

**BIOGRAPHICAL SKETCH**

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NAME <b>Bert Gold</b>	POSITION TITLE <b>Staff Scientist</b>
eRA COMMONS USER NAME <b>GOLDBE</b>	

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Washington University, St. Louis, Missouri	A.B.	1976	Biology
Tufts University, Medford, Massachusetts	Ph.D.	1981	Developmental Biology
Harvard Medical School and Dana Farber Cancer Inst.	Post-doctoral	1982-3	Molecular Virology
The Biological Laboratories, Harvard University	Post-doctoral	1983-85	Plant Molecular Biology
University of California, San Francisco, California	Fellow	1995-96	Pediatric Genetics

**Professional Experience**

- 1975-1976 Undergraduate Research Assistant, Cancer Biology Section, Mallinckrodt Institute of Radiology, Washington University Medical Center, St. Louis, Missouri
- 1976-1977 Research Technician, The Jewish Hospital of St. Louis, St. Louis, Missouri
- 1977-1981 Graduate Fellow, Tufts University, Medford, Massachusetts
- 1982-1983 Research Fellow, Department of Pathology, Harvard Medical School, Boston, Massachusetts
- 1983-1985 Post-Doctoral Fellow, Dept. of Cell and Developmental Biology, The Biological Laboratories, Harvard University, Cambridge, Massachusetts
- 1985-1987 Tutor in Biology, Lowell House, North House, and The Biological Laboratories, Harvard University, Cambridge, Massachusetts
- 1985-1989 Instructor, Harvard University Extension, Cambridge, Massachusetts
- 1986-1987 Research Scientist, BioTechnica International, Inc., Cambridge, Massachusetts
- 1987-1989 Senior Research Scientist, American Bio-Technologies, Inc., Cambridge, Massachusetts
- 1990-1993 Supervisor, Biochemical and Molecular Genetics Laboratory, University of Medicine and Dentistry of New Jersey, Camden, New Jersey
- 1993-1995 Assistant Professor, Department of Pathology and Laboratory Medicine and Fels Institute for Cancer Research, Temple University School of Medicine, Philadelphia, Pennsylvania
- 1994-1995 Adjunct Assistant Professor, Department of Pathology and Cell Biology, Jefferson Medical College, Thomas Jefferson University, Philadelphia, Pennsylvania
- 1995-1996 Visiting Scientist, Department of Pediatrics, Division of Medical Genetics, University of California, San Francisco, School of Medicine, San Francisco, California
- 1997-2000 Research Manager, SmithKline Beecham Clinical Laboratories, Van Nuys, California
- 2000-2003 Research Fellow, Human Genetics Section, Laboratory of Genomic Diversity, The National Cancer Institute at Frederick, Frederick, Maryland
- 2003-2006 Chair, Frederick Forum on Bioinformatics and Chemoinformatics, Fort Detrick, Maryland
- 2003-2007 Staff Scientist, Human Genetics Section, Laboratory of Genomic Diversity, The National Cancer Institute at Frederick, Frederick, Maryland
- 2007-present Staff Scientist, Human Genetics Section, Laboratory of Experimental Immunology, Cancer and Inflammation Program, The National Cancer Institute at Frederick, Frederick, Maryland

**Awards and Honors**

- 1976 Dean's List, Washington University, St. Louis
- 1978 Elected to membership in Sigma Xi at Tufts University, Medford, Massachusetts
- 1983-85 NIH Individual NRSA Postdoctoral Fellowship at Harvard University
- 1986 Invited Participant, Roundtable in Biotechnology, Harvard Business School
- 1986 Invited Speaker, MIT Enterprise Forum, Sloan School of Management, MIT
- 1991 Research Award, Southern New Jersey Chapter, March of Dimes Birth Defects Foundation
- 1991 Fellowship Supplement, Foundation of UMDNJ, Newark, NJ
- 1993 Summer Investigator, Marine Biological Laboratory, Woods Hole, Massachusetts

### Awards and Honors (continued)

- 1996 NIH National Research Service Award at UCSF  
1999 Bronze Impact Award, Quest Diagnostics, Van Nuys, California  
2001 Elected Ph.D. Fellow, American College of Medical Genetics  
2002 Technology Transfer Award, NIH  
2006 NCI Director's Intramural Innovation Award, Career Development Award, NCI,

