

## CURRICULUM VITAE

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BIRTH DATE December 5, 1958  
BIRTH PLACE L'Aquila, Italy  
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### ACADEMIC TRAINING

1983 M.D. University of Rome, Italy

### POSTGRADUATE EDUCATION AND POSITIONS HELD

1983-1985 Intern and Resident, University Hospital “A. Gemelli”, Rome, Italy  
1985-1988 Fogarty Fellow, Diabetes Branch, NIDDK, National Institutes of Health, Bethesda, MD  
1987-1990 Assistant Professor, Department of Medicine, University of Rome-Tor Vergata, Rome, Italy  
1990-1995 Visiting Scientist, Diabetes Branch, NIDDK, National Institutes of Health, Bethesda, MD  
1996-1999 Chief, Unit on Genetics and Hormone Action, Developmental Endocrinology Branch, NICHD, National Institutes of Health, Bethesda, MD  
1999-present Professor of Medicine, College of Physicians & Surgeons of Columbia University, New York, NY  
1999-present Attending Physician, New York Presbyterian Hospital, New York, NY  
2003-present Director, Columbia University Diabetes Research Center  
2011-present Russell Berrie Foundation Professor of Diabetes (in Medicine), Columbia University

### FELLOWSHIPS

Juvenile Diabetes Foundation International Postdoctoral Fellowship (1988-1990)

### BOARD CERTIFICATION AND LICENSURE

Maryland State license  
New York State license  
Italian Medical License (Medical Board of L'Aquila)  
Board Certification in Endocrinology–University of Rome Tor Vergata

## PROFESSIONAL MEMBERSHIPS

Association of American Physicians  
American Society for Clinical Investigation  
American Diabetes Association

## AWARDS and HONORS

- 1994 Chafic Haddad Lecturer, Middle East Medical Association
- 1996 Roberto DePirro Lecturer, Symposia on Insulin Receptors and Insulin Action
- 1997 Novo Nordisk Lectureship, Tokyo, Japan
- 2000 Kato Lectureship, Kato Foundation, Tokyo, Japan
- 2001 Mary Webber Parker Lecturer, Wayne State University, Detroit, MI  
Gerald Friedman Lecturer, Tufts University, Boston, MA  
Pincus Taft Lecturer, Australian Endocrine Society  
Elected to the American Society for Clinical Investigation
- 2003 Mercy Health Partners Endowed Visiting Professor  
Lilly Visiting Professorship, University of California San Francisco  
Lilly Award for Outstanding Scientific Achievement, American Diabetes Association
- 2004 Kroc Lecturer, Baylor College of Medicine, Houston, TX  
Meites Lecturer, Michigan State University, East Lansing, MI
- 2005 Pfizer Visiting Professorship, University of Louisville, KY  
Davidson Lectureship and Award, University of Toronto, Toronto, ON  
J.S.L. Browne Lecturer, McGill University, Montreal, QC
- 2006 Loeb Lectureship, Columbia University, New York, NY  
Amgen Distinguished Speaker, Amgen, Inc., Thousand Oaks, CA  
Elected to the Association of American Physicians
- 2007 29<sup>th</sup> Annual William Resnik Lectureship, Stamford Health System, Stamford, CT
- 2008 Albert and Miriam Weinstein Lecturer, Vanderbilt University, Nashville, TN  
Aubrey E. Boyd Lecturer, Baylor College of Medicine, Houston, TX  
Kroc Lecturer in Diabetes and Endocrinology, University of Alabama, Birmingham, AL
- 2009 3<sup>rd</sup> J. Denis McGarry Lectureship, Montreal Diabetes Research Center, Montreal, QC  
Kroc Lecturer, University of Pennsylvania, Philadelphia, PA
- 2010 Rifkin Visiting Professorship, Albert Einstein College of Medicine, Bronx, NY  
MERIT Award, NIDDK, NIH
- 2011 Visiting Scientist, Brigham & Women's Hospital Research Institute, Boston, MA  
Delbert Fisher Visiting Professorship, University of California, Los Angeles
- 2013 Kroc Lecturer, Joslin Diabetes Center, Boston, MA  
Distinguished Speaker, Harvard Stem Cell Initiative, Boston, MA  
Donald F. Steiner Award for Diabetes Research, University of Chicago, Chicago, IL

CURRENT GRANT SUPPORT

NIH (R37) DK58282-13 “Mouse models of insulin resistance” (Accili)  
NIH (R01) DK57539-12 “Role of forkhead proteins in insulin action” (Accili)  
NIH (R01) DK64819-11 “Mechanisms of beta cell failure” (Accili)  
NIH (P30) DK63608-11 “Diabetes Research Center” (Accili)  
NIH (P01) HL87123-06 “Mechanisms of Atherogenesis in Insulin Resistance” (Tabas/Accili,  
Project leader)  
American Diabetes Association Mentor-Based Post-Doctoral Fellowship Award (Accili)

PENDING GRANT SUPPORT

None

PAST GRANT SUPPORT

1997-1999 American Diabetes Association “Mutational analysis of insulin action using insulin  
receptor transgenic knockout mice”  
1999-2002 Juvenile Diabetes Research Foundation “IGFs as beta cell growth factors”  
NIH (R24) DK071030-04 “Adiponectin and resistin: structure, function and effects”  
(Scherer/Accili)

## EDITORIAL BOARDS

1998-2003 Journal of Biological Chemistry  
2000 Editor, Receptor Biochemistry and Methodology  
2000 Guest Editor, Trends in Endocrinology & Metabolism  
2000-2003 Current Molecular Medicine  
2000-2004 Journal of Clinical Endocrinology & Metabolism  
2000-2009 Trends in Endocrinology & Metabolism  
2001-2003 American Journal of Physiology  
2001-2004 Diabetes  
2002-2007 Associate Editor, Journal of Clinical Investigation

## SERVICE ON FEDERAL ADVISORY PANELS

1997-2003 CSR, Endocrinology Study Section  
1997-2001 CSR, Metabolism Study Section  
1998 NIH National Research Service Award Review Panel  
1999-2000 NCI Scientific Review Group  
2000-2002 Chair, NIDDK Special Emphasis Panels  
2004-2006 External Advisory Board, NIDDK Beta Cell Biology Consortium  
2005 Chair, NIDDK Special Emphasis Panels  
2005 NIDDK Special Statutory Funding Program for Type 1 Diabetes Research  
2005-2009 CSR, Molecular and Cellular Endocrinology Study Section  
2009 Chair, Beta Cell Group, Diabetes Research Strategic Plan, NIDDK  
2011-2014 Member, NIDDK Advisory Council

## OTHER ADVISORY PANELS

1999-2002 Scientific Committee, American Diabetes Association Eastern Section  
2002-2005 Scientific Review Panel, American Diabetes Association (2002-2005)  
2005-2007 Diabetes Gene Discovery Group, Genome Canada  
2005-2008 European Group for Type 2 Diabetes Genetics (EUGENE)  
2007 Organizer, Keystone Symposium on Diabetes  
2007-2009 External Advisory Board, Eastern Virginia Medical School, Norfolk, VA  
2007-2009 Board of Advisors, Genesis, Inc. New Delhi, India  
2008-2009 Medical Sciences Oversight Committee, American Diabetes Association  
2009 Obesity Research Chair, King Saud University, Riyadh, KSA

