

**CURRICULUM VITAE** 6/11/2021



**David N. Finegold**

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Birthplace Pittsburgh, Pennsylvania  
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Business Address 3134 Public Health  
Department of Human Genetics  
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**EDUCATION AND TRAINING**

Undergraduate

1965-1968 University of Pittsburgh B.S. Physics  
Pittsburgh, PA 1968

Graduate

1968-1972 University of Pittsburgh M.D. 1972  
School of Medicine  
Pittsburgh, PA

Post Graduate

1972-1975 Children's Hospital of Pittsburgh Internship and  
Residency  
(Pediatrics)

1975-1977 George S. Cox Medical Research Postdoctoral  
Institute, Hospital of the Research Fellow  
University of Pennsylvania under Albert I.  
Philadelphia, PA Winegrad, M.D.

1977-1978	Children's Hospital of Philadelphia	JDF Fellowship under Lester Baker, M.D.
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**APPOINTMENTS AND POSITIONS**

1978-1981	Department of Biochemistry and Biophysics, University of Pennsylvania Philadelphia	Research Associate
1979-1981	Department of Pediatrics University of Pennsylvania Philadelphia, PA	Assistant Professor of Pediatrics
1981-1988	Department of Pediatrics University of Pittsburgh Pittsburgh, PA	Assistant Professor of Pediatrics
1981-1988	Department of Medicine University of Pittsburgh Pittsburgh, PA	Assistant Professor of Medicine
1989-1996	Department of Pediatrics University of Pittsburgh Pittsburgh, PA	Associate Professor of Pediatrics
1989-1996	Department of Medicine University of Pittsburgh Pittsburgh, PA	Associate Professor of Medicine
1996-2016	Department of Pediatrics University of Pittsburgh Pittsburgh, PA	Professor of Pediatrics
1996-present	Department of Medicine University of Pittsburgh Pittsburgh, PA	Professor of Medicine
1997-present	Department of Human Genetics University of Pittsburgh Pittsburgh, PA	Professor of Human Genetics
1996-2006	Director, Biochemical Genetics Lab	

2006-2009      Assoc Director, Biochemical Genetics Lab  
Clinical Pathology, Dept. of Pathology  
UPMC

2009-2013      Director, Biochemical Genetics Lab  
Clinical Pathology, Dept. of Pathology  
UPMC

2013 -            Director, Multidisciplinary Masters of Public Health Program  
Graduate School of Public Health

2015-2016      Medical Director, PGL Labs, Pittsburgh, PA

2017-            Laboratory Director, Ariel Precision Medicine, Pittsburgh, PA

2021-            Laboratory Director, Signature<sub>dx</sub> , Pittsburgh, PA

### **SPECIALTY CERTIFICATION**

1977-            American Board of Pediatrics

1978-            American Board of Pediatric Endocrinology

1999-            American Board of Medical Genetics (Biochemical Genetics)

### **MEDICAL LICENSURE**

1972-            National Board of Medical Examiners - Pennsylvania

### **MEMBERSHIP IN PROFESSIONAL AND SCIENTIFIC SOCIETIES**

1979-1981      Philadelphia Endocrine Society

1980-            Lawson Wilkins Pediatric Endocrine Society

1981-            American Diabetes Association (professional section)

1981-1990      Western Pennsylvania Affiliate, American Diabetes Association

1990-            Pennsylvania Affiliate, American Diabetes Association

1981-            American Federation for Clinical Research

1983-            Endocrine Society

- 1989- The Society for Pediatric Research
- 1989- American Society of Nephrology
- 1990- American Association of Diabetes Educators
- 1991- Society for Inherited Metabolic Disease
- 1993- American Society for Human Genetics
- 2007- Genetics Society of America

### **TITLES AND HONORS**

American Diabetes Association Recognition Award  
American Diabetes Meeting, Atlanta, Georgia 1990

### **PUBLICATIONS**

1. Finegold DN, Stanley CS, and Baker L: Glycemic Response in Hyperinsulinism. *Journal of Pediatrics*, 96;257:1980
2. Coates PM, Hoffman GM, and Finegold DN: Thyroid Hormone Regulation of Human Mononuclear Leukocyte Acid Lipase Activity. *Journal of Clinical Endocrinology and Metabolism*, 54;559-562:1982.
3. Lyen KJ, Finegold DN, Orsini R, Herd J and Parks J: Transient Thyroid Suppression Associated with Topically Applied Povidone-Iodine. *American Journal of Disease of Children*, 136;369-370:1982.
4. Ghosh AK, Finegold DN, White W, Zawalich L and Matschinsky F: Quantitative Histochemical Resolution of the Oxidation-Reduction and Phosphate Potentials within the Simple Hepatic Acinus. *The Journal of Biological Chemistry*, 257;5476-5481:1982.
5. Rosenblum MR, Finegold DN, and Carney E: Growth in Children with Myelomeningocele. *Developmental Medicine and Child Neurology*, 25;338-342:1983.
6. Malatack JJ, Finegold DN, Iwatsuki S, Shaw B, Gartner JC, Zitelli BJ, Roe T, and Starzl TE: Liver Transplantation for Type I Glycogen Storage Disease. *Lancet*, 1073-1975;1983.
7. Finegold DN, Lattimer SA, Nolle SS, Bernstein M and Greene D: Polyol Pathway Activity and myo-Inositol. A suggested Relationship in the Pathogenesis of

