CURRICULUM VITAE (12/2011)

Name: Gail E. Herman

Address: Home: 2721 Wickliffe Road
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Education:

9/69 – 5/73 Smith College, Northampton, Mass.
B.A. *summa cum laude* with high honors in chemistry – 1973

8/73 – 9/81 Duke University, Durham, N.C.
Ph.D. in biochemistry – May, 1981; M.D. – September, 1981

Research/Clinical Experience:

7/71 – 8/71 NSF summer fellowship, Brown University – Advisor, Dr. Joseph Steim

9/72 – 5/73 Senior thesis, Smith College – Advisor, Dr. Carol Bossert

1/75 – 12/80 Ph.D. thesis, Duke University – Advisor, Dr. Paul Modrich.
"Studies on the Structure, Mechanism, and Biological Role of the *E. coli dam* Methylase."

9/81 – 5/82 Clinical Fellow in Division of Genetics, Department of Pediatrics,
University of North Carolina at Chapel Hill

7/82 – 6/85 Resident in Pediatrics, Baylor College of Medicine, Houston, Texas

7/85 – 6/88 Fellow, Institute for Molecular Genetics, Baylor College of Medicine –
Advisor, Dr. Arthur L. Beaudet, Project – Gene Therapy for Citrullinemia.

Academic Appointments:

7/88 – 6/93 Assistant Professor, Institute for Molecular Genetics and Department of
Pediatrics, Baylor College of Medicine, Houston, Texas

7/93 – 12/96 Associate Professor, Department of Molecular and Human Genetics and
Department of Pediatrics, Baylor College of Medicine, Houston, Texas

1/97 – 6/00 Associate Professor, Division of Molecular and Human Genetics, Department
of Pediatrics, The Ohio State University, Columbus, Ohio

5/98 – Present Associate Professor, Department of Virology, Immunology, and Medical Genetics, The Ohio State University, Columbus, Ohio (joint appointment).

7/98 – 5/08 Section Chief and Division Director, Molecular and Human Genetics, Department of Pediatrics, The Ohio State University, Columbus, Ohio

7/00 – Present Professor, Department of Pediatrics, The Ohio State University, Columbus, Ohio

7/00 - Present Professor, Department of Molecular Virology, Immunology and Medical Genetics, The Ohio State University, Columbus, Ohio.

12/01 – 11/09 Director, Center for Molecular & Human Genetics, The Research Institute at Nationwide Children's Hospital, Columbus, Ohio.

Honors:

Phi Beta Kappa (1972), Sigma Xi Associate Member (1973); American Chemical Society Prize, Conn. Valley Section (1973); F. Hause Memorial Prize for best record in chemistry (1973); C. Pauline Burt Prize in chemistry (1973); First Prize Medical Student, Eastern Student Research Forum, Miami, Florida (1979); Best Abstract, Duke AOA Symposium (1979); recipient Lucille P. Markey Scholar Award (1987); listed in Best Doctors in America, Genetics (1996-present).

Past Research Support:

NIH MSTP Fellowship, Duke University
Period of support: July, 1973 – August, 1981

NIH Individual Postdoctoral Fellowship
Herman (PI)
Sponsor – Arthur L. Beaudet, M.D.
Period of support: July 1, 1985 – June 30, 1987

Lucille P. Markey Charitable Trust Scholar Award
Herman (PI)
Sponsor – Arthur L. Beaudet, M.D.
Period of support: July 1, 1987 – June 30, 1993

Baylor Biomedical Research Support Grant
Herman (PI)
Period of support: June 1, 1988 – March 31, 1989

NIH Molecular Studies of X-linked Chondrodysplasia Punctata
Herman (PI) R01 AR39499
Period of support: July 1, 1991 – July 31, 1995

NIH Physical and Genetic Mapping of the Mouse X Chromosome
Herman (PI) R01 HG00131
Period of support: September 30, 1991 – August 31, 1995

MDA Molecular Studies of X-linked Myotubular Myopathy
Herman (PI)
Period of support: December 1, 1993 – December 31, 2003

NIH Mouse Models of X-linked Dominant Disorders
Postdoctoral Fellowship – Michael Levin, M.D.
Sponsor – Gail E. Herman, M.D./Ph.D.
Period of support: July 3, 1993 – April 30, 1995