## I. PUBLICATIONS

1. L. Altomonte, A. Zoli, D. Accili, A. Mangia, M. Magarò (1985) Thrombosis and recurrent intrauterine death in systemic lupus erithematosus. Clin. Reumatol. 4: 455-457
2. L. Altomonte, A. Zoli, D. Accili, G. Ghirlanda, R. Manna, A. Bertoli, A.V. Greco (1986) The effect of lysine acetylsalicylate on somatostatin inhibition of insulin secretion induced by arginine. Exp. Clin. Endocrinol. 88: 119-122
3. D. Accili, N. Perrotti, R.W. Rees-Jones, S.I. Taylor (1986) Tissue distribution and subcellular localization of an endogenous substrate for the insulin receptor-associated tyrosine kinase. Endocrinology 119: 1274-1280
4. A. Zoli, L. Altomonte, A. Mangia, D. Accili, L. Pestillo, M. Magarò (1987) Pericardial effusion in Crohn's disease. Ital. J. Gastroenterol. 19:181-182
5. N. Perrotti, D. Accili, B. Marcus-Samuels, R.W. Rees-Jones, S.I. Taylor (1987) Insulin stimulates phosphorylation of a120kDa glycoprotein substrate for the insulin receptor-associated tyrosine kinase in intact H35 hepatoma cells. Proc. Natl. Acad. Sci. USA 84: 3137-3140
6. D. Accili, S.C. Elbein, C. McKeon, S.I. Taylor (1989) A new EcoRI polymorphism for the insulin receptor gene. Nucl. Acids Res. 17: 821
7. D. Accili, C. Frapier, L. Mosthaf, C. McKeon, S.C. Elbein, A. Permutt, E. Ramos, E.S. Lander, A. Ullrich, S.I. Taylor (1989) A mutation of the insulin receptor gene that impairs transport of the receptor to the plasma membrane and causes insulin-resistant diabetes. EMBO J. 8: 2509-2517
8. M. Odawara, T. Kadowaki, R. Yamamoto, Y. Shibasaki, K. Tobe, D. Accili, C.L. Bevins, Y. Mikami, N. Matsuura, Y. Akanuma, F. Takaku, S.I. Taylor, M. Kasuga (1989) A mutation in the tyrosine kinase domain of the insulin receptor of an insulin-resistant patient. Science 245: 66-68
9. S.J. Usala, G.E. Tennyson, A.E. Bale, R.W. Lash, N. Gesundheit, F.E. Wondisford, D. Accili, P. Hauser, B.D. Weintraub (1990) A single base mutation of the c-erb-A thyroid hormone receptor in a kindred with generalized thyroid hormone resistance: molecular heterogeneity in other two kindreds. J. Clin. Invest. 85: 93-100
10. C. McKeon, V. Moncada, T. Pham, P. Salvatore, T. Kadowaki, D. Accili, S.I. Taylor (1990) Structural and functional analysis of the insulin receptor promoter. Mol. Endocrinol. 4: 647-656
11. F. Barbetti, N. Raben, T. Kadowaki, A. Cama, D. Accili, K.H. Gabbay, J.A. Merenich, S.I. Taylor, J. Roth (1990) Two unrelated patients with familial hyperproinsulinemia due to a mutation substituting histidine for arginine at position 65 in the proinsulin molecule: identification of the mutation by direct sequencing of genomic DNA amplified by polymerase chain reaction. J. Clin. Endocrinol. Metab. 71: 164-169
12. T. Kadowaki, H. Kadowaki, D. Accili, S.I. Taylor (1990) Substitution of lysine for asparagine at position 15 in the  $\alpha$  subunit of the human insulin receptor. A mutation that impairs transport of receptors to the cell surface and decreases the affinity of insulin binding. J. Biol. Chem. 265: 19143-19150
13. D. Accili, L. Mosthaf, A. Ullrich, S.I. Taylor (1991) A mutation in the extracellular domain of the insulin receptor impairs the ability of insulin to stimulate receptor autophosphorylation. J. Biol. Chem. 266: 434-439
14. D.M. Hurley, D. Accili, C. Stratakis, M. Karl, N. Vamvakopoulos, E. Rorer, K. Constantine, S.I. Taylor, G.P. Chrousos (1991) Point mutation causing a single amino acid substitution in the hormone binding domain of the glucocorticoid receptor in familial glucocorticoid resistance. J. Clin. Invest. 87: 680-686
15. D. Accili, S.I. Taylor (1991) Targeted inactivation of the insulin receptor gene in mouse 3T3-L1 fatty

fibroblasts via homologous recombination. Proc. Natl. Acad. Sci. USA 88: 4708-4712

16. T. Kadowaki, H. Kadowaki, D. Accili, S.I. Taylor (1991) A mutation substituting Arg for His209 in the  $\alpha$ -subunit of the insulin receptor impairs intracellular processing of the receptor and prevents its expression on the plasma membrane. J. Biol. Chem. 266: 21224-21231
17. G. Sesti, M.A. Marini, A.N. Tullio, A. Montemurro, P. Borboni, A. Fusco, D. Accili, R. Lauro (1991) Altered expression of the two naturally occurring human insulin receptor variants in isolated adipocytes from patients with non-insulin-dependent diabetes mellitus. Biochem. Biophys. Res. Comm. 181: 1419-1424
18. D. Accili, T. Kadowaki, H. Kadowaki, L. Mosthaf, A. Ullrich, S.I. Taylor (1992) Immunoglobulin heavy-chain binding protein binds to misfolded mutant insulin receptors with mutations in the extracellular domain. J. Biol. Chem. 267: 586-590
19. S.M. Najjar, D. Accili, N. Philippe, J. Jernberg, R.N. Margolis, S.I. Taylor (1993) Pp120/ecto-ATPase, an endogenous substrate of the insulin receptor, is expressed in two different isoforms generated by alternate splicing of mRNA in liver. J. Biol. Chem. 268: 1201-1206
20. M. Karl, S.W.J. Lamberts, S.D. Detera-Wadleigh, I.J. Encio, C.A. Stratakis, D.M. Hurley, D. Accili, G.P. Chrousos (1993) A deletion in the glucocorticoid receptor gene in a kindred with familial glucocorticoid resistance. J. Clin. Endocrinol. Metab. 76: 683-689
21. C. Lebrun, V. Baron, P. Kaliman, N. Gautier, J. Dolais-Kitabgi, S.I. Taylor, D. Accili, E. Van Obberghen (1993) Antibodies to the extracellular receptor domain restore the hormone-insensitive kinase and conformation of the mutant insulin receptor Val382. J. Biol. Chem. 268: 11272-11277
22. R. Levy-Toledano, D. Accili, S.I. Taylor (1993) Deletion of 113 amino acids at the COOH-terminus of the insulin receptor: effects on receptor processing and autophosphorylation. Biochem. Biophys. Acta 1220: 1-14
23. R. Levy-Toledano, L.H.P. Caro, D. Accili, S.I. Taylor (1994) Investigation of the mechanism of the dominant negative effect of mutations in the tyrosine kinase domain of the insulin receptor. EMBO J. 13:835-842
24. E. Wertheimer, Y. Litvin, R.P. Ebstein, E.R. Bennett, F. Barbetti, D. Accili, S.I. Taylor (1994) Deletion of exon three of the insulin receptor gene in a kindred with a familial form of insulin resistance. J. Clin. Endocrinol. Metab. 78: 1153-1158
25. D. Accili, L. Mosthaf, R. Levy-Toledano, A. Ullrich, S.I. Taylor (1994) Mutagenesis of Phe381- Phe382 in the  $\alpha$ -subunit of the insulin receptor: effects on receptor biosynthesis, processing and internalization. FEBS Lett. 341: 104-108
26. G. Sesti, A.N. Tullio, M.A. Marini, E. Manera, P. Borboni, D. Accili, R. Longhi, A. Fusco, R. Lauro, A. Montemurro (1994) Role of exon 11 of the insulin receptor gene on insulin binding identified by anti-peptide antibodies. Mol. Cell. Endocrinol. 101: 121-127
27. P. Roach, Y. Zick, P. Formisano, D. Accili, S.I. Taylor, P. Gorden (1994) A novel human insulin receptor gene mutation uniquely inhibits insulin binding without impairing posttranslational processing. Diabetes 43: 1096-1102
28. H.Y. Jui, Y. Suzuki, D. Accili, S.I. Taylor (1994) Expression of a cDNA encoding the human insulin receptor related receptor. J. Biol. Chem. 269: 22446-22452
29. J. Hone, D. Accili, L.I. Al-Gazali, G. Lestringant, T. Orban, S.I. Taylor (1994) Homozygosity for a novel mutation (Ile119 > Met) in the insulin receptor gene in five siblings with familial insulin resistance. J. Med. Genet. 31: 715-716