- Diabetic Neuropathy. *Diabetes*, 32;988-992:1983.
8. Finegold DN and Coates PM: Effect of Diabetes and Insulin Therapy on Human Mononuclear Leukocyte Lysosomal Acid Lipase Activity. *Metabolism* 33;85-89:1984.
  9. Avner Ed, Sweeney WE, Finegold DN, Piesco NP and Ellis D: Sodium-Potassium ATPase Activity Mediates Cyst Formation in Metanephric Organ Culture. *Kidney International*, 28;447-455:1985.
  10. Wing RR, Nowalk MP, Marcus MD, Koeske R and Finegold DN: Subclinical Eating Disorders and Glycemic Control in Adolescents with Type I Diabetes. *Diabetes Care* 9; 162-167:1986.
  11. Bedoya FJ, Wilson JM, Ghosh AK, Finegold DN and Matschinsky FM: The Glucokinase Sensor in Human Pancreatic Islet Tissue. *Diabetes* 35;61-67:1986.
  12. Gordon AH, Lee PA, Dulcan MK, Finegold DN: Behavioral Problems, Social Competency and Self Perception among Girls with Congenital Adrenal Hyperplasia. *Child Psychiatry and Human Development* 17(2):129-138:1986.
  13. Starceski PH, Lee PA, Blatt J, Finegold DN, Brown D: Comparable Effects of 1800 and 2400 Rad Cranial Irradiation on Height and Weight in Children Treated for Acute Lymphocytic Leukemia. *American Journal of Diseases in Children*, 141;550-552:1986.
  14. Scibilia J, Finegold DN, Dorman J, Becker D, Drash A: Why do Children with Diabetes Die? *Acta Endocrinologica Supplement* 279;326-333:1986.
  15. Finegold DN, Strycher S, : Renal Ouabain Inhibitable Na-K ATPase Activity and Myoinositol Supplementation in Experimental Diabetes Mellitus. *Metabolism*, 237;557-561:1988.
  16. Finegold DN and Bergman I. High Protein Feeding in an Infant with Pompe's Disease. *Neurology*, 38;824-825:1988.
  17. Cassorla F, Finegold DN, Parks J, Tenore A and Baker L: Vasculitis, Pulmonary Cavitation and Anemia During Antithyroid Drug Therapy. *American Journal of Diseases of Children*, 137;118-122:1988.
  18. Blatt J, Lee PA, Suttner J, Finegold DN: Pulsatile Growth Hormone Secretion in Children with Acute Lymphoblastic Leukemia after 1800 cGy Cranial Radiation. *International Journal of Radiation Oncology and Biological Physics* 15;1001-1006:1988.
  19. Treem WR, Stanley CA, Finegold DN, Hale DE, Coates PM: Primary Carnitine


- Deficiency due to a Failure of Carnitine Transport in Kidney, Muscle, and Fibroblasts. *N Eng J Med* 319(20);1331-1336:1988.
20. Bergman I, Finogold DN, Gartner JC, et al. Acute Profound Dystonia in Infants with Glutaric Acidemia. *Pediatrics*, 83;228-234:1989.
  21. Greene DA, Lattimer SA, Carroll PB, Fernstrom JD, Finogold DN: A Defect in Sodium-dependent Amino Acid Uptake in Diabetic Rabbit Peripheral Nerve: Correction by an Aldose Reductase Inhibitor or myo-Inositol Administration. *Journal of Clinical Investigation* 85;1657-1665:1990.
  22. Sculerati N, Ledesma-Medina J, Finogold, DN, Stool SE: Otitis Media and Hearing Loss in Turner Syndrome. *Archives of Otolaryngology, Head and Neck Surgery* 116;704-7:1990.
  23. Siegel SF, Finogold DN, Lanes R, Lee PA: ACTH Stimulation Tests and Dehydroepiandrosterone Sulfate Levels in Hirsute Women, *New England Journal of Medicine* 323;849-854:1990.
  24. Carroll PB, Finogold DN, Becker DJ, Locker JD, Jaffe R and Drash AL: Hypoplasia of the Pancreas in a Type I Diabetic Patient. *Pancreas* 7;21-25:1992.
  25. Ryan CM, Williams TM, Orchard TJ, Finogold DN: Psychomotor Slowing in Associated with Distal Symmetrical Polyneuropathy in Adults with Diabetes Mellitus. *Diabetes* 41;107-113:1992.
  26. Siegel SF, Finogold DN, Urban MD, McVie R, Lee PA: Premature Pubarche: Etiological Heterogeneity. *JCEM* 74;239-247:1992.
  27. Siegel SF, Finogold DN, Murray PJ, Lee PA: Assessment of Clinical Hyperandrogenism in Adolescent Girls. *Adolescent and Pediatric Gynecology. Adolescent and Pediatric Gynecology*, 5;13-20:1992.
  28. Frasier SD, Rudlin CR, Zeisel HJ, Liu HH, Long PC, Senior B, Finogold DN, Bercu BB, Marks JF, Redmond GP: The Effects of Recombinant-DNA-Derived Human Growth Hormone of Mammalian Cell Origin In Prepubertal Children with Growth Hormone Deficiency. *American Journal Diseases of Children* 1992; 146:582-7.
  29. Atlas AB, Finogold DN, Becker DJ, Trucco M, Kurland G: Diabetic Ketoacidosis in Cystic Fibrosis. *American Journal Diseases of Children* 1992; 146: 1457-8.
  30. Siegel SF, Finogold DN, Murray PJ, Lee PA. 17 Hydroxypregnenolone responses in adolescent girls with acanthosis nigricans. *Adolesc Pediatr Gynecol* 1993; 6:9-14.
  31. Ultmann MC, Siegel SE, Hirsch WL, Barmada MA, Hoffman GE, Finogold DN,

