrative Cancer Biology Program, The Ohio State University, Columbus, OH

V. Certification

1993 - 2003	Diplomat, American Board of Medical Genetics in Clinical Cytogenetics

VI. Membership in Scientific Societies

DNA Methylation Society
Great Plains Genetics Society
Cancer and Leukemia Group B

American Society of Human Genetics
American Association for Cancer Research
Association of Chinese Geneticists in America
American Association for the Advancement of Science

VII. Teaching Activities

A. Didactic

1991-1999	Block 2 Cytogenetics of Hematopoietic Malignancies Lecture (1-hour lecture)
1991-1999	Clinical Cytogenetics Laboratory Rotations (3 1-hour lectures per week) Pathology residents rotated through the Cytogenetics Laboratory for a period of one month. I gave two lectures on the principles of general cytogenetics and cancer cytogenetics. Two to 3 1-hour lectures (per week) were given on specimen processing, procedural setups, and normal and abnormal chromosome recognition. Residents performed bench work and microscopic analyses, and case review. (20 pathology residents and 1 genetics M.D. fellow)
1991-2003	Pathology Grand Rounds (1 hour per lecture). 25 lectures. Topics include cancer genetics, prenatal and perinatal diagnoses, clinical cytogenetics, chromosome syndromes, molecular diagnostic techniques, and cytogenetic case reviews
2004	VBS 850, Spring Quarter (1-hour lecture)
2004	MVIMG 827, Autumn Quarter, Epigenetic Alterations in Cancer (2-hour lecture)
2004	Epigenetic Journal Club (2 1-hour lectures)
2004	IBGP701, Winter Quarter, Module 3: Genes and Genome (2-hour lecture)
2004	MVIMG734, Spring Quarter, Cancer Genetics: High-Throughput Technologies (2-hour lecture)
2005	Epigenetic Journal Club (2 1-hour lectures)
2006	Epigenetic Journal Club (1-hour lecture)
2006	MVIMG734, Spring Quarter, Cancer Genetics: High-Throughput Technologies (1-hour lecture)

B. Advising and Mentoring

<u>High school/undergraduate students</u>: 13

Matthew B. Martin (1993); Gregory T. Boyer (1993-1995): Phuong Tran (1995-1998); Hoa Tran (1995-1998); Jeffrey Lin (2000-2001); Irene Chang (2000), Andrew Hsiau (2001-2003); Tim Hsiau (2001-2003); Lukasz Lozanski (2003-2004); Darren Swartz (2003-2005); Jingyun Chen (2005); Daniel Tse (2005-present); and Joseph Wan (2005-present).

<u>Master's degree students</u>: 4

Ozy Sjahputera (1995); Brian C. Hamlin (1994-1997); Doug E. Laux (1996-1998); and Judy Kuo (2006-present).

<u>Medical students</u>: 2

Fausto Rodriguez (1999-2001) and Kimberly M. Henley (2001-2002).

Ph.D. students: 24

Vicki J. Thon (1992); Hisashi Shibuya (1992-1995); Paul L.-H. Yeh (1993); Brett A. Hopkins (1995); Kuo-Chunn Lee (1995); Dan Nonneman (1997); Edward Curran (1997-1998); Yi-Wen Chen (1997-1999); Hsin-Yeh Hsieh (1997-2000); Kevin Day (1997-2001); Brian Philips (1996-2001); Lingpu Yu (2001); Adam L. Asare (1996-2002); Zhuang Yi (2001-2003); Chia-Lung Tsai (2003-2004); Jens Zehetner (2004); Ya-Ting Yang (2003-2004); Kai-Lun Hwang (2004); Jau-Chen Lin (2005); Victoria Cheng (2005); Jeff Anderson (2006); Ben Rodriguez (2004-present); Jeijun Wu (2004-present); and Enrica Fabbri (2005-present).

Postdoctoral and visiting fellows: 27

James Quesenberry (1992); Jacquelyn McKinzie (1995-1996); Robert Calaluce (1993); Gordon Strathdee (2001); Andreas Waha (2000-2002); Chuan-Mu Chen (2001-2002); Timothy Y. P. Yip (2002); Mengchu Wu (2002); Dajun Deng (2001-2002); Anna Testa (2003); Remco van Doorn (2003); Yi-Ching Wang (2003); Huidong Shi (2000-2003); Susan Wei (2000-2005); Yu-Wei Leu (2002-2004); Jens M. Teodoridis (2005); Natalie Thorn (2005); Ashraf E. K. Ibrahim (2005); Victor X. Jin (2003-2005); Zailong Wang (2005); Hung-Cheng Lai (2005); Shu-Huei Hsiao (1996); Michael Chen (2004-present); Alfred Cheng (2004-present); Rachel A. Jansen (2005-present); Dustin Potter (2005-present); Yi-Wen Huang (2006-present); and Tao Zho (2006-present)

Faculty mentoring (tenure-track assistant professors): 4

Ramana V. Davuluri (2005-2006); Tatsuya Nakamura (2005-present); Huidong Shi (2005-present); and Huey-Jen Lin (2006-present)

Thesis and advisory committees: 17

Hisashi Shibuya (1994); Daniel Nonneman (1997); Doug Laux (1997); Yi-Wen Chen (1998); Hsin-Yeh Hsieh (1999); Kevin Day (2001); Adam L. Asare (2002); Ya-Ting Yang (2004); J. Nielsen (2005); Arthur Shaw (2005); Jing Li (2005); Danyetta E. Davis (2006); Erin Her (2006); Tao Zho (2006); Jiejun Wu (2006); Ben Rodriguez (2006); and Dimitrios Iliopoulos (2006)

VIII. Research

A. Publications (including *book chapters or non-peer reviewed articles)

1. Ann DK, Wu MJ, **Huang TH-M**, Carlson DM, Wu R. Retinol-regulated gene expression in human tracheobronchial epithelial cells: Enhanced expression of elongation factor EF-lα. *J Biol Chem* 263:3546-49, 1988.
*2. Wu R, **Huang TH-M,** Edmonson D, Nolan B, Wu M. Control of life cycle and differentiation of respiratory tracheal epithelial cells by retinoids. In *IBMS' Symposium on Recent Advances in Biological and Medical Sciences* (S. Chien and C.Y. Chai, eds.) IBMS, Academia Sinica, Taipei, Taiwan, pp.287-300, 1988.
3. **Huang TH-M**, St. George JA, Plopper CG, Wu R. Keratin protein expression during the development of conducting airway epithelium in non-human primates. *Differentiation* 41:78-88, 1989.
4. **Huang TH-M**, Greenberg F, Ledbetter DH. Determination of the origin of chromosome nondisjunction in a 49,XXXXY male by hypervariable dinucleotide repeat sequences. *Hum Genet* 80:619-20, 1991.
5. **Huang TH-M**, Hejtmancik JR, Edwards A, Pettigrew AL, Herrera CA, Caskey CT, Zoghbi HY, Ledbetter DH. Linkage of the gene for an X-linked mental retardation disorder to a

hypervariable (AGAT)n repeat motif within the human HPRT locus (Xq26). *Am J Hum Genet* 49:1312-19, 1991.

