

**CURRICULUM VITAE
PHILIP A. GRUPPUSO, M.D.**

Business Address: Brown University and Rhode Island Hospital
Department of Pediatrics, Division of Pediatric Endocrinology
593 Eddy Street
Providence, RI 02903

Phone: 401-444-5504

Fax: 401-444-2534

Email Address: Philip_Gruppuso@brown.edu

EDUCATION

B.A. Arts (Music), Union College, Schenectady, New York	June 1973
M.D. University of Rochester, Rochester, New York	June 1977

POSTGRADUATE TRAINING

Intern, Pediatrics (PL-1), Rhode Island Hospital	July 1977 - June 1978
Resident, Pediatrics (PL-2 and 3), Rhode Island Hospital	July 1978 - June 1980
Chief Resident in Pediatrics, Rhode Island Hospital	July 1980 - June 1981
Fellow, Pediatric Metabolism and Endocrinology, Rhode Island Hospital	July 1981 - June 1983
NIH Trainee in Diabetes, Dept. of Biochemistry, Brown University	July 1982 - June 1983

POSTGRADUATE HONORS AND AWARDS

Phi Beta Kappa	1973
Haffenreffer Fellowship Award in Pediatrics at Brown University	1981, 1982
Listed in Woodward/White's <i>Best Doctors in America</i>	1996, 1998, 2003, 2005, 2007, 2009, 2010
American Academy of Pediatrics, Award for Excellence in Research	1996
Dean's Teaching Excellence Award, Brown University	2001, 2002, 2005, 2008, 2009, 2010, 2013, 2015, 2017
Elected Faculty Marshall by Alpert Medical School Graduating Class	2015
Named by USNews Top Doctors	2011, 2012

PROFESSIONAL LICENSES AND BOARD CERTIFICATION

Rhode Island License #6035	1977 to 2012
Board Certification:	
Pediatrics	1982
Pediatric Endocrinology	1984

ACADEMIC APPOINTMENTS

Teaching Fellow in Pediatrics, Brown University	1980 - 1981
Assistant Professor of Pediatrics and Biochemistry (Research), Brown University	1983 - 1989
Associate Professor of Pediatrics and Biochemistry (Research), Brown University	1989 - 1994
Director, Division of Pediatric, Endocrinology and Metabolism, Rhode Island Hospital	1987 - 2005
Co-Director, Pediatric Endocrinology and Metabolism Fellowship Program, Rhode Island Hospital	1989 - 1994
Director, Fellowship Program	1994 - 2003
Professor of Pediatrics, Professor of Mol Biol/Cell Biol/Biochem Brown University (Research)	1994 - present
Vice-Chair (for Research), Department of Pediatrics, Brown University	2001 - 2004
Associate Director, Brown University MD-PhD Program	1995 - 2002
Director, Brown University MD-PhD Program	2002 - 2005 2007 - 2013
Associate Dean for Medical Education, Alpert Medical School	2005 - 2013
Professor of Medical Science, Alpert Medical School, Section of Medical Education	2015 - present

HOSPITAL APPOINTMENTS

Assistant Physician, Rhode Island Hospital	1983 - 1989
Consulting Physician, Women and Infants' Hospital of RI	1983 - 2012
Associate Physician, Rhode Island Hospital	1989 - 1994
Staff Physician, Rhode Island Hospital	1994 - 2012
Vice Chair for Research, Department of Pediatrics, Rhode Island Hospital	1990 - 2004

OTHER APPOINTMENTS

NICHD Study Group, "Pregnancy, Birth and the Infant Research Plan	September 1989
Blue Cross/Blue Shield of R.I., Endocrinology Advisory Board	1998 - 2000
NIDDK Ad Hoc Review Committee for Program Project Grant, "Signal Pathways and the Molecular Basis of Hormone Action"	November 1991
Ad Hoc Reviewer, The Israeli Science Foundation	1993, 2009, 2010, 2016
Charles H. Hood Foundation, Child Health Advisory Committee Chairman	1993 - 1999 1998 - 1999
Ad Hoc Reviewer, Department of Veterans Affairs	1997
Ad Hoc Member, NIH Study Section MBY (Molecular Biology)	1998
Ad Hoc Member, NIH Study Section HED-1 (Human Embryology and Development)	1999, 2001
Advisory Committee, Perinatal Emphasis Research Center at Case Western Reserve University	2001 - 2002

Member, NIH Special Study Section, Endo/Metab/Nut/Reprod Sci	2002
Member, NIH Pregnancy and Neonatology Study Section	2003 - 2009
Administrative leave	2005 - 2006
Ad Hoc Member	2012, 2017
Ad Hoc Member, SCORS ZRG1 HOP-U Review Committee (NIH)	2007
Wellcome Trust Grant Review Panel	2007
Ad Hoc Reviewer, American Cancer Society	2015
Ad Hoc Reviewer, NIH Health Services Organization and Delivery Study Section	2015
Ad Hoc Reviewer, NIGMS Special Emphasis Panel to review MIRA (Maximizing Investigator's Research Award) applications	2018

PUBLIC SERVICE

Rhode Island Department of Health	
Diabetes Professional Advisory Council,	1989 - 1994
Chairman, Access to Care Subcommittee	1991 - 1994
American Diabetes Association, Rhode Island Affiliate	
Member of the Board of Directors	1990 - 1996
Vice President	1991
President	1992 - 1994
Member, Medical Advisory Board, Intersex Society of North America	2003 - 2007
Pro Bono Consultant, Lambda Legal, legal services to intersex patients	2004 - 2007

HOSPITAL COMMITTEES

Crawford-Allen Task Force, Rhode Island Hospital	1986
Pediatric Intensive Care Quality Assurance, Rhode Island Hospital	1988 - 1993
Children's Hospital Subcommittee, Ambulatory Pediatrics	1991
Rhode Island Hospital Research Task Force	1992 - 1993
Rhode Island Hospital Research Advisory Committee	1993 - 1996
Department of Pediatrics Faculty Executive Council	1995 - 2005
<i>Ad hoc</i> member, Lifespan Academic Council	1996 - 1997
Lifespan Research Advisory Committee	1996 - 2005

UNIVERSITY COMMITTEES, Brown University

Search Committee, Pediatric, Endocrine Faculty Position	1987
Search Committee, Neonatology Faculty Position,	1988
Clinical Research Center Scientific Advisory Committee	1988 - 1991
Search Committee, Neonatology Faculty Position	1989
Medical School Accreditation Subcommittee - Basic Science Research	1989 - 1993
Summer Research Assistantship Committee	1990 - 1991
Search Committee, Ambulatory Pediatric Faculty Position	1991
Medical School Curriculum Subcommittee, Basic Science Years	1991 - 1993
Search Committee, Pediatric Hematology/Oncology Faculty Position	1992
Search Committee, Pharmacology	1993
Steering Committee, Brown University MD/PhD Program	1994 - 1998

Search Committee (Chair), Pediatric Endocrinology	1994
Dean's Strategic Planning Committee – Steering Committee	1994 - 1996
Faculty Affairs Subcommittee (Chair)	1995
Search Committee, Pediatric Hematology/Oncology	1995, 1997
Search Committee, Pediatric Critical Care Faculty Position	1995, 1996, 1997
Member, Pathobiology Graduate Program Steering Committee	1995 - 1999
Search Committee, Pediatric Gastroenterology Division Director	1998 - 2001
Search Committee, Endocrinology Division Director, Department of Medicine	1998
Search Committee, Neonatology, Department of Pediatrics	1998
Brown University Medical Faculty Executive Committee	1998 - 2001
Chair	1999/2000
Search Committee, Pediatric Cardiology	2002/2003
Search Committee, Genomics and Proteomics	2003/2004
Search Committee, Dean of Biology and Medicine	2003/2004
Search Committee, Research Scientist in Medicine/Endocrinology	2003/2004
Search Committee, Research Scientist in Surgery	2004
Search Committee, Genomics and Proteomics	2004/2005
Co-Chair, Medical Curriculum Committee	2005 - 2013
Chair, Medical Committee on Academic Standing	2005 - 2013
Gender and Sexuality Studies, Advisory Board Member	2007 - 2012
Executive Committee, Mol Biol/Cell Biol/Biochem Graduate Program	2008 - 2011
Chair, Medical School LCME Reaccreditation Task Force	2011 - 2013
President's Committee on the Events of October 29 (Diversity-Related)	2013 - 2014
Search Committee, Biology of Aging	2014
Appointments/Promotions Committee, Section on Medical Education	2015 - present
Search Committee (Chair), Executive Dean for Administration, Alpert Medical School	2016
Search Committee, Department Chair, Pathology and Laboratory Medicine	2016
OVPR Research Awards Selection Committee	2017
OVPR Research Awards Selection Committee	2018

MEMBERSHIP IN SOCIETIES

American Federation for Clinical Research	1983 - 1998
American Association for the Advancement of Science	1986 - 2006
American Diabetes Association	1987 - 2015
Society for Pediatric Research	1988 - present
(Lawson Wilkins) Pediatric Endocrine Society	1988 - present
The Endocrine Society	1989 - 2018
American Society for Biochemistry and Molecular Biology	1993 - 2017
American Pediatric Society	1994 - present
American Academy of Pediatrics	1996 - 2006
American Physiological Society	2015 - present