- Foley TP: Ectopic Posterior Pituitary: Clinical, Radiological, and Anatomic Implications For The Etiology of Idiopathic Hypopituitarism. *AJDC* 1993; 147:647-652.
32. Ryan CM, Williams TM, Finegold DN, Orchard TJ. Cognitive dysfunction in adults with Type I diabetes of long duration: Effects of recurrent hypoglycemia and other chronic complications. *Diabetologia* 1993; 36(4):329-34.
  33. Singer-Granick C, Siegel SF, Hill I, Unger A, Finegold DN, Naylor E. Normal newborn 17-hydroxyprogesterone level in an infant with congenital adrenal hyperplasia due to 11 $\beta$ -hydroxylase deficiency. *Screening* 1994; 3:85-89.
  34. Finegold DN, Armitage MM, Galiani M, Matise TC, Pandian MR, Perry YM, Deka R, and Ferrell RE: Preliminary localization of a gene for autosomal dominant hypoparathyroidism to chromosome 3q13. *Pediatric Research* 36(3):414-417, 1994.
  35. Conrad B, Weldmann E, Trucco O, Rudert WA, Rubbao R, Rioordl C, Finegold DN, Trucco M: Evidence for superantigen involvement in insulin-dependent diabetes mellitus aetiology. *Nature* 371:351-355, 1994.
  36. Rilo HL, Carroll PB, Trucco M, Phipps J, Trucco G, Finegold D, Ricordi C: Human pancreatic islet isolation from a diabetic non-heart-beating donor. *Transplantation Proceedings*, 26(2):598, 1994.
  37. Ziadeh R, Hoffman EP, Finegold DN, Hoop RC, Brackett JC, Strauss AW, Naylor EW: Medium chain acyl-CoA dehydrogenase in Pennsylvania: Neonatal screening shows high incidence and unexpected mutation frequencies. *Pediatr Res* 37:675-678, 1995.
  38. Hasegawa T, Tzakis AG, Todo S, Reyes J, Nour B, Finegold DN, Starzl TE: Orthotopic liver transplantation for ornithine transcarbamylase deficiency with hyperammonemic encephalopathy. *J Ped Surgery* 30: 863-865, 1995.
  39. Lee ET, Rehkopf PG, Warnicki JW, Friberg T, Finegold DN, Cape EG: A new method for assessment of changes in retinal blood flow. *Med Eng Phys* 19(2):125-130, 1997.
  40. Luppi P, Rudert WA, Zanone MM, Stassi G, Trucco G, Finegold D, Boyle GJ, Del Nido P, McGowan FX, Trucco M: Idiopathic dilated cardiomyopathy: A supeantigen-driven autoimmune disease. *Circulation* 98:777-785, 1998.
  41. Ferrell RE, Levinson KL, Esman JH, Kimak MA, Lawrence EC, Barmada MM, Finegold DN: Hereditary lymphedema: evidence for linkage and genetic heterogeneity. *Hum Mol Genetics* 7(13):2073-2078, 1998.

42. Vats A, Nayak A, Ellis D, Randhawa PS, Finegold DN, Levinson KL, Ferrell RE: Familial nephrotic syndrome: Clinical spectrum and linkage to chromosome 19q13. *Kidney International* 57:875-881, 1999.
43. Karkkainen MJ, Ferrell RE, Lawrence EC, Kimak MA, Levinson KL, Alitalo K, Finegold DN: Missense mutations interfere with vascular endothelial growth factor receptor-e signaling in primary lymphedema. *Nature Genetics* 25:153-159, 2000.
44. Munro NJ, Landers JP, Finegold DN: Indirect fluorescence detection of amino acids on electrophoretic microchips. *Anal Chem* 72:2765-2773, 2000.
45. Conley YP, Finegold DN, Peters DG, Cook JS, Oppenheim DS, Ferrell RE: Three novel activating mutations in the calcium-sensing receptor responsible for autosomal dominant hypocalcemia. *Mol Genetics Metab* 71:591-598, 2000.
46. Karkkainen MJ, Jussila L, Ferrell RE, Finegold DN, Alitalo K: Molecular regulation of lymphangiogenesis and targets for tissue oedema. *Trends Mol Med (review)* 7(1):2001.
47. Luppi P, Licata A, Haluszczak C, Rudert WA, Trucco G, McGowan FX Jr, Finegold D, Boyle GJ, Trucco M: Analysis of TCR V $\beta$  repertoire and cytokine gene expression in patients with idiopathic dilated cardiomyopathy. *J Autoimmunity* 16:3-13, 2001.
48. Iljin K, Karkkainen MJ, Lawrence EC, Kimak MA, Uutela M, Taipale J, Finegold DN, Ferrell RE, Halmekyt M, Alitalo K: VEGFR3 gene structure, regulatory region and sequence polymorphisms. *FASEB J* 15:1028-36, 2001.
49. Finegold DN, Kimak MA, Lawrence EC, Levinson KL, Cherniske EM, Pober BR, Dunlap JW, Ferrell RE: Truncating mutations in *FOXC2* cause multiple lymphedema syndromes. *Human Molecular Genetics* 10:1185-1189, 2001.
50. Karkkainen MJ, Saaristo A, Jussila L, Karila KA, Lawrence EC, Pajusola K, Finegold DN, Ferrell RE, Alitalo. A model for gene therapy for human hereditary lymphedema. *PNAS Oct 23;98(22):12677-82*, 2001 PMID:1159298 .
51. Asher SA, Peteu SF, Reese CE, Lin MX, Finegold DN: Polymerized crystalline colloidal array chemical sensing materials for detection of lead in bodily fluids. *Anal Bioanal Chem* 373:632-638, 2002.
52. Petrova TV, Makinen T, Makela TP, Saarela J, Virtanen I, Ferrell RE, Finegold DN, Kerjaschki D, Yla-Herttuala S, Alitalo K: Lymphatic endothelial reprogramming of vascular endothelial cells by the Prox-1 homeobox transcription factor. *The EMBO J* 21:4593-4599, 2002.