30. G. Giacchetti, E. Faloia, A. Taccaliti, P. Morosini, F. Soletti, D. Zappasodi, D. Accili, R. De Pirro (1994) Altered expression of the insulin-responsive glucose transporter GLUT-4 in adipose tissue of obese and NIDDM patients. J. Endocrinol. Invest. 17: 709-715
31. Y. Imai, A. Fusco, Y. Suzuki, M.A. Lesniak, R. D'Alfonso, G. Sesti, A. Bertoli, R. Lauro, D. Accili, S.I. Taylor (1994) Variant sequences of insulin receptor substrate-1 in patients with non-insulin-dependent-diabetes-mellitus. J. Clin. Endocrinol. Metab. 79: 1655-1658
32. B.-H. Park, C.S. Fishburn, S. Carmon, D. Accili, S. Fuchs (1995) Structural organization of the murine D3 dopamine receptor gene. J. Neurochem. 64: 482-486
33. Y.H. Hadari, K. Paz, R. Dekel, T. Mestrovic, D. Accili, Y. Zick (1995) Galectin-8—A new rat lectin related to galectin-4. J. Biol. Chem. 270: 3447-3453
34. S.M. Najjar, N. Philippe, Y. Suzuki, G.A. Ignacio, P. Formisano, D. Accili, S.I. Taylor (1995) Insulin stimulated phosphorylation of recombinant pp120, an endogenous substrate of the insulin receptor tyrosine kinase. Biochemistry 34: 9341-9349
35. J. Hone, D. Accili, H. Psiachou, J.A. Zadeh, S. Mitton, L. Sinclair, S.I. Taylor (1995) Homozygosity for a null allele of the insulin receptor gene in a patient with leprechaunism. Human Mutat. 6: 17-22
36. H. Voliovitch, D.G. Schindler, Y.R. Hadari, S.I. Taylor, D. Accili, Y. Zick (1995) Tyrosine phosphorylation of insulin receptor substrate-1 in vivo depends upon the presence of its pleckstrin homology domain. J. Biol. Chem. 270: 18083-18087
37. P. Formisano, S.M. Najjar, C.N. Gross, N. Philippe, F. Oriente, D. Accili, P. Gorden (1995) Receptor-mediated internalization of insulin: potential role of pp120/HA4, a substrate of the insulin receptor kinase. J. Biol. Chem. 270: 24073-24077
38. H.Y. Jui, D. Accili, S.I. Taylor (1996) Characterization of a hybrid receptor formed by dimerization of the insulin receptor-related receptor (IRR) with the insulin receptor (IR): coexpression of cDNAs encoding human IRR and human IR in NIH-3T3 cells. Biochemistry 35: 14326-14330
39. A. Brunetti, L. Brunetti, D. Foti, D. Accili, I.D. Golfine (1996) Human diabetes associated with defects in nuclear regulatory proteins for the insulin receptor gene. J. Clin. Invest. 97: 258-262
40. D. Accili, J. Drago, E.J. Lee, M.D. Johnson, M.H. Cool, P. Salvatore, L.D. Asico, P. José, S.I. Taylor, H. Westphal (1996) Early neonatal death in mice homozygous for a null allele of the insulin receptor gene. Nat. Genet. 12: 106-109
41. D. Accili, C.S. Fishburn, J. Drago, H. Steiner, J. Lachowicz, B.H. Park, E. Gauda, E.J. Lee, M.H. Cool, D.R. Sibley, C.R. Gerfen, H. Westphal, S. Fuchs (1996) A targeted mutation of the dopamine D3 receptor is associated with hyperactivity in mice. Proc. Natl. Acad. Sci. USA 93: 1945-1949
42. J.C. Bruning, J. Winnay, S. Bonner-Weir, S.I. Taylor, D. Accili, C.R. Kahn (1997) Development of a novel polygenic model of non-insulin-dependent diabetes mellitus in mice heterozygous for IR and IRS-1 null alleles. Cell 88: 561-572
43. J.O. Gordeladze, K.E. Hovik, J.J. Merendino, S. Hermouet, S. Gutkind, D. Accili (1997) Effect of activating and inactivating mutations of Gs- and Gi2-alpha protein subunits on growth and differentiation of 3T3-L1 preadipocytes. J. Cell. Biochem. 64: 242-257
44. G. DiCola, M.H. Cool, D. Accili (1997) Hypoglycemic effect of IGF-1 in mice lacking insulin receptors. J. Clin. Invest. 99: 2538-2544
45. A. Louvi, D. Accili, A. Efstratiadis (1997) Growth-promoting interaction of IGF-II with the insulin receptor during mouse embryonic development. Dev. Biol. 189: 33-48

46. A.N. Tullio, D. Accili, V.J. Ferrans, Z.X. Yu, K. Takeda, A. Grinberg, H. Westphal, Y.A. Preston, R.S. Adelstein (1997) Nonmuscle myosin II-B is required for normal development of the mouse heart. Proc. Natl. Acad. Sci. USA *94*: 12407-12412
47. Y. Imai, N. Philippe, G. Sesti, D. Accili, S.I. Taylor (1997) Expression of variant forms of insulin receptor substrate-1 identified in patients with non-insulin-dependent diabetes mellitus. J.Clin. Endocrinol. Metab. *82*: 4201-4207
48. C. McKeon, D. Accili, H. Chen, T. Pam, G. Walker (1997) A conserved region in the first intron of the insulin receptor gene binds nuclear proteins during adipocyte differentiation. Biochem. Biophys. Res. Comm. *240*: 701-706
49. H. Steiner, S. Fuchs, D. Accili (1998) Dopamine D3 receptor-deficient mice: evidence for reduced anxiety. Physiol. Behav. *63*: 137-141
50. S. Cinti, S. Eberbach, M. Castellucci, D. Accili (1998) Lack of insulin receptors affects white adipose tissue development in mice. Diabetologia *41*: 171-177
51. P. Salvatore, C.R. Hanash, Y. Kido, Y. Imai, D. Accili (1998) Identification and cloning of Sirm, a novel insulin-regulated SH3 binding protein that associates with Grb-2 and FYN. J. Biol. Chem. *273*: 6989-6997
52. K.I. Rother, Y. Imai, M. Caruso, P. Formisano, F. Beguinot, D. Accili (1998) Evidence that IRS-2 phosphorylation is required for insulin action in hepatocytes. J. Biol. Chem. *273*: 17491-17497
53. S. Yu, D. Yu, E. Lee, M. Eckhaus, R. Lee, Z. Corria, D. Accili, H. Westphal, L.S. Weinstein (1998) Variable and tissue-specific hormone resistance in heterotrimeric Gs protein  $\alpha$  subunit ( $G\alpha$ ) knockout mice is due to tissue-specific imprinting of the  $G\alpha$  gene. Proc. Natl. Acad. Sci. USA *95*: 8715-8720
54. L.D. Asico, C. Ladines, S. Fuchs, D. Accili, R.M. Carey, C. Semeraro, F. Pocchiari, R.A. Felder, G.M. Eisner, P.A. José (1998) Disruption of the dopamine D3 receptor gene produces renin-dependent hypertension. J. Clin. Invest. *102*: 493-498
55. M.L. Goalstone, J.W. Leitner, K. Wall, L. Dolgonos, K.I. Rother, D. Accili, B. Draznin (1998) Effect of insulin on farnesyltransferase. Specificity of insulin action and potentiation of nuclear effects of insulin-like growth factor-1, epidermal growth factor, and platelet-derived growth factor. J. Biol. Chem. *273*: 23892-23896
56. J.L. Liu, A. Grinberg, H. Westphal, B. Sauer, D. Accili, M. Karas, D. LeRoith (1998) Insulin-like growth factor-I affects perinatal lethality and post-natal development in a gene-dosage-dependent manner: manipulation using the Cre/loxP system in mice. Mol. Endocrinol. *12*: 1452-1462
57. D. Lauro, Y. Kido, A. Castle, M.J. Zarnowski, H. Hayashi, Y. Ebina, D. Accili (1998) Impaired glucose tolerance in mice with a targeted impairment of insulin action in muscle and adipose tissue. Nat. Genet. *20*: 294-298
58. J.C. Bruning, M.D. Michael, J.N. Winnay, T. Hayashi, D. Horsch, D. Accili, L.J. Goodyear, C.R. Kahn (1998) A muscle-specific insulin receptor knockout exhibits features of the metabolic syndrome of NIDDM without altering glucose tolerance. Mol. Cell *2*: 559-569
59. B.C. Park, Y. Kido, D. Accili (1999) Differential signaling of insulin and IGF-1 receptors to glycogen synthesis in murine hepatocytes. Biochemistry *38*: 7517-7523
60. J. Nakae, B.C. Park, D. Accili (1999) Insulin stimulates phosphorylation of the forkhead transcription factor FKHR on serine 253 through a wortmannin-sensitive pathway. J. Biol. Chem. *274*: 15982-15985
61. S. Yakar, J.L. Liu, A. Butler, D. Accili, B. Sauer, D. LeRoith (1999) Normal growth and development in the absence of hepatic insulin-like growth factor I. Proc. Natl. Acad. Sci. USA *96*: 7324-7329



