William W Hay

List of Publications by Year
in descending order

82 papers	3,434 citations	136950 32 h-index	149698 56 g-index
88 all docs	88 docs citations	88 times ranked	2869 citing authors

#	Article	IF	Citations
1	Knowledge Gaps and Research Needs for Understanding and Treating Neonatal Hypoglycemia: Workshop Report from Eunice Kennedy Shriver National Institute of Child Health and Human Development. Journal of Pediatrics, 2009, 155, 612-617.	1.8	228
2	Strategies for Feeding the Preterm Infant. Neonatology, 2008, 94, 245-254.	2.0	195
3	Attenuated Insulin Release and Storage in Fetal Sheep Pancreatic Islets with Intrauterine Growth Restriction. Endocrinology, 2006, 147, 1488-1497.	2.8	185
4	Increased insulin sensitivity and maintenance of glucose utilization rates in fetal sheep with placental insufficiency and intrauterine growth restriction. American Journal of Physiology - Endocrinology and Metabolism, 2007, 293, E1716-E1725.	3.5	155
5	Reliability of Conventional and New Pulse Oximetry in Neonatal Patients. Journal of Perinatology, 2002, 22, 360-366.	2.0	148
6	Intrauterine Growth Restriction Increases Fetal Hepatic Gluconeogenic Capacity and Reduces Messenger Ribonucleic Acid Translation Initiation and Nutrient Sensing in Fetal Liver and Skeletal Muscle. Endocrinology, 2009, 150, 3021-3030.	2.8	140
7	Heparin Clearance in the Newborn. Pediatric Research, 1981, 15, 1015-1018.	2.3	117
8	Comparing apples with apples: it is time for standardized reporting of neonatal nutrition and growth studies. Pediatric Research, 2016, 79, 810-820.	2.3	105
9	Care of the Infant of the Diabetic Mother. Current Diabetes Reports, 2012, 12, 4-15.	4.2	98
10	Aggressive Nutrition of the Preterm Infant. Current Pediatrics Reports, 2013, 1, 229-239.	4.0	97
11	Protein for Preterm Infants: How Much is Needed? How Much is Enough? How Much is Too Much?. Pediatrics and Neonatology, 2010, 51, 198-207.	0.9	96
12	Recent observations on the regulation of fetal metabolism by glucose. Journal of Physiology, 2006, 572, 17-24.	2.9	94
13	Increased Hepatic Glucose Production in Fetal Sheep With Intrauterine Growth Restriction Is Not Suppressed by Insulin. Diabetes, 2013, 62, 65-73.	0.6	77
14	Limited capacity for glucose oxidation in fetal sheep with intrauterine growth restriction. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2015, 309, R920-R928.	1.8	72
15	Energy and substrate requirements of the placenta and fetus. Proceedings of the Nutrition Society, 1991, 50, 321-336.	1.0	65
16	A cautionary response to SMFM statement: pharmacologicalÂtreatment of gestational diabetes. American Journal of Obstetrics and Gynecology, 2018, 219, 367.e1-367.e7.	1.3	62
17	Impact of placental insufficiency on fetal skeletal muscle growth. Molecular and Cellular Endocrinology, 2016, 435, 69-77.	3.2	61
18	THE EFFECTS OF PANCREATECTOMY ON THE RATES OF GLUCOSE UTILIZATION, OXIDATION AND PRODUCTION IN THE SHEEP FETUS. Quarterly Journal of Experimental Physiology (Cambridge, England), 1988, 73, 973-984.	1.0	60