6. Arena JF, Schwartz CE, Stevenson R, Lawrence L, Ledbetter DH, **Huang TH-M**, Lehner T, Duara R, Carpenter A, Lubs HA. Spastic paraplegia with iron deposits in the basal ganglia: A new X-linked mental retardation syndrome. *Am J Med Genet* 43:479-90, 1992.
7. An G, **Huang TH-M**, Tesfaigzi J, Garcia-Hera J, Ledbetter DH, Carlson DM, Wu R. An unusual expression of squamous cell marker, small proline-rich protein (sprl) gene in tracheobronchial epithelium: Differential regulation and gene mapping. *Am J Respir Cell Mol Biol* 7:104-11, 1992.
8. Mulley JC, Turner AM, Gedeon A, Berdoukas VA, Turner AM, **Huang TH-M**, Ledbetter DH, Grierson H, Purtillo DH. X-linked lymphoproliferative disease (XLP): Prenatal detection of an unaffected histocompatible male. *Clin Genet* 42:76-9, 1992.
9. Schwartz CE, May M, **Huang TH-M**, Ledbetter DH, Anderson G, Barker DF, Lubs HA, Arena F, Stevenson RF. MRX8: X-linked mental retardation with linkage to Xq21. *Am J Med Genet* 43:467-74, 1992.
10. **Huang TH-M**, Cottingham RW, Ledbetter DH, Zoghbi HY. Genetic mapping of four dinucleotide repeat loci, DXS453, DXS458, DXS454, and DXS424, on the X chromosome using multiplex polymerase chain reaction. *Genomics* 13:375-80, 1992.
11. **Huang TH-M**, Quesenberry JT, Martin MB, Loy TS, Diaz-Arias AA. Loss of heterozygosity detected in formalin-fixed, paraffin-embedded tissue of colorectal carcinoma using a microsatellite located within the Deleted in Colorectal Carcinoma gene. *Diagn Mol Pathol* 2:90-93, 1993.
12. Shibuya H, Nonneman DJ, **Huang TH-M**, Ganjam VK, Mann FA, Johnson GS. Two polymorphic microsatellites in a coding segment of the canine androgen receptor gene. *Animal Genet* 24:345-348, 1993.
13. **Huang TH-M**, Ann DK, Zhang UY, Chang AT, Crabb JW, Wu R. Control of keratin gene expression by vitamin A in tracheobronchial epithelial cells. *Am J Respir Cell Mol Biol* 10:192-201,1994.
14. **Huang TH-M**, Peckham DP, Batanian JR, Martin MB, Kouba M, Caldwell CW, Miles J. Familial translocation t(10;14)(q26;q32.3): Report of three offspring with 10q deletion and 14q duplication. *Clin Genet* 46:299-303, 1994.
15. Shibuya H, Collins BK, **Huang TH-M**, Johnson GS. A polymorphic $(AGGAAT)_n$ tandem repeat in an intron of the canine von Willebrand factor gene. *Animal Genet* 25:122, 1994.
16. **Huang TH-M** ,Yeh PL-H, Martin, MB, Straub RE, Gilliam TC, Caldwell CW, Skibba JL. Genetic alterations of microsatellites on chromosome 18 in human breast carcinoma. *Diagn Mol Pathol* 4:66-72,1995.
17. Keller J, Gader P, Sjahputera O, Caldwell CW, **Huang TH-M**. A fuzzy logic rule-based system for chromosome recognition. *IEEE Symp on Computer-Based Medical Systems* 1:125-132, 1995.
18. Calaluce R, **Huang TH-M**, Quesenberry JT, Evans ML, Luger AM, O'Connor T. Male pseudohermaphroditism with bicornuate uterus bicollis and hypoplastic left heart syndrome. *Ped Cardiol* 16:239-241, 1995.
19. Mao C, Baumgartner AP, Jha PK, **Huang TH-M**, Sarkar S. Assignment of the human fast skeletal troponin T gene to chromosome 11p15.5: Evidence for the presence of the 11pter in a monochromosome 9 cell hybrid in the NIGMS mapping panel 2. *Genomics* 31:385-388, 1996.
20. Shibuya H, Collins BK, Collier LT, **Huang TH-M**, John GS. A polymorphic $(GAAA)_n$ microsatellite in an intron in the canine Wilms tumor (*WT1*) gene. *Animal Genet* 27:59-60, 1996.
21. Caldwell CW, Everett ED, McDonald G, Yesus YW, Roland WE, **Huang TH-M**. Apoptosis of T cells in human ehrlichiosis. *Am J Clin Pathol* 105: 640-646, 1996.
22. **Huang TH-M,** Laux DE**,** Hamlin BC, Tran P, Tran H, Lubahn DB. Identification of DNA methylation markers for human breast carcinoma using the methylation-sensitive restriction fingerprinting technique. *Cancer Res* 57: 1030-1034, 1997 (Selected as "hot paper" in the May 14, 1997 issue of *JAMA*)