62. O. Porzio, M. Federici, M.L. Hribal, D. Lauro, D. Accili, R. Lauro, P. Borboni, G. Sesti (1999) The Gly972Arg amino acid polymorphism in IRS-1 impairs insulin secretion in pancreatic beta cells. J. Clin. Invest. 104: 357-364
63. D. Lauro, Y. Kido, H. Hayashi, Y. Ebina, D. Accili (1999) Expression of kinase-inactive mutant insulin receptors does not rescue insulin receptor-deficient mice from perinatal death. Diabetologia 42: 1441-1442
64. Y. Kido, D.J. Burks, D. Withers, J.C. Bruning, C.R. Kahn, M.F. White, D. Accili (2000) Tissue-specific insulin resistance in mice with combined null mutations of insulin receptor, IRS-1 and IRS-2. J. Clin. Invest. 105: 199-205
65. M. Tomizawa, A. Kumar, J. Nakae, D. Accili, M.M. Rechler (2000) Insulin inhibits transactivation by a C-terminal fragment of Forkhead-rhabdomyosarcoma (FKHR): a mechanism for insulin inhibition of insulin-like growth factor binding protein-1 (IGFBP-1) promoter activity. J. Biol. Chem. 275: 7289-7295
66. Y. Kido, N. Philippe, A.A. Schaffer, D. Accili (2000) Genetic modifiers of the insulin resistance phenotype in mice. Diabetes 49: 589-596
67. J. Nakae, V. Barr, D. Accili (2000) Differential regulation of gene expression by insulin and IGF-1 receptors correlates with phosphorylation of a single amino acid residue in the forkhead transcription factor FKHR. EMBO J. 19: 989-996
68. B. Draznin, P. Miles, Y. Kruszynska, J. Olefsky, J. Friedman, I. Golovchenko, R. Stjernholm, K. Wall, M. Reitman, D. Accili, R. Cooksey, D. McClain, M. Goalstone (2000) Effects of insulin on prenylation as a mechanism of potentially detrimental influence of hyperinsulinemia. Endocrinology 141: 1310-1316
69. M.L. Hribal, M. Federici, O. Porzio, D. Lauro, P. Borboni, D. Accili, R. Lauro, G. Sesti (2000) The Gly>Arg972 amino acid polymorphism in insulin receptor substrate-1 affects glucose metabolism in skeletal muscle cells. J. Clin. Endocrinol. Metab. 85: 2004-2013
70. M. Caruso, C. Miele, A. Oliva, G. Condorelli, F. Oriente, G. Riccardi, B. Capaldo, F. Fiory, D. Accili, P. Formisano, F. Beguinot (2000) The IR1152 mutant insulin receptor selectively impairs insulin action in skeletal muscle but not in liver. Diabetes 49:1194-1202
71. C. Betancur, I. Lepee-Logeoux, M. Cazillis, D. Accili, S. Fuchs, W. Rostene (2001) Neurotensin gene expression and behavioral responses following administration of psychostimulants and antipsychotic drugs in dopamine D3 receptor deficient mice. Neuropsychopharmacology 24: 170-182
72. E. Wertheimer, N.S pravchikov, M. Trebicz, M. Gartsbein, D. Accili, I. Avinoah, S. Nofeh-Moses, G. Sizyakov, T. Tennenbaum (2001) The regulation of skin proliferation and differentiation in the IR null mouse: implications for skin complications of diabetes. Endocrinology 142:1234-1241
73. L. Shefi-Friedman, E. Wertheimer, S. Shen, A. Bak, D. Accili, S.R. Sampson (2001) Increased IGFR activity and glucose transport in cultured skeletal muscle from insulin receptor null mice. Am. J. Physiol. 281: E16-24
74. N. Spravchikov, G. Sizyakov, M. Gartsbein, D. Accili, T. Tennenbaum, E. Wertheimer (2001) Glucose effects on skin keratinocytes: implications for diabetes skin complications. Diabetes 50: 1627-1635
75. J.J. Kim, B.C. Park, Y. Kido, D. Accili (2001) Mitogenic and metabolic effects of type 1 IGF receptor over-expression in insulin receptor-deficient hepatocytes. Endocrinology 142: 3354-3360
76. T. Kitamura, Y. Kido, S. Nef, J. Merenmies, L.F. Parada, D. Accili (2001) Preserved pancreatic beta cell function in mice lacking the insulin receptor-related receptor. Mol. Cell. Biol. 21: 5624-5630
77. J. Nakae, T. Kitamura, W. Ogawa, M. Kasuga, D. Accili (2001) Akt-independent pathways for insulin

- regulation of gene expression through the forkhead transcription factor Foxo1. Biochemistry 40: 11768-11776
78. J. Nakae, T. Kitamura D.L. Silver, D. Accili (2001) The forkhead transcription factor Foxo1 (Fkhr) confers insulin sensitivity onto glucose-6-phosphatase expression. J. Clin. Invest. 108: 1359-1367 PMC209440
  79. F. Mauvais-Jarvis, K. Ueki, D.A. Fruman, M.F. Hirshman, K. Sakamoto, L.J. Goodyear, M. Iannaccone, D. Accili, L.C. Cantley, C.R. Kahn (2002) Reduced expression of the murine p85alpha subunit of phosphoinositide 3-kinase improves insulin signaling and ameliorates diabetes. J. Clin. Invest. 109: 141-149
  80. S. Xuan, T. Kitamura, J. Nakae, K. Politi, Y. Kido, P.E. Fisher, M. Morroni, S. Cinti, M.F. White, P.L. Herrera, D. Accili, A. Efstratiadis (2002) Impaired glucose tolerance and defective stimulus/secretion coupling in mice lacking Igf1 receptors in pancreatic  $\beta$ -cells. J. Clin. Invest. 110: 1011-1018
  81. Y. Kido, J. Nakae, M.L. Hribal, S. Xuan, A. Efstratiadis, D. Accili (2002) Effects of mutations in the insulin-like growth factor signaling system on embryonic pancreas development and beta cell compensation to insulin resistance. J. Biol. Chem. 277: 36740-36747
  82. D. Chin, S.E. Oberfield, M.E. Silfen, D.J. McMahon, A.M. Manibo, D. Accili, L.S. Levine (2002) Proinsulin in girls: relationship to obesity, hyperinsulinemia, and puberty. J. Clin. Endocrinol. Metab. 87:4673-4677
  83. J. Nakae, W.H. Biggs, T. Kitamura, W.K. Cavaneer, C.V. Wright, K.C. Arden, D. Accili (2002) Regulation of insulin action and pancreatic  $\beta$ -cell function by mutated alleles of the gene encoding forkhead transcription factor Foxo1. Nat. Genet. 32: 245-253
  84. T. Kitamura, J. Nakae, Y. Kitamura, Y. Kido, W. Biggs, C.V. Wright, M.F. White, K.C. Arden, D. Accili (2002) The forkhead transcription factor Foxo1 links insulin signaling to Pdx1 regulation of pancreatic  $\beta$  cell growth. J. Clin. Invest. 110: 1839-1847
  85. J. Nakae, T. Kitamura, Y. Kitamura, W.H. Biggs, K.C. Arden, D. Accili (2003) The forkhead transcription factor Foxo1 regulates adipocyte differentiation. Dev. Cell 4: 119-129
  86. P. Puigserver, J. Rhee, J. Donovan, C.J. Walkey, J.C. Yoon, F. Oriente, Y. Kitamura, J. Altomonte, H. Dong, D. Accili, B.M. Spiegelman (2003) Insulin-regulated hepatic gluconeogenesis through FOXO1/PGC1 $\alpha$  interaction. Nature 423: 550-555
  87. J. Altomonte, A. Richter, S. Harbaran, J. Suriawinata, J. Nakae, S.N. Thung, M. Meseck, D. Accili, H. Dong (2003) Inhibition of Foxo1 function is associated with improved fasting glycemia in diabetic mice. Am. J. Physiol. 285: E718-728
  88. M.L. Hribal, J. Nakae, T. Kitamura, J.S. Shutter, D. Accili (2003) The forkhead transcription factor Foxo1 mediates IGF-dependent myoblast differentiation. J. Cell Biol. 162: 535-541 PMC2173790
  89. S. Nef, S. Verma-Kurvari, J. Merenmies, J.D. Vassalli, A. Efstratiadis, D. Accili, L.F. Parada (2003) Testis determination requires insulin receptor family function in mice. Nature 426: 291-295
  90. T. Kitamura, Y. Kitamura, J. Nakae, A. Giordano, S. Cinti, C.R. Kahn, A. Efstratiadis, D. Accili (2004) Mosaic analysis of insulin receptor function. J. Clin. Invest. 113: 209-219 PMC310748
  91. C.P. Liang, S. Han, H. Okamoto, R. Carnemolla, I. Tabas, D. Accili, A.R. Tall (2004) Increased CD36 protein as a response to defective insulin signaling in macrophages. J. Clin. Invest. 113: 764-773
  92. A. Tsuchida, T. Yamauchi, Y. Ito, Y. Hada, T. Maki, S. Takekawa, J. Kamon, M. Kobayashi, R. Suzuki, K. Hara, N. Kubota, Y. Terauchi, P. Froguel, J. Nakae, M. Kasuga, D. Accili, K. Tobe, K. Ueki, R. Nagai, T. Kadowaki (2004) Insulin/Foxo1 Pathway Regulates Expression Levels of Adiponectin Receptors and