MDA Molecular Studies of X-linked Myotubular Myopathy
Postdoctoral Fellowship – Beatrice de Gouyon, Ph.D.
Sponsor – Gail E. Herman, M.D., Ph.D.
Period of support: January 1, 1995 – December 31, 1997

NIH Molecular Studies of X-linked Chondrodysplasia Punctata
Herman (PI) R01 NS34953-05 Total direct costs: $529,308
Period of support: August 1, 1995 – January 31, 2000

March of Dimes X-linked Mouse Models of Neural Tube Defects
Herman (PI) Total direct costs: $115,756
Period of support: June 1, 1998 – May 31, 2000
Ohio Dept. of Health Regional Genetics Center at Children's Hospital
Herman (PI) Total direct costs: $250,000
Period of support: July 1, 1998 – June 30, 2000

Ohio Department of Health Regional Genetics Center at Children's Hospital
Herman (PI) Direct costs: $259,000 per year
Period of support: July 1, 2000- June 30, 2004

NIH Molecular Studies of X-linked Chondrodysplasia Punctata
Herman (PI) RO1 HD38572-09 Total direct costs: $1,267,987
Period of support: March 1, 2000 – July 14, 2005
(Continuation of RO1 NS34953)

Ohio Department of Health Regional Genetics Center at Children's Hospital
Herman (PI) Direct costs: $325,000 current year
Period of support: July 1, 2004- June 30, 2007

Ohio Department of Health Regional Genetics Center at Children's Hospital
Herman (PI) Direct costs: $485,000 current year
Period of support: July 1, 2007- June 30, 2011
Dr. Herman stepped down as PI of this continuing grant 11/07.

5 P01 CA097189 (Ostrowski, PI)
NCI 8/1/04 – 7/31/09
Genetic Analysis of the Microenvironment in Breast
Herman, GE, Interim Director Core A – ES and Transgenic Core
Direct Costs: $68,388.00, current year
2% effort

3 P30 CA16058 (Caligiuri, PI)
12/1/04 – 11/30/09
CCC Transgenic Facility
Herman, GE, Interim Core Director
Direct Costs: $47,836.00, current year
5% effort

Ohio Department of Health Regional Genetics Center at Children's Hospital
Bartholomew, D (PI) 02530011GS0310
Period of Support: 07/01/07-06/30/11
Dr. Herman - 2% effort (clinical)

Current Research Support:

NIH Molecular Studies of X-linked Chondrodysplasia Punctata.
Herman, G. (PI) RO1-HD38572-18
Period of Support: 07/15/05-05/31/12 (including no cost extension)
Direct Costs: $1,250,000
Dr. Herman – 25%

Air Force Medical Service/DoD Comprehensive Clinical Phenotyping and Genetic Mapping for the Discovery of Autism Susceptibility Genes
Herman, G. (PI), FA7014-09-2-0004
Period of Support: 09/30/2009 - 09/29/2012
Direct Costs: $2,490,648
Dr. Herman – 25%

Autism Treatment Network Butter (PI)
Autism Speaks
Period of Support: 01/04/2011 – 12/31/2013
Dr. Herman – 1% effort as consulting geneticist

Marci and Bill Ingram Comprehensive Center for Autism Spectrum Disorders/ The Nsdhl deficient mouse as a model to examine the role of cholesterol in autism pathogenesis
Herman (PI)
Period of support: 1/1/12-12/31/13
Direct costs: $70,000
Dr. Herman 10% (WOC)

Medical License: Texas State Board of Medical Examiners (FLEX), 1983-2002
Ohio State Medical Board, 12/31/96 - present

Professional Society Memberships:
American Academy of Pediatrics, Fellow
American Society of Human Genetics
American College of Medical Genetics, Fellow
Society for Inherited Metabolic Disorders
Mammalian Genome Society
National Urea Cycle Disorders Foundation
American Pediatric Society

Board Certification: Board Certified: American Board of Pediatrics (3/87)
Board Certified: American Board of Medical Genetics – Clinical Geneticist, Biochemical Geneticist (9/87)

NIH Study Section: Member NIH Genome Study Section, 12/94-6/97
Member NIH Mammalian Genetics Study Section, October, 2002 – June, 2004
Chair, NIH, Genetics of Health & Disease Study Section, October, 2004 – June, 2006