53. Traboulsi EI, AlKhayer K, Matsumoto M, Kimak MA, Crowe S, Wilson SE, Finegold DN, Ferrell RE, Meisler DM: Lymphedema-distichiasis syndrome and FOXC2 gene mutation. *Am J Ophthalmol* 134(4):592-6, 2002.
54. Reshmi-Skarja S, Huebner A, Handschug K, Finegold DN, Clark AJL, Gollin SM: Chromosomal fragility in patients with triple A syndrome. *AMJMG* 117A:30-36, 2003.
55. Levinson KL, Feingold E, Ferrell RE, Glover TW, Traboulsi EI, Finegold, DN: Age of onset in hereditary lymphedema. *J Pediatr* 142:2003.
56. Asher SA, Alexeev VL, Goponenko AV, Sharma AC, Lednev IK, Wilcox CS, Finegold DN: Photonic crystal carbohydrate sensors. 1. Low ionic strength sugar sensing. *JACS* 125 (11):3322-3329, 2003.
57. Alexeev VL, Sharma AC, Goponenko AV, Das S, Lednev IK, Wilcox CS, Finegold DN, Asher SA: High ionic strength glucose-sensing photonic crystal. *Analytical Chemistry* 75 (10):2316-2323, 2003.
58. Mukhopadhyay N, Finegold DN, Larson MG, Cupples LA, Myers RH, Weeks DE: A genome-wide scan for loci affecting normal adult height in the Framingham Heart Study. *Hum Hered* 55(4):191-201, 2003.
59. Nucci AM, Finegold DN, Yaworski JA, Kowalski L, Barksdale EM Jr.: Results of growth trophic therapy in children with short bowel syndrome. *J Pediatr Surg* 39:335-339, 2004.
60. Sharma A, Jana T, Kesavamoorthy R, Shi L, Virji M, Finegold D, Asher SA: A general photonic crystal sensing motif: Creatinine in bodily Fluids. *J Am Chem Soc* 126:2971-2977, 2004.
61. Alexeev VL, Sharma AC, Lednev IK, Wilcox C, Finegold DN, Asher SA: Intelligent polymerized crystalline colloidal array photonic crystal glucose sensors: I. Low ionic strength glucose sensing materials. *J Am Chem Soc* 126(9):2971-7, 2004.
62. Samollow PB, Perez G, Kammerer CM, Finegold D, Zwartjes PW, Havill LM, Comuzzie AG, Mahaney MC, Goring HH, Blangero J, Foley TP, Barmada MM. Genetic and environmental influences on thyroid hormone variation in Mexican Americans. *J Clin Endocrinol Metab.* 89(7):3276-84, 2004.
63. Defective valves and abnormal mural cell recruitment underlie lymphatic vascular failure in lymphedema distichiasis. Petrova TV, Karpanen T, Norrmen C, Mellor R, Tamakoshi T, Finegold D, Ferrell R, Kerjaschki D, Mortimer P, Yla-Herttuala S, Miura N, Alitalo K. *Nat Med.* 200410(9):974-81, 2004.

64. Alexeev VL, Das S, Finegold DN, Asher SA. Photonic crystal glucose-sensing material for noninvasive monitoring of glucose in tear fluid. *Clin Chem*. 50(12):2353-60. 2004
65. Strauss KA, Mazariegos GV, Sindhi R, Squires R, Finegold DN, Vockley G, Robinson DL, Hendrickson C, Virji M, Cropcho L, Puffenberger EG, McGhee W, Seward LM, Morton DH. Elective liver transplantation for the treatment of classical maple syrup urine disease. *Am J Transplant*. 6(3):557-64, 2006.
66. Kimble KW, Walker JP, Finegold DN, Asher SA. Progress toward the development of a point-of-care photonic crystal ammonia sensor. *Anal Bioanal Chem*. 385(4):678-85, 2006
67. Sanders JO, Browne RH, Cooney TE, Finegold DN, McConnell SJ, Margraf SA. Correlates of the peak height velocity in girls with idiopathic scoliosis. *Spine*. Sep 15;31(20):2289-95, 2006.
68. Taormina CR, Baca JT, Asher SA, Grabowski JJ, Finegold DN. Analysis of tear glucose concentration with electrospray ionization mass spectrometry. *J Am Soc Mass Spectrom*. Feb;18(2):332-6. 2006 Nov 2, 2007.
69. Sanders JO, Browne RH, McConnell SJ, Margraf SA, Cooney TE, Finegold DN.  Maturity assessment and curve progression in girls with idiopathic scoliosis. *J Bone Joint Surg Am*. Jan;89(1):64-73, 2007.
70. Angus DC, Yang L, Kong L, Kellum JA, Delude RL, Tracey KJ, Weissfeld L; GenIMS Investigators (David N. Finegold). Circulating high-mobility group box 1 (HMGB1) concentrations are elevated in both uncomplicated pneumonia and pneumonia with severe sepsis. *Crit Care Med*. 2007 Apr;35(4):1061-7.
71. Wolfe LA, Finegold DN, Vockley J, Walters N, Chambaz C, Suormala T, Koch HG, Matern D, Barshop BA, Cropcho LJ, Baumgartner MR, Gibson KM. Potential Misdiagnosis of 3-Methylcrotonyl-Coenzyme A Carboxylase Deficiency Associated With Absent or Trace Urinary 3-Methylcrotonylglycine. *Pediatrics*. 2007 120(5); e1335-40.
72. Saka G, Kreke JE, Schaefer AJ, Chang CC, Roberts MS, Angus DC; GenIMS Investigators. Use of dynamic microsimulation to predict disease progression in patients with pneumonia-related sepsis. *Crit Care*. 2007;11(3):R65 PMID: 17570835
73. Baca JT, Finegold DN, Asher SA. Tear glucose analysis for the noninvasive detection and monitoring of diabetes mellitus. *Ocul Surf*. 2007 Oct;5(4):280-93.