Adiponectin Sensitivity J. Biol. Chem. 279: 30817-30822

93. H. Okamoto, J. Nakae, T. Kitamura, B.C. Park, D. Accili (2004) Transgenic rescue of insulin receptor knockout mice. J. Clin. Invest. 114: 214-223 PMC449751
94. H. Dong, B.A. Maddux, J. Altomonte, M. Meseck, D. Accili, R. Terkeltaub, K. Johnson, J.F. Youngren, I.D. Goldfine (2005) Increased hepatic levels of the insulin receptor inhibitor, PC-1/NPP1, induce insulin resistance and glucose intolerance. Diabetes 54: 367-372
95. H. Okamoto, S. Obici, D. Accili, L. Rossetti (2005) Restoration of insulin signaling in the liver of *Insr* knockout mice fails to normalize hepatic insulin action in vivo. J. Clin. Invest. 115: 1314-1322 PMC1087162
96. D. Frescas, L. Valenti, D. Accili (2005) Nuclear trapping of the forkhead transcription factor Foxo1 via Sirt-dependent deacetylation promotes expression of glucogenetic genes. J. Biol. Chem. 280: 20589-20595
97. A.S. Banks, J. Li, L. McKeag, M.L. Hribal, M. Kashiwada, D. Accili, P.B. Rothman (2005) Deletion of SOCS7 leads to enhanced insulin action and enlarged islets of Langerhans. J. Clin. Invest. 115: 2462-2471 PMC1190369
98. Y. Ido-Kitamura, T. Kitamura, J.P. Kruse, J.C. Raum, R. Stein, W. Gu, D. Accili (2005) FoxO1 protects against pancreatic Cell Metab. 2: 51-63 NeuroD and MafA
99. M. Federici, M.L. Hribal, R. Menghini, H. Kanno, V. Marchetti, O. Porzio, S.W. Sunnarborg, S. Rizza, M. Serino, V. Cunsolo, D. Lauro, A. Mauriello, D.S. Smookler, P. Sbraccia, G. Sesti, D.C. Lee, R. Khokha, D. Accili, R. Lauro (2005) Timp3 deficiency in insulin receptor haploinsufficient mice promotes diabetes and vascular inflammation via increased TNF-alpha. J Clin Invest. 115: 3494-3505 PMC1283942
100. B.A. Maddux, Y.N. Chang, D. Accili, O.P. McGuinness, J.F. Youngren, I.D. Goldfine (2006) Overexpression of the insulin receptor inhibitor, Pc-1/Npp1, induces insulin resistance and hyperglycemia. Am. J. Physiol. Endocrinol. Metab. 290: E746-749
101. J. Buteau, M.L. Spatz, D. Accili (2006) Transcription factor FoxO1 mediates glucagon-like peptide-1 effects on pancreatic  $\beta$ -cell mass. Diabetes 55: 1190-1196
102. S. Han, C.P. Liang, T. DeVries-Seimon, M. Ranalletta, D. Accili, I. Tabas, A.R. Tall (2006) Macrophage insulin receptor deficiency leads to increased apoptosis and necrotic core areas in advanced atherosclerotic lesions. Cell Metab. 3: 257-266
103. H. Okamoto, M.L. Hribal, H.V. Lin, W.R. Bennett, A. Ward, D. Accili (2006) Role of the forkhead protein FoxO1 in  $\beta$  cell compensation to insulin resistance. J Clin. Invest. 116: 775-782 PMC1370178
104. T. Kitamura, Y. Feng, Y. Ido-Kitamura, S.C. Chua, A.W. Xu, G.S. Barsh, L. Rossetti, D. Accili (2006) Forkhead protein FoxO1 mediates Agrp-dependent effects of leptin on food intake. Nat. Med. 12: 534-540
105. M. Matsumoto, S. Han, T. Kitamura, D. Accili (2006) Dual role of the transcription factor Foxo1 to regulate insulin sensitivity and lipid metabolism. J. Clin. Invest. 116: 2464-2472 PMC1533874
106. J. Buteau, A. Shlien, S. Foisy, D. Accili (2007) Metabolic diapause in pancreatic  $\beta$ -cells expressing a gain-of-function mutant of the forkhead protein Foxo1. J. Biol. Chem. 282: 287-293
107. M. Naimi, N. Gautier, C. Chaussade, A.M. Valverde, D. Accili, E. VanObberghen (2007) Nuclear Foxo1 controls and integrates key signaling pathways in hepatocytes. Endocrinology 148:2424-2434
108. M. Adachi, Y. Osawa, H. Uchinami, T. Kitamura, D. Accili, D.A. Brenner (2007) The forkhead

transcription factor Foxo1 regulates proliferation and transdifferentiation of hepatic stellate cells. Gastroenterology 132:1434-1446

