

CURRICULUM VITAE

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PART I: General Information

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Place of Birth: Falmouth, MA

Education:

1990 B.A. (Biological Sciences), High Honors, Mount Holyoke College
1996 M.D., University of Massachusetts Medical School
2003 S.M. (Molecular Epidemiology), Harvard School Of Public Health

Postdoctoral Training:

07/96-06/99 Resident in Pediatrics, Pediatrics, Maine Medical Center
07/00-06/03 Clinical Fellow in Genetics and Metabolism, Clinical Genetics, Harvard Medical School, Training Program in Medical Genetics
07/01-06/03 Fellow in Respiratory Epidemiology, Epidemiology, Channing Laboratory
07/03- Post-doctoral Research Fellow in Genetics, Program in Genomics, Genetics, Children's Hospital

Licensure and Certification:

1994 United States Medical Licensing Examination Step I
1996 United States Medical Licensing Examination Step II
1998 United States Medical Licensing Examination Step III
1999 Maine Registered Physician
1999 American Board of Pediatrics
2000 Massachusetts Registered Physician
2002 American Board of Medical Genetics, Clinical Genetics
2005 Pediatric and Neonatal Advanced Life Support Certification

Academic Appointments:

2003- Instructor in Pediatrics, Harvard Medical School, Boston, MA

Hospital or Affiliated Institution Appointments:

01/00-12/03 Clinical Fellow in Medicine , Brigham and Women's Hospital, Boston, MA
01/00-12/03 Clinical Fellow in Medicine, Children's Hospital, Boston, MA
01/03- Assistant in Medicine, Children's Hospital, Boston, MA
11/07- Medical Director, Clinical Genetics, Department of Obstetrics and Gynecology,
Beth Israel Deaconess Medical Center, Boston, MA

Hospital and Health Care Organization Clinical Service Responsibilities:

1999-2000 Staff Pediatrician, Mid-Coast Hospital, Brunswick, Maine
1999-2000 Staff Pediatrician, Parkview Hospital, Brunswick, Maine
1999-2000 Staff Pediatrician, Mere Point Pediatrics, Brunswick, Maine
2000-2003 Clinical Fellow in Genetics and Metabolism, Children's Hospital
2000-2003 Clinical Fellow in Genetics and Metabolism, Brigham and Women's Hospital
2000-2003 Clinical Fellow in Genetics and Metabolism, Massachusetts General Hospital
2001-2004 Attending Physician in Pediatrics, Beverly Hospital
2003- Attending Physician in Genetics and Cardiovascular Genetics, Children's Hospital
2003- Attending Physician in Genetics, Brigham and Women's Hospital
2004- Attending Physician in Pediatrics, Winchester Hospital
2007- Medical Director Clinical Genetics, Beth Israel Deaconess Medical Center

Professional Societies:

2000- American Society of Human Genetics, Member
2000- Massachusetts Medical Society, Member
2002- American College of Medical Genetics, Member
2003- American Academy of Pediatrics, Fellow

Community Service Related to Professional Work:

1992- Co-founder of the Bicultural Education Project, University of Massachusetts
Medical School
1992-1994 Co-director of Students Teaching AIDS to Students (STATS), University of
Massachusetts Medical School
1992-1994 Coordinator of Serving the Underserved, University of Massachusetts Medical
School
1997-1999 Health Care Provider for the Homeless Teen Clinic, Maine Medical Center

Awards and Honors:

1990 Associate Member in Sigma Xi, Scientific Research Society
1991 Community Service Award, Massachusetts Medical Society
1996 Pediatric Prize, New England Pediatric Society
2007 Excellence in Teaching, Harvard Medical School