23. Hopkins BA, **Huang TH-M**, Olson LD. Differentiating turkey postvaccination isolants of *Pasteurella multocida* using arbitrarily primed polymerase chain reaction DNA fingerprinting profiles. *Avian Dis* 42: 265-274, 1998.
24. Shibuya H, M W Cassells, **Huang T H-M**, G S Johnson.A polymorphic $(TG)_n$ microsatellite in an intron of the canine angiotensin I converting enzyme gene*. Animal Genet* 29:66, 1998.
25. Khan H, H Shibuya, D Nonneman, P-C Liu, **Huang TH-M**, G S Johnson. A polymorphic $(TG)_n$ microsatellite in an intron of the canine tyrosine transaminase gene. *Animal Genet* 29:322, 1998.
26. Guo Q, H Shibuya, D Nonneman, P-C Liu, **Huang TH-M**, G S Johnson. A polymorphic $(CA)_n$ microsatellite in the canine lecithin: cholesterol acyltransferase gene. *Animal Genet* 29:328, 1998.
27. **Huang TH-M**, Perry MR, Laux DE. Methylation profiling of CpG islands in human breast cancer cells. *Hum Mol Genet* 8:459-470, 1999.
28. Laux DE, Curran EM, Welshons WV, Lubahn DB, **Huang TH-M**. Hypermethylation of the Wilms tumor suppressor gene CpG island in human breast carcinomas. *Breast Cancer Res Treatment* 56:35-43, 1999.
29. Yan PS, Rodriguez FJ, Laux DE, Perry MR, Standiford SB, **Huang TH-M**. Hypermethylation of ribosomal RNA genes in human breast carcinoma. *Br J Cancer* 82:514-517, 2000.
30. Yan PS, Perry MR, Laux DE, Asare AS, Caldwell CW, **Huang TH-M.** CpG island arrays: An application toward deciphering epigenetic signatures of breast cancer. *Clin Cancer Res* 6:1432-1438, 2000.
31. Braddock SR, Henley, KM, Potter KL, Nguyen H, **Huang TH-M**. Tertiary trisomy due to a reciprocal translocation of chromosomes 5 and 21 in a five generation family. *Am J Med Genet* 92:311-317, 2000.
*32. Yan PS, **Huang TH-M**. Microarrays: Exploring the system. Molecular Biology Newsletter. MU Molecular Biology Program, pp 2-3, March/April, 2000 (minireview).
33. Ahluwalia A, Yan PS, Bigsby RM, Hurteau JA, Jung SH, **Huang TH-M**, Nephew KP. Analysis of CpG island hypermethylation in human ovarian cancer using differential methylation hybridization. *Gynecol Oncol* 82:261-268, 2001.
*34. **Huang TH-M**, Shi H, Gitan RS, Rahmatpanah F, Yan PS. Analysis of methylation profiles in breast cancer using CpG island microarray. In DNA Methylation and Cancer (Jones PA *et al*., eds). vol 31, pp 28-32. *Princess Takamatsu Cancer Research Symposia*, 2001*.
35. Yan PS, Chen C-M, Shi H, Rahmatpanah F, Wei SH, Caldwell CW, **Huang TH-M**. Dissecting complex epigenetic alterations in breast cancer using CpG island microarrays. *Cancer Res* 61:8375-8380, 2001. (Selected for a platform presentation at the 2001 AACR meeting).
36. Brock G, **Huang TH-M**, Chen C-M, Johnson KJ. A novel technique for the identification of CpG islands exhibiting altered methylation patterns. *Nucleic Acids Res* 29:e123, 2001.
37. Malik K, Yan PS, **Huang TH-M**, Brown KW. Wilms' tumor: a paradigm for the new genetics. *Oncology Res* 12:441-449, 2001.
38. Gitan RS, Shi H, Chen C-M, Yan PS, **Huang TH-M**. Methylation-specific oligonucleotide microarray: A new potential for high-throughput methylation analysis. *Genome Res* 12:158-164, 2002 (Selected for a platform presentation at the 2001 AACR meeting. Selected in the "paper alert" section of the April, 2002 issue of *Current Opinion in Genetics and Development* 12:118).
*39. Yan PS, Wei HS, **Huang TH-M**. Differential methylation hybridization using CpG island arrays. In *Methods in Molecular Biology* (K.I. Mills, ed). Humana Press, vol 200, pp 87-100, 2002.
40. Weinmann AS, Yan PS, **Huang TH-M**, and Farnham, PJ. Isolating human transcription factor targets by coupling ChIP and CpG island microarray analysis. *Genes & Dev* 16:235-244, 2002 (Selected as "hot paper" by *Faculty of 1000*).
41. Powell MA, Mutch, DG, Rader JS, Herzog TJ, **Huang TH-M**, Goodfellow PJ. Ribosomal DNA methylation in patients with endometrial carcinoma. *Cancer* 94: 2941-2952, 2002.
42. Shi H, Yan PS, Chen C-M, Rahmatpanah F, Lofton-Day C, Caldwell CW, **Huang TH-M**. ECIST (Expressed CpG Island Sequence Tag) microarrays for dual screening of DNA hypermethylation and gene silencing in cancer cells. *Cancer Res* 62:3214-3220, 2002. (Selected as a cover art for the issue).

43. Mahamaneerat WK, Shyu, C-R, Harnsomburana J, Yan PS, **Huang TH-M**. Applying data mining and gene selection for cancer research. *Proc 7th Annual Asia Pacific Decision Science Institute (APDSI),* 2002.
44. Wei SH, Chen C-M, Strathdee G, Harnsomburana J, Shyu CR, Rahmatpanah F, Shi H, Ng SW, Yan PS, Nephew KP, Brown R, **Huang TH-M**. Methylation microarray analysis of late-stage ovarian carcinomas distinguishes progression-free survival in patients and identifies candidate epigenetic markers. *Clin Cancer Res* 8:2246-2252, 2002 (The paper was awarded the Roger C. Haggitt Award from AACR for the outstanding presentation in translational science in Pathobiology).
45. Yan PS, Efferth T, Chen H-L, Rodel F, Fuzesi L, **Huang TH-M**. Use of CpG island microarray to identify colorectal tumors with a high degree of concurrent methylation. *Methods* 27:162-169, 2002.
46. Yan PS, Chen C-M, Shi H, Rahmatpanah F, Wei SH, **Huang TH-M**. Applications of CpG island microarrays for high-throughput analysis of DNA methylation. *J Nutrition* 132:2430S-2434S, 2002.
47. Day JK, Bauer AM, desBordes C, Zhuang Y, Kim B-E, Newton LG, Nehra V, Forsee KM, MacDonald RS, Besch-Williford C, **Huang TH-M**, Lubahn DB. Genistein alters methylation patterns in mice. *J Nutrition* 132:2419S-2423S, 2002.
48. Alworth LC, Howdeshell KL, Ruhlen RL, Day JK, Lubahn DB, **Huang TH-M**, Besch-Williford CL, vom Saal FS. Uterine size and DNA methylation are altered by fetal exposure to diethylstilbestrol and methoxychlor in CD-1 mice: Effects of low and high doses. *Tox Applied Pharm* 183:10-22, 2002.
49. Shi H, Maier S, Nimmrich I, Yan PS, Caldwell CW, Olek A, **Huang TH-M.** Oligonucleotide-based microarray for DNA methylation analysis: principles and applications. *J Cellular Biochem* 88:138-143, 2003.
50. Nephew KP, **Huang TH-M**. Epigenetic gene silencing in cancer initiation and progression. *Cancer Letters* 190:125-133, 2003.
51. Wei SH, Brown R, **Huang TH-M**. Aberrant DNA hypermethylation in ovarian cancer: Is there an epigenetic predisposition to drug response? *Ann New York Acad Sci* 983:243-250, 2003.
52. Wells J, Yan PS, Cechvala M, Huang TH-M, Farnham PJ. Identification of novel pRb binding sites using CpG island microarrays. *Oncogene* 22:1445-1460, 2003.
*53. **Huang TH-M,** Plass C, Liang G, Laird PW. Epi meets genomic: Technologies for reading the 5th base. In *The Epigenome. Molecular Seek and Hide* (Beck S, Olek A, eds). Wiley-VCH Verlag GmbH, pp41-63, 2003.
54. Mao DYL, Watson J, Yan PS, Barsyte-Lovejoy D, Khosravi F, Wong WL, Farnham P, **Huang TH-M**, Penn LZ. Analysis of Myc-bound loci identified by CpG island arrays shows that Max is essential for Myc-dependent repression. *Current Biol* 13: 1-20, 2003.
55. Shi H, Wei SH, Leu Y-W, Rahmatpanah F, Liu JC, Yan P, Nephew KP, **Huang TH-M**. Triple analysis of the cancer epigenome: An integrated microarray system for analyzing gene expression, DNA methylation, and histone acetylation. *Cancer Res* 63: 2164-2171, 2003.
56. Chen CM, Chen HL, Hsiau TH-C, Hsiau AH-A, Shi H, Brock G, Wei SH, Caldwell CW, Yan PS, **Huang TH-M**. Methylation target array for rapid analysis of CpG island hypermethylation in multiple tissue genomes. *Am J Pathol* 163: 37-45, 2003.
57. Yang, H, Chen C-M, Yan PS, **Huang TH-M**, Shi H, Maier S, Berlin K, Caldwell CW. The androgen receptor gene is preferentially hypermethylated in follicular non-Hodgkin's lymphomas. *Clin Cancer Res* 9: 4034-4042, 2003. (Selected as the cover art for the issue).
58. Paz MF, Wei HS, Cigudosa JC, Rodriguez-Perales S, Peinado MA, **Huang TH-M**, Esteller M. Massive release of epigenetic gene silencing in a human cancer cell line deficient in DNA methyltransferases. *Hum Mol Genet* 12: 2209-2219, 2003.
59. Yan P, Rahmatpanah F, Shi H, Hsiua T H-C, Hsiau A H-A, Liu JC, Leu YW, **Huang TH-M**. Differential distribution of DNA methylation within the *RASSF*1A CpG island in breast cancer. *Cancer Res* 63:6178-6186, 2003.