Ad Hoc Reviewer: NIH Genome Study Section, 2/92, 11/99
NIH Mammalian Genetics Study Section, 6/93
Special NICHD Study Section on Genetics of Complex Traits, 12/99
NIH Developmental Brain Disorders Study Section, September, 2007
ZRG1 GGG-A, 3/12/10.
Co-Chair, ZHD-1 DSR-Y NICHD study section for Program project grants on structural birth defects

Genomics, Genome Research, Journal of Pediatrics, Pediatrics, Human Genetics, European Journal of Human Genetics, Development, Journal of Medical Genetics, American Journal of Human Genetics, American Journal of Medical Genetics, Human Molecular Genetics, Mammalian Genome, FASEB Journal, Journal of Inherited Metabolic Disease

Other: Chairman Mouse X Chromosome Committee, 1993-1996; Co-chair, 1997 – 1998

Member of the editorial board, Mammalian Genome, 11/93 – 2006
Human Molecular Genetics, 1996 – 2006
ILAR Journal, 1999 – 2002

Member Genome Informatics Advisory Board, The Jackson Laboratory, Bar Harbor, ME, 10/94 – 10/97

Co-organizer Baylor College of Medicine Genetics Board Review Course, 5/93 and 5/96 (American College of Medical Genetics sponsored in 1996)

Director, Baylor College of Medicine, Medical Student Genetics Course, 1993-1996

Member, Baylor College of Medicine, Human Subjects Institutional Review Board, 1/96 – 9/96

Acting Clinical Co-Director, Kleberg Genetics Center, Baylor College of Medicine, 10/94 – 6/96

Co-organizer and lecturer ACMG Genetics Board Review Course, 4/99, 6/02

Member, Institute for Laboratory Animal Research Council of the National Academy of Sciences, 1999-2002

Member, State of Ohio Newborn Screening Advisory Committee, 1999-2002

Member, American Society of Human Genetics Nominating Committee, 2001

Member, Board of Directors, American College of Medical Genetics, 2001-2006

Secretary, Board of Directors, American College of Medical Genetics, 2005-2006

Chair, Ohio Department of Health Regional Genetics Center Directors, 7/00-6/02

Member, Ohio Department of Health Regional Genetics Center Directors, 7/99-11/07

Member, American College of Medical Genetics Program Committee, 2000-2005
Chair, ACMG Program Committee, 2004

Member, OSU Medical Scientist Program Steering Committee, 2001-2009

Department of Pediatrics, Promotion and Tenure Committee, 9/2008 – present

Member, American Board of Medical Genetics, nominating committee, 2011

Member, ex officio Board of Directors, American College of Medical Genetics Foundation, 2011 – present

Member Genome Informatics Advisory Board, The Jackson Laboratory, Bar Harbor, ME, 6/12-present

President elect, American College of Medical Genetics, 3/2011 - present

<u>Invited Lectures</u> (1998-present):