Part III: Bibliography

Original Articles

1. Lange C, Lyon H, DeMeo D, Raby B, Silverman EK, Weiss ST. A new powerful non-parametric two stage approach for testing multiple phenotypes in family-based association studies. *Hum Hered.* 2003;56(1-3):10-7.
2. Lake SL, Lyon H, Tantisira K, Silverman EK, Weiss ST, Laird NM, Schaid DJ. Estimation and tests of haplotype-environment interaction when linkage phase is ambiguous. *Hum Hered.* 2003;55(1):56-65.
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4. Lyon HN, Holmes LB, Huang T. Multiple congenital anomalies associated with in utero exposure of phenytoin: possible hypoxic ischemic mechanism? *Birth Defects Res A Clin Mol Teratol.* 2003;67(12):993-6.
5. Lange C, van Steen K, Andrew T, Lyon H, DeMeo DL, Raby B, Murphy A, Silverman EK, MacGregor A, Weiss ST, Laird NM. A family-based association test for repeatedly measured quantitative traits adjusting for unknown environmental and/or polygenic effects. *Stat Appl Genet Mol Biol.* 2004;3(1):Article17.
6. Lyon H, Lange C, Lake S, Silverman EK, Randolph AG, Kwiatkowski D, Raby BA, Lazarus R, Weiland KM, Laird N, Weiss ST. IL10 gene polymorphisms are associated with asthma phenotypes in children. *Genet Epidemiol.* 2004;26(2):155-65.
7. Lyon HN, Hirschhorn JN. Genetics of common forms of obesity: a brief overview. *Am J Clin Nutr.* 2005;82(1 Suppl):215S-217S.
8. Van Steen K, McQueen MB, Herbert A, Raby B, Lyon H, Demeo DL, Murphy A, Su J, Datta S, Rosenow C, Christman M, Silverman EK, Laird NM, Weiss ST, Lange C. Genomic screening and replication using the same data set in family-based association testing. *Nat Genet.* 2005;37(7):683-91.
9. Campbell CD, Ogburn EL, Lunetta KL, Lyon HN, Freedman ML, Groop LC, Altshuler D, Ardlie KG, Hirschhorn JN. Demonstrating stratification in a European American population. *Nat Genet.* 2005;37(8):868-72.
10. Herbert A, Gerry NP, McQueen MB, Heid IM, Pfeufer A, Illig T, Wichmann HE, Meitinger T, Hunter D, Hu FB, Colditz G, Hinney A, Hebebrand J, Koberwitz K, Zhu X, Cooper R, Ardlie K, Lyon HN, Hirschhorn JN, Laird NM, Lenburg ME, Lange C, Christman MF. A common genetic variant is associated with adult and childhood obesity. *Science.* 2006;312(5771):279-83.
11. Lyon HN, Florez JC, Bersaglieri T, Saxena R, Winckler W, Almgren P, Lindblad U, Tuomi T, Gaudet D, Zhu X, Cooper R, Ardlie KG, Daly MJ, Altshuler D, Groop L, Hirschhorn JN. Common variants in the ENPP1 gene are not reproducibly associated with diabetes or obesity. *Diabetes.* 2006;55(11):3180-4.
12. de Bakker PI, Burt NP, Graham RR, Guiducci C, Yelensky R, Drake JA, Bersaglieri T, Penney KL, Butler J, Young S, Onofrio RC, Lyon HN, Stram DO, Haiman CA, Freedman ML, Zhu X, Cooper R, Groop L, Kolonel LN, Henderson BE, Daly MJ, Hirschhorn JN, Altshuler D. Transferability of tag SNPs in genetic association studies in multiple populations. *Nat Genet.* 2006;38(11):1298-303.
13. Campbell CD, Lyon HN, Nemesh J, Drake JA, Tuomi T, Gaudet D, Zhu X, Cooper RS, Ardlie KG, Groop LC, Hirschhorn JN. Association studies of body mass index and type 2 diabetes in the Neuropeptide Y pathway: a possible role for NPY2R as a candidate gene for type 2 diabetes in men. *Diabetes.* 2007;56(5):1460-7.
14. Lyon HN, Emilsson V, Hinney A, Heid IM, Lasky-Su J, Zhu X, Thorleifsson G, Gunnarsdottir S, Walters GB, Thorsteinsdottir U, Kong A, Gulcher J, Nguyen TT, Scherag A, Pfeufer A, Meitinger T, Brønner G, Rief W, Soto-Quiros ME, Avila L, Klanderma B, Raby BA, Silverman