JOURNAL PEER REVIEW (with year of first review request)

New England Journal of Medicine	1987
Pediatric Research	1989
Journal of Cellular Biochemistry	1989
Journal of Clinical Investigation	1989
Endocrinology	1990
Journal of Biological Chemistry	1991
Cancer Research	1991
Journal of Cellular Physiology	1991
Journal of Clinical Endocrinology and Metabolism	1992
American Journal of Pathology	1992
European Journal of Biochemistry	1992
Cell Growth and Differentiation	1992
Biochemistry	1993
Molecular and Cellular Biology	1993
Experimental Cell Research	1994
International Journal of Cancer	1994
Placenta	1994
Diabetes	1994
Hepatology	1994
American Journal of Physiology	1995
Metabolism	1995
Pediatrics	1996
Biochimica et Biophysica Acta	1997
Diabetes Care	1997
Journal of Pediatrics	1998
Biochemical Pharmacology	1998
Gene	2002
Aging Cell	2004
Journal of Nutrition	2005
Physiological Genomics	2009
Molecular Reproduction and Development	2011
JAMA	2011
Molecular Cancer Therapeutics	2013
Lipids in Health and Disease	2013
PLoS ONE	2013
Journal of Experimental and Clinical Cancer Research	2013
Genes	2014
Academic Medicine	2014
Nature Scientific Reports	2015
American Journal of Medicine	2016

EDITORIAL BOARDS

Journal of Clinical Endocrinology and Metabolism	2000 - 2004
Pediatric Research	2005 - 2010

PUBLICATIONS IN PEER-REVIEWED JOURNALS – PRIMARY RESEARCH

1. **Gruppuso PA**, Kinter LB: DDT inhibition of active chlorophenol red transport in goldfish (*Carassius auratus*) renal tubules. *Bull Envir Contam Toxicol* 10:181-186, 1973.
2. **Gruppuso PA**, Migliori R, Susa JB and Schwartz R: Chronic maternal hyperinsulinemia and hypoglycemia. A model for experimental intrauterine growth retardation. *Biol Neonate* 40:113-120, 1981.
3. **Gruppuso PA**, O'Shea PA, Orson JM and Brem AS: Juvenile nephronophthisis with blindness in a three-month-old infant. Senior's syndrome associated with relative parathyroid insufficiency. *Clin Pediatr* 22:114-118, 1983.
4. **Gruppuso PA**, Susa JB, Domenech M, Cha C-J and Schwartz R: Chronic hyperglucagonemia in the rat: Effects on insulin, substrates and hepatic enzymes of intermediary metabolism. *Metabolism* 32:911-918, 1983.
5. **Gruppuso PA**, Gorden P, Kahn CR, Cornblath M, Zeller WP and Schwartz R: Familial hyperproinsulinemia: A proposed defect in proinsulin conversion. *N Engl J Med* 311:629-634, 1984.
6. Susa JB, **Gruppuso PA**, Widness JA, Domenech M, Clemons GK, Sehgal P and Schwartz R: Chronic hyperinsulinemia in the fetal rhesus monkey. Effects of physiologic hyperinsulinemia on fetal substrates, hormones and hepatic enzymes. *Am J Obstet Gynecol* 150:415-422, 1984.
7. Domenech M, **Gruppuso PA**, Susa JB and Schwartz R: Induction in utero of hepatic glucose-6-phosphatase by fetal hypoinsulinemia. *Biol Neonate* 47:92-98, 1985.
8. **Gruppuso PA**, DeLuca F, O'Shea PA and Schwartz R: Near-total pancreatectomy for hyperinsulinism: Spontaneous remission of resultant diabetes. *Acta Paediatr Scand* 74:311-315, 1985.
9. **Gruppuso PA**, Johnson GL, Constantinedes M and Brautigan DL: Phosphorylase phosphatase regulatory subunit: Western blotting with immunoglobulins against inhibitor-2 reveals a protein of $M_r = 60,000$. *J Biol Chem* 260: 4288-4294, 1985.
10. Brautigan DL, Shriner CL and **Gruppuso PA**: Phosphorylase phosphatase catalytic subunit: Evidence that the $M_r = 33,000$ enzyme fragment is derived from a native protein of $M_r = 70,000$. *J Biol Chem* 260:4295-4302, 1985.
11. Elbein SC, **Gruppuso PA**, Schwartz R, Skolnick M and Permutt MA: Hyperproinsulinemia in a family with a proposed defect in conversion is linked to the insulin gene. *Diabetes* 34:821-824, 1985.
12. Brautigan DL, Shriner CL and **Gruppuso PA**: Immunochemical probes for the study of the structure and regulation of skeletal muscle phosphorylase phosphatase. *Adv Prot Phosphatases* 1:73-86, 1985.
13. Brautigan DL, **Gruppuso PA** and Mumby M: Protein phosphatase type-1 and type-2 catalytic subunits both bind inhibitor-2 and monoclonal immunoglobulins. *J Biol Chem* 261:14924-14928, 1986.

14. Domenech M, **Gruppuso PA**, Nishino VT, Susa JB and Schwartz R: Preserved fetal plasma amino acid concentrations in the presence of maternal hypoaminoacidemia. *Pediatr Res* 20:1071-1076, 1986.
15. Chan SJ, Seino S, **Gruppuso PA**, Schwartz R and Steiner DF: A mutation in the B chain coding region is associated with impaired proinsulin conversion in a family with hyperproinsulinemia. *Proc Natl Acad Sci USA* 84:2194- 2197, 1987.
16. **Gruppuso PA**, Susa JB, Sehgal P, Frank B and Schwartz R: Metabolism and placental transfer of ¹²⁵I-proinsulin and ¹²⁵I-tyrosylated-C-peptide in the pregnant rhesus monkey. *J Clin Invest* 80:1132-1137, 1987.
17. **Gruppuso PA**, Shriner CL and Brautigan DL: Latent forms of type-1 protein phosphatase in rabbit skeletal muscle. *Biochem Biophys Res Comm* 148:1174-1181, 1987.
18. **Gruppuso PA**, Frank BH and Schwartz R: Binding of proinsulin and proinsulin conversion intermediates to human placental IGF-1 receptors. *J Clin Endocrinol Metab* 67:194-197, 1988.
19. **Gruppuso PA** and Brautigan DL: Compartmentalized protein phosphorylation/dephosphorylation in glycogen particles. *Biochem Internat* 16:1027-1032, 1988.
20. Carpenter MW, Coustan DR, Widness JA, **Gruppuso PA**, Malone M and Rotondo LM: Postpartum testing for antecedent gestational diabetes. *Am J Obstet Gynecol* 159:1128-1131, 1988.
21. **Gruppuso PA** and Brautigan DL: Induction of hepatic glycogenesis in the fetal rat. *Am J Physiol Endocrinol. Metab* 256:E49-E54, 1989.
22. **Gruppuso PA**: Effects of fetal hypoinsulinemia on fetal hepatic insulin binding in the rat. *Biochim Biophys Acta* 1010:270-273, 1989.
23. **Gruppuso PA**: Expression of hepatic transforming growth factor receptors during late gestation in the fetal rat. *Endocrinology* 125:3037-3043, 1989.
24. Braun L, **Gruppuso PA**, Mikumo R, Fausto N: Transforming growth factor-β1 in liver carcinogenesis: mRNA expression and growth effects. *Cell Growth Diff* 1:103-111, 1990.
25. **Gruppuso PA**, Mead JE, Fausto N: Transforming growth factor receptors in liver regeneration following partial hepatectomy in the rat. *Cancer Res* 50:1464-1469, 1990.
26. Patten JL, Johns DR, Valle DG, Eil C, **Gruppuso PA**, Steele G, Smallwood PM, Levine MA: Mutation in the gene encoding the stimulatory G protein of adenylyl cyclase in Albright's hereditary osteodystrophy. *New Engl J Med* 322:1412-1419, 1990.
27. **Gruppuso PA**: Hepatic protein kinase C and protein phosphatase type-2A in the fetal rat. *Pediatr Res* 27:599-603, 1990.
28. **Gruppuso PA**, Boylan JM, Posner BI, Faure R, Brautigan DL: Hepatic protein phosphotyrosine phosphatase: Dephosphorylation of insulin and epidermal growth factor receptors in normal and alloxan diabetic rats. *J Clin Invest* 85:1754-1760, 1990.