109. H.V. Lin, J.Y. Kim, A. Pocai, L. Rossetti, L. Shapiro, P.E. Scherer, D. Accili (2007) Adiponectin resistance exacerbates insulin resistance in *insulin receptor* transgenic knockout mice. Diabetes 56:1969-1976
110. J.J. Kim, Y. Kido, P.E. Scherer, M.F. White, D. Accili (2007) Analysis of compensatory beta cell response in mice with combined mutations of Insulin Receptor and Irs2 (2007). Am J Physiol Endocrinol Metab. 292: E1694-1701
111. T. Kitamura, Y. Ido-Kitamura, Y. Funahashi, C.L. Shawber, D.H. Castrillon, R. Kollipara, R.A. DePinho, J. Kitajewski, D. Accili (2007) A Foxo/Notch pathway controls myogenic differentiation and fiber type specification. J. Clin. Invest. 117: 2477-2485 PMC1950461
112. M. Matsumoto, A.Pocai, L. Rossetti, R.A. DePinho, D. Accili (2007) Impaired regulation of hepatic glucose production in mice lacking the forkhead transcription factor Foxo1 in liver. Cell Metab. 6: 208-216
113. C.J. Shawber, Y. Funahashi, E. Francisco, M. Vorontchikhina, Y. Kitamura, S.A. Stowell, V. Borisenko, N. Feirt, S. Podgrabinska, K. Shiraishi, K. Chawengsaksophak, J. Rossant, D. Accili, M. Skobe, J. Kitajewski (2007) Notch alters VEGF responsiveness in human and murine endothelial cells by direct regulation of VEGFR-3 expression. J. Clin. Invest. 117: 3369-3382 PMC2030453
114. A.S. Banks, N. Kon, C. Knight, M. Matsumoto, R. Gutiérrez-Juárez, L. Rossetti, W. Gu, D. Accili (2008) SirT1 gain-of-function increases energy efficiency and prevents diabetes in mice. Cell Metab. 8: 333-341
115. T. Senokuchi, C.P. Liang, T.A. Seimon, S. Han, M. Matsumoto, A.S. Banks, J.H. Paik, R.A. DePinho, D. Accili, I. Tabas, A.R. Tall (2008) Forkhead transcription factors (FoxOs) promote apoptosis of insulin-resistant macrophages during cholesterol-induced endoplasmic reticulum stress. Diabetes 57: 2967-2976 PMC2570393
116. S. Han, C.P. Liang, M. Westerterp, T. Senokuchi, C.L. Welch, Q. Wang, M. Matsumoto, D. Accili, A.R. Tall (2009) Hepatic insulin signaling regulates VLDL secretion and atherogenesis in mice. J. Clin. Invest. 119: 1029-1041 PMC2662550
117. T. Kitamura, Y. Ido-Kitamura, M. Kobayashi, O. Kikuchi, T. Sasaki, R.A. DePinho, D. Accili (2009) Regulation of pancreatic juxtaductal endocrine cell formation by FoxO1. Mol. Cell. Biol. 29: 4417-4430 PMC2725741
118. J. Tanaka, L. Qiang, A.S. Banks, C.L. Welch, M. Matsumoto, T. Kitamura, Y. Ido-Kitamura, R.A. DePinho, D. Accili (2009) Foxo1 links hyperglycemia to LDL oxidation and eNOS dysfunction in vascular endothelial cells. Diabetes 58: 2344-2354 PMC2750207
119. L. Plum, H.V. Lin, R. Dutia, J. Tanaka, K.S. Aizawa, M. Matsumoto, A.J. Kim, N.X. Cawley, J-H. Paik, Y.P. Loh, R.A. DePinho, S.L. Wardlaw, D. Accili (2009) The obesity susceptibility gene *Carboxypeptidase E* links FoxO1 signaling in hypothalamic pro-opiomelanocortin neurons with regulation of food intake. Nat. Med. 15:1195-1201 PMC2777744
120. H.V. Lin, L. Plum, H. Ono, R. Gutiérrez-Juárez, M. Shanabrough, E. Borok, T.L. Horvath, L. Rossetti, D. Accili (2010) Divergent Regulation of Energy Expenditure and Hepatic Glucose Production by Insulin Receptor in AgRP and POMC Neurons. Diabetes. 59: 337-346 PMC280996
121. H. Ren, D. Accili, C. Duan (2010) Hypoxia converts the myogenic action of insulin-like growth factors into mitogenic action by differentially regulating multiple signaling pathways. Proc. Natl. Acad. Sci. USA. 107: 5857-5862 PMC2851893
122. A. Nandi, X. Wang, D. Accili, D.J. Wolgemuth (2010) The effect of insulin signaling on female

- reproductive function independent of adiposity and hyperglycemia. Endocrinology 151: 1863-1871  
PMC2851187
123. L. Qiang, A.S. Banks, D. Accili (2010) Uncoupling of acetylation from phosphorylation regulates Foxo1 function independent of its sub-cellular localization J. Biol. Chem. 285: 27396-27401 PMC2930737
  124. R.A. Haeusler, S. Han, D. Accili (2010) Hepatic Foxo1 ablation exacerbates lipid abnormalities during hyperglycemia. J. Biol. Chem. 285: 26861-26868 PMC2930685
  125. R.A. Haeusler, K.H. Kaestner, D. Accili (2010) FoxOs function synergistically to promote hepatic glucose production. J. Biol. Chem. 285: 35245-35248 PMC2975147
  126. C.L. Chang, T. Seo, C.B. Du, D. Accili, R.J. Deckelbaum (2010) N-3 Fatty Acids Decrease Arterial Low-Density Lipoprotein Cholesterol Delivery and Lipoprotein Lipase Levels in Insulin-Resistant Mice. Arterioscler. Thromb. Vasc. Biol. 30: 2510-2517 PMC3107680
  127. S. Xuan, M. Szabolcs, F. Cinti, S. Perincheri, D. Accili, A. Efstratiadis (2010) Genetic analysis of IGF1 receptor signaling through Irs1 and Irs2 in pancreatic beta-cells. J. Biol. Chem. 285: 41044-41050 PMC3003403
  128. J.S. Carmody, P. Wan, D. Accili, L.M. Zeltser, R.L. Leibel (2011) Respective Contributions of Maternal Insulin Resistance and Diet to Metabolic and Hypothalamic Phenotypes of Progeny. Obesity 19: 492-499 PMC3234171
  129. H.V. Lin, H. Ren, V.T. Samuel, H.Y. Lee, T.Y. Lu, G.I. Shulman, D. Accili (2011) Diabetes In Mice With Selective Impairment Of Insulin Action In Glut4-Expressing Tissues. Diabetes 60: 700-709 PMC3046830
  130. H.V. Lin, D. Accili (2011) Reconstitution of insulin action in muscle, white adipose tissue, and brain of insulin receptor knockout mice fails to rescue diabetes. J. Biol. Chem. 286: 9797-9804 PMC3059034
  131. E. Gonzalez, E. Flier, D. Molle, D. Accili, T.E. McGraw (2011) Hyperinsulinemia leads to uncoupled insulin regulation of the GLUT4 glucose transporter and the FoxO1 transcription factor. Proc. Natl. Acad. Sci. USA. 108: 10162-10167 PMC3121842
  132. K. Tsuchiya, A.S. Banks, C.P. Liang, I. Tabas, A.R. Tall, D. Accili (2011) Homozygosity for an allele encoding deacetylated FoxO1 protects macrophages from cholesterol-induced inflammation without increasing apoptosis. Arterioscler. Thromb. Vasc. Biol. 31: 2920-2928 PMC3220790
  133. U.B. Pajvani, C.J. Shawber, V.T. Samuel, A.L. Birkenfeld, G.I. Shulman, J. Kitajewski, D. Accili (2011) Inhibition of Notch signaling ameliorates insulin resistance in a FoxO1-dependent manner. Nat. Med. 17: 961-967
  134. S. Tsunekawa, D. Demozay, I. Briaud, J. McCuaig, D. Accili, R. Stein, C.J. Rhodes (2011) FoxO Feedback Control of Basal IRS-2 Expression in Pancreatic  $\beta$ -Cells Is Distinct From That in Hepatocytes. Diabetes 60: 2883-2891 PMC3198101
  135. A.S. Banks, J-Y Kim-Muller, T.L. Mastracci, N.M. Kofler, L. Qiang, R.A. Haeusler, M.J. Jurczak, D. Laznik, G. Heinrich, V.T. Samuel, G.I. Shulman, V.E. Papaioannou, D. Accili (2011) Dissociation of the glucose and lipid regulatory functions of FoxO1 by targeted knock-in of acetylation-defective alleles in mice. Cell Metab. 14: 587-597 PMC3221516
  136. L. Qiang, H.V. Lin, J.Y. Kim-Muller, C.L. Welch, W. Gu, D. Accili (2011) Proatherogenic Abnormalities Of Lipid Metabolism In SirT1 Transgenic Mice Are Mediated Through Creb Deacetylation. Cell Metab. 14: 758-767 PMC3237922
  137. R.A. Haeusler, M. Pratt-Hyatt, C.L. Welch, C.D. Klaassen, D. Accili (2012) Impaired Generation Of 12-Hydroxylated Bile Acids Links Hepatic Insulin Signaling With Dyslipidemia. Cell Metab. 15: 65-74