1. Department of Immunology, Virology, and Medical Genetics, The Ohio State University, 5/98 – "Mouse Models of X-linked Disorders"
2. Department of Genetics, Case Western Reserve University, 9/99 – "Along the Cholesterol Biosynthesis Pathway – Encounters with a Few Bare Patches and Tattered Mice"
3. Department of Pediatrics and Human Genetics, Univ. of California at Los Angeles, 3/21/2000 - "Along the Cholesterol Biosynthesis Pathway – Encounters with a Few Bare Patches and Tattered Mice"
4. Mouse Initiatives: Modeling the Human Genome and Disease Conference, The Jackson Laboratory, Bar Harbor, ME, 7/12-7/15/2000 – Invited speaker in Metabolic Disease Modeling session.
5. VIII International Congress of Inborn Errors of Metabolism, Cambridge, UK, 9/13-9/17/2000 – Invited expert speaker in Workshop on Cholesterol Synthesis Disorders.
6. Invited session on "The Expanding Spectrum of Disorders of Cholesterol Biosynthesis" at the American Society of Human Genetics, Philadelphia, PA, 10/3-10/7/2000 – Chair of session and speaker on "X-linked dominant male lethal disorders: human diseases and mouse models"
7. Pediatric Grand Rounds, Visiting Scholar, Columbus Children's Hospital, 5/01-"Practical Genomics for the Pediatrician-What We Need to Know"
8. Department of Human Genetics, University of Michigan, 7/01-"Along the Cholesterol Biosynthesis Pathway-Encounters with a Few Bare Patches and Tattered Mice"
9. Invited Speaker, NIH Workshop on Disorders of Cholesterol Biosynthesis, November 14-15, 2002.
10. McDermott Center for Human Growth & Development, Genetics Lecture Series, UT Southwestern Medical Center, Dallas, Texas – 12/2/02– "Mouse Models of Cholesterol Biosynthesis Disorders"
11. Invited speaker, "X-linked Disorders of Cholesterol Biosynthesis" in Symposium on Genetics of Cellular Lipid Metabolism, American Society of Human Genetics Meeting, Los Angeles, November 4-8, 2003.
12. Cholesterol Biosynthesis Disorders, NSCG Regional Conference, Columbus, Ohio, April 24, 2004.
13. Invited Speaker, European Society of Human Genetics Meeting, Munich, Germany, June 12-15, 2004: "Inherited Disorders of Cholesterol Biosynthesis: What Can We Learn from Mouse Models?"
14. Invited Speaker, American Society of Human Genetics Meeting, October 26-30, 2004; Sterols in Development.
15. Case Western Reserve University, Pauline Wilson Horner Symposium, November 18, 2004, "Disorders of Cholesterol Biosynthesis: Metabolic Malformation Syndromes"
16. Ohio State University, Dept. of Molecular Virology, Immunology, and Molecular Genetics, May 12, 2005, "X-linked Mouse Models of Cholesterol Biosynthesis Disorders Provide Clues to Normal Early Developmental Processes."
17. Baylor College of Medicine, Houston, Tx., Dept. of Molecular and Human Genetics, May 17, 2005, "X-linked Mouse Models of Cholesterol Biosynthesis Disorders Provide Clues to Normal Early Developmental Processes."
18. Pediatric Grand Rounds, Columbus Children's Hospital, January 4, 2007, "Genetic Testing in 2007 in the Developmentally Delayed Child."

19. Ohio State University, Dept. of Pharmacology, May 18, 2007, "Aspects of Autism – From Patients to Cholesterol Biosynthesis Defects in Mice."
20. Pediatric Grand Rounds, Columbus Children's Hospital, August 30, 2007, "Acute Metabolic Disease."
21. Organizer and speaker at plenary session on the Genetics of Autism, 2008 ACMG Clinical genetics Mtg, Phoenix, 3/12/08. Speaker – "Genetics Evaluation of the Child with Isolated Autism."
22. South Carolina Autism Treatment Network, Invited Speaker – "Genetics of Autism", Newberry, SC, 6/14/2008.
23. Invited Speaker, "CNV's in the Pathogenesis of Autism" in workshop on CNV's at the Association of Molecular Pathology annual meeting, 11/1/2008, Grapevine, TX.
24. Genetics Grand Rounds "The Genetics of Autism from a Clinical Genetics Perspective" and invited research seminar "The Cholesterol Biosynthetic Enzyme NSDHL – Expanding Functions and Phenotypes," Emory University, Atlanta, 4/26/10.
25. Invited Keynote Speaker CHRC and 21st Annual Pediatric Research Symposium, University of Michigan, Department of Pediatrics, "The Genetics of Autism from a Clinical Genetics Perspective," 10/11-12/10.
26. Invited participant, roundtable on autism with Senator Sherrod Brown, 12/14/11
27. Invited speaker, Society for Inherited Metabolic Disease annual mtg, Charlotte, NC, 4/2/11 – "Sterol Disorders: What can we learn from mouse models?"

Publications:

1. Geier (Herman), G. E. and Modrich, P. Recognition sequence of the *dam* methylase of *Escherichiacoli* K12 and mode of cleavage of *Dpn* I endonuclease. *J. Biol. Chem*., 254:1408-1413,1979.

2. Herman, G. E. and Modrich, P. *Escherichia coli* K12 clones which overproduce *dam* methylase are hypermutable. *J. Bacteriol*., 45:644-646, 1981.

3. Herman, G. E. and Modrich, P. *Escherichia coli dam* Methylase: Physical and catalytic properties of the homogeneous enzyme. *J. Biol. Chem*., 257:2605-2612, 1982.

4. Pukkila, P., Peterson, P., Herman, G. E., Modrich, P. and Meselson, M. Effects of high levels of DNA adenine methylation on methyl-directed mismatch repair in *Escherichia coli*. *Genetics,* 104:571-582, 1983.