29. Braun L, Durst M, Mikumo R, **Gruppuso PA**: Differential response of nontumorigenic and tumorigenic human papillomavirus type 16-positive epithelial cells to transforming growth factor beta1. *Cancer Res* 50:7324-7332, 1990.
30. **Gruppuso PA**, Boylan JM, Smiley BL, Fallon RJ, Brautigan DL: Hepatic protein tyrosine phosphatases in the rat. *Biochem J* 274:361-367, 1991.
31. **Gruppuso PA**, Walker TD, Carter PA: Ontogeny of hepatic type I insulin-like growth factor receptors in the rat. *Pediatr Res* 29:226-230, 1991.
32. **Gruppuso PA**, Mikumo R, Brautigan DL, Braun L: Growth arrest induced by transforming growth factor- β 1 is accompanied by protein phosphatase activation in human keratinocytes. *J Biol Chem* 266:3444-3448, 1991.
33. **Gruppuso PA**, Boylan JM, Carter PA, Madden JA, Raven T: Hepatic insulin and EGF receptor phosphorylation and dephosphorylation in the fetal rat. *Am J Physiol Endocrinol Metab* 262:E6-E13, 1992.
34. Boylan JM, Brautigan DL, Madden J, Raven T, Ellis L, **Gruppuso PA**: Differential regulation of multiple hepatic protein tyrosine phosphatases in alloxan diabetic rats. *J Clin Invest* 90:174-179, 1992.
35. Aparicio LF, Ocrant I, Boylan JM, **Gruppuso PA**: Protein tyrosine phosphatase activation during nerve growth factor-induced neuronal differentiation of PC12 cells. *Cell Growth Diff* 3:363-367, 1992.
36. **Gruppuso PA**, Boylan JM, Levine BA, Ellis L: Insulin receptor tyrosine kinase domain auto-dephosphorylation. *Biochem Biophys Res Comm* 189:1457-1463, 1992.
37. Hoegsberg B, **Gruppuso PA**, Coustan D: Hyperinsulinemia in infants of non-diabetic mothers. *Diabetes Care*, 16:32-36, 1993.
38. Thompson NL, Panzica MA, Hull G, Lin S-H, Curran TR, **Gruppuso PA**, Baum O, Reutter W, Hixson DC: Spatio-temporal expression of two cell-CAM 105 isoforms during liver development. *Cell Growth Diff* 4:257-268, 1993.
39. Aparicio L, Carpenter MW, Schwartz R, **Gruppuso PA**: Prenatal diagnosis of familial hyperinsulinemia. *Acta Paediatrica* 82:683-686, 1993.
40. Curran TR, Bahner RI, Oh W, **Gruppuso PA**: Mitogen-independent DNA synthesis by fetal rat hepatocytes in primary culture. *Expt Cell Res* 209:53-57, 1993.
41. **Gruppuso PA**, Boylan JM, Bienieki TC, Curran TR: Evidence for a direct hepatotrophic role for insulin in the fetal rat: Implications for the impaired hepatic growth seen in fetal growth retardation. *Endocrinology* 134:769-775, 1994.
42. **Gruppuso PA**, Boylan JM: Heterogeneity of Hepatic Protein Tyrosine Phosphatases. *Second Mess Prot Phosphor* 14:99-108, 1994.
43. Schwartz R, **Gruppuso PA**, Petzold K, Brambilla D, Hiilesmaa V, Teramo K: Hyperinsulinemia and macrosomia in the fetus of the diabetic mother. *Diabetes Care*, 17:640-648, 1994.

45. Boylan JM, **Gruppuso PA**: *In vitro* and *in vivo* regulation of hepatic mitogen activated protein kinases in the fetal rat. *Am J Physiol Gastroint Liver Physiol* 267:G1078-G1086, 1994.
44. Partyka CM, **Gruppuso PA**, Rifai A, Oh W, Reddy GS: Lack of production and growth-modulating effects of 1,25-dihydroxyvitamin D3 in cultured fetal rat hepatocytes. *Biol Neonate* 67:194-202, 1995.
46. **Gruppuso PA**, Boylan JM: Developmental changes in the activity and cellular localization of hepatic casein kinase II in the rat. *J Cell Biochem* 58:65-72, 1995.
47. Boney CM, Fiedorek FT, Paul SR, **Gruppuso PA**: Regulation of preadipocyte factor-1 (PREF-1) gene expression during 3T3-L1 cell differentiation. *Endocrinology* 137:2923-2928, 1996.
48. Lipeski LE, Boylan JM, **Gruppuso PA**: A comparison of epidermal growth factor receptor-mediated mitogenic signaling in response to transforming growth factor α and epidermal growth factor in cultured fetal rat hepatocytes. *Biochem Mol Biol Int* 39:975-983, 1996.
49. Boylan JM, **Gruppuso PA**: A comparative study of the hepatic mitogen activated protein kinase (MAPK) and Jun-N-terminal kinase (JNK) pathways in the late gestation fetal rat. *Cell Growth Diff* 7:1261-1269, 1996.
50. Lesser KB, **Gruppuso PA**, Terry RB, Carpenter MW: Exercise fails to improve postprandial glycemic excursion in women with gestational diabetes. *J Matern Fetal Med* 5:211-217, 1996.
51. Leeds P, Kren BT, Boylan JM, Betz NA, Steer CJ, **Gruppuso PA**, Ross J: Developmental regulation of CRD-BP, an RNA-binding protein that stabilizes c-myc mRNA *in vitro*. *Oncogene* 14:1279-1286, 1997.
52. **Gruppuso PA**, Awad M, Bienieki TC, Boylan JM, Fernando S, Faris RA: Modulation of mitogen-independent hepatocyte proliferation during the perinatal period in the rat. *In Vitro Cell Dev Biol* 33:562-568, 1997.
53. Boylan JM, **Gruppuso PA**: Uncoupling of hepatic, EGF-mediated mitogen activated protein kinase activation in the fetal rat. *J Biol Chem* 273:3784-3790, 1998.
54. Boney CM, Smith RM, **Gruppuso PA**: Modulation of insulin-like growth factor I mitogenic signaling in 3T3-L1 preadipocyte differentiation. *Endocrinology* 139:1638-1644, 1998.
55. Phornphutkul C, Boney CM, **Gruppuso PA**: A novel presentation of Addison's disease: Hypoglycemia unawareness in an adolescent with IDDM. *J Pediatrics* 132:882-884, 1998.
56. **Gruppuso PA**, Bienieki TC, Faris RA: The relationship between differentiation and proliferation in late gestation fetal rat hepatocytes. *Pediatr Res* 46:14-19, 1999.
57. **Gruppuso PA**, Boylan JM: Hepatic epidermal growth factor-regulated MAP kinase kinase activity in the rat: Lack of identity with known forms of Raf and MEKK. *FEBS Lett* 466:200-204, 2000.

58. Phornphutkul C, Fausto-Sterling A, **Gruppuso PA**: Gender self-reassignment in an XY adolescent female born with ambiguous genitalia. *Pediatrics* 106:135-137, 2000.
59. Boney CM, **Gruppuso PA**, Faris RA, Frackelton AR: The critical role of Shc in IGF-I-mediated mitogenesis and differentiation in 3T3-L1 preadipocytes. *Mol Endocrinol* 14:805-813, 2000.
60. Awad MM, **Gruppuso PA**: Cell cycle control during perinatal liver development in the rat: Evidence indicating a role for cyclin D1 post-transcriptional regulation. *Cell Growth Diff* 11:325-335, 2000.
61. Phornphutkul C, Frick GP, Goodman HM, Berry SA, **Gruppuso PA**: Hepatic growth hormone signaling in the late gestation fetal rat. *Endocrinology* 141:3527-3533, 2000.
62. Awad MM, Sanders JA, **Gruppuso PA**: A potential role for 15^{Ink4b} and p57^{Kip2} in liver development. *FEBS Lett* 483:160-164, 2000.
63. Awad MM, Enslin H, Boylan JM, Davis RJ, **Gruppuso PA**: Growth regulation via p38 mitogen-activated protein kinase in developing liver. *J Biol Chem* 275:38716-38721, 2000.
64. **Gruppuso PA**, Boylan JM, Vaslet CA: Identification of candidate growth-regulating genes that are overexpressed in late gestation fetal liver in the rat. *Biochim Biophys Acta* 1494:242-247, 2000.
65. Phornphutkul C, Okubo T, Wu K, Harel Z, Tracy TF, Pinar H, Chen S, **Gruppuso PA**, Goodwin G: Aromatase P450 Expression in a Feminizing Adrenal Adenoma Presenting as Isosexual Precocious Puberty. *J Clin Endo Metab* 86:649-652, 2001.
66. Kadmon P, **Gruppuso PA**: Thyroid storm in a child following radioactive iodine (RAI) therapy: A consequence of RAI versus withdrawal of antithyroid medication. *J Clin Endo Metab* 86:1865-1867, 2001.
67. Morin MJ, Karr SM, Faris RA, **Gruppuso PA**: Developmental variability in the expression and regulation of inducible nitric oxide synthase (iNOS) in the rat intestine. *Am J Physiol Gastroint Liver Physiol* 281:G552-G559, 2001.
68. Boney CM, Sekimoto H, **Gruppuso PA**, Frackelton AR: Src family tyrosine kinases participate in insulin-like growth factor I mitogenic signaling in 3T3-L1 cells. *Cell Growth Diff* 12:379-386, 2001.
69. Tseng Y-T, Kopel R, Stabila JP, McGonnigal BG, Nguyen TT, **Gruppuso PA**, Padbury JF: β -adrenergic receptors regulate cardiomyocyte proliferation during early postnatal life. *FASEB J* 15:1921-1926, 2001.
70. Boylan JM, Anand P, **Gruppuso PA**: Ribosomal protein S6 phosphorylation and function during late gestation liver development in the rat. *J Biol Chem* 276:44457-44463, 2001.
71. Sullivan-Bolyai S, Deatrck J, **Gruppuso PA**, Tamborlane W, Grey M: Mothers' experiences raising young children with type 1 diabetes. *J Soc Pediatr Nursing* 7:93-103, 2002.