### Publications -- REFEREED

1. Gold, B. and Hecht, N.B. (1981) Differential Compartmentalization of Messenger Ribonucleic Acid in Murine Testis. *Biochemistry* 20, 4871-4877.
2. Stern, L.; Gold, B. and Hecht, N.B. (1983) Gene Expression During Mammalian Spermatogenesis I. Evidence for Stage-Specific Differences in mRNA Polypeptides In Vivo. *Biology of Reproduction* 28, 483-496.
3. Gold, B.; Stern, L.; Bradley, F.M.; and Hecht, N.B. (1983) Gene Expression During Mammalian Spermatogenesis II. Evidence for Stage-Specific Differences in mRNA Populations. *Journal of Experimental Zoology* 225, 123-134.
4. Stern, L.; Kleene, K.C.; Gold, B. and Hecht, N.B. (1983) Gene Expression During Mammalian Spermatogenesis III. Changes in Populations of mRNA During Spermatogenesis. *Experimental Cell Research* 143, 247-255.
5. Gold, B.; Fujimoto, H.; Kramer, J.M.; Erickson, R.P.; and Hecht, N.B. (1983) Haploid Accumulation and Translational Control of Phosphoglycerate Kinase-2 Messenger RNA During Mouse Spermatogenesis. *Devel Biol* 98, 392-399.
6. Gold, B.; Carrillo, N.; Tewari, K.K. and Bogorad, L. B. (1987) Nucleotide Sequence of a Preferred Maize Chloroplast Genome Template for in vitro DNA Synthesis. *Proceedings of the National Academy of the Sciences, USA*, 84, 194-198.
7. Gold, B. and McCormack, M.K. (1993) FORTRAN Program Interpretation of the Triple Screen Prenatal Blood Test. *Biotechnology Software*, September-October 1993, 17-23,30.
8. Lazzarini, A.; Stenroos, E.S.; Lehner, T.; McKoy, V.; Gold, B.; McCormack, M.K.; Reid, C.S.; Ott, J. and Johnson, W.G. (1995) Short Tandem Repeat Polymorphism Studies in a New Family With X Linked Mental Retardation (MRX 20). *American Journal of Medical Genetics*, 57, 552-557.
9. Zhang, R-D, Guan, M.; Park, Y.; Tawadros, R., Yang, J-Y, Gold, B., Wu, B. and Henderson, E.E. Effect of Epstein-Barr Virus on HIV-1 Expression in T Cell Lines and CD4-Positive and CD8-Positive Lymphocytes. (1997) AIDS Research and Human Retroviruses, 13, 161-171.
10. Amos, J. and Gold, B. (1998) Testing Environment for Single-Gene Disorders in U.S. Reference Laboratories. *Human Mutation* 12, 293-300.
11. Kowalski, A.; Radu, D. and Gold, B. (2000). Colorimetric Microwell Plate Detection of the Factor V Leiden Mutation. *Clinical Chemistry*, 46, 1195-1198.