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19	Adiponectin Deficiency Impairs Maternal Metabolic Adaptation to Pregnancy in Mice. Diabetes, 2017, 66, 1126-1135.	0.6	58
20	Reductions in insulin concentrations and Î²-cell mass precede growth restriction in sheep fetuses with placental insufficiency. American Journal of Physiology - Endocrinology and Metabolism, 2013, 304, E516-E523.	3.5	57
21	Maternal High-Fat Feeding Increases Placental Lipoprotein Lipase Activity by Reducing SIRT1 Expression in Mice. Diabetes, 2015, 64, 3111-3120.	0.6	57
22	FRUCTOSE DISPOSAL AND OXIDATION RATES IN THE OVINE FETUS. Quarterly Journal of Experimental Physiology (Cambridge, England), 1987, 72, 617-625.	1.0	55
23	Regulation of Placental Glucose Transfer and Consumption by Fetal Glucose Production. Pediatric Research, 1989, 25, 429-434.	2.3	53
24	Skeletal muscle protein accretion rates and hindlimb growth are reduced in late gestation intrauterine growthâ€restricted fetal sheep. Journal of Physiology, 2018, 596, 67-82.	2.9	50
25	THE EFFECT OF HYPERINSULINAEMIA ON GLUCOSE UTILIZATION AND OXIDATION AND ON OXYGEN CONSUMPTION IN THE FETAL LAMB. Quarterly Journal of Experimental Physiology (Cambridge, England), 1986, 71, 689-698.	1.0	44
26	New approaches to management of neonatal hypoglycemia. Maternal Health, Neonatology and Perinatology, 2016, 2, 3.	2.2	43
27	Nutritional Support Strategies for the Preterm Infant in the Neonatal Intensive Care Unit. Pediatric Gastroenterology, Hepatology and Nutrition, 2018, 21, 234.	1.2	43
28	Enhanced insulin secretion and insulin sensitivity in young lambs with placental insufficiency-induced intrauterine growth restriction. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2017, 313, R101-R109.	1.8	40
29	Placental Insufficiency Decreases Pancreatic Vascularity and Disrupts Hepatocyte Growth Factor Signaling in the Pancreatic Islet Endothelial Cell in Fetal Sheep. Diabetes, 2015, 64, 555-564.	0.6	39
30	Induction of Cytosolic Phosphoenolpyruvate Carboxykinase in the Ovine Fetal Liver by Chronic Fetal Hypoglycemia and Hypoinsulinemia. Pediatric Research, 1993, 33, 493-496.	2.3	37
31	Child Health Research Funding and Policy: Imperatives and Investments for a Healthier World. Pediatrics, 2010, 125, 1259-1265.	2.1	35
32	Neonatal Hyperglycemia. NeoReviews, 2010, 11, e632-e639.	0.8	34
33	Knockout maternal adiponectin increases fetal growth in mice: potential role for trophoblast IGFBP-1. Diabetologia, 2016, 59, 2417-2425.	6.3	34
34	Myoblast replication is reduced in the IUGR fetus despite maintained proliferative capacity in vitro. Journal of Endocrinology, 2017, 232, 475-491.	2.6	32
35	Energy Requirements, Protein-Energy Metabolism and Balance, and Carbohydrates in Preterm Infants. World Review of Nutrition and Dietetics, 2014, 110, 64-81.	0.3	31
36	Chronically Increased Amino Acids Improve Insulin Secretion, Pancreatic Vascularity, and Islet Size in Growth-Restricted Fetal Sheep. Endocrinology, 2016, 157, 3788-3799.	2.8	29

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37	Chronic anemic hypoxemia attenuates glucose-stimulated insulin secretion in fetal sheep. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2017, 312, R492-R500.	1.8	29
38	Role of placental insufficiency and intrauterine growth restriction on the activation of fetal hepatic glucose production. Molecular and Cellular Endocrinology, 2016, 435, 61-68.	3.2	26
39	Coordinated changes in hepatic amino acid metabolism and endocrine signals support hepatic glucose production during fetal hypoglycemia. American Journal of Physiology - Endocrinology and Metabolism, 2015, 308, E306-E314.	3.5	25
40	American Pediatric Society Presidential Address 2008: Research in Early Life - Benefit and Promise. Pediatric Research, 2009, 65, 117-122.	2.3	24
41	Fetal hyperinsulinemia increases farnesylation of p21 Ras in fetal tissues. American Journal of Physiology - Endocrinology and Metabolism, 2001, 281, E217-E223.	3.5	23
42	Differential effects of intrauterine growth restriction and a hypersinsulinemic-isoglycemic clamp on metabolic pathways and insulin action in the fetal liver. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2019, 316, R427-R440.	1.8	23
43	Some Aspects of Maternal Metabolism Throughout Pregnancy in the Conscious Rabbit. Pediatric Research, 1984, 18, 854-859.	2.3	22
44	Challenges in nourishing the intrauterine growthâ€restricted foetus â€" Lessons learned from studies in the intrauterine growthâ€restricted foetal sheep. Acta Paediatrica, International Journal of Paediatrics, 2016, 105, 881-889.	1.5	22
45	Skeletal muscle amino acid uptake is lower and alanine production is greater in late gestation intrauterine growth-restricted fetal sheep hindlimb. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2019, 317, R615-R629.	1.8	22
46	Identification of a Unique Form of Protein C in the Ovine Fetus: Developmentally Linked Transition to the Adult Form. Pediatric Research, 1995, 37, 365-372.	2.3	21
47	Increased Adrenergic Signaling Is Responsible for Decreased Glucose-Stimulated Insulin Secretion in the Chronically Hyperinsulinemic Ovine Fetus. Endocrinology, 2015, 156, 367-376.	2.8	20
48	The Fragile State of the National Institutes of Health Pediatric Research Portfolio, 1992-2015. JAMA Pediatrics, 2018, 172, 287.	6.2	20
49	Postnatal Î²2 adrenergic treatment improves insulin sensitivity in lambs with IUGR but not persistent defects in pancreatic islets or skeletal muscle. Journal of Physiology, 2019, 597, 5835-5858.	2.9	20
50	The uncertain fate of the National Institutes of Health (NIH) pediatric research portfolio. Pediatric Research, 2018, 84, 328-332.	2.3	19
51	Chronic anemic hypoxemia increases plasma glucagon and hepatic <i>PCK1</i> mRNA in late-gestation fetal sheep. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2016, 311, R200-R208.	1.8	18
52	Effect of glucose supply on ovine uteroplacental glucose metabolism. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 1999, 277, R947-R958.	1.8	17
53	Prolonged amino acid infusion into intrauterine growth-restricted fetal sheep increases leucine oxidation rates. American Journal of Physiology - Endocrinology and Metabolism, 2018, 315, E1143-E1153.	3.5	17
54	Effect of Low versus High Intravenous Amino Acid Intake on Very Low Birth Weight Infants in the Early Neonatal Period. Pediatric Research, 2003, 53, 24-32.	2.3	17