72. Anand P, Boylan JM, **Gruppuso PA**: Insulin signaling during perinatal liver development in the rat. *Am J Physiol Endocrinol Metab* 283:E844-E852, 2002.
73. Boylan JM, **Gruppuso PA**: IRS-1 is present and functional in hepatocyte nuclei from intact rats. *Endocrinology* 143:4178-4183, 2002.
74. Sullivan-Bolyai S, Deatrck J, **Gruppuso PA**, Tamborlane W, Grey M: Constant vigilance: Mothers' work parenting young children with type 1 diabetes. *J Pediatr Nursing* 18:21-29, 2003.
75. Khamzina L, **Gruppuso PA**, Wands JR: Insulin signaling through insulin receptor substrate 1 and 2 in normal liver development. *Gastroenterology* 125:572-585, 2003.
76. Sanchez-Esteban J, Wang Y, **Gruppuso PA**, Rubin LP: Mechanical stretch induces fetal type II cell differentiation via and EGFR-ERK signaling pathway. *Am J Resp Cell Mol Biol* 30:76-83, 2004.
77. Giannone PJ, Abu Dayyeh BK, Bienieki TC, Wands JR, **Gruppuso PA**: Targeted Hepatic Overexpression of Human IRS-1: Postnatal Effects in the Developing Mouse. *Biochim Biophys Acta* 1672:112-119, 2004.
78. Cerezo CS, Kulpa-Oliver V, **Gruppuso PA**, Morin MJ: Regulation of adolescent rat intestinal epithelial inducible nitric oxide synthase expression in endotoxin tolerance: modulation of signal transduction. *Shock* 21:476-483, 2004.
79. Kadmon PM, **Gruppuso A**: Glycemic control with metformin or insulin therapy in adolescents with type 2 diabetes mellitus. *J Pediatr Endocrin Metab* 17:1185-1193, 2004.
80. Phornphutkul C, Woo K-Y, Yang X, Chen Q, **Gruppuso PA**: IGF-I signaling is modified during chondrocyte differentiation. *J Endocrinol* 183:477-486, 2004.
81. **Gruppuso PA**, Boylan JM, Anand P, Bienieki TC: Effects of maternal starvation on hepatocyte proliferation in the late gestation fetal rat. *Pediatr Res* 57:185-191, 2005.
82. Sanders JA, **Gruppuso PA**: Nucleolar localization of hepatic c-Myc: A potential mechanism for c-Myc regulation. *Biochim Biophys Acta* 1743:141-150, 2005.
83. Anand P, **Gruppuso PA**: The regulation of hepatic protein synthesis during fasting in the rat. *J Biol Chem* 280:16427-16436, 2005.
84. Boylan JM, **Gruppuso PA**: D-Type cyclins and G1 progression during liver development in the rat. *Biochem Biophys Res Comm* 330:722-730, 2005.
85. Dreger AD, Chase C, Sousa A, **Gruppuso PA**, Frader J: Changing the nomenclature/taxonomy for intersex: a scientific and clinical rationale. *J Pediatr Endocrinol Metab* 18:729-733, 2005.
86. Embree-Ku M, **Gruppuso PA**: The role of nuclear factor- κ B in Late Gestation Liver Development in the Rat. *Hepatology* 42:326-34, 2005.
87. Sanders JA, **Gruppuso PA**: Coordinated regulation of c-Myc and Max in rat liver development. *Am J Physiol Gastroint Liver Physiol* 290:G145-G155, 2006. [PMCID: PMC2518428]

88. Anand P, **Gruppuso PA**: Rapamycin inhibits liver growth during refeeding in rats via control of ribosomal protein translation but not cap-dependent translation initiation. *J Nutr* 136:27-33, 2006. [PMCID: PMC1386153]
89. Yoo J-S, Boylan JM, Brautigan DL, **Gruppuso PA**: Subunit composition and developmental regulation of hepatic protein phosphatase 2A (PP2A). *Arch Biochem Biophys* 461:186-193, 2007. [PMCID: PMC1868455]
90. Phornphutkul C, Wu K-W, Auyeung V, Chen Q, **Gruppuso PA**: mTOR signaling contributes to chondrocyte differentiation. *Dev Dynamics* 237:702-712, 2008. [PMCID: PMC2894807]
91. **Gruppuso PA**, Tsai S-W, Boylan JM, Sanders JA: Hepatic translation control in the late gestation fetal rat. *Am J Physiol Regul Integr Comp Physiol* 295:R558-R567, 2008. [PMCID: PMC2519922]
92. Sanders JA, Lakhani A, Phornphutkul C, Wu K-Y, **Gruppuso PA**: The effect of rapamycin on DNA synthesis in multiple tissues from late gestation fetal rats and postnatal rats. *Am J Physiol Cell Physiol* 295:C406-C413, 2008. [PMCID: PMC2518428]
93. Yoo J-S, Jimenez RH, Sanders JA, Boylan JM, Brautigan DL, **Gruppuso PA**: The α 4-containing form of protein phosphatase 2A in liver and hepatic cells. *J Cell Biochem* 105:290-300, 2008. [PMCID: PMC2597445]
94. Kim MS, Wu K-Y, Auyeung V, Chen Q, **Gruppuso PA**, Phornphutkul C. Leucine restriction inhibits chondrocyte proliferation and differentiation through mechanisms both dependent and independent of mTOR signaling. *Am J Physiol Endocrinol Metab* 296:E1374-E1382, 2009. [PMCID: PMC2692404]
95. Phornphutkul C, Lee M, Voigt C, Wu K-Y, Ehrlich MG, **Gruppuso PA**, Chen Q: The effect of rapamycin on bone growth in rabbits. *J Orthopedic Research* 27:1157-1161, 2009. [PMCID: PMC2894807]
96. Jimenez RH, Boylan JM, Lee J-S, Francesconi M, Castellani G, Sanders JA, **Gruppuso PA**: Rapamycin response in tumorigenic and non-tumorigenic hepatic cell lines. *PLoS ONE* 4:e7373m, 2009. [PMCID: PMC2756589]
97. Jimenez RH, Lee J-S, Francesconi M, Castellani G, Neretti N, Sanders JA, Sedivy J, **Gruppuso PA**: Regulation of gene expression in hepatic cells by the mammalian target of rapamycin (mTOR). *PLoS ONE* 5:e9084, 2010. [PMCID: PMC2816708]
98. Sullivan-Bolyai S, Bova C, Leung K, Treadeau A, Lee M, **Gruppuso PA**: Social support to empower parents (STEP): An intervention for parents of young children newly diagnosed with type 1 diabetes. *Diabetes Educ* 36:88-97, 2010.
99. Temu T, Wu K-Y, **Gruppuso PA**, Phornphutkul C: The Mechanism of Ascorbic Acid-Induced Differentiation of ATDC5 Chondrogenic Cells. *Am J Physiol Endocrinol Metab* 299:E325-E334. 2010. [PMCID: PMC2928517]
100. Pingul MM, Hughes N, Wu A, Stanley CA, **Gruppuso PA**: Hepatocyte Nuclear Factor 4 α (HNF4A) Gene Mutation Associated with Familial Neonatal Hyperinsulinism and Maturity-Onset Diabetes of the Young. *J Peds* 158:852-854, 2011.