12. Gold, B.; Radu, D.; Balanko, A. and Chiang, C-S. (2000). Diagnosis of Fragile X Syndrome by Southern Blot Hybridization Using a Chemiluminescent Probe: A laboratory protocol. *Molecular Diagnosis*, 5, 169-178.
13. Gold, B.; Hanson, M.; and Dean M. (2001) Two Rare Confounding Polymorphisms Proximal to the Factor V Leiden Mutation. *Molecular Diagnosis*, 6; 137-140.
14. Gold, B.; Bergeron, J.; Lachtermacher-Triunfol, M. and Dean, M. (2001) Human Duplex Sex Determination PCR. *Biotechniques*, 31; 28-33.
15. Arnould, I.; Schriml, L.M.; Prades, C.; Lachtermacher-Triunfol, M.; Schneider, T.; Maintoux, C.; Lemoine, C.; Debono, D.; Devaud, C.; Naudin, L.; Bauche, S.; Annat, M.; Annilo, T.; Allikmets, R.; Gold, B.; Denefle, P.; Rosier, M.; and Dean, M. (2001) Identifying and characterizing a five-gene cluster of ATP-Binding Cassette transporters mapping to human chromosome 17q24: A new sub-group within the ABCA sub-family. *GeneScreen* 1, 157-164.
16. Lappin, S.; Cahlik, J. and Gold, B. (2001) Robot Printing of Reverse Dot Blot Arrays for Human Mutation Detection. *Journal of Mol. Diag.*, 3, 178-188.
17. Egan, M.F.; Callicot, J.H.; Goldberg, T.E.; Kolachana, B.S.; Bertolino, A.; Goldman, D.; Gold, B., Dean, M.; Lu, B.; and Weinberger, D. (2003) BDNF Val66 Met polymorphism affects vesicular packaging and human hippocampal function. *Cell*, 112:257-69.
18. Collins, J.R.; Stephens, R.M.; Gold, B.; Long, B.; Dean, M. and Burt, S.K. (2003) An Exhaustive DNA Micro-Satellite Map of the Human Genome Using High Performance Computing. *Genomics*, 83, 10-19.
19. Yang XR, Wacholder S, Xu Z, Dean M, Clark V, Gold B, Brown LM, Stone BJ, Fraumeni JF Jr, Caporaso NE (2004) CYP1A1 and GSTM1 polymorphisms in relation to lung cancer risk in Chinese women. *Cancer Lett.* 214:197-204.
20. Ogino S, Wilson RB, Gold B, Hawley P, Grody WW (2004) Bayesian analysis for cystic fibrosis risks in prenatal and carrier screening. *Genet Med.* 6:439-49.
21. Ogino S, Wilson RB, Gold B. (2004) New insights on the evolution of the SMN1 and SMN2 region: simulation and meta-analysis for allele and haplotype frequency calculations. *Eur J Hum Genet.* 12:1015-23.
22. Gold B, Kalush F, Bergeron J, Scott K, Mitra N, Wilson K, Ellis N, Huang H, Chen M, Lippert R, Halldorsson BV, Woodworth B, White T, Clark AG, Parl FF, Broder S, Dean M, Offit K. (2004) Estrogen receptor genotypes and haplotypes associated with breast cancer risk. *Cancer Res.* 64:8891-900.