PMC3253887

138. N. Kon, J. Zhong, L. Qiang, D. Accili, W. Gu (2012) Inactivation of ARF-BP1 induces p53 activation and the diabetic phenotypes in mice. *J. Biol. Chem.* 287: 5102-5111 PMC3281631
139. L. Plum, H.V. Lin, K.S. Aizawa, Y. Liu, D. Accili (2012) InsR/FoxO1 Signaling Curtails Hypothalamic POMC Neuron Number. *PLoS One* 7:e31487 PMC3271107
140. L. Qiang, K. Tsuchiya, J.Y. Kim-Muller, H.V. Lin, C.L. Welch, D. Accili (2012) Increased atherosclerosis and endothelial dysfunction in mice bearing constitutively deacetylated alleles of Foxo1. *J Biol Chem.* 287: 13944-13951 PMC3340149
141. D. Ai, C. Chen, S. Han, A. Ganda, A.J. Murphy, R.A. Haeusler, E. Thorp, D. Accili, J.D. Horton, A.R. Tall (2012) Regulation of hepatic LDL receptors by mTORC1 and PCSK9 in mice. *J. Clin. Invest.* 122: 1262-1270 PMC3314476
142. K. Tsuchiya, J. Tanaka, S. Yu, C.L. Welch, R.A. DePinho, I. Tabas, A.R. Tall, I.J. Goldberg, D. Accili (2012) FoxOs Integrate Pleiotropic Actions Of Insulin In Vascular Endothelium To Protect Mice From Atherosclerosis. *Cell Metab.* 15: 372-381 PMC3315846
143. L. Ozcan, C.C. Wong, G. Li, T. Xu, U. Pajvani, S.K. Park, A. Wronska, B.C. Chen, A.R. Marks, A. Fukamizu, J. Backs, H.A. Singer, J.R. Yates, D. Accili, I. Tabas (2012) Calcium Signaling through CaMKII Regulates Hepatic Glucose Production in Fasting and Obesity. *Cell Metab.* 15: 739-751 PMC3348356
144. C. Talchai, S. Xuan, T. Kitamura, R.A. DePinho, D. Accili (2012) Generation Of Functional Insulin-Producing Cells In The Gut By Foxo1 Ablation. *Nat. Genet.* 44: 406-412 PMC3315609
145. H. Ren, I.J. Orozco, Y. Su, S. Suyama, R. Gutiérrez-Juárez, T.L. Horvath, S.L. Wardlaw, L. Plum, O. Arancio, D. Accili (2012) G protein-coupled purinergic receptor GPR17 mediates orexigenic effects of FoxO1 in AgRP neurons. *Cell* 149: 1314-1326
146. L. Qiang, L. Wang, N. Kon, W. Zhao, S. Lee, Y. Zhang, M. Rosenbaum, Y. Zhao, W. Gu, S.R. Farmer, D. Accili (2012) Brown Remodeling of White Adipose Tissue by SirT1-Dependent Deacetylation of Pparg. *Cell* 150: 620-632 PMC3413172
147. C. Talchai, S. Xuan, H.V. Lin, L. Sussel, D. Accili (2012) Pancreatic  $\beta$ -Cell Dedifferentiation As A Mechanism Of Diabetic  $\beta$ -Cell Failure. *Cell* 150: 1223-1234 PMC3445031
148. Y. Ido-Kitamura, T. Sasaki, M. Kobayashi, H.J. Kim, Y.S. Lee, O. Kikuchi, H. Yokota-Hashimoto, K. Iizuka, D. Accili, T. Kitamura (2012) Hepatic FoxO1 Integrates Glucose Utilization and Lipid Synthesis through Regulation of Chrebp O-Glycosylation *PLoS One*: 7:e47231
149. Q.C. Zhang, D. Petrey, L. Deng, L. Qiang, Y. Shi, C.A. Thu, B. Bisikirska, C. Lefebvre, D. Accili, T. Hunter, T. Maniatis, A. Califano, B. Honig (2012) Structure-based prediction of protein-protein interactions on a genome-wide scale. *Nature*, 490: 556-560
150. K. Tsuchiya, D. Accili (2013) Liver Sinusoidal Endothelial Cells Link Hyperinsulinemia to Hepatic Insulin Resistance. *Diabetes* Epub ahead of print
151. K. Tsuchiya, M. Westerterp, A.J. Murphy, V. Subramanian, A.W. Ferrante, Jr, A.R. Tall, D. Accili (2013) Expanded granulocyte/monocyte compartment in myeloid-specific triple FoxO knockout increases oxidative stress and accelerates atherosclerosis in mice. *Circ. Res.* in press.
152. U.B. Pajvani, L. Qiang, T. Kangsamaksin, J. Kitajewski, H.N. Ginsberg, D. Accili (2013) Inhibition of Notch Uncouples Akt Activation from Hepatic Lipid Accumulation by Decreasing mTorc1 Stability. *Nat. Med.* in press.

## II. BOOK CHAPTERS

1. D. Accili, S.I. Taylor (1987) Autoimmune hypoglycemia caused by antibodies to the insulin receptor. In: "Hypoglycemia" (D. Andreani, V. Marks and P.J. Lefebvre, Eds.) Raven Press, New York, 89-104
2. N. Perrotti, D. Accili, S.A. Phillips, S.I. Taylor (1988) Protein phosphorylation and insulin action. Adv. Exp. Med. Biol. 231: 495-502
3. S.I. Taylor, F. Barbetti, D. Accili, J. Roth, P. Gorden (1989) Syndromes of autoimmunity and hypoglycemia: autoantibodies directed against insulin and its receptor. North Am. Clin. End. Metab. 18: 123-143
4. E.A. Koller, D. Accili, S.I. Taylor (1994) Mutations of the insulin receptor gene in insulin resistant patients. In: "Molecular endocrinology" (B.D. Weintraub, Ed.) Raven Press, New York, 283-296
5. D. Accili, Y. Suzuki (1994) Gene targeting by homologous recombination in mouse embryonic stem cells. In: "Molecular endocrinology" (B.D. Weintraub, Ed.) Raven Press, New York, 98-106
6. D. Accili (2001) Animal models of human disease. In: "Principles and practice of clinical research" (J.Gallin, Ed.) Hermitage, New York, 387-399

## III. REVIEWS

1. S.I. Taylor, A. Cama, H. Kadowaki, T. Kadowaki, D. Accili (1990) Mutations of the human insulin receptor gene. Trends Endocrinol. Metab. 2: 134-139
2. S.I. Taylor, T. Kadowaki, H. Kadowaki, D. Accili, A. Cama, C. McKeon (1990) Mutations in the insulin receptor gene in insulin resistant patients. Diabetes Care 13: 257-279
3. S.I. Taylor, T. Kadowaki, D. Accili, A. Cama, H. Kadowaki, C. McKeon, V. Moncada, B. Marcus-Samuels, C.L. Bevins, K. Ojamaa, C. Frapier, L. Beitz, N. Perrotti, R.W. Rees-Jones, R. Margolis, P. Gorden, J. Roth (1990) Mutations in the insulin receptor gene in genetic forms of insulin resistance. Rec. Progr. Horm. Res. 46: 185-217
4. S.I. Taylor, D. Accili, A. Cama, E. Imano, H. Kadowaki, T. Kadowaki (1991) Unusual forms of insulin resistance. Ann. Rev. Med. 42: 373-379
5. S.I. Taylor, A. Cama, D. Accili, F. Barbetti, E. Imano, H. Kadowaki, and T. Kadowaki (1991). Molecular genetics of insulin resistant diabetes mellitus. J. Clin. End. Metab. 73: 1158-1163
6. D. Accili, F. Barbetti, A. Cama, H. Kadowaki, T. Kadowaki, E. Imano, R. Levy-Toledano, S.I. Taylor (1992) Mutations of the insulin receptor gene in patients with genetic syndromes of insulin resistance and acanthosis nigricans. J. Invest. Dermatol. 98 (S1): 77S-81S
7. S.I. Taylor, A. Cama, D. Accili, F. Barbetti, M.J. Quon, M. Sierra, Y. Suzuki, E. Koller, R. Levy-Toledano, E. Wertheimer, V.Y. Moncada, H. Kadowaki, T. Kadowaki (1992) Mutations in the insulin receptor gene. Endocrine Rev. 13: 566-595
8. D. Accili, A. Cama, F. Barbetti, H. Kadowaki, T. Kadowaki, S.I. Taylor (1992) Insulin resistance due to mutations of the insulin receptor gene: an overview. J. End. Invest. 15: 857-864
9. D. Accili (1995) Molecular defects of the insulin receptor gene. Diab. Metab. Rev. 11: 47-62
10. P.A. Jose, J. Drago, D. Accili, G.M. Eisner, R.A. Felder (1997) Transgenic mice to study the role of