74. Kellum JA, Kong L, Fink MP, Weissfeld LA, Yealy DM, Pinsky MR, Fine J, Krichevsky A, Delude RL, Angus DC; GenIMS Investigators. Understanding the inflammatory cytokine response in pneumonia and sepsis: results of the Genetic and Inflammatory Markers of Sepsis (GenIMS) Study. *Arch Intern Med*. 2007 167(15):1655-63.
75. Angus DC, Yang L, Kong L, Kellum JA, Delude RL, Tracey KJ, Weissfeld L; GenIMS Investigators. Circulating high-mobility group box 1 (HMGB1) concentrations are elevated in both uncomplicated pneumonia and pneumonia with severe sepsis. *Crit Care Med*. 2007 Apr;35(4):1061-7. PMID: 17334246
76. Sanders JO, Khoury JG, Kishan S, Browne RH, Mooney JF 3rd, Arnold KD, McConnell SJ, Bauman JA, Finegold DN. Predicting scoliosis progression from skeletal maturity: a simplified classification during adolescence. *J Bone Joint Surg Am*. 2008 Mar;90(3):540-53.
77. Baca JT, Finegold DN, Asher SA. Progress in developing polymerized crystalline colloidal array sensors for point-of-care detection of myocardial ischemia. *Analyst*. 2008 Mar;133(3):385-90.
78. Huang DT, Weissfeld LA, Kellum JA, Yealy DM, Kong L, Martino M, Angus DC; GenIMS Investigators. Risk prediction with procalcitonin and clinical rules in community-acquired pneumonia. *Ann Emerg Med*. 2008 Jul;52(1):48-58.e2. Epub 2008 Mar 17. PMID: 18342993
79. Yende S, D'Angelo G, Kellum JA, Weissfeld L, Fine J, Welch RD, Kong L, Carter M, Angus DC; GenIMS Investigators. Inflammatory markers at hospital discharge predict subsequent mortality after pneumonia and sepsis. *Am J Respir Crit Care Med*. 2008 Jun 1;177(11):1242-7. Epub 2008 Mar 27. PMID: 18369199
80. D'Angelo G, Weissfeld L; on behalf of the GenIMS Investigators A complete list of GenIMS investigators is available at [www.ccm.upmc.edu/genims\\_investigators](http://www.ccm.upmc.edu/genims_investigators). An index approach for the Cox model with left censored covariates. *Stat Med*. 2008; 27(22):4502-4514 PMID 18407573
81. Ferrell RE, Finegold DN. Research perspectives in inherited lymphatic disease: an update. *Ann N Y Acad Sci*. 2008;1131:134-9. Review. PMID: 18519966
82. Finegold DN, Schacht V, Kimak MA, Lawrence EC, Foeldi E, Karlsson JM, Baty CJ, Ferrell RE. HGF and MET mutations in primary and secondary lymphedema. *Lymphat Res Biol*. 2008;6(2):65-8. PMID: 18564920
83. Ferrell RE, Kimak MA, Lawrence EC, Finegold DN. Candidate gene analysis in primary lymphedema. *Lymphat Res Biol*. 2008;6(2):69-76. PMID: 18564921

84. Conley YP, Mukherjee A, Kammerer C, Dekosky ST, Kamboh MI, Finegold DN, Ferrell RE. Evidence supporting a role for the calcium-sensing receptor in Alzheimer disease. *Am J Med Genet B Neuropsychiatr Genet*. 2009 Jul 5;150B(5):703-9 PMID: 19035514
85. Yende S, Angus DC, Kong L, Kellum JA, Weissfeld L, Ferrell R, Finegold D, Carter M, Leng L, Peng ZY, Bucala R. The influence of macrophage migration inhibitory factor gene polymorphisms on outcome from community-acquired pneumonia. *FASEB J*. 2009 Aug;23(8):2403-11.
86. Schneider A, Nakagawa S, Keep R, Dorsainville D, Charrow J, Aleck K, Hoffman J, Minkoff S, Finegold D, Sun W, Spencer A, Lebow J, Zhan J, Apfelroth S, Schreiber-Agus N, Gross S. Population-based Tay-Sachs screening among Ashkenazi Jewish young adults in the 21st century: Hexosaminidase A enzyme assay is essential for accurate testing. *Am J Med Genet A*. 2009 Nov;149A(11):2444-7. PubMed PMID: 19876898.
87. Ferrell RE, Baty CJ, Kimak MA, Karlsson JM, Lawrence EC, Franke-Snyder M, Meriney SD, Feingold E, Finegold DN. GJC2 missense mutations cause human lymphedema. *Am J Hum Genet*. 2010 Jun 11;86(6):943-8. Epub 2010 May 27. PubMed PMID: 20537300.
88. Yusupov R, Finegold DN, Naylor EW, Sahai I, Waisbren S, Levy HL. Sudden death in medium chain acyl-coenzyme a dehydrogenase deficiency (MCADD) despite newborn screening. *Mol Genet Metab*. 2010 Sep;101(1):33-9. Epub 2010 Jun 9. PubMed PMID: 20580581.
89. Cray J Jr, Burrows AM, Vecchione L, Lensie E, Decesare GE, Campbell A, Finegold DN, Losee JE, Siegel MI, Cooper GM, Mooney MP. Effects of flutamide therapy on craniofacial growth and development in a model of craniosynostosis. *J Craniofac Surg*. 2010 May;21(3):711-8. PubMed PMID: 20485034.
90. Freer DE, Ficioglu C, Finegold D. Newborn screening for galactosemia: a review of 5 years of data and audit of a revised reporting approach. *Clin Chem*. 2010 Mar;56(3):437-44. Epub 2010 Jan 14. PubMed PMID: 20075179.
91. Karwowski C, Galambos C, Finegold D, Shneider BL. Markedly Elevated Serum Transaminases in Glycogen Storage Disease Type III. *J Pediatr Gastroenterol Nutr*. 2011 May;52(5):621-3. PubMed PMID: 21464753.
92. Giannoukakis N, Phillips B, Finegold D, Harnaha J, Trucco M. Phase I (safety) study of autologous tolerogenic dendritic cells in type 1 diabetic patients. *Diabetes Care*. 2011 Sep;34(9):2026-32. Epub 2011 Jun 16. PMID:21680720