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24. Song B, **Gold B**, O'hUigin C, Javanbakht H, Li X, Stremlau M, Winkler C, Dean M, Sodroski J. The B30.2(SPRY) Domain of the Retroviral Restriction Factor TRIM5 $\alpha$  Exhibits Lineage-Specific Length and Sequence Variation in Primates. *Journal of Virology* 79, 6111-6121.
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28. Petersen DC, Glashoff RH, Shrestha S, Bergeron J, Laten A, **Gold B**, van Rensburg EJ, Dean M, Hayes VM (2005) Risk for HIV-1 infection associated with a common CXCL12 (SDF1) polymorphism and CXCR4 variation in an African population. *J. Acquir Immune Defic Syndr.*, 40: 521-526.
29. **Gold B**, Merriam JE, Zernant J, Hancox LS, Taiber AJ, Gehrs K, Cramer K, Neel J, Bergeron J, Barile GR, Smith RT, Hageman GS, Dean M, Allikmets R, Chang S, Yannuzzi LA, Merriam JC, Barbazetto I, Lerner LE, Russell S, Hoballah J, Hageman J, Stockman H. (2006) Variation in factor B (BF) and complement component 2 (C2) genes is associated with age-related macular degeneration. *Nat Genet.* 38:458-62.
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31. Javanbakht H, An P, **Gold B**, Petersen DC, O'Huigin C, Nelson GW, O'Brien SJ, Kirk GD, Detels R, Buchbinder S, Donfield S, Shulennin S, Song B, Perron MJ, Stremlau M, Sodroski J, Dean M, Winkler C. (2006) Effects of human TRIM5alpha polymorphisms on antiretroviral function and susceptibility to human immunodeficiency virus infection. *Virology* 354:15-27.
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33. Hageman, GS, Hancox, LS, Taiber, AJ, Gehrs, KM, Anderson, DH, Johnson, LV, Radeke, MJ, Kavanagh, D, Richards, A, Atkinson, J, Meri, S, Bergeron, J., Zernant, J, Merriam, J, **Gold, B**, Allikmets, R, Dean M. (2006) Extended haplotypes in the complement factor H (CFH) and CFH related (CFHR) family of genes that protect against age-related macular degeneration: Identification, ethnic distribution and evolutionary implications. *Ann Med.* 38:592-604.
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37. Olshen, AB, **Gold, B**, Lohmueller, K, Struewing, JP, Satagopan, J, Eskin, E., Kirchhoff, Lautenberger, JA, Stefanov, SA, Friedman, E., Norton, L., Ellis, N., Viale, A., Borgen, PI, Clark, AG, Offit, K and Boyd, J.(2008) Analysis of Genetic Variation in Ashkenazi Jews by High Density SNP Genotyping. *BMC Genet.* 9:14
- 38 **Gold B**, Kirchhoff T, Stefanov S, Lautenberger J, Viale A, Garber J, Friedman E, Narod S, Olshen A, Gregersen P, Kosarin K, Olsh A, Bergeron J, Ellis NA, Klein RJ, Clark AG, Norton L, Dean M, Boyd J and Offit K (2008) Genome-wide association study provides evidence for a breast cancer risk locus at 6q22.33. *Proc. Nat. Acad. Sci., USA*, 105: 4340-5, 2008.
39. Bacolod MD, Schemmann GS, Wang S, Shattock R, Giardina SF, Zeng Z, Shia J, Stengel RF, Gerry N, Hoh J, Kirchhoff T, **Gold B**, Christman MF, Offit K, Gerald WL, Notterman DA, Ott J, Paty PB, Barany F (2008) The Signatures of Autozygosity among Patients with Colorectal Cancer. *Cancer Research* 68: 2610-2621.
40. Meyer-Lindenberg A, Kolachana B, **Gold B**, Olsh A, Nicodemus K, Mattay V, Dean M, and Weinberger DR (2008) Genetic variants in AVPR1A linked to autism predict amygdala activation and personality traits in healthy humans. *Mol. Psych.*, in the press.