60. Leu YW, Rahmatpanah F, Shi H, Liu JC, Wei SH, Yan P, **Huang TH-M**. Double RNA interferences of DNA methyltransferase genes *DNMT1* and *DNMT3b* enhance DNA demethylation and gene reactivation. *Cancer Res* 63:6110-6115, 2003.
61. Ballestar E, Paz MF, Valle L, Wei HS, Fraga MF, Espada J, Cigudosa JC, **Huang TH-M**, Esteller M. Methyl-CpG binding proteins identify novel sites of epigenetic inactivation in human cancer. *EMBO J* 22:6335-6345, 2003.
*62. **Huang TH-M**. Hierarchy of epigenetic networks in cancer genomes. Aceta Oncologica Brasileira 24: 562-564, 2004.
*63. Wei HS, Yip TT-C, Chen C-M, **Huang TH-M**. Identifying clinicopathological association of DNA hypermethylation in cancers using CpG island microarrays. In *DNA Methylation and Cancer Therapy* (Szfy M, ed). Landes Bioscience, pp 106-116, 2004.
64. Kondo Y, Shen L, Yan PS, **Huang TH-M**, Issa J-P J. Chromatin immunoprecipitation microarrays for identification of genes silenced by histone H3 lysine 9 methylation. *Proc Natl Acad Sci USA* 101:7398-7403, 2004.
*65. Shiraishi M, Chan MW-Y, **Huang TH-M**. Microarray analysis of DNA methylation targets identified by methyl-CpG binding proteins. In *DNA Methylation: Approaches, Methods, and Applications* (Esteller M, ed) CRC Press, pp73-84, 2004.
66. Waha A, Rodrigues FJ, Waha A, Puttlitz-Meyer B, Cavenee WK, **Huang TH-M**, Wiestler OD, Yan PS. Methylation profiling identifies epigenetic markers for high-grade gliomas. *Cancer Genomics Proteomics* 1: 209-214, 2004.
67. Yan PS, Wei HS, **Huang TH-M**. Methylation-specific oligonucleotide microarray. *Methods Mol Biol* 287:251-260, 2004.
68. Balch C, **Huang TH-M**, Brown B, Nephew KP. The epigenetics of ovarian cancer drug resistance and resensitization. *Am J Obs Gyn* 191: 1552-1572, 2004.
69. Leu YW, Yan PS, Jin VX, Liu JC, Curran EM, Welshons WV, Wei SH, Davuluri RV, Plass C, Nephew KP, **Huang TH-M**. Loss of estrogen receptor signaling triggers epigenetic silencing of downstream targets in breast cancer. *Cancer Res* 64: 8184-8192, 2004.
70. Jin VX, Leu YW, Liyanarachchi S, Sun, H, Nephew KP, **Huang TH-M**, Davuluri RV. An integrated computational genomics approach to identify ERα target genes via chromatin immunoprecipitation microarray data. *Nucleic Acids Res* 32:6627-6635, 2004.
71. Waha A, Guntner S, **Huang TH-M**, Yan PS, Arslan B, Pietsch T, Wiestler OD, Waha A. Epigenetic silencing of *PCDH-γ-A11* in astrocytomas. *Neoplasia* 7:193-199, 2005.
72. Sung J, Turner J, McCarthy S, Enkemann S, Li GC, Yan PS, **Huang TH-M**, Yeatman TJ. Oncogene regulation of tumor suppressor genes in tumorigenesis. *Carcinogenesis* 26:487-494, 2005.
73. Balch K, Montgomery JS, Paik H-I, Kim S, **Huang TH-M**, Nephew KP. New anti-cancer strategies: epigenetic therapies and biomarkers. *Frontier in Biosciences* 10: 1897-1931, 2005.
74. Li L, Shi H, Yiannoutsos C, **Huang TH-M**, Nephew KP. Epigenetic hypothesis tests for methylation and acetylation in a triple microarray system. *J Computational Biol* 12: 370-390, 2005.
75. Testa A, Donati G, Yan PS, Romani F, **Huang TH-M,** Vigano MA, Mantovani R. ChIP on chip experiments uncover a widespread distribution of NF-Y binding CCAAT sites outside of core promoters. *J Biol Chem* 280: 13606-13615, 2005.
76. van Doorn R, Zoutman WH, Dijkman R, de Menezes RX, Commandeur S, Mulder AA, van der Velden PA, Vermeer MH, Willemze R, Yan PS, **Huang TH-M**, Tensen CP. Epigenetic profiling of cutaneous T cell lymphoma: Promoter hypermethylation of multiple tumor suppressor genes including BCL7a, PTPRG, and p73. *J Clin Oncol* 23:1-11, 2005.
77. Heisler L, Torti D, Boutros P, Watson J, Chan C, Winegarden N, Takahashi M, Yan PS, **Huang TH-M**, Farnham P, Woodgett J, Bremner R, Penn L, Der S. CpG island microarraY probe sequences derived from a physical library are representative of CpG Islands annotated on the human genome. *Nucleic Acids Res* 33: 2952-2961, 2005.
78. Rodriguez BAT, **Huang TH-M.** Tilling the chromatin landscape: Emerging methods for the discovery and profiling of protein-DNA interactions. *Biochem Cell Biol* 83:525-534, 2005.