- EK, Weiss ST, Laird N, Ding X, Groop L, Tuomi T, Isomaa B, Bengtsson K, Butler JL, Cooper RS, Fox CS, O'Donnell CJ, Vollmert C, Celedón JC, Wichmann HE, Hebebrand J, Stefansson K, Lange C, Hirschhorn JN. The association of a SNP upstream of INSIG2 with body mass index is reproduced in several but not all cohorts. *PLoS Genet.* 2007;3(4):e61.
15. Diabetes Genetics Initiative of Broad Institute of Harvard and MIT, Lund University, and Novartis Institutes of BioMedical Research, Saxena R, Voight BF, Lyssenko V, Burt NP, de Bakker PI, Chen H, Roix JJ, Kathiresan S, Hirschhorn JN, Daly MJ, Hughes TE, Groop L, Altshuler D, Almgren P, Florez JC, Meyer J, Ardlie K, Bengtsson K, Isomaa B, Lettre G, Lindblad U, Lyon HN, Melander O, Newton-Cheh C, Nilsson P, Orho-Melander M, Råstam L, Speliotes EK, Taskinen MR, Tuomi T, Guiducci C, Berglund A, Carlson J, Gianniny L, Hackett R, Hall L, Holmkvist J, Laurila E, Sjögren M, Sterner M, Surti A, Svensson M, Svensson M, Tewhey R, Blumenstiel B, Parkin M, Defelice M, Barry R, Brodeur W, Camarata J, Chia N, Fava M, Gibbons J, Handsaker B, Healy C, Nguyen K, Gates C, Sougnez C, Gage D, Nizzari M, Gabriel SB, Chirn GW, Ma Q, Parikh H, Richardson D, Ricke D, Purcell S. Genome-Wide Association Analysis Identifies Loci for Type 2 Diabetes and Triglyceride Levels. *Science.* 2007;316(5829):1331-6.
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 17. McAteer JB, Prudente S, Bacci S, Lyon HN, Hirschhorn JN, Trischitta V, Florez JC, The ENPP1 K121Q Polymorphism is Associated with Type 2 Diabetes in European Populations: Evidence from an Updated Meta-Analysis in 42,042 Subjects. *Diabetes.* 2008;57(4):1125-30.
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Purmann C, Rees MG, Ridderstråle M, Ring SM, Rivadeneira F, Ruukonen A, Sandhu MS, Saramies J, Scott LJ, Scuteri A, Silander K, Sims MA, Song K, Stephens J, Stevens S, Stringham HM, Tung YC, Valle TT, Van Duijn CM, Vimalaswaran KS, Vollenweider P, Waeber G, Wallace C, Watanabe RM, Waterworth DM, Watkins N, , Witteman JC, Zeggini E, Zhai G, Zillikens MC, Altshuler D, Caulfield MJ, Chanoock SJ, Farooqi IS, Ferrucci L, Guralnik JM, Hattersley AT, Hu FB, Jarvelin MR, Laakso M, Mooser V, Ong KK, Ouwehand WH, Salomaa V, Samani NJ, Spector TD, Tuomi T, Tuomilehto J, Uda M, Uitterlinden AG, Wareham NJ, Deloukas P, Frayling TM, Groop LC, Hayes RB, Hunter DJ, Mohlke KL, Peltonen L, Schlessinger D, Strachan DP, Wichmann HE, McCarthy MI, Boehnke M, Barroso I, Abecasis GR, Hirschhorn JN, Six new loci associated with body mass index highlight a neuronal influence on body weight regulation. *Nat Genet.* 2009;41(1):25-34.

Reviews/Chapters/Editorials

1. Lyon, HN and Korf, BK. Chapter 82: Genetics of Common Disorders. In: *Nelson's Textbook of Pediatrics* Richard Behrman, Robert Kleigman, Hal Jenson, Editors, in press. Elsevier;2007.
2. Helen N. Lyon and Bruce R. Korf. Human Genome Project, Genomics, and Clinical Research. In: *Principles and Practice of Clinical Research*. Elsevier, Inc;2007. p. 405-420.

Books, Monographs, and Textbooks

1. Helen N. Lyon and Bruce R. Korf. Chapter 29: Human Genome Project, Genomics, and Clinical Research. In: *Principles and Practice of Clinical Research*. 2nd San Diego, CA: Elsevier;2007. p. 405-420.
2. Helen N. Lyon and Bruce R. Korf. Chapter 82: Genetics of Common Disorders. In: *Nelson Textbook of Pediatrics*, editors Robert M. Kliegman, MD, Richard E. Behrman, MD, Hal B. Jenson, MD and Bonita F. Stanton, MD . 18th Elsevier; 2007 Jun.Report No.: ISBN: 1416024506.

Thesis

1. Lyon, HN. An investigation of somatic mutation in *Matteuccia struthiopteris* by RFLP Analysis. [dissertation]. South Hadley, MA: Mount Holyoke College;1990.

Abstracts

1. Lyon H, Campbell K, Bersaglieri T, Butler J, Drake J, Nemesh J, Daly M, Ardlie K, Altshuler D, Hirschhorn J. Previously reported genetic associations with obesity do not replicate in large populations. *Obesity Research.* 2005;13:A39.