- dopamine receptors in cardiovascular functions. Clin. Exp. Hypertension 19 (1&2): 15-25
11. D. Accili (1997) Insulin receptor knockout mice. Trends Endocrinol. Metab. 8: 101-104
  12. J. Drago, P. Padungchaichot, D. Accili, S. Fuchs (1998) Dopamine receptors and dopamine transporter in brain function and addictive behaviors: insights from targeted mouse mutants. Dev. Neurosci. 20: 188-203
  13. D. Accili, J. Nakae, J.J. Kim, B.C. Park, K.I. Rother (1999) Targeted Gene Mutations Define The Roles Of Insulin And IGF-1 Receptors In Mouse Embryonic Development. J. Ped. End. Metab. 12: 475-485
  14. J. Nakae, D. Accili (1999) The mechanism of insulin action. J. Ped. Endocrinol. Metab. 12 (Suppl. 3): 721-733
  15. K.I. Rother, D. Accili (2000) Role of insulin receptors and IGF receptors in growth and development. Pediatr. Nephrol. 14: 558-561
  16. Y. Kido, J. Nakae, D. Accili (2001) The insulin receptor and its cellular targets. J. Clin. Endocrinol. Metab. 86: 972-979
  17. D. Accili, Y. Kido, J. Nakae, D. Lauro, B.C. Park (2001) Genetics of type 2 diabetes: insights from targeted mouse mutants. Curr. Mol. Med. 1: 9-23
  18. J. Nakae, Y. Kido, D. Accili (2001) Tissue-specific insulin resistance: lessons from gene-targeted mice. Ann. Med. 33: 22-27
  19. J. Nakae, Y. Kido, D. Accili (2001) Distinct and overlapping functions of insulin and IGF-1 receptors. Endocrine Rev. 22: 818-835
  20. J.J. Kim, D. Accili (2002) Signaling by IGF-1 and insulin receptors: where is the specificity? GH & IGF Res. 12: 84-90
  21. M.L. Hribal, F. Oriente, D. Accili (2002) Mouse models of insulin resistance. Am. J. Physiol. 282: E977-981
  22. D. LeRoith, H. Kim, A.M. Fernandez, D. Accili (2002) Inactivation of muscle insulin and IGF-I receptors and insulin responsiveness. Curr. Opin. Clin. Nutr. Metab. Care 5: 371-375
  23. T. Kitamura, C.R. Kahn, D. Accili (2003) Insulin receptor knockout mice. Ann. Rev. Physiol. 65:313-332
  24. H. Okamoto, D. Accili (2003) In vivo mutagenesis of the insulin receptor. J. Biol. Chem. 278: 28359-28362
  25. A. Nandi, Y. Kitamura, C.R. Kahn, D. Accili (2004) Mouse models of insulin resistance. Physiol. Rev. 8: 4623-4647
  26. Y. Kitamura, D. Accili (2004) New insights into the integrated physiology of insulin action. Rev. Endocr. Metab. Disord. 5: 143-149
  27. D. Accili, K.C. Arden (2004) FoxOs at the Crossroads of Cellular Metabolism, Differentiation, and Transformation. Cell: 117:421-426
  28. D. Accili (2004) Lilly lecture 2003. The struggle for mastery in insulin action: from triumvirate to republic. Diabetes 53:1633-1642
  29. D. LeRoith, D. Accili (2008) Mechanisms of disease: using genetically altered mice to study concepts of type 2 diabetes. Nat. Clin. Pract. Endocrinol. Metab. 4:164-172 [PMC2714226](#)



30. I.D. Goldfine, B.A. Maddux, J.F. Youngren, G. Reaven, D. Accili, V. Trischitta, R. Vigneri, L. Frittitta (2008) The role of membrane glycoprotein plasma cell antigen 1/ectonucleotide pyrophosphatase phosphodiesterase 1 in the pathogenesis of insulin resistance and related abnormalities. Endocr. Rev. 29:62-75 PMC2244935
31. C. Talchai, H.V. Lin, T. Kitamura, D. Accili (2009) Genetic and biochemical pathways of beta-cell failure in type 2 diabetes. Diabetes Obes Metab. 11 (Suppl 4): 38-45
32. I. Tabas, A. Tall, D. Accili (2010) The impact of macrophage insulin resistance on advanced atherosclerotic plaque progression. Circ. Res. 106: 58-67
33. M.A. Atkinson, J.A. Bluestone, G.S. Eisenbarth, M. Hebrok, K.C. Herold, D. Accili, M. Pietropaolo, P.R. Arvan, M. Von Herrath, D.S. Markel, C.J. Rhodes (2011) How Does Type 1 Diabetes Develop? The Notion of Homicide or  $\beta$ -Cell Suicide Revisited. Diabetes 60: 1370-1379
34. H. V. Lin, D. Accili (2011) Hormonal regulation of hepatic glucose production in health and disease. Cell Metab. 14: 9-19 PMC3131084

#### IV. EDITORIALS

1. S.I. Taylor, D. Accili, Y. Imai (1994) Insulin resistance or insulin deficiency: which is the primary cause of non-insulin-dependent diabetes mellitus? Diabetes 43: 735-740
2. D. Accili, S. Fuchs (1996) A new look at dopamine D3 receptors. Mol. Psych. 1: 93-94
3. D. Accili (2000) New perspectives in diabetes research and treatment. Trends Endocrinol. Metab. 11:349-350
4. D. Accili (2001) A kinase in the life of the  $\beta$ -cell. J. Clin. Invest. 108:1575-1576
5. D. Accili (2004) A note of caution on the Knockout Mouse Project. Nat. Genet. 36:1132
6. M. Matsumoto, D. Accili (2005) All roads lead to FoxO. Cell Metab. 1: 215-216
7. M. Matsumoto, D. Accili (2006) The tangled path to glucose production. Nat. Med. 12: 33-34
8. R.A. Haeusler, D. Accili (2008) The double life of Irs. Cell Metab. 8: 7-9 PMC2712626
9. D. Accili, B. Ahrén, C. Boitard, E. Cerasi, J.C. Henquin, S. Seino (2010) What ails the  $\beta$ -cell? Diabetes Obes. Metab. 12 (Suppl 2): 1323-1326
10. M.G. Myers Jr, C.R. Kahn, D. Accili (2010) Leptin therapy for type 1 diabetes gains traction. Nat. Med. 16: 380
11. J.Y. Kim-Muller, D. Accili (2011) Cell biology. Selective insulin sensitizers. Science 331: 1529-1531
12. J.C. Henquin, D. Accili, B. Ahrén, C. Boitard, S. Seino, E. Cerasi (2011) Long in the shade, glucagon re-occupies centre court. Diabetes Obes. Metab. 13 (Suppl 1): v-viii
13. D. Accili, R. DeCabo, D.A. Sinclair (2011) An unSirtain role in longevity. Nat. Med. 17: 1350-1351
14. R.S. Levinson, C.R. Kahn, D. Accili (2011) Metabolic syndrome affects multiple liver signaling pathways. Nat. Med. 5: 23-24
15. L. Qiang, D. Accili (2012) FGF21 and the second coming of PPAR $\gamma$ . Cell 148: 397-398

16. C. Boitard, D. Accili, B. Ahrén, E. Cerasi, S. Seino, B. Thorens (2012) The hyperstimulated  $\beta$ -cell: prelude to diabetes? Diabetes Obes. Metab. 14 (Suppl 3): iv-viii