5. Cheng, S., Herman, G., and Modrich, P. Extent of equilibrium helix perturbation of the DNA helix upon enzymatic methylation of adenine residues. *J. Biol. Chem*., 260:191-194, 1985.

6. Wood, P. A., Herman, G. E., Chao, J. D.-Y, O'Brien, W. E., and Beaudet, A. L. Retrovirus mediated gene transfer of argininosuccinate synthetase into cultured rodent cells and human citrullinemic fibroblasts. *Cold Spring Harbor Symp. Quant. Biol*., 51:1027-1032, 1986.

7. Herman, G. E., O'Brien, W.E., and Beaudet, A. L. An *E. coli* β-galactosidase cassette suitable for study of eukaryotic expression. *Nucl. Acids Res.,* 14:7130, 1986.

8. Northrup, H., Beaudet, A. L., O'Brien, W.E., Herman, G. E., Lewis, R.A., and Pollack, M.S. Caution on linkage of tuberous clerosis to ABO blood group. *Lancet,* 2:804-805, 1987.

9. Herman, G. E., Greenberg, F., and Ledbetter, D. Multiple congenital anomaly/mental retardation (MCA/MR) syndrome with Goldenhar complex due to a terminal del (22q). *Amer. J. Med. Genet*., 29:909-915, 1988.

10. Herman, G. E., and McCabe, E. R. B. Chromosomal abnormalities. *Current Opinion in Neurology and Neurosurgery,* 1:364-369, 1988.

11. Kirshon, B., Wasserstrum, N., Willis, R., Herman, G. E. and McCabe, E. R. B. Teratogenic effects of first trimester cyclophosphamide therapy. *Obstet. Gynecol*., 72:462-464, 1988.

12. Herman, G. E., Jaskoski, B., Wood, P. A., Trentin, J. L., O'Brien, W. and Beaudet, A. L. Expression of human argininosuccinate synthetase in murine hematopoietic cells in vivo. *Somatic Cell Molec. Genet*., 15:289-296, 1989.

13. Herman, G. E., and Walton, S. Close linkage of the murine locus bare patches to the X-linked visual pigment gene: Implications for mapping human X-linked dominant chrondrodysplasia punctata. *Genomics,* 7:307-312, 1990.

14. Arn, P. H., Hauser, E., Thomas, G. H., Herman, G. E., Hess, D., and Brusilow, S. W. Episodes of hyperammonemic coma, often postpartum, occurring in women who have a mutation at the ornithine transcarbamylase locus. *N. Engl. J. Med*., 322:1652-1655, 1990.

15. Herman, G. E., Faust, C. J., Darlison, M.G., and Barnard, E.A. Genetic mapping of the mouse X chromosome in the region homologous to human Xq27-Xq28. *Genomics*, 9:670-677, 1991.

16. Herman, G. E., Berry, M., Munro, E., Craig, I. W., and Levy, E. R. The construction of human somatic cell hybrids containing portions of the mouse X chromosome and their use to generate DNA probes via interspersed repetitive sequence polymerase chain reaction. *Genomics*, 10:961-970, 1991.

17. Faust, C. J., and Herman, G. E. Physical mapping of the loci *Gabra3, DXPas8, CamL1* and *Rsvp* in a region of the mouse X chromosome homologous to human Xq28. *Genomics,* 11:154-164, 1991.

18. Brown, S. D. M., Avner, P., Chapman, V. M., Hamvas, R. M. J., and Herman, G. E. The mouse X chromosome map: A report of the mouse X chromosome committee. *Mamm. Genome*, 1:S318-S331, 1991.

19. Demarquoy, J., Herman, G. E., Lorenzo, I., Trentin, J., Beaduet, A. L., and O'Brien, W. E. Long term expression of human argininosuccinate synthetase in mice following bone marrow transplantation with retrovirus-infected hematopoietic stem cells. *Human Gene Therapy*, 3:3-10, 1992.

20. Herman, G. E., Nadeau, J. H., and Hardies, S. C. Dispersed repetitive elements in mouse genome analysis. *Mamm. Genome*, 2:207-214, 1992.

21. Faust, C. J., Verkerk, A. J. M. H., Wilson, P. J., Hopwood, J. J., Oostra, B. A., and Herman, G. E. Genetic mapping on the mouse X chromosome of human cDNA clones for the fragile X and Hunter syndrome. *Genomics*, 12:814-817, 1992.