93. Cray JJ Jr, Durham EL, Smalley MA, Finegold DN, Siegel MI, Losee JE, Mooney MP, Cooper GM. The effects of testosterone on craniosynostotic calvarial cells: a test of the gene/environmental model of craniofacial anomalies. *Orthod Craniofac Res*. 2011 Aug;14(3):149-55. doi: 10.1111/j.1601-6343.2011.01520.x. Epub 2011 Jul 14. PMID:21771269
94. Ruffner MA, Finegold DN, MacGinnitie AJ. Infant with unusual food reactions. *Acta Paediatr*. 2011 Oct;100(10):1289, 1394-5. doi: 10.1111/j.1651-227.2011.02316.x. PubMed PMID: 21916981.
95. Finegold DN, Baty CJ, Knickelbein KZ, Perschke S, Noon SE, Campbell D, Karlsson JM, Huang D, Kimak MA, Lawrence EC, Feingold E, Meriney SD, Brufsky AM, Ferrell RE. Connexin 47 mutations increase risk for secondary lymphedema following breast cancer treatment. *Clin Cancer Res*. 2012 Apr 15;18(8):2382-90. Epub 2012 Feb 20. PubMed PMID: 22351697.
96. Soran A, Finegold DN, Brufsky A. Lymphedema prevention and early intervention: a worthy goal. *Oncology (Williston Park)*. 2012 Mar;26(3):249, 254, 256. PubMed PMID: 22545306.
97. Labilloy A, Youker RT, Bruns JR, Kukic I, Kiselyov K, Halfter W, Finegold D, do Monte SJ, Weisz OA. Altered dynamics of a lipid raft associated protein in a kidney model of Fabry disease. *Mol Genet Metab*. 2014 Feb;111(2):184-92. doi: 10.1016/j.ymgme.2013.10.010.
98. Jones SA, Valayannopoulos V, Schneider E, Eckert S, Banikazemi M, Bialer M, Cederbaum S, Chan A, Dhawan A, Di Rocco M, Domm J, Enns GM, Finegold D, Gargus JJ, Guardamagna O, Hendriksz C, Mahmoud IG, Raiman J, Selim LA, Whitley CB, Zaki O, Quinn AG. Rapid progression and mortality of lysosomal acid lipase deficiency presenting in infants. *Genet Med*. 2015 Aug 27, 1-7 doi: 10.1038/gim.2015.108.
99. Weinreb NJ, Finegold DN, Feingold E, Zeng Z, Rosenbloom BE, Shankar SP, Amato D. Evaluation of disease burden and response to treatment in adults with type 1 gaucher disease using a validated disease severity scoring system (DS3). *Orphanet J Rare Dis*. 2015 May 22;10(1):64. [Epub ahead of print]
100. Germain DP, Hughes DA, Nicholls K, Bichet DG, Giugliani R, Wilcox WR, Feliciani C, Shankar SP, Ezgu F, Amartino H, Bratkovic D, Feldt-Rasmussen U, Nedd K, Sharaf El Din U, Lourenco CM, Banikazemi M, Charrow J, Dasouki M, Finegold D, Giraldo P, ...et.al. Treatment of Fabry's Disease with the Pharmacologic Chaperone Migalastat. (2016) *N Engl J Med*. 2016 Aug 11;375(6):545-55. doi: 10.1056/NEJMoa1510198.