79. Guo J, Burger M, Nimmrich I, Maier S, Becker E, Genc B, Duff D, Rahmatpanah F, Chitma-Matsiga R, Shi H, Berlin K, **Huang TH-M**, Caldwell CW. Differential DNA methylation of gene promoters in small B-cell lymphomas. *Am J Clin Pathol* 124: 430-439, 2005.
80. Chan MWY, Wei SH, Wen P, Wang Z, Liu JC, Liyanarachchi S, Brown R. Nephew KP, Yan PS, **Huang TH-M**. Hypermethylation of 18S and 28S ribosomal DNAs predicts progression-free survival in patients with ovarian cancer. *Clin Cancer Res* 11: 7376-7383, 2005.
81. Jin VX, Sun H, Pohar TW, Liyanarachchi S, Palaniswamy SK, **Huang TH-M**, Davuluri RV. ERTargetDB: An integrated information resource of transcription regulation of ERα target genes. *J Mol Endocrinol* 35: 225-230, 2005.
82. Balch C, Yan PS, Craft T, Young S, Huang TH-M, Skalnik D, Nephew KP. Antimitogenic and chemosensitizing effects of the methylation inhibitor Zebularine in ovarian cancer. *Mol Cancer Ther* 1505-1514, 2005.
83. Brena RM, **Huang TH-M,** Plass C. Quantitative assessment of DNA methylation: potential applications for disease diagnosis, classification, and prognosis in clinical settings. *J Mol Med* 17: 1-13, 2006.
84. Sun H, Palaniswamy S, Pohar T, Jin V, **Huang TH-M**, Davuluri RV. MPromDb: An integrated resource for annotation and visualization of mammalian gene promoters and ChIP-chip experimental data. *Nucleic Acids Res* 34: D98-103, 2006.
85. Felsberg J. Yan PS, **Huang TH-M**, Milde U, Schramm J, Wiestler OD, Reifenberger G, Pietsch T, Waha A. Epigenetic and structural alterations on chromosome 14q in oligodendroglical tumors (in press).
86. Cheng ASL, Jin VX, Yan PS, Fan M, Leu Y-W, Chan MWY, Plass C, Nephew KP, Davuluri RV, **Huang TH-M**. Combinatorial analysis of transcription factor partners reveals recruitment of c-MYC to estrogen receptor-α responsive promoters. *Mol Cell* 21: 1-12, 2006.
87. Park J, Brena RM, Gruidl M, Zhou J, **Huang TH-M**, Plass C, Tockman MS. CpG island hypermethylation profiling of lung cancer using restriction landmark genomic scanning (RLGS) analysis. *Cancer Biomarkers* 1: 193-200, 2006.
*88. Leu YW, Cheng ASL, **Huang TH-M.** Use of CpG island microarray to interrogate the cancer epigenome. In *Promoter and CpG island Microarrays* (Winegarden NA, Takashi M, eds). DNA Press, 2006.
89. Wei SH, Paik HH, Balch C, Kim Y-S, Baldwin RL, Liyanarachchi S, Li L, Wang Z, Wan JC, Davuluri RV, Karlan BY, Brown R, Kim S, **Huang TH-M**, Nephew KP. Prognostic DNA methylation biomarkers in ovarian cancer. *Clin Cancer Res* 12:2788-2794, 2006.
90. Abbosh PH, Montgomery JS, Starkey JA, Novotny M, Zuhowski EG, Egorin MJ, Park AK, Golas A, Brannon KM, Balch C, **Huang TH-M**, Nephew KP. Dominant negative histone H3 lysine 27 mutant derepresses silenced tumor suppressor genes and reverses the drug-resistant phenotype in cancer cells. *Cancer Res* 66:5582-5592, 2006.
91. Hu CJ, Chen SD, Yang DI, Lin TN, Chen CM, **Huang TH-M**, Hsu CY. Promoter region methylation and reduced expression of thrombospondin-1 after oxygen-glucose deprivation in murine cerebral endothelial cells. *J Cereb Blood Flow Metab* (Epub ahead of the print) 2006.
92. Beima KM, Miazgowicz MM, Lewis MD, Yan PS, **Huang TH-M**, Weinmann AS. Identification of promoter regions bound by T-bet in distinct immune system cell types. *J Biol Chem* (in press).
93. Wu JJ, Smith LT, Plass C. **Huang TH-M**. ChIP-chip comes of age for genome-wide functional analysis. *Cancer Res* (in press).
94. Lang L, Cheng ASL, Jin VX, Paik HH, Fan M, Li X, Zhang W, Robarge J, Balch C, Davuluri RV, Kim S, **Huang TH-M**, Nephew KP. A mixture model based discriminate analysis for identifying ordered transcription factor binding site pairs in gene promoters directly regulated by estrogen receptor-α. *Bioinformatics* (in press).
95. Yan PS, Chinnambally V, Ibrahim A, Liu JC, Diaz N, Centeno B, Weber F, Leu YW, Eng C, Yeatman TJ, **Huang TH-M**. Mapping geographical zones of risk in breast cancer by epigenetic biomarkers. *Clin Cancer Res* (in press).

96. Zuo T, Chang X, Zhang H, Liu X, Chan MYW, Liu Y, Wang Y, Wang L, Liu JQ, Godfrey V, Morrison C, Shen RL, **Huang TH-M**, Zheng P, Liu Y. FOXP3 is an X-linked breast cancer suppressor and an important repressor of HER2/ErbB2 oncogene. *Cell* (submitted).
97. Cheng ASL, Lin H-J, **Huang TH-M**. Interrogating estrogen receptor α signaling in breast cancer by chromatin immunoprecipitation microarrays (book chapter, submitted).
98. Kondo Y, Shen L, Cheng A, Ahmed S, Boumber Y, Charo C, Yamochi T, Urano T, Furukawa K, **Huang TH-M**, Issa J-PJ. Gene silencing in cancer by EZH2 mediated histone H3 lysine 27 trimethylation. *Nature Genet* (under revision).
99. Fan M, Yan PS, Hartman-Frey C, Chen L, Paik H, Abbosh P, Cheng ASL, Li L, **Huang TH-M**, Nephew KP. Diverse gene expression and DNA methylation profiles correlate with differential adaptation of breast cancer cells to endocrine resistance. *Cancer Res* (submitted)
100. Wang Z, Yan PS, Potter D, Eng C, **Huang TH-M**, Lin S, DNA methylation as a molecular relic to recapitulate breast cancer progression. *BMC Bioinformatics* (submitted).
101. Sasser AK, Smith KM, Studebaker AW, Axel AE, Haidet A, Mundy B, Lin J, **Huang TH-M**, Chan MWY, Caldas H, Marini FC, Hall BM. Fibroblasts from tissue associated with breast cancer metastasis enhance breast cancer cell growth. *Nature Biotechnology* (submitted).
102. Zighelboim I, Goodfellow PJ, Schmidt A, Walls KC, Mallon MA, Mutch DG, Yan PS, **Huang, TH-M**, Powell MA. Differential methylation hybridization array of endometrial cancers reveals two novel cancer specific methylation markers. *Clin Cancer Res* (submitted).
103. Estécio MRH, Gharibyan V, Shen L, Ibrahim AEK, Doshi K, He R, Jelinek J, Yang AS, Yan PS, Huang TH-M, Tajara EH, Issa JP. LINE-1 hypomethylation in cancer is highly variable and inversely correlated with the CpG island methylator phenotype (submitted).

B. Active Grant

10/01/04-09/30/09 NIH/NCI 1P50 CA 113001-01
Title: Interrogating Epigenetic Changes in Cancer Genomes
PI: Tim H.-M. Huang, Ph.D. (33% effort)
Total direct costs: $6,454,615

The center grant (consisting of 4 projects and 3 core facilities) will use microarray-based and bioinformatics approaches to analyze altered epigenome in ovarian and breast cancers.