22. Faust, C. J., Levinson, B., Gitschier, J., and Herman, G. E. Extension of the physical map in the region of the mouse X chromosome of homologous to human Xq28 and identification of an exception to conserved linkage. *Genomics*, 13:1289-1295, 1992.

23. Brown, S. D. M., Avner, P., and Herman, G. E. The mouse X chromosome map. *Mamm. Genome*, 3:S274-288, 1992.

24. Northrup, H., Kwiatkowski, D. J., Roach, E. S., Dobyns, W. B., Lewis, R. A., Herman, G. E., Rodrigues, E., Daiger, S. P., and Blanton, S. H., Evidence for genetic heterogeneity in tuberous sclerosis: one locus on chromosome 9 and at least one locus elsewhere. *Amer. J. Human Genet*., 51:709-720, 1992.

25. Chatterjee, A., Faust, C. J., and Herman, G. E. Genetic and physical mapping of the biglycan gene on the mouse X chromosome. *Mamm. Genome*, 4:33-36, 1993.

26. Faust, C. J., Gonzales, J. C., Seibold, A., Birnbaumer, M., and Herman, G. E. Comparative mapping on the mouse and human X chromosome of a human cDNA clone encoding the Vasopressin Renal-type Receptor (V2R). *Gemonics*, 15:439-441, 1993.

27. Angel, T. A., Faust, C. J., Gonzales, J. G., Kenwrick, S., Lewis, R. A., and Herman, G. E. Genetic mapping of the X-linked dominant mutations striated *(Str)* and bare patches *(Bpa)* to a 600 kb region of the mouse X chromosome: Implications for mapping human disorders in Xq28. *Mamm. Genome*, 4:171-176, 1993.

28. Herman, G. E. A method for the isolation of microsatellite repeats from YACs using IRS—PCR and the clone AMP™ system. *Focus*, 15:51-53, 1993.

29. Gibson, K. M., Craigen, W., Herman, G. E., and Jakobs, C. D-2-hydroxyglutaric aciduria in a newborn with neurologic abnormalities: A new neurometabolic disorder. *J. Inter. Metab. Dis.*, 16:497-500, 1993.

30. Daniele, A., Faust, C. J., Herman, G. E., Di Natale, P., and Ballabio, A. A cloning and characterization of the cDNA for the murine iduronate sulfatase gene. *Genomics*, 16:755-757, 1993.

31. Talente, G. M., Coleman, R. A., Chen, Y. T., Alter, C., Cannon, R. A., Ferreira, P., Haworth, J. C., Herman, G. E., Isseman, R. M., Keating, J. P., Linde, R., Roe, T. F., Senior, B., Wolfsdorf, J. I. Glycogen storage disease in adults: A retrospective study of clinical and laboratory findings in types Ia, Ib, and III. *Ann. Int. Med.,* 120:218-226, 1994.

32. Craigen, W. J., Jakobs, C., Seku, E. A., Levy, M. L., Gibson, M., Butler, I. J., and Herman, G. E. D-2-hydroxyglutaric aciduria in a neonate with seizures and central nervous system dysfunction. *Pediatr. Neurol*., 10:1-5, 1994.

33. Chatterjee, A., Faust, C. J., Molinari-Storey, L., Kiochis, P., Poustka, A., Herman, G. E. A 2.3 Mb yeast artificial chromosome contig spanning from *Gabra3* to *G6pd* on the mouse X chromosome. *Genomics*, 21:49-57, 1994.

34. Brown, S. D. M., Avner, P., Boyd, Y., Chapman, V., Rastan, S., Sefton, L., Thomas, J. D., Herman, G. E. Mouse X chromosome. *Mamm. Genome*, 4:S269-S281, 1993.

35. Gariboldi, M., Mastrini, E., Canzian, F., Manenti, G., De Gregorio, L., Rivella, S., Chatterjee, A., Herman, G. E., Archidiancono, N., Antonacci, R., Pierotti, M. A., Dragani, T. A., and Toniolo, D. Comparative mapping of the actin binding protein 280 genes in human and mouse. *Genomics,* 21:428-430, 1994.

36. Joseph, M., Pai, S., Holden, K. R., and Herman, G. E. X-linked myotubular myopathy: Clinical observations in ten additional patients. *Amer. J. Med. Genet*., 59:168-173, 1995.