## ABSTRACTS, NON-REFEREED PUBLICATIONS and REVIEW ARTICLES

1. Stern, L.; **Gold, B.** and Hecht, N.B. (1982) Synthesis of Stage Specific Protein Markers in Pachytene Primary Spermatocytes and Round Spermatids from Murine Testis. *Journal of Andrology* 3, 28-29.
2. Buchanan-Wollaston, B.; **Gold, B.**; Naser, A. and Cannon, F. (1989) Detoxification of the herbicide Dalapon by transformed plants. *Journal of Cellular Biochemistry Supplement*, n. 13, Part D, 330.
3. Lazzarini, A.; **Gold, B.** and McCormack, M. (1990) Cytogenetic and RFLP analysis in sex-linked mental retardation. *Am. J. Hum. Genet.* 47, A188.
4. Thompson, W.E.; Spangenberg, D.B.; Stein, T.P. and **Gold, B.** (1993) The three major muscle groups are composed of three myofibril types in the jellyfish, *Aurelia aurita*. *Molecular Biology of the Cell* 4, #221.
5. Thakur, A.; **Gold, B.**; Vairapandi, M.; Duker, N.J.; Paraskeva, C. and Yunis, J.J. (1995) Effects of folic acid deficiency on excision of 5-methylcytosine from DNA. *The FASEB Journal*, 9, A139.
6. **Gold, B.** (1996) HLA Typing and a Young Girl's Death (Letter). *MT Today*, May 13, 1996.
7. Norman, J. Shahar, Y. Kuppermann, M. & **Gold, B.** (1998) Decision-Theoretic Analysis of Prenatal Testing Strategies. 1998. SMI-98-0711. [http://www-smi.stanford.edu/pubs/SMI\\_Reports/SMI-98-0711.pdf](http://www-smi.stanford.edu/pubs/SMI_Reports/SMI-98-0711.pdf)
8. Kowalski, A.J. and **Gold, B.** (1998) Colorimetric microwell plate detection of the factor V (R506Q) mutation. *American Journal of Pathology*, 153, 1648,G3.
9. Radu, D. and **Gold, B.** (1998) Colorimetric detection of hereditary hemochromatosis C282Y and H63D mutations. *Clinical Chemistry*, 44, No. 6, supplement.
10. Lappin, S.; Novak, J.; Rabin, M.; Cahlik, J. and **Gold, B.** (1998) Automated printing of reverse dot blot arrays for the detection of human beta-globin mutations. *Clinical Chemistry* 44, No. 6, supplement.
11. Kowalski, A.J.; **Gold, B.** and Chiang, C.S. (1998) Optimization of a Super Sensitive HIV-1 RNA (Quantitation) PCR Assay. Abstracts from the 98th General Meeting of the American Society for Microbiology, T-2.
12. **Gold, B.** (1999) Molecular Genetic Diagnostics, ADVANCE for Medical Laboratory Professionals 11, (25)18-21.
13. **Gold, B.**; DNA Genotyping (2001) Advances in Clinical Chemistry, 36, 171-234.
14. Chen, M.; Robert, A.; Dean, M. and **Gold, B.** (2001) Mix Formulations and Alternative Probe Backbones for TaqMan Allele Discrimination Assays. *Journal of Molecular Diagnostics*, 3, 196, G26.
15. **Gold, B.** (2001) Molecular Recipes, A book review of Molecular Pathology Protocols, Anthony A. Killeen ed., Current Microbiology, 43, 378-379.
16. **Gold, B.** (2002) Counseling Molecular Diagnostics. *Drug Discovery Today*, 7, 687-689.
17. **Gold, B.** (2002) Towards a reconciliation between molecular diagnostics and new pharmaceuticals. *Drug Discovery Today* 7, 1034-1035.
18. Yang XH, Wacholder S, Zu ZY, Dean M, Clark V, **Gold B**, Brown LM, Stone BJ, Caporaso N (2002) CYP1A1 and other single nucleotide polymorphisms in relation to lung cancer risk: A case-control study of women in north-east China. *Cancer Epidemiology Biomarkers & Prevention* 11 (10): D208 part 2 October 2002.
19. Potocnik, U.; Martin, M.P.; **Gold, B.**; Gao, X.; Dean, M. and Carrington, M. (2002) Genetic Risk Factors For Progression to Lymphoma in AIDS Patients. *American Journal of Human Genetics* Vol. 71 Supplement, p. 250, #458.
20. **Gold, B.** (2002). Epistemology among the Lumpers and Splitters. *Human Nature Review*. 2: 135-143.
21. **Gold, B.** (2002) Semi-automated Cystic Fibrosis Carrier Testing. *LabMedica International*, 19, No. 5-6, 6-7.
22. **Gold, B.** (2003) Origin and Utility of the Reverse Dot Blot. *Expert Review of Molecular Diagnostics* 3, 89-98.
23. **Gold, B.** (2005) Automated DNA Hybridization and Detection, Chapter 25, in Molecular Diagnostics, Drs George Patrinos and Wilhelm Ansorge, eds., Academic Press.
24. **Gold, B.** (2006) Reversed Line Blot Hybridization in the Encyclopedia of Diagnostic Genomics and Proteomics. Drs. Jürgen Fuchs, Maurizio Podda, eds. Taylor and Francis.
25. Stefanov, S., Lautenberger, J., Dean, M. and **Gold, B.** (2006) An Analysis Pipeline for Large SNP Genotype Scans. . Abstracts from the 56th Annual Meeting of the American Society of Human Genetics, 2286/B at page 415.
26. Offit, K., Olshen, A., **Gold, B.**, Struewing, J., Satagopan, J., Eskin, E., Kirchhoff, T., Lautenberger, J.A., Stefanov, S., Goldgar, D., Friedman, E., Norton, Ellis, N., Viale, Borgen, P., Lohmueller, K., Clark, A., and Boyd, J. (2006) High Density SNP Analysis of Ashkenazi Jews. Abstracts from the 56th Annual Meeting of the American Society of Human Genetics, 992/A at page 195.