101. Demirkan G, Yu K, Boylan JM, Salomon AR, **Gruppuso PA**: Phosphoproteomic Profiling of *In Vivo* Signaling in Liver by the Mammalian Target of Rapamycin Complex 1 (mTORC1). *PLoS ONE* 6:e21729, 2011. [PMCID: PMC3125343]
102. Sullivan-Bolyai S, Bova C, Lee M, **Gruppuso PA**: Mentoring fathers of children with newly diagnosed T1DM. *Am J Maternal Child Nursing* 36:224-231, 2011
103. **Gruppuso PA**, Boylan JM, Sanders JA: The physiology and pathophysiology of rapamycin resistance: Implications for cancer. *Cell Cycle* 10:1050-1058, 2011. [PMCID: PMC3100882]
104. Villa-Cuesta E, Boylan JM, Tatar M, **Gruppuso PA**: Resveratrol inhibits protein translation in hepatic cells. *PLoS ONE* 6:e29513, 2011. [PMCID: PMC3248458]
105. Sanders JA, Brilliant KE, Clift D, Patel A, Cerretti B, Claro P, Mills DR, Hixson DC, **Gruppuso PA**: The inhibitory effect of rapamycin on the oval cell response and development of preneoplastic foci in the rat. *Exp Mol Path* 93:40-49, 2012. [PMCID: PMC3612884]
106. Sanders JA, Schorl C, Patel A, Sedivy JM, **Gruppuso PA**: Postnatal Liver Growth and Regeneration are Independent of c-myc in a Mouse Model of Conditional Hepatic c-myc Deletion. *BMC Physiology* 12:1, 2012. [PMCID: PMC3353165]
107. Lamming DW, Demirkan G, Boylan JM, Mihaylova MM, Peng T, Ferreira J, Neretti N, Salomon A, Sabatini DM, **Gruppuso PA**: Hepatic Signaling by the Mechanistic Target of Rapamycin Complex 2 (mTORC2). *FASEB J* 28:300-315, 2014. [PMCID: PMC3868844]
108. Garcia B, Francois-Vaughan H, Onikoyi O, Kostadinov S, De Paepe ME, **Gruppuso PA**, Sanders JA: Xenotransplantation of human fetal adipose tissue: a model of in vivo adipose tissue expansion and adipogenesis. *J Lipid Res* 55:2685-2691, 2014.
109. Adebayo A, Zandbergen F, Kozyl-Horvath CD, **Gruppuso PA**, Hamilton J: Chronic exposure to low-dose arsenic modulates lipogenic gene expression in mice. *J Biochem Mol Toxicol* 29:1-9, 2015.
110. Boylan JM, Sanders JA, Neretti, N, **Gruppuso PA**: Profiling of the fetal and adult rat liver transcriptome and translatoome reveals discordant regulation by the mechanistic Target of Rapamycin (mTOR). *Am J Physiol Regul Integr Comp Physiol* 309:R22-R35, 2015.
111. Boylan JM, Salomon AR, Tantravahi U, **Gruppuso PA**: Adaptation of HepG2 cells to a steady-state reduction in the content of protein phosphatase 6 (PP6) catalytic subunit. *Expt Cell Res* 335:224-237, 2015.
112. Huse SM, **Gruppuso PA**, Boekelheide K, Sanders JA: Patterns of gene expression and DNA methylation in human fetal and adult liver. *BMC Genomics* 16:981, 2015.
113. George P, Park YS, Ip J, **Gruppuso PA**, Adashi EY: The Association Between Premedical Curricular and Admission Requirements and Medical School Performance and Residency Placement: A Study of Two Admission Routes at the Warren Alpert Medical School of Brown University. *Acad Med* 91:388-394, 2016.

114. Francois-Vaughan H, Adebayo AO, Brilliant KE, Parry NMA, **Gruppuso PA**, Sanders JA: Persistent effect of mTOR inhibition on preneoplastic foci progression and gene expression in a rat model of hepatocellular carcinoma. *Carcinogenesis* 37:408-419, 2016.
115. Boylan JM, Sanders JA, **Gruppuso PA**: Regulation of fetal liver growth in a model of diet restriction in the pregnant rat. *Am J Physiol Regul Integr Comp Physiol* 311:R478-R488, 2016.
116. Green EP, **Gruppuso PA**: Justice and Care: Decision Making by Medical School Student Promotions Committees. *Med Education* 51:621-632, 2017.
117. Chorzalska A, Flores Kim J, Roder K, Tepper A, Ahsan N, Rao RS, Olszewski AJ, Yu X, Terentyev D, Morgan J, Treaba DO, Zhao T, Liang O, **Gruppuso PA**, Dubielecka P: Long-term exposure to imatinib mesylate downregulates Hippo pathway and activates YAP in a model of chronic myelogenous leukemia. *Stem Cells Dev* 26:656-677, 2017.
118. Adebayo Michael AO, Ahsan N, Zabala V, Francois-Vaughan H, Post S, Brilliant KE, Salomon AR, Sanders JA, **Gruppuso PA**: Proteomic analysis of laser capture microdissected focal lesions in a rat model of progenitor marker-positive hepatocellular carcinoma. *Oncotarget* 8:26041-26056, 2017.
119. Boylan JM, Francois-Vaughan H, **Gruppuso PA**, Sanders JA: Engraftment and repopulation potential of late gestation fetal rat hepatocytes. *Transplantation* 101:2349-2359, 2017.
120. Chorzalska A, Ahsan N, Rao RSP, Yu X, Morgan J, Tepper A, Hines S, Zhang P, Treaba D, Zhao T, Olszewski A, Reagan J, Liang O, **Gruppuso P**, Dubielecka P: Overexpression of Tpl2 is linked to imatinib resistance and activation of MEK-ERK and NF- κ B pathways in a model of Chronic Myeloid Leukemia. *Mol Oncology* [Epub ahead of print], 2018. doi: 10.1002/1878-0261.12186
121. Hurley E, Zabala V, Boylan JM, **Gruppuso PA**, Sanders JA: Hepatic gene expression during the perinatal transition in the rat. *Gene Expr* [Epub ahead of print], 2018. doi: 10.3727/105221618X15293258688953
122. **Gruppuso PA**, Boylan JM, Zabala V, Neretti N, Abshiru NA, Sikora JW, Doud EH, Camarillo JM, Thomas PM, Kelleher NL, Sanders JA: Stability of histone post-translational modifications in samples derived from liver tissue and primary hepatic cells. *PLOS ONE* 13:e0203351, 2018.
123. Chorzalska A, Morgan J, Ahsan N, Treaba DO, Olszewski AJ, Petersen M, Kingston NM, Cheng Y, Lombardo K, Schorl C, Yu X, Zini R, Pacilli A, Tepper A, Coburn J, Hryniewicz-Jankowska A, Zhao TC, Oancea E, Reagan JL, Liang O, Kotula L, Quesenberry PJ, **Gruppuso PA**, Manfredini R, Vannucchi AM, Dubielecka P. Bone marrow-specific loss of AB11 induces myeloproliferative neoplasm with features resembling human myelofibrosis. *Blood* [Epub ahead of print], 2018. doi: 10.1182/blood-2018-05-848408

OTHER PEER-REVIEWED PUBLICATIONS – REVIEWS, PERSPECTIVES, ETC.

1. **Gruppuso PA**, Schwartz R: Hypoglycemia in children. *Pediatr Rev* 11:117-124, 1989.
2. Fausto N, Mead JE, **Gruppuso PA**, Braun L: TGF- β in liver development, regeneration and carcinogenesis. *Ann NY Acad Sci* 593:231-242, 1990.
3. Fausto N, Mead JE, **Gruppuso PA**, Castilla A, Jakowlew SB: Effects of TGF-beta in the liver: Cell proliferation and fibrogenesis. *CIBA Foundation Symposium* 157:165-173, 1991.
4. **Gruppuso PA**: Fetal growth factors as determinants of intrauterine hepatic growth. *Diabetes* 40(Suppl 2):51-55, 1991.
5. **Gruppuso PA**, Curran TR, Bahner RI: Fetal Growth Factors. *In: Perinatal Biochemistry*, Herrera E, Knopp RH, Eds. CRC Press, Inc., Boca Raton, 1992.
6. **Gruppuso PA**: The clinical laboratory evaluation of growth hormone responsiveness. *J Clin Endocrinol Metab* 87:466-468, 2002.
7. **Gruppuso PA**: Achieving glycemic control in young children with type 1 diabetes: Approaches, pitfalls and new technologies. *Med Health/Rhode Island* 86:107-111, 2003.
8. **Gruppuso PA**, Forman EN, Ladd RE: The surgical management of intersex. *American Academy of Pediatrics Section on Bioethics Newsletter*, Fall 2004.
9. Phornphutkul C, **Gruppuso PA**: Disorders of the growth plate. *Curr Opin Endocrinol Diabetes Obesity* 16:430-434, 2009.
10. Green EP, Borkan JM, Pross SH, Adler SR, Nothnagle M, Parsonnet J, **Gruppuso PA**: Encouraging Scholarship: Medical School Programs to Promote Student Inquiry beyond the Traditional Medical Curriculum. *Acad Med* 85:409-418, 2010.
11. Parsonnet J, **Gruppuso PA**, Kanter SL, Boninger M: Required vs. elective research and in-depth scholarship programs in the medical student curriculum. *Acad Med* 85:405-408, 2010.
12. Boninger M, Troen P, Green EP, Borkan J, Lance-Jones C, Humphrey A, **Gruppuso PA**, Kant P, McGee J, Willochell M, Schor N, Kanter S, Levine A: Implementation of a Longitudinal Mentored Scholarly Project. *Acad Med* 85:429-437, 2010.
13. Adashi EY, **Gruppuso PA**: The Unsustainable Cost of Undergraduate Medical Education: An Overlooked Element of U.S. Health Care Reform. *Acad Med* 85:763-765, 2010.
14. **Gruppuso PA**, Dollase R, Dumenco L, Taylor J, Green E. The Warren Alpert Medical School of Brown University. *Acad Med* 85:S520-S524, 2010.
15. Demirkan G, Salomon AR, **Gruppuso PA**: Phosphoproteomic Analysis of Liver Homogenates. *Methods Mol Biol* 909:151-163, 2012. [PMCID: PMC3581044]
16. Spade DJ, McDonnell EV, Heger NE, Sanders JA, Saffarini CM, **Gruppuso PA**, De Paepe ME, Boekelheide K: Xenotransplantation models to study the effects of toxicants on human fetal tissues. *Birth Defects Res (Part B) Dev Reprod Toxicol* 101:410-422, 2014.