37. Quaderi, N., Meehan, R. R., Tate, P., Cross, S. H., Bird, A. P., Herman, G. E., and Brown, S.D.M. The genetic and physical mapping of gene encoding a methyl CpG binding protein, *Mecp2*, to the mouse X chromosome. *Genomics*, 22:648-651, 1994.

38. Dahl, N., Samson, F., Thomas, N. S. T., Hu, L. J., Gong, W., Herman, G. E., Laporte, J., Kioschis P., Poustka, A., Mandel, J.L. X-linked myotubular myopathy (MTM1) mapped between DXS304-DXS305, closely linked to the DXS455 VNTR and a new, highly informative microsatellite marker (DXS1684). *J. Med. Genet*., 31:922-924, 1994.

39. Rogner, U. C., Kioschis, P., Wilke, K., Gong, W., Pick, E., Dietrich, A., Zechner, U., Hameister, H., Pragliola, A., Herman, G. E., Yates, J. R., Lehrach, H., and Poustka, A. A YAC clone map spanning the human chromosomal band Xq28. *Human Mol. Genet*., 3:2137-2146, 1994.

40. Herman, G. E., Boyd, Y., Chapman, V., Chatterjee, A., and Brown, S. D. M. The mouse X chromosome. *Mamm. Genome*, 5:S276-S288, 1994.

41. de Gouyon, B., Chatterjee, A., and Herman, G. E. Fine genetic and physical mapping of thirteen mouse X chromosome microsatellites. *Mouse Genome*, 92:516-519, 1994.

42. Gregg, A. R., Lee, C. G. L., Herman, G. E., and O'Brien, W. E. Endothelial nitric oxide synthase *(Nos3*) maps to mouse chromosome 5. *Mamm. Genome*, 6:152, 1995.

43. Merrell, K., Gonzales, J. C., Wells, S., Calame, K., and Herman, G. E. Genetic analyses of tattered, an X-linked dominant, developmental mouse mutation. *Mamm. Genome*, 6:291-294, 1995.

44. Chatterjee, A., Tanaka, T., Parrish, J. E., and Herman, G. E. Refined mapping of caltractin in human Xq28 and in the homologous region of the mouse X chromosome places the gene within the bare patches *(Bpa)* and striated *(Str)* critical regions. *Mamm. Genome*, 6:802-804, 1995.

45. Pasteris, N. G., de Gouyon, B., Cadle, A. B., Campbell, K., Herman, G. E., and Gorksi, J.L. Cloning and regional localization of the mouse faciogenital dysplasia (*Fgd1*) gene. *Mamm. Genome*, 6:658-661, 1995.

46. Rivella, S., Tamanini, F., Bione, S., Mancini, M., Herman, G. E., Chatterjee, A., Maestrini, E., and Toniolo, D. A comparative transcriptional map of a region of 250 kb on the human and mouse X chromosome between the G6PD and the FLN1 genes. *Genomics*, 28:377-382, 1995.

47. Herman, G. E., Boyd, Y., Brown, S.D.M., de Gouyon, B., Haynes, A. and Quaderi, N. The mouse X chromosome. *Mamm. Genome*, 6:S317-S330, 1996.

48. Frattini, A., Chatterjee, A., Faranda, S., Grazia Sacco, M., Villa, A., Herman G. E., Vezzoni, P. The chromosome localization and the HCF repeats of the human Host Cell Factor gene are conserved in the mouse homologue. *Genomics*, 32:277-280, 1996.

49. de Gouyon, B. Chatterjee, A., Monaco, A., Quaderi, N., Brown, S. D. M., Herman, G. E. Comparative mapping on the mouse X chromosome defines a myotubular myopathy equivalent region. *Mamm. Genome*, 7:525-529, 1996.

50. Levin, M. L., Chatterjee, A., Pragliola, A., Worley, K. C., Wehnert, M., Zhuchenko, O., Smith, R. F., Lee, C. C., and Herman, G. E. A comparative transcription map of the murine bare patches *(Bpa)* and striated *(Str*) critical regions and human Xq28. *Genome Res*., 6:465-477, 1996.

51. Dupuis, L., Leon-Del-Rio, A., Leclerc, D., Campeau, E., Sweetman, L., Sandubray, J. M., Herman, G. E., Gibson, K. M., Gravel, R. A. Clustering of mutations in the biotin-binding region of holocarboxylase synthetase in biotin-responsive multiple carboxylase deficiency. *Hum. Mol. Genet*., 5:1011-1016, 1996.

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