101. Pan LA, Martin P, Zimmer T, Segreti AM, Kassiff S, McKain BW, Baca CA, Rengasamy M, Hyland K, Walano N, Steinfeld R, Hughes M, Dobrowolski SK, Pasquino M, Diler R, Perel J, Finegold DN, Peters DG, Naviaux RK, Brent DA, and Vockley G. (2016) Neurometabolic disorders: potentially treatable abnormalities in patients with treatment refractory depression and suicidal behavior. [Am J Psychiatry](#). 2017 Jan 1;174(1):42-50. doi: 10.1176/appi.ajp.2016.15111500
102. Eshbach ML, Sethi R, Avula R, Lamb J, Hollingshead DJ, Finegold DN, Locker J, Chandran UR, Weisz OA. The Transcriptome of the Didelphis virginiana Opossum Kidney OK Proximal Tubule Cell Line. 2017 *Am J Physiol Renal Physiol*. Jun 14;ajprenal.00228.2017. doi: 10.1152/ajprenal.00228.2017. PMID: 28615248
103. Orlova E, Yeh A, Shi M, Firek B, Ranganathan S; 23andMe Research Team, Whitcomb DC, Finegold DN, Ferrell RE, Barmada MM, Marazita ML, Hinds DA, Shaffer JR, Morowitz MJ. Genetic association and differential expression of PITX2 with acute appendicitis. *Hum Genet*. 2019 Jan;138(1):37-47. doi: 10.1007/s00439-018-1956-2. Epub 2018 Nov 3. PMID:30392061
104. McClain LL, Shaw P, Sabol R, Chedia AM, Segretti AM, Rengasamy M, Finegold DN, Pan L, Peters DG. Rare variants and biological pathways identified in treatment-refractory depression. *J Neurosci Res*. 2020 Jul;98(7):1322-1334. doi: 10.1002/jnr.24609. Epub 2020 Mar 3. PMID: 32128872.
105. McClain L, Segreti AM, Nau S, Shaw P, Finegold DN, Pan LA, Peters DG. Chromosome 15q13.3 microduplications are associated with treatment refractory major depressive disorder. *Genes Brain Behav*. 2020 Jun;19(5):e12628. doi: 10.1111/gbb.12628. Epub 2019 Dec 15. PMID: 31828948.
106. Pan L, McClain L, Shaw P, Donnellan N, Chu T, Finegold D, Peters D. Non-invasive epigenomic molecular phenotyping of the human brain via liquid biopsy of cerebrospinal fluid and next generation sequencing. *Eur J Neurosci*. 2020 Oct 6. doi: 10.1111/ejn.14997. Epub ahead of print. PMID: 33020990.
107. Yu Y, Sereika SM, Finegold DN, Burke LE. Problem-solving, Adherence to Lifestyle Goals, and Weight Loss Among Individuals Participating in a Weight Loss Study. *Int J Behav Med*. 2021 Jun;28(3):328-336. doi: 10.1007/s12529-020-09922-4. PMID: 32681361.
108. Good M, Chu T, Shaw P, McClain L, Chamberlain A, Castro C, Rimer JM, Mihi B, Gong Q, Nolan LS, Cooksey K, Linneman L, Agrawal P, Finegold DN, Peters D. Global hypermethylation of intestinal epithelial cells is a hallmark feature of neonatal surgical necrotizing enterocolitis. *Clin Epigenetics*. 2020 Dec 11;12(1):190. doi: 10.1186/s13148-020-00983-6. PMID: 33308304; PMCID: PMC7730811.

109. Hwang SI, Chen HY, Fenk C, Rothfuss MA, Bocan KN, Franconi NG, Morgan GJ, White DL, Burkert SC, Ellis JE, Vinay ML, Rometo DA, Finegold DN, Sejdic E, Cho SK, Star A. Breath Acetone Sensing Based on Single-Walled Carbon Nanotube-Titanium Dioxide Hybrids Enabled by a Custom-Built Dehumidifier. *ACS Sens.* 2021 Mar 26;6(3):871-880. doi: 10.1021/acssensors.0c01973. Epub 2021 Mar 15. PMID: 33720705.
110. Good M, Chu T, Shaw P, Nolan LS, McClain L, Chamberlain A, Castro C, Gong Q, Cooksey K, Linneman L, DeWitt ON, Finegold DN, Peters DG. Neonatal necrotizing enterocolitis-associated DNA methylation signatures in the colon are evident in stool samples of affected individuals. *Epigenomics.* 2021 Jun;13(11):829-844. doi: 10.2217/epi-2021-0078. Epub 2021 Apr 27. PMID: 33905263.
111. Lisa A. Pan, Anna Maria Segreti, Sharon Nau, Rebecca Michalec, Lora McClain, Annie Shaw, Keith Hyland, Marion Hughes, James Perel, David N. Finegold, Robert K. Naviaux, David A. Brent, Jerry Vockley, David G. Peters. Metabolomic disorders: confirmed presence of potentially treatable abnormalities in patients with treatment refractory depression and suicidal behavior. In preparation

Member of the Diabetes Control and Complications Trial (DCCT) Research Group. Over 804 publications:

1. The Diabetes Control and Complications Trial Research Group. The effect of intensive treatment of diabetes on the development and progression of long-term complications in insulin-dependent diabetes mellitus. *N Engl J Med* 329:977-86, 1993.

### **CHAPTERS AND INVITED PAPERS**

1. Finegold DN: Hypoglycemia. *Topics in Emergency Medicine* 5#4, 1984.
2. Finegold DN: Atlas of Pediatric Physical Diagnosis: Endocrinology, David H and Zitelli B (eds), Gower Medical Pub. 1987, edition 1; 1991, edition 2.
3. Summary and commentary for *Diabetes Spectrum* on: Russell GF, Szmukler GI, Dare C, Eisler I: "An Evaluation of Family Therapy in Anorexia Nervosa and Bulimia Nervosa". *Archives of General Psychiatry*, 44:1047-1056, 1987.
4. Rehkopf P, Friberg TR, Mandarino L, Warnicki J, Finegold D, Cappelletti D, Horner J: Retinal Circulation Time Using Scanning Laser Ophthalmoscope-Image Processing Techniques. *Proceedings of the First International Symposium on*

Scanning Laser Ophthalmoscopy. Nasemann JW, Burk ROW (eds), Quintessing, Verlag, Munchen, 1990, pp 81-89.

5. Finegold DN: Psychological aspects of treating Diabetes Mellitus in children. ProFile, Novo Diabetes Care. Winter, 1992.
6. Kochanek PM, Kaczorowski SL, Clark RSB, Finegold DN, Pollack IF, Cinoman MI: Transport of the child with non-traumatic central nervous system failure. In: Pediatric Transport Medicine, Craven L (ed), Mosby Year Book, Inc. MO., 1995, pp 238-257.
7. Conley YP, Finegold, DN: Exploring calcium level disorders: Looking through the genetic window for new treatment clues. 425-429, October/November, 2002.
8. Ferrell RE, Finegold DN: VEGFR3 and Milroy Disease. In: Inborn Errors of Development. Epstein CJ, Erickson RP, Wynshaw-Boris A (eds), Oxford University Press. 2004.
9. Ferrell RE, Finegold DN: VEGFR3 and Milroy Disease. In: Inborn Errors of Development. Epstein CJ, Erickson RP, Wynshaw-Boris A (eds), Oxford University Press. Ed 2. 2008.