17. George P, Green EP, Park YS, **Gruppuso PA**: A 5-year experience with an elective scholarly concentrations program. *Med Ed Online* 20:29278, 2015.
18. **Gruppuso PA**, Sanders JA: Regulation of liver development: Implications for liver biology across the lifespan. *J Mol Endocrinol* 56:R115-R125, 2016.
19. DeLuca M, **Gruppuso PA**, Wing EJ: Successful treatment of Takayasu's arteritis in a HIV positive adult patient with long term follow up. *Case Rep Int Med* 3:14-17, 2016.
20. Ahsan N, Rao RSP, **Gruppuso PA**, Ramratnam B, Salomon A: Targeted proteomics: Current status and future perspectives for quantification of food allergens. *J Proteomics* 143:15-23, 2016.
21. Adashi EA, Krishna, GR, **Gruppuso PA**: For-Profit Medical Schools—A Post-Flexnerian Legacy Upended. *JAMA* 317:1209-1210, 2017.
22. **Gruppuso PA**, Adashi EA: Residency Placement Fever: Is it Time for a Reevaluation? *Acad Med* 92:923-926, 2017.
23. **Gruppuso PA**, Adashi EY: In Reply to Deng et al. (Response to a letter written in regard to Gruppuso and Adashi, 2017). *Acad Med* 92:896, 2017.
24. Adashi EY, Ahmed A-K H, **Gruppuso PA**: The Importance of Curiosity. *Am J Med* (in press).

BOOKS AND BOOK CHAPTERS

1. **Gruppuso PA**: Insulin: Biochemical and physiological aspects. *In: Principles of Perinatal-Neonatal Metabolism*, Cowett RM, Ed., Springer Verlag, New York, 1991.
2. **Gruppuso PA**: Fetal growth factors as determinants of intrauterine hepatic growth. *Diabetes* 40(Suppl 2):51-55, 1991.
3. Meyers-Seifer C, **Gruppuso PA**: Endocrinological Disorders. *In: Practical Guide to the Care of the Pediatric Patient*, Alario A, Ed. Mosby Year-Book, Inc., St. Louis, 1997.
4. **Gruppuso PA**: Insulin: Biochemical, Physiological and Molecular Aspects. *In: Principles of Perinatal-Neonatal Metabolism*, 2nd Edition, Cowett RM, Ed. Springer Verlag, New York, 1998.
5. **Gruppuso PA**: Growth Factors in the Fetal-Placental Unit. *In: Principles of Perinatal-Neonatal Metabolism*, 2nd Edition, Cowett RM, Ed. Springer Verlag, New York, 1998.
6. Meyers-Seifer C, McEachern RR, **Gruppuso PA**: Endocrinological Disorders. *In: Practical Guide to the Care of the Pediatric Patient* (2nd Edition), Alario A, Birnkrant JD (eds.). Mosby Elsevier, Philadelphia, 2007.
7. Sanders JA, Boylan JM, **Gruppuso PA**: Liver Development in the Late Gestation Rodent Fetus. *In: Advances in Medicine and Biology*, Vol. 46. Berhardt LV (ed). Nova Science Publishers, Hauppauge, NY, 2012.
8. Sanders JA, **Gruppuso PA**: Hepatic, Pancreatic and Biliary Cancers. *In: Translation and Its Regulation in Cancer Biology and Medicine*. Parsyan A (ed). Springer Science, Medford, MA, 2014

NON-PEER REVIEWED PUBLICATIONS

1. **Gruppuso PA:** Evaluating the short child. *Infants Child* 1:4, 1994.
2. **Gruppuso PA:** Variation in pubertal development in healthy children. *Infants Child* 2:8, 1995.
3. **Gruppuso PA:** Diabetic children lose again. Commentary. *Providence Journal-Bulletin*, November 27, 1995.
4. **Gruppuso PA:** Point/Counterpoint: Should cosmetic surgery be done on babies born with ambiguous genitalia. *Physician's Weekly*, Vol. XVI, No. 31, 1998.
5. **Gruppuso PA:** Medical education at Brown Medical School. *Med Health/Rhode Island* 89:298, 2006 (Editor for the annual medical education issue)
6. **Gruppuso PA, Bell R, Viticonte J:** The Brown Medical School class of 2006. *Med Health/Rhode Island* 89:299-303, 2006.
7. **Gruppuso PA, MacConnell J, Viticonte J:** The Warren Alpert Medical School of Brown University: Class of 2007. *Med Health/Rhode Island* 90:266-270, 2007. (Editor for the annual medical education issue)
8. Garg S, **Gruppuso PA, Dumenco L:** Redesigning the medical science curriculum at the Warren Alpert Medical School of Brown University. *Med Health/Rhode Island* 90:272-274, 2007.
9. Rickards E, Borkan J, **Gruppuso PA:** Educating the next generation of leaders in medicine: The scholarly concentration program of the Warren Alpert Medical School of Brown University. *Med Health/Rhode Island* 90:275-282, 2007.
10. **Gruppuso PA, Palenchar E, Viticonte J:** The Warren Alpert Medical School of Brown University: Class of 2008. *Med Health/Rhode Island* 91:242-246, 2008. (Editor for the annual medical education issue)
11. **Gruppuso PA, Palenchar E, Viticonte J:** The Warren Alpert Medical School of Brown University: Class of 2009. *Med Health/Rhode Island* 92:292-296, 2009. (Editor for the annual medical education issue)
12. Borkan J, Feldmann E, Dollase R, **Gruppuso PA:** Redesigning the clinical curriculum at the Warren Alpert Medical School of Brown University. *Med Health/Rhode Island* 92:300-306, 2009.
13. **Gruppuso PA, Palenchar E, Viticonte J:** The Warren Alpert Medical School of Brown University: Class of 2010. *Med Health/Rhode Island* 93:228-233, 2010. (Editor for the annual medical education issue)
14. **Gruppuso PA, Holden P:** A new home for Alpert Medical School. *Med Health/Rhode Island* 93:234-236, 2010.
15. **Gruppuso PA, Palenchar E, Viticonte J:** The Warren Alpert Medical School of Brown University: Class of 2011. *Med Health/Rhode Island* 94:224-229, 2011. (Editor for the annual medical education issue)

16. **Gruppuso PA**, Palenchar E, Viticone J: The Warren Alpert Medical School of Brown University: Class of 2012. *Med Health/Rhode Island* 95:308-312, 2012. (Editor for the annual medical education issue)
17. George P, Tunkel AR, Dollase, R, **Gruppuso P**, Dumenco L, Rapoza, B, Borkan J: The primary care-population medicine program at the Warren Alpert Medical School of Brown University. *Med Health/Rhode Island* 98:26-21, 2015.

SELECTED PRESENTATIONS

1. "Familial Hyperproinsulinemia," National Institutes of Health (NIDDK), January 1983
2. "Immunologic Studies on Phosphoprotein Phosphatase," National Institutes of Health (NICHD), December 1985
3. "Regulation of Type-1 Protein Phosphatase in Fasting Rats," new England Insulin Action Symposium, Dartmouth College, March 1986
4. "Current Management of Diabetes in Childhood," and "Hypoglycemia in Infancy and childhood," Current Topics in Pediatrics, Colby College, July 1986
5. "Glycogen Synthase Phosphatase in Experimental Diabetes," New England Insulin Action Symposium, Boston University, March 1987
6. "Regulation of Hepatic Growth Following Partial Hepatectomy in the Rat," New England Regional Perinatal Conference, October 1987
7. "Hepatic Protein Phosphotyrosine Phosphatase," New England Insulin Action Symposium, Harvard University, February 1988
8. "Mechanisms Regulating Hepatocellular Proliferation," Massachusetts General Hospital, June 1988
9. "Purification of Hepatic Phosphotyrosine Phosphatase," New England Insulin Action Symposium, Brown University (Co-Chairman), March 1989
10. "Regulation of Fetal Hepatic Growth by Peptide Hormones," Perinatal Emphasis Research Center Annual Meeting, Newport, RI, April 1989
11. "Diabetes in Childhood" and "Use and Misuse of Growth Hormone in Children," Current Topics in Pediatrics, Colby College, July 1989
12. "Protein Tyrosine Phosphatases," Department of Biochemistry Seminar, University of Rhode Island, October 1989
13. "Growth Hormone, Growth Factors and Growth," Kay Symposium, Rhode Island Hospital, November 1989
14. "Regulation of Fetal Growth - From Whole Body Physiology to Cell Physiology," Pathobiology Graduate Program Seminar, Brown University, March 1990
15. Co-chairman, Endocrinology Platform Session, Society for Pediatric Research, Anaheim, CA, May 1990
16. "Protein Phosphatases: Multifunctional Regulators of Cell Metabolism and Growth," National Institutes of Health (NIDDK), October 1990