08/01/02-07/31/06 NIH/NCI 2 RO1 CA 069065-07
Title: DNA Hypermethylation in Breast Cancer
PI: Tim H-M Huang, Ph.D. (20% effort)
Total direct costs: $712,000

The goal of the project is to conduct a genome-wide survey of aberrantly methylated CpG islands in primary breast tumors. Functional characterization of methylation-controlled tumor suppressors will be analyzed in vitro.

05/01/02-04/30/06 NIH/NCI 1 R21/R33 CA 094441-02
Title: Novel Tool for Analysis of Promoter Hypermethylation
PI: Tim H-M Huang, Ph.D. (15% effort)
Total direct costs: $995,193

The goal of this project is to develop a new microarray panel of short oligonucleotides, i.e., methylation-specific oligonucleotide microarray, for analysis of aberrant DNA methylation in cancer.

10/01/04-09/30/06 NIH/NCI 1 R21/R33 CA110475-01
Title: Epigenetic Biomarkers for Ovarian Cancer Progression
PI: Tim H.-M. Huang, Ph.D. (R21: 10% effort; R33: 20% effort)
Total direct costs: $1,121,184 ($200,000 for the R21 phase)

The goal of this project is to identify a panel of 5-20 DNA methylation biomarkers that have high levels of clinical sensitivity and specificity for predicting prognosis and disease relapse of ovarian cancer patients in a multi-center cohort.

08/01/02-07/31/05 NIH/NCI 1 RO1 CA 085389-02
Title: DNA Methylation and Ovarian Cancer
PI: Kenneth P. Nephew, Ph.D.
Co-I: Tim H-M Huang, Ph.D. (3% effort)
Total direct costs (subcontract): $93,664 to Dr. Huang's lab

One of the objectives is to identify aberrantly methylated CpG island loci based on differential methylation hybridization (DMH).

01/06/04 to 05/31/07 NIH/NCI 1 RO1 CA 105331-01
Reactivation of Methylation Silenced Genes by Polyphenols
PI: C. S. Yang, Ph.D.
Co-I: Tim H.-M. Huang, Ph.D. (5% effort)
Total direct costs (subcontract): $312,974 to Dr. Huang's lab

The goal of this project is to analyze cancer prevention activity of tea polyphenols through targeting DNA methylation and other epigenetic pathways.

05/01/04-04/30/06 Department of Defense
Gynecological Cancer Center for Health Disparities
PI: J. Fowler, M.D.
Co-I: Tim H.-M. Huang (3% effort)
Total direct costs: $567,218 (Direct cost for Dr. Huang's lab is $29,738.)

The goal of this project is to analyze methylation profiles by microarray in endometrial tumors of African Americans

D. Previous Grants

2003 - 2004 NIH/NCI Early Detection Research Network Subcontract
Title: Lung Collaborative Group Hypermethylation Consortium
PI: M. Tockman, M. D. Co-I: Tim H-M Huang. Direct costs (subcontract): $30,825

2003 - 2004 MBCG - OSU Research Grant
DNA methylation as a Therapeutic Target in Chronic lymphocytic leukemia
PI: Tim H-M Huang. Direct costs: $25,000

2000 - 2002 Epigenomics, Inc. "Simultaneous Analysis of Expression and Methylation Profiles of Genes in Cancer Using ECIST Microarray" P.I. Tim H.-M. Huang. Direct costs: $150,663.

1997 - 2002 NLM/National Institute of Health. T15 LM07089. "University of Missouri Medical Informatics Research Training Program" P.I. J. Hales. Co-P.I. Tim H.-M. Huang (5% effort). Direct costs: $2,320,272.

2001	“An application toward deciphering epigenetic signature of breast cancer” Cancer Research Center, Columbia. P.I. Tim H.-M. Huang. Direct costs: $25,000 (support one postdoctoral fellow’s stipend).
1998 - 2001	Department of Defense Breast Cancer Research Program. DAMD17-98-1-8214. “Epigenetic Changes of DNA Methylation in Breast Cancer” P.I. Tim H.-M. Huang (20% effort). Direct costs: $210,000.
1996 - 2001	NCI/National Institute of Health. R29 CA-69065 "DNA Hypermethylation in Breast Cancer." P.I. Tim H.-M. Huang (50% effort). Direct costs: $349,998.
1999 – 2000	Gynecologic Oncology Group/National Institute of Health CA 27469-18. “Profiles of methylated genes in ovarian cancer” P.I. Kenneth P. Nephew. Co-P.I.Tim H.-M. Huang (3% effort). Direct costs (subcontract): $50,000.
1993 - 1998	NCI/National Institute of Health. “Cancer and Leukemia Group B.” P.I. Michael C. Perry. Co-P.I. Tim H.-M. Huang (2% effort). Direct costs: $1,000,078.
1994 - 1996	Research Board, University of Missouri. "Fuzzy Logic Analysis of Genetic Images of Cancer Cells." P.I. James Keller. Co-P.I. Tim H.-M. Huang (2% effort). Direct costs: $33,100.
1993 - 1995	Research Board, University of Missouri. "Mapping of Tumor Suppressor Genes in Breast Cancer." P.I. Tim H.-M. Huang. Direct costs: $44,500.
1992 - 1993	Research Council, University of Missouri School of Medicine. "High-resolution Genetic Mapping of Human Chromosome 18." P.I. Tim H.-M. Huang. Direct costs: $7,500.
1992 – 1993	Children's Miracle Network Telethon. "Molecular Diagnosis of Fragile X Syndrome." P.I. Tim H.-M. Huang. Direct costs: $6,000

E. Patent and Invention

1. High-throughput methods for detecting DNA methylation, U.S. Patent Serial No. 6,605,432 (Issued on August 12, 2003).

2. U.S. Patent Application: ECIST microarray for dual analysis of expression and DNA methylation. U.S. Patent Application Serial No. 03/11598 (pending). International patent application WO 03/087774 A2

3. U.S. Patent Application: ECIST microarray for dual analysis of expression and DNA methylation. U.S. Patent Application Serial No. 03/11598 (pending).

4. Internal Patent Application: DMC-1 and DMC-2 PCT/GB2003/001818 (pending).

F. Research Seminar/Meeting Presentations

1. "Retinol-regulated gene expression in conducing airway epithelial cells" FASEB symposium, Las Vegas, 1988.