### **ABSTRACTS**

Dr. Finegold does not list abstracts.

### **PROFESSIONAL ACTIVITIES**

#### **Major Teaching and Clinical Responsibilities at the University of Pittsburgh**

1. Medical Genetics Clinic at the Children's Hospital of Pittsburgh
2. Medical Genetics attending at the Children's Hospital of Pittsburgh
3. Pediatric Physical Diagnosis course-Fall and Spring term.
4. Genetics Course Lectures - All years medical students
5. Genetics Lectures - House staff and students
6. Hugen 2040 – 3 credits – Graduate school of Public Health –Introduction to Molecular Medicine

### **Research**

**Current NIH:** None active.



**Prior support:**

Neurobehavioral Complications in Type I Diabetic Adults

Source: National Institutes of Health  
Project Period: 12/1/87 - 11/30/92  
P.I.: Christopher Ryan, Ph.D.  
Co-Investigator: David N. Finegold, M.D.  
20% effort

Wheeler Laboratory Fund

Sponsor: American Diabetes Association  
Project Period: 12/87 -  
P.I.: David N. Finegold, M.D.  
Current Direct Costs: \$10,000

A Multicenter Study to Evaluate the Safety and Efficacy of Recombinant DNA Human Growth Hormone in the Treatment of Growth Failure In Prepubertal Growth Hormone Deficient Children.

Sponsor: Serono Laboratories, Inc.  
Project Period: 9/85 -  
P.I.: David N. Finegold, M.D.  
Total Award: \$38,000

Studies of Growth Disorders

Sponsor: Genentech, Inc.  
Project Period: 9/1/87 -  
P.I.: David N. Finegold, M.D.  
Total Award: \$12,000

Neurobehavioral Complications in Type I Diabetic Adults

Sponsor: NIH  
Project Period: 12-1-93 to 11-30-98  
P.I.: Christopher Ryan, Ph.D.  
Total Award: \$99,406

A Multicenter Multinational Study to Evaluate the Safety and Efficacy of GRF in the Treatment of Growth Failure in Idiopathic Prepubertal Growth Hormone Deficient Naive Children

Sponsor: Serono Laboratories  
Project Period: 12-1-91 to 11-30-93  
P.I.: David N. Finegold, M.D.  
Total Award: \$20,160

Linkage Studies of Candidate Genes for Growth and Adult Height

Sponsor: Genentech Foundation for Growth and Development  
Project Period: 10-14-94 to 10-13-96

P.I.: David N. Finegold, M.D.  
Total Award: \$90,000

Genetic Studies of Inherited Lymphedema  
Sponsor: National Institutes of Health  
Project Period: 08/01/97-07/31/99  
P.I.: David N. Finegold, M.D.

Genetic Studies of Lymphedema  
Sponsor: National Institutes of Health  
Project Period: 07/01/00 - 06/30/03  
P.I.: David N. Finegold, M.D.  
Total Award: \$806,440

Structure Function Correlation in Primary Lymphedema  
Sponsor: Lymphedema Foundation  
Project Period: 02/01/99 - 01/31/01  
P.I.: David N. Finegold, M.D.  
Total Award: \$100,000

Novel Clinical Chemistry Sensing Motif  
Sponsor: National Institutes of Health  
Project Period: 09/01/99 - 08/31/02  
P.I.: Sanford Abraham Asher, Ph.D.  
Total Award: \$607,412

Genetic and Inflammatory Markers of Sepsis  
Sponsor: National Institutes of Health  
Project Period: 7/1/01 – 6/30/05  
P.I.: Derek C. Angus, Ph.D.  
Total Award: \$5,616,160

Familial susceptibility for lymphedema secondary to breast cancer therapy.  
Sponsor: American Cancer Society  
Project Period: 7/1/2006 – 6/30/2009  
P.I.: David N. Finegold, M.D.  
Total Award: \$514,000

Novel mutations in human hepatocyte growth factor alter lymphatic endothelial cell biology

## HOSPITAL COMMITTEES

1986-1998	Children's Hospital of Pittsburgh	Animal Research and Care Committee
1986-2001	Children's Hospital of Pittsburgh	Library Committee
1988-2001	Children's Hospital of Pittsburgh	Clinical Laboratory Use Committee
1990-	Children's Hospital of Pittsburgh	Human Rights Committee
1993-1994	Clinical Laboratory Use Committee	
1993-1994	Human Rights Committee (alternate)	
1993-1994	Library Committee	
2000-2004	Carnegie Mellon University	Human Rights Committee
2005-2010	University of Pittsburgh	Human Rights Committee

## Entrepreneurial Activities

2013 – co-Founder	Diavacs, Inc, - a cell based therapeutics company
2014 – co-Founder	Bremedico, Inc – a carbon nanotube breath sensing company

## NON-HOSPITAL ACTIVITIES APPOINTMENTS

1981-1990	Executive Board Member, Western Pennsylvania Affiliate, American Diabetes Association
1982-1986	Chairman, Professional Education Committee, Western Pennsylvania Affiliate, American Diabetes Association
1987-1988	Vice President American Diabetes Association Western Pennsylvania Affiliate

1988-1990	President American Diabetes Association Western Pennsylvania Affiliate
1989-1994	Medical Advisory Board Biocontrol Technology, Inc.
1990-1991	President American Diabetes Association Pennsylvania Affiliate
1990-94	Board Member, Affiliate American Diabetes Association Pennsylvania
1991-95	Vice Chair - Volunteer Development Committee Pennsylvania Affiliate American Diabetes Association
1992-3	Chair - Affiliate Research Committee
2013 -17	Scientific Advisory Board Diavacs

04/04