17. "Fetal Growth Factors as Determinants of Intrauterine Growth," 3rd International Workshop Conference on Gestational Diabetes Mellitus, November 1990
18. "Regulation of Hepatic Phosphotyrosine Phosphatase," New England Insulin Action Symposium, University of Massachusetts, March 1991
19. "Diabetes Treatment - Lessons from the Control and Complications Trial," and "Growth Hormone Therapy in Non-Growth Hormone Deficient Patients", Current Topics in Pediatrics, Colby College, July 1991
20. Joint AFCR/SPR Program Committee, "Growth Factors, Growth and Differentiation," 1992
21. "Dephosphorylation of a 48 kDa Insulin Receptor Tyrosine Kinase Domain," New England Insulin Action Symposium, Joslin Diabetes Center, March 1992
22. "Protein Tyrosine Phosphatases and Insulin Receptor Dephosphorylation," Glaxo Group Research, Middlesex, UK, June 1992
23. "Fetal Hepatic Growth - From Whole Body to Cell Physiology," Kings College Hospital, London, UK, June 1992
24. "Comparative Studies on Growth Regulation in Fetal versus Adult Rat Hepatocytes," New England Conference on Perinatal Research, October 1992
25. "Protein Tyrosine Phosphatases - Multifunctional Regulators of Cell Growth and Metabolism," Endocrine Grand Rounds, Massachusetts General Hospital, November 1992
26. "Mechanisms of Fetal Hepatocyte Growth Regulation," Department of Cell Biology, SUNY Upstate, September 1993
27. "An Approach to the Diagnosis of Metabolic Disease in the Newborn," "Cellular and Molecular Mechanisms in the Regulation of Fetal Liver Growth", Departments of Pediatrics and Physiology, Loyola University Medical Center, October 1993
28. "Emergency Treatment of Severe Diabetic Ketoacidosis," American College of Emergency Physicians, R.I. Chapter, February 1994
29. "Mechanisms Involved in Control of Fetal Liver Growth," Roger Williams Cancer Center Hour, April 1994
30. APS/SPR Program Committee, Developmental Biology, 1995
31. "Why Do Fetal Liver Cells Grow?" Featured Speaker, Brown University Biomedical Research Day, April 1995
32. "Regulation of Fetal Liver Growth," NIH-Sponsored Perinatal Emphasis Research Center Directors' Conference, April 1995
33. "Short Stature in Children and Adolescents: What is Normal and What is Not," Hasbro Children's Hospital 2nd Annual Pediatric Symposium, April 1995
34. Moderator, APS/SPR Poster Symposium, Developmental Metabolism, May 1995
35. "The Physiology of Mitogenic Signaling in the Developing Liver," Combined Endocrine Research Conference, University of North Carolina, January 1996

36. "Modulation of Mitogenic Signal Transduction," 8th Annual Meeting of the New England Association for Cancer Research, March 1996
37. "Mitogenic Signal Transduction in Liver Development: Novel Mechanisms for Modulation of the MAP Kinase Signaling Pathway," Endocrine Grand Rounds, Massachusetts General Hospital, November 1996
38. "Mechanisms for Modulating Hepatic Mitogenic Signaling in the Rat," Divisions of Endocrinology and Diabetes Guest Lecture Series UMass Medical Center, January 1997
39. "Studies on the Growth Regulation of Late Gestation Fetal Rat Hepatocytes," NIH/National Cancer Institute, October 1997
40. "Downstream Modulation of MAP Kinase Signaling during Liver Development," NIH/NIDDK, October 1997
41. "Control of Proliferation during Liver Development in the Late Gestation Fetal Rat," 8th Biennial Congress on Liver Development, Gene Regulation and Disease, Orvieto, Italy, June 1999
42. "Characterization of a Fetal Hepatocyte Mitogenic Signaling Phenotype," NCI-Sponsored Liver Stem Cell Meeting, December 2000
43. "Insulin Signal Transduction," NICHD Workshop on Carbohydrate Metabolism in the Newborn, December 2000
44. APS/SPR Program Committee: Fetal Metabolism and Nutrition; Developmental Biology, 2001
45. "Mitogenic Signaling in Liver Development," NCI, Laboratory for Experimental Carcinogenesis, March 2001
46. "Insulin Signal Transduction in the Late Gestation Rodent," Case Western Reserve University, March 2001
47. "Regulation of Liver Growth in Late Gestation: The Role of Insulin," 3rd Annual Meeting of the Diabetes in Pregnancy Group of North America, May 2001
48. "The Mitogenic Signaling Phenotype of Developing Hepatocytes," 12th Annual International CEA Symposium, July 2001
49. "Control of Hepatocyte Proliferation during Late Gestation in the Rat," Liver Research Seminar, Albert Einstein College of Medicine, October 2001
50. SPR Workshop: "Navigating the Waters as a Physician (Basic) Scientist," May 2002
51. "Hepatocyte Mitogenic Signaling during Liver Development," University of Pittsburgh, Department of Pediatrics, July 2002
52. Invited participant, conference entitled "Surgically Shaping Children – Appearance-Altering Surgery for Intersex Disorders," Hastings Center, Garrison, NY, September 2002
53. "Growth Regulation: Cellular Mechanisms and the Growing Child," University of Massachusetts, Endocrinology Seminar, February 2003
54. SPR Workshop: "Navigating the Waters as a Physician (Basic) Scientist," May 2003

55. Pediatric Academic Societies/Lawson Wilkins Endocrine Society Topic Symposium, “Nutrient Signaling”, Organizer and Speaker (“Nutrient Regulation of Cell Proliferation”), May 2003
56. “Growth Regulation in Developing Hepatocytes: A Novel Signaling Phenotype,” University of Virginia Cancer Center Seminar Series, November 2003
57. APS/SPR Program Committee: Developmental Biology, 2004
58. SPR Workshop: “Navigating the Waters as a Physician (Basic) Scientist,” May 2004
59. “Nutritional Regulation of Cell Proliferation,” NICHD Endocrinology Seminar, October 2004
60. “Cellular Mechanisms as Determinants of Childhood Growth,” Pediatric Grand Rounds, Robert Wood Johnson Medical School, November 2004
61. Faculty Development Workshop, Robert Wood Johnson Medical School, November 2004
62. “Cellular Mechanisms as Determinants of Childhood Growth,” Endocrine Grand Rounds, Yale Medical School, March 2006
63. “Studies on the Anti-Proliferative Effects of Rapamycin: Implications for Normal and Dysregulated Cell Growth,” INBRE Seminar Series, University of Rhode Island, November 2007
64. “Random Musings for the Pediatrician on Normal Growth, Abnormal Growth and Manipulating Growth,” Pediatric Grand Rounds, Winthrop University Hospital, November 2008
65. “Disorders of Sex Development: History and its Implications for Management,” Pediatric Grand Rounds, UMDNJ-Robert Woods Johnson Medical School, March 2009
66. APS/SPR Program, Abstract Reviewer and Moderator, Endocrinology, 2009
67. AAMC Annual Meeting, Faculty for Small Group Discussion and Moderator for Mini-Workshop on “The Development of Scholarly Concentration Programs,” November 2009
68. AAMC Annual Meeting, Panel Member, Small Group Session on Comprehensive UGME Curricular Redesign, November 2009
69. Partners Harvard Medical International, Seminar on Competency-Based Medical Curricula, February 2010
70. “Random Musings of a Pediatric Endocrinologist on Growth Control, Normal Childhood Growth and Manipulating Height,” Endocrinology Grand Rounds, University of Pennsylvania, June 2010
71. “Profiling the Liver Phosphoproteome,” Division of Neonatology, Children’s Hospital of Philadelphia, June 2010
72. Moderator, Scholarly Concentrations Consortium, AAMC Annual Meeting, November 2010
73. “Central Control of the Curriculum: Different Approaches, Different Challenges,” LCME Town Hall Presentation at the AAMC Annual Meeting, November 2010

74. “Signaling via the mTOR Pathway in Liver Development,” NICHD Section on Growth and Development, November 2010
75. “Development of an Interdisciplinary Scholarly Concentrations Program,” College of Physicians and Surgeons, Columbia University, May 2011
76. “Can Diverse Scholarly Concentrations Tracks Influence the Direction of Graduates Produces?” NY Academy of Sciences Conference on Integrating Student Research into the Medical Curriculum, February 2012
77. “Fetal Origins of Adult Diseases: The Scientific and Public Health Communities’ Evolution,” EPA/NIEHS Children's Centers Webinar, April 2012
78. “Life, Learning and a Liberal Medical Education,” TEDxBrownUniversity 2012 – Life, Learning and Liberal Education, October 2012
79. “Fetal Origins of Adult Diseases: The Scientific and Public Health Communities’ Evolution,” Pediatric Grand Rounds, UMDNJ-Robert Woods Johnson Medical School, December 2012
80. “Basic Science in Undergraduate Medical Education: Taming The Beast,” Academy of Educators Grand Rounds, University of North Carolina School of Medicine, April 2013
81. Workshop: Medical Education Initiatives at AMS, Social Medicine Department, University of North Carolina School of Medicine, April 2013
82. “Liver Development in the Rodent: From Cell Signaling to Cell Replacement,” Woods Hole Marine Biological Laboratory, Bell Center Seminar Series, May 2013
83. “Rapamycin – A Remarkable Drug With an Amazing Story,” Biology Department Seminar, Rhode Island College, February 2014
84. NEJM Group On-Line Forum: Physician-Scientists Shaping American Healthcare; Featured Guest, July 2015
85. Northeast Regional Nutrition Education Summit, Harvard Medical School, “Nutrition Education at Alpert Medical School,” September 2016
86. Medical Education Grand Rounds, Icahn School of Medicine, “Liberal Medical Education: The Continuum at Brown University,” March 2018