2. "Chromosome banding" Baylor College of Medicine, Houston, 1990.
3. "Chromosome mosaicism in prenatal diagnosis," Baylor College of Medicine, Houston, 1990.
4. "Short tandem repeats in human genome," University of California, Davis, 1991.
5. "Linkage analysis of X-linked mental retardation loci using microsatellites," University of Colorado Health Sciences Center, Denver, 1991.
6. "Chromosome *in situ* hybridization and its applications to clinical diagnosis," University of Missouri College of Veterinary Medicine, Columbia, 1992
7. "Short tandem repeat sequences in the human genome," University of Missouri School of Medicine, Columbia, 1994.
8. "Genetic alterations in human breast cancer," Genetic Area program, University of Missouri, Columbia, December 1994.
9. "Applications of fluorescence *in situ* hybridization to solid tumor," University of Missouri School of Medicine, Columbia, December 1994.
10. "Gene mapping and its application to clinical diagnosis -I & II," University of Missouri College of Veterinary Medicine, Columbia, April 1995.
11. "Genetic approaches to the identification of tumor suppressor genes in human cancer," University of California, Davis, March 1996.
12. "DNA methylation in breast cancer," Karmanos Cancer Institute, Detroit, March 1998.
13. "Methylation profiling in breast and ovarian cancer," Indiana University-Bloomington, IN, December 1999.
14. "Epigenetic alterations in cancer," Indiana University Comprehensive Cancer Center, Indianapolis, IN, December 1999.
15. "An application toward deciphering epigenetic signatures of breast cancer using CpG island arrays," DoD Era of Hope Meeting, Atlanta, June 2000.
16. "High-throughput methylation analysis using CpG island microarray," NCI Innovative Molecular Analysis Meeting, Chantilly, Virginia, July 2000.
17. "Analysis of methylation profiles in breast cancer using CpG island array," The 31st International Symposium of the Princess Takamatsu Cancer Research Fund, Tokyo, Japan, November 2000.
18. "Analysis of DNA methylation profiles using CpG island microarray," University of Pennsylvania, April 2001.
19. "Epigenetic alterations in breast cancer," MU Oncology Conference, Lake Ozark, April 2001.
20. "Dissecting complex epigenetic alterations using CpG island microarray" Washington University, St. Louis, July 10, 2001.
21. "The nuts and bolts of DNA methylation analysis," NIH workshop: Diet, DNA Methylation Processes and Health, Bethesda, August 6-9, 2001.
22. "The nuts and bolts of DNA methylation analysis," Vysis Inc., Chicago, August 22, 2001.
23. "DNA methylation and cancer," Genetic Area Program, University of Missouri, Columbia, September 8, 2001.
24. "Technologies for the identification of DNA methylation markers in cancer," NIH Workshop: Early Detection Research Network, Bethesda, December 3-4, 2001.
25. "Clinicopathologic consequences of DNA methylation in cancer," Moffitt Cancer Center, Tampa, FL, May 7, 2002.
26. "Complex patterns of DNA methylation in cancer," CNIO Cancer Conference, Madrid, Spain, Cancer Epigenetics: DNA Methylation and Chromatin, May 29-31, 2002.
27. "Epigenetic silencing of gene expression in cancer," University of Cincinnati Genome Institute, June 17-18, 2002.
28. "Triple analysis of DNA demethylation, histone acetylation, and gene expression in cancer cells using CpG island microarray," IMAT Meeting, Chantilly, Virginia, July 9,2002
29. "Epigenetic regulation of gene silencing in cancer," The 70th annual meeting of Japanese Biochemical Society, Kyoto, Japan, October 14, 2002.
30. "Epigenetic regulation of gene silencing in cancer," National Cancer Center Research Institute, Tokyo, October 17, 2002.

31. “Epigenetic gene silencing in cancer,” Ohio State University, Columbus, November 11, 2002.
32. “Dissecting complex epigenetic profiles in beast cancer using microarray,” Medical College of Wisconsin, Milwaukee, November 14, 2002.
33. “Define epigenetic signatures of cancer using CpG island microarrays,” The Kadoorie Workshop for “High-throughput genomic analysis in cancer,” Hong Kong, December 17, 2002.
34. “Dissecting epigenetic networks in cancer genomes,” Indiana University-Bloomington, IN, April 18, 2003.
35. “Dissecting epigenetic networks in cancer genomes,” Department of Human Genetics, UCLA, May 5, 2003.
36. “Using epigenomic microarrays to uncover the hierarchy of gene expression," NIH Genomic Microarrays Workshop, Bethesda, June 5, 2003.
37. “Diagnostic arrays for epigenetic markers,” The 18th ASPEN Cancer Conference, Aspen, CO, July 22, 2003.
38. “Hierarchy of epigenetic networks in cancer genome,” Symposium for the 50th Anniversary of the Cancer Hospital AC Camargo, Sao Paulo, Brazil, August 20-24, 2003.
39. “Epigenetic repression and heterochromatin,” Journal Club, HCG, September 18, 2003.
40. “DNA methylation and chromatin remodeling” Seoul National University College of Medicine, Korea, September 26, 2003 (Dr. Pearlly Yan represented me to give a talk.).
41. “Dissecting epigenetic networks in cancer genomes,” Department of Human Genetics, Emory University, October 20, 2003.
42. “Epigenetic techniques for tumor interrogation,” CLL SCORE meeting, OSUCCC, November 14, 2003.
43. “Epigenetic alteration in ovarian cancer,” Gynecologic Oncology Retreat, OSUCCC, November 19, 2003.
44. “DNA methylation as cancer biomarker,” Journal Club, HCG, September 18, 2003. December 14, 2003.
45. “Epigenome research in cancer,” OSU Mathematical Biology Institute, January 15, 2004.
46. “DNA methylation as molecular relics in gene silencing,” Rutgers University, February 11, 2004.
47. “Chromatin landscaping techniques,” The OSUCCC Placenta Program Project Planning, April 7, 2004.
48. “DNA methylation as molecular relics in gene silencing,” The MBCG program, OSU, May 5, 2004.
49. “The nuts and bolts of epigenome analysis,” Veterinary Medicine, OSU, June 1, 2004.
50. “Use of CpG island microarray from epigenome analysis,” The 51st Annual meeting of the Radiation Research Society, St. Louis, April 25, 2004.
51. “Diagnostic use of CpG island microarray” IMAT Meeting, San Diego, June 2004.
52. “Microarray-based analysis of the epigenome,” University of Connecticut, August 31, 2004.
53. “Use of systems approach to interrogate cancer epigenomes,” Roswell Park Cancer Institute 6th Annual Symposium on Oncological Sciences, September 9-10, 2004.
54. “DNA methylation as biomarkers for ovarian cancer progression’” Glasgow Ovarian Cancer Conference, October 15-16, 2004 (gave two presentations).
55. “Use of CpG island microarray to interrogate cancer epigenome,” Gordon Research Conference, Santa Barbara, January 16-21, 2005.
56. “Systems approach to interrogate cancer epigenome,” NCI ICBP Meeting, Berkeley, May 15-18, 2005.
57. “Methylation profiling of hormone-insensitive breast cancer,” Gordon Research Conference, South Hadley, July 10-15, 2005.
58. “Epigenetic regulation of estrogen signaling in breast cancer,” Society for the Study of Reproduction, Quebec City, July 24-27, 2005.
59. “Use of systems biology approaches to interrogate cancer epigenome,” Tunghai University, Taiwan, October 31, 2005.
60. “Use of systems biology approaches to interrogate cancer epigenome,” Cheng-Kung University, Taiwan, November 1, 2005.