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55	Sustained hypoxemia in late gestation potentiates hepatic gluconeogenic gene expression but does not activate glucose production in the ovine fetus. American Journal of Physiology - Endocrinology and Metabolism, 2019, 317, E1-E10.	3.5	16
56	High-Protein Formulas. Clinics in Perinatology, 2014, 41, 383-403.	2.1	14
57	Exogenous amino acids suppress glucose oxidation and potentiate hepatic glucose production in late gestation fetal sheep. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2017, 312, R654-R663.	1.8	14
58	Nutrient Supplies for Optimal Health in Preterm Infants. Journal of Pediatric Gastroenterology and Nutrition, 2007, 45, S163-9.	1.8	13
59	High-fat feeding reprograms maternal energy metabolism and induces long-term postpartum obesity in mice. International Journal of Obesity, 2019, 43, 1747-1758.	3.4	13
60	Development of primary culture of ovine fetal hepatocytes for studies of amino acid metabolism and insulinlike growth factors. In Vitro Cellular and Developmental Biology - Animal, 1993, 29, 592-596.	1.5	12
61	Increased fetal myocardial sensitivity to insulin-stimulated glucose metabolism during ovine fetal growth restriction. Experimental Biology and Medicine, 2016, 241, 839-847.	2.4	12
62	Prolonged Prepregnant Maternal High-Fat Feeding Reduces Fetal and Neonatal Blood Glucose Concentrations by Enhancing Fetal Î²-cell Development in C57BL/6 Mice. Diabetes, 2019, 68, db181308.	0.6	12
63	Challenges of infant nutrition research: a commentary. Nutrition Journal, 2015, 15, 42.	3.4	11
64	Effects of chronic hyperinsulinemia on metabolic pathways and insulin signaling in the fetal liver. American Journal of Physiology - Endocrinology and Metabolism, 2020, 319, E721-E733.	3.5	11
65	Regulatory effects of brown adipose tissue thermogenesis on maternal metabolic adaptation, placental efficiency, and fetal growth in mice. American Journal of Physiology - Endocrinology and Metabolism, 2018, 315, E1224-E1231.	3.5	10
66	A GENERALIZED MICHAELIS-MENTEN RESPONSE SURFACE. , 1996, 15, 2107-2119.		9
67	A Chronic Fetal Leucine Infusion Potentiates Fetal Insulin Secretion and Increases Pancreatic Islet Size, Vascularity, and Î² Cells in Late-Gestation Sheep. Journal of Nutrition, 2020, 150, 2061-2069.	2.9	9
68	Glucose Turnover Rates in Chronically Catheterized Non-Pregnant and Pregnant Rabbits. Pediatric Research, 1984, 18, 276-280.	2.3	8
69	In vivo measurements of placental transport and metabolism. Proceedings of the Nutrition Society, 1991, 50, 355-362.	1.0	8
70	Hyperglycemia-Induced Hyperinsulinemia Decreases Maternal and Fetal Plasma Protein C Concentration during Ovine Gestation. Pediatric Research, 1994, 36, 293-299.	2.3	8
71	Pulse Oximetry: As Good as it Gets?. Journal of Perinatology, 2000, 20, 181-183.	2.0	8
72	Nutritional requirements of the very preterm infant. Acta Paediatrica, International Journal of Paediatrics, 2005, 94, 37-46.	1.5	6

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73	Intravenous nutrition of the very preterm neonate. Acta Paediatrica, International Journal of Paediatrics, 2005, 94, 47-56.	1.5	6
74	The Postnatal Glucose Concentration Nadir Is Not Abnormal and Does Not Need to Be Treated. Neonatology, 2018, 114, 163-163.	2.0	5
75	Regulation of uterine and umbilical amino acid uptakes by maternal amino acid concentrations. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2000, 279, R849-R859.	1.8	4
76	Opportunities for life course research through the integration of data across Clinical and Translational Research Institutes. Journal of Clinical and Translational Science, 2018, 2, 156-162.	0.6	4
77	Aspects of fetoplacental nutrition in intrauterine growth restriction and macrosomia. , 0, , 32-46.		2
78	Modern Management of Preterm Infants Prevents Adverse Developmental Outcomes From Hypoglycemia. Pediatrics, 2016, 138, e20162881-e20162881.	2.1	1
79	Alert Newborn Infants Are Ready to Feed and Raise Their Glucose Concentration. Neonatology, 2019, 115, 239-241.	2.0	1
80	The importance of using local populations to assess fetal and preterm infant growth. Jornal De Pediatria, 2021, 97, 582-584.	2.0	1
81	Breastfeeding newborns and infants: some new food for thought about an old practice. American Journal of Clinical Nutrition, 2018, 107, 499-500.	4.7	0
82	To the Readers from the Editors of NeoReviews. Pediatrics in Review, 1999, 20, e3-e3.	0.4	0