GRANTS

1. Special Emphasis Research Career Award, “Diabetes Mellitus: Pediatric Aspects,” from NIDDK, 1983-1988
2. Co-Investigator, Subproject #5, "Pancreatic Endocrine Function in the Hyperinsulinemic Fetus", Perinatal Emphasis Research Center (“Diabetes During Pregnancy: Effects on the Offspring”), HD011343, 1985-1988
3. Basil O'Connor Starter Research Grant from the March of Dimes Birth Defects Foundation, 1986-1989
4. Principal Investigator, Juvenile Diabetes Foundation International Research Grant, “Protein Tyrosine Phosphatases in Diabetes,” 1988-1990

5. American Diabetes Association Feasibility Grant (approved and funded, but award not accepted upon receipt of JDF grant), 1988
6. Principal Investigator, NIH Basic Research Grant, RO1 HD024455, "Regulation of Fetal Hepatic Growth," 1989-1993
7. Principal Investigator, Subproject #5, "Regulation of Fetal Hepatic Development by Insulin," Perinatal Emphasis Research Center ("Diabetes During Pregnancy: Effects on the Offspring"), HD011343, 1991-1996
8. Principal Investigator, NIH Basic Research Grant, RO1 HD028324: "Mechanisms Regulating Hepatic Growth in IUGR Fetuses" (Funded with a priority score of 151 but not accepted upon funding of above PERC), 1991
9. Collaborator, NIH Basic Research Grant, RO1 CA055892 (Principal Investigator, L. Braun): "Growth Regulation in Cervical Neoplasia," 1991-1994
10. Consultant, NIH Grant "Improving Children's Health Outcome: Negotiating Care" (Principal Investigator, S. Kaplan), 1992-1993
11. Renewal of HD024455, 1993-1997
12. Principal Investigator, Subproject #1, "Regulation of Fetal Hepatic Development," Program Project Grant ("The Biological Basis for Perinatal Transition"), HD011343, 1996-2001
13. Renewal of R01 HD024455, 1997-2001
14. Eli Lilly Fellowship Support Grant, 1997-1998
15. Fellowship Research Training Grant, Novo Nordisk Pharmaceuticals, Inc., 1998-1999
16. Principal Investigator, NIH Basic Research Grant, R01 HD035831: "Insulin Resistance in the Growth Retarded Fetal Rat." 1999-2003
17. Eli Lilly Fellowship Support Grant, 1999-2000
18. Trainer, T32 HD007511 (PI: J. Padbury): "Perinatal Biology Training Grant." 1999-2004
19. Eli Lilly Fellowship Support Grant, 2000-2001
20. Renewal of R01 HD024455, 2001-2006
21. Eli Lilly Fellowship Support Grant, 2001-2002
22. Principal Investigator, NIH Basic Research Grant, R01 DK/HD059815, "Hepatocyte Proliferation during Development, Role of p38" (Replaces HD011343), 2002-2007
23. Eli Lilly Fellowship Support Grant, 2002-2003
24. Sponsor: National Research Service Award (HD041893) to Rosa Jimenez (MD/PhD candidate), 2001-2006
25. Collaborator, R01 DK059339, "The Role of Src Kinases in IGF-I-Mediated Adipogenesis" (PI, C. Boney) 2001-2006
26. Sponsor: National Research Service Award (HD041893) to Odmara Barreto-Chang (MD/PhD candidate), 2002-2007

27. Sponsor for K08 grant, PI: William Reiner (MH01777): “Gender Identity: Sex-Reassignment Due to Genital Defects,” 2003-2004
28. Mentor and Scientific Advisor, COBRE Grant P20 RR017695 (PI: Douglas Hixson), “Center for Cancer Research Development,” 2002-2007
29. Eli Lilly Fellowship Support Grant, 2003-2004
30. Trainer for Liver Center Training Grant T32 DK060415 (PI, J. Wands), “Research Training Program in Gastroenterology,” 2003-2008
31. Renewal of R01 HD035831: Title changed to “Nutritional Regulation of Fetal Liver Development.” 2003-2008
32. Eli Lilly Fellowship Support Grant, 2004-2005
33. Sanofi-Aventis Educational Grant – Continuing Education in the Management of Type 1 Diabetes in Childhood, 2005
34. Renewal of R01 HD024455, 2007-2012
35. Mentor and Co-Investigator, 1 P20 RR024484, “COBRE for Skeletal Health and Repair,” (PI, Dr. Q. Chen); 2007-2012
36. Faculty Trainer, 1 R25 GM083270, “Advancing the Culture of PhD Learning and Scholarship in Biology and Health Science” (PIs, A. Campbell and N. Thompson), 2008-2012
37. Mentor and Project Co-Investigator, 2 P20 RR017695, “COBRE Center for Cancer Research Development” (PI, D. Hixson); 2009-2014
38. PI and Program Director, 1 T35 HL094308, “Alpert Medical School Summer Research Program” (NIH/NHLBI support for medical student basic research), 2009-2014
39. Project Director and Pediatric Specialist, 1 P20 ES018169, “Formative Center for the Evaluation of Environmental Impacts on Fetal Development” (PI, Dr. K. Boekelheide), 2010-2013
40. PI, “Promoting Primary Care Career Choices in Rhode Island,” Rhode Island Foundation, 2011-2012
41. Co-PI (Collaborative grant with Albert Einstein College of Medicine), 1 R25 HD068835, “Strengthening Behavioral & Social Science in Medical School Education,” 2011-2016
42. Renewal of R01 HD024455, “Novel Approaches to Understanding the Nutrient Regulation of Fetal Somatic Growth,” 2012-2018
43. AMA, “Accelerating Change in Medical Education,” 2013-2018 (PI for initial submission; relinquished PI role when tenure as Associate Dean ended)
44. R01 DK100301, “The Fetal Hepatocyte Phenotype and Cell-Based Therapy for Liver Disease,” 2014-2018
45. Brown University DEANS Award, “Mechanisms for Nutrient Modulation of Mitochondrial Dynamics and Metabolism,” 2015-2017

46. P30 GM110759, “COBRE Center for Cancer Research Development,” 2015-2020 (PI, Pilot Project Core)
47. Sponsor and Mentor for Graduate Student, Valerie Zabala, Gilliam Graduate Student Fellowship, Howard Hughes Medical Institute, 2015-2018
48. P20 GM119943, “COBRE, Stem Cells and Aging,” 2017-2022 (Project Mentor for Patrycja Dubielecka-Szczerba)
49. P30 GM110759, “COBRE Center for Cancer Research Development,” 2015-2020 (Project Mentor for Michelle Dawson [2017-2018] and Blanche Ip [2018 to present])
50. Renewal of R01 HD024455, “Novel Approaches to Understanding the Nutrient Regulation of Fetal Somatic Growth,” 2018-2023

UNIVERSITY TEACHING

Quarterly Pediatric Clerkship Teaching Conferences	
Fluid and Electrolyte Physiology	1981 - 2005
Pediatric Endocrinology Elective for 4th year Medical Students (Director)	1981 - 1999
Biochemical Pharmacology (Bio128), Lecturer	1986 - 1994
Genetics and Human Disease (Bio146), Lecturer	1986 - 1992
Medical Biochemistry (Bio130, 1 st year medical school curriculum)	
Lecturer	1988 - 2005
Course Co-director	1989 - 2004
Coordinator of Problem-Based Small Group Sessions	1992 - 2005
Associate Director, Brown University MD-PhD Program	1995 - 2002
Director, Brown University MD-PhD Program	2002 - 2005 2007 - 2013
Associate Dean for Medical Education, Brown University	2005 - 2013
Member, Dean’s Executive Leadership Committee	
Chair, Medical Committee on Academic Standing	
Co-Chair, Medical Curriculum Committee	
Director, Scientific Foundations of Medicine Component of the Medical School Integrated Medical Sciences Curriculum (Includes lectures in biochemistry, cell biology and nutrition)	2005 - 2013
Lecturer, Scientific Foundations of Medicine (biochemistry, nutrition science, pharmacology)	2013 to Present
Thesis Committees	
Students graduated, as primary advisor – 9	
Students graduated, as member of advisory committee – 27	
Current students, as primary advisor – 0	
Current students, as member of advisory committee – 8	

HOSPITAL TEACHING

Pediatric Endocrinology Elective for Pediatric Residents (Director)	1981 - 1999
Fellowship in Pediatric Endocrinology and Metabolism, Brown University and Rhode Island Hospital (Director)	1994 - 2003