61. "Use of systems biology approaches to interrogate cancer epigenome," Chung-Hsing University, Taiwan, November 2, 2005.
62. "Use of systems biology approaches to interrogate cancer epigenome," Chung-Cheng University, Taiwan, November 3, 2005
63. "Use of systems biology approaches to interrogate cancer epigenome," Chang-Gung University, Taiwan, November 4, 2005.
64. "Complex epigenetic control of estrogen signaling," International Symposium on Genome-Wde Epignetics, Tokyo, November 9, 2005.
65. "Interrogating cancer genome using a large-scale systems approach," University of Tokyo, November 10, 2005.
66. "Complex epigenetic control of estrogen signalome, MVIMG seminar, OSU, November 17, 2005
67. "Epigenetic progenitor origin of human cancer," Epigenetic Journal Club, OSU, January 19, 2006.
68. "Defining epigenetic signatures of cancer genomes using CpG island microarray," UC Davis Cancer Center, March 2, 2006.
69. "Complex epigenetic control of estrogen signalome," UC Davis Genome Center, March 3, 2006.

IX. Services

A. Clinical Cytogenetics

1991-2003: Director of Clinical Cytogenetics Laboratory, University of Missouri Health Sciences Center. Reviewed and signed a total of 12,000 clinical cytogenetic reports.

B. Grant Review and Site Visit

2006	Site Visit, NIH/NCI Intramural Program, Laboratory of Population Genetics
2006	Reviewer, NIH Study Section – Cancer Genetics
2006	Reviewer, NIH Study Section – Cancer Genetics
2005	Reviewer, NIH Study Section – Cancer Genetics
2005	*Ad Hoc* Reviewer, DOD Era of Hope Scholar Award
2005	*Ad Hoc* Reviewer, OSU T-32 Training Grant
2005	*Ad Hoc* Reviewer, NIH Study Section – Colorectal Cancer PO1
2005	*Ad Hoc* Reviewer, NIH Study Section – Cancer Sample Preparation
2005	*Ad Hoc* Reviewer, NIH Study Section – Cancer Genetics
2004	*Ad Hoc* Reviewer, NIH Study Section – UO1, Early Cancer Detection
2004	*Ad Hoc* Reviewer, OSU T-32 Training Grant
2004	*Ad Hoc* Reviewer, NIH Study Section – NCI-I KO8, K22, KO1, and T-32
2004	Austrian Science Fund
2004	*Ad Hoc* Reviewer, NIH Study Section – SPORE program Head and Neck Cancer
2003	*Ad Hoc* Reviewer, NIH Study Section – Head and Neck RFA (RO1)
2003	International Union Against Cancer
2003	Site Visit, NIH/NCI Program Project – Burnham Institute (PO1)
2003	Site Visit, NIH/NCI Intramural Program, Laboratory of Population Genetics
2003	*Ad Hoc* Reviewer, NIH Study Section – Innovative Technology for the Molecular Analysis of Cancer
2002	Biomedical Research Council, Singapore
2002	*Ad Hoc* Reviewer, NIH Study Section – Innovative Technology for the Molecular Analysis of Cancer
2002	Austrian Science Fund
2002	*Ad Hoc* Reviewer, NIH Study Section – Head and Neck SPORE
2001	The UK Cancer Research Campaign

2001	Fleur-de-Lis Foundation for Medical Research
2001	*Ad Hoc* Reviewer, NIH Study Section – Innovative Technology for the Molecular Analysis of Cancer
1998	Children's Miracle Network Telethon
1998	MU Research Board

C. *Ad Hoc* Journal Reviewer (15-20 per year since 2000)

Nature Genetics
Nature Cancer Reviews
Nature Method
Proceedings of the National Academy of Sciences, USA
Cancer Research
Clinical Cancer Research
Breast Cancer Research
Molecular Cellular Biology
Molecular Cancer Research
Oncogene
The Oncologists
Biochemistry and Cellular Biology
Cancer Chemotherapy and Pharmacology
Cancer Genomics and Proteomics
Human Molecular Genetics
Carcinogenesis
Cancer Letters
Nucleic Acids Research
Genome Research
Endocrine-Related Cancer
International Journal of Cancer
American Journal of Pathology
BioTechniques
FEBS
Acta Biotheoretica
Investigative Ophthalmology & Visual Science

D. Committee, Consultant, Editorial board, and Meeting Organizer

2006 - present	Co-chair, Departmental Promotion and Tenure Committee
2006 - present	External Scientific Advisor, NCI Bioengineering Research Partnership – MIT and Tel Aviv University
2006 - present	Associate Editor, *Cancer Informatics*
2006 - present	Editorial Board, *Translational OncoGenomics*
2004 - present	Member, Mathematic Biosciences Institute Advisory, OSU
2004 - present	Member, Departmental Promotion and Tenure Committee
2004 - present	Chair, Steering Committee, Center for Integrated Cancer Biology, OSU
2004 - present	Board of Directors, DNA Methylation Society
2004 - present	Associate Editor, *Cancer Research*
2003 - present	Editorial Board, *Cancer Genomics and Proteomics*
2000 - present	Consultant, Epigenomics, Inc.
2006	Clinical Data Working Group, The Cancer Genome Atlas Project Data Release Workshop
2006	Chair, Session II: Modeling Epigenetics. NIH ICBP Workshop, Nashville
2006	Chair, Program Committee of the 8th OSUCCC Scientific Meeting

2006	Session Chair, Integrative Cancer Biology Meeting, Nashville
2004 - 2005	Organizer, Departmental Faculty Seminar, OSU
2004 - 2005	Organizing committee, the 2005 Annual Meeting of the American Association for Cancer Research, Anaheim, CA
2004	Gynecologic Oncology Search Committee, Department of Obstetrics and Gynecology, OSU
2000 - 2004	Managing Editor, *Fromtiers in Bioscience*
2004	Organizer, Human Cancer Genetics Program Weekly Seminar, OSU
2004	Organizing committee, 17th International Conference of Anticancer Research, Cofu, Greece
2004	NIH/NCI workshop: head and neck cancer etiology and biology: Research Directions and therapeutic opportunities
2003	Organizing committee, NIH/NCI, Promoter microarray workshop
2002 - 2003	Research Council, School of Medicine, University of Missouri-Columbia
2001 - 2003	Consultant, Council of Healthcare Advisors, Gerson Lehrman Group
2002	The Foundation for Promotion of Cancer Research Fellowships, Japan
2002	Search Committee for the Bioinformatics Faculty Position, Department of Veterinary Pathobiology, University of Missouri-Columbia
2001	Co-Chair, Session III: Development of technology for high-throughput assays. NIH Workshop: Epigenetics in Cancer Prevention
2001	Consultant, Vysis, Inc.
2001	Program Committee, Trans-HHS NIH Workshop: Diet, DNA Methylation Process and Health
2000	Chairperson, Poster discussion section, “DNA Methylation and Epigenetic Silencing”, The 91st Annual Meeting of the American Association for Cancer Research, San Francisco, CA
1999	Chairperson, Search Committee for the Director of Molecular Pathology, Department of Pathology and Anatomical Sciences, University of Missouri-Columbia
1999	DNA Microarray Committee, University of Missouri-Columbia
1999 - 2001	Board of Directors, DNA Methylation Society
1999	Advisor, Tumor Biology Laboratory, Ellis Fischel Cancer Center, Columbia, MO
1995 - 1998	Research Council, School of Medicine, University of Missouri-Columbia

7/2006