Peter W Nathanielsz

List of Publications by Citations

112 papers	3,717 citations	37 h-index	57 g-index
114 ext. papers	4,125 ext. citations	4.8 avg, IF	5.24 L-index

#	Paper	IF	Citations
112	Developmental programming of the metabolic syndrome by maternal nutritional imbalance: how strong is the evidence from experimental models in mammals?. *Journal of Physiology*, **2004**, 561, 355-77	3.9	419
111	Animal models that elucidate basic principles of the developmental origins of adult diseases. *ILAR Journal*, **2006**, 47, 73-82	1.7	134
110	Maternal obesity accelerates fetal pancreatic beta-cell but not alpha-cell development in sheep: prenatal consequences. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2009**, 297, R835-43	3.2	132
109	AMP-activated protein kinase signalling pathways are down regulated and skeletal muscle development impaired in fetuses of obese, over-nourished sheep. *Journal of Physiology*, **2008**, 586, 2651-64	3.9	128
108	Vulnerability of the fetal primate brain to moderate reduction in maternal global nutrient availability. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 3011-6	11.5	119
107	Production of premature delivery in pregnant rhesus monkeys by androstenedione infusion. *Nature Medicine*, **1996**, 2, 443-8	50.5	105
106	Glucocorticoid exposure at the dose used clinically alters cytoskeletal proteins and presynaptic terminals in the fetal baboon brain. *Journal of Physiology*, **2003**, 547, 117-23	3.9	98
105	Maternal obesity, lipotoxicity and cardiovascular diseases in offspring. *Journal of Molecular and Cellular Cardiology*, **2013**, 55, 111-6	5.8	84
104	Overnutrition and maternal obesity in sheep pregnancy alter the JNK-IRS-1 signaling cascades and cardiac function in the fetal heart. *FASEB Journal*, **2010**, 24, 2066-76	0.9	80
103	Resveratrol partially prevents oxidative stress and metabolic dysfunction in pregnant rats fed a low protein diet and their offspring. *Journal of Physiology*, **2016**, 594, 1483-99	3.9	77
102	Fetal programming of sexual development and reproductive function. *Molecular and Cellular Endocrinology*, **2014**, 382, 538-549	4.4	77
101	Mechanisms by which maternal obesity programs offspring for obesity: evidence from animal studies. *Nutrition Reviews*, **2013**, 71 Suppl 1, S42-54	6.4	73
100	Local paracrine effects of estradiol are central to parturition in the rhesus monkey. *Nature Medicine* , **1998**, 4, 456-9	50.5	71
99	Effects of betamethasone administration to the fetal sheep in late gestation on fetal cerebral blood flow. *Journal of Physiology*, **2000**, 528, 619-32	3.9	71
98	Delay of preterm delivery in sheep by omega-3 long-chain polyunsaturates. *Biology of Reproduction*, **1999**, 60, 698-701	3.9	66
97	Development of a system for individual feeding of baboons maintained in an outdoor group social environment. *Journal of Medical Primatology*, **2004**, 33, 117-26	0.7	64
96	Maternal obesity eliminates the neonatal lamb plasma leptin peak. *Journal of Physiology*, **2011**, 589, 1455-62	3.9	63

95	Identification and comparative analyses of myocardial miRNAs involved in the fetal response to maternal obesity. *Physiological Genomics*, **2013**, 45, 889-900	3.6	56
94	Emergence of insulin resistance in juvenile baboon offspring of mothers exposed to moderate maternal nutrient reduction. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2011**, 301, R757-62	3.2	56
93	In utero exposure to maternal obesity and diabetes: animal models that identify and characterize implications for future health. *Clinics in Perinatology*, **2007**, 34, 515-26, v	2.8	55
92	Effect of bilateral splanchnic nerve section on adrenal function in the ovine fetus. *Endocrinology*, **1990**, 127, 2328-35	4.8	55
91	Interventions to prevent adverse fetal programming due to maternal obesity during pregnancy. *Nutrition Reviews*, **2013**, 71 Suppl 1, S78-87	6.4	53
90	Maternal obesity induces fibrosis in fetal myocardium of sheep. *American Journal of Physiology - Endocrinology and Metabolism*, **2010**, 299, E968-75	6	52
89	Intrauterine growth restriction alters term fetal baboon hypothalamic appetitive peptide balance. *Journal of Endocrinology*, **2013**, 217, 275-82	4.7	50
88	Different levels of overnutrition and weight gain during pregnancy have differential effects on fetal growth and organ development. *Reproductive Biology and Endocrinology*, **2010**, 8, 75	5	50
87	Maternal nutrient restriction during early to mid gestation up-regulates cardiac insulin-like growth factor (IGF) receptors associated with enlarged ventricular size in fetal sheep. *Growth Hormone and IGF Research*, **2005**, 15, 291-9	2	46
86	Cardiac remodelling in a baboon model of intrauterine growth restriction mimics accelerated ageing. *Journal of Physiology*, **2017**, 595, 1093-1110	3.9	44
85	Sexually dimorphic effects of maternal nutrient reduction on expression of genes regulating cortisol metabolism in fetal baboon adipose and liver tissues. *Diabetes*, **2013**, 62, 1175-85	0.9	44
84	Temporal structuring of delivery in the absence of a photoperiod: preparturient myometrial activity of the rhesus monkey is related to maternal body temperature and depends on the maternal circadian system. *Biology of Reproduction*, **1991**, 45, 617-25	3.9	44
83	Maternal obesity has sex-dependent effects on insulin, glucose and lipid metabolism and the liver transcriptome in young adult rat offspring. *Journal of Physiology*, **2018**, 596, 4611-4628	3.9	44
82	Effect of antenatal betamethasone treatment on microtubule-associated proteins MAP1B and MAP2 in fetal sheep. *Journal of Physiology*, **2001**, 530, 497-506	3.9	40
81	Poor nutrition during pregnancy and lactation negatively affects neurodevelopment of the offspring: evidence from a translational primate model. *American Journal of Clinical Nutrition*, **2013**, 98, 396-402	7	39
80	Effects of gestational age and labor on expression of prostanoid receptor genes in baboon uterus. *Biology of Reproduction*, **2001**, 64, 1131-7	3.9	38
79	Blood pressure and heart rate in the ovine fetus: ontogenic changes and effects of fetal adrenalectomy. *American Journal of Physiology - Heart and Circulatory Physiology*, **1999**, 276, H248-56	5.2	38
78	Adult exercise effects on oxidative stress and reproductive programming in male offspring of obese rats. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2015**, 308, R219-25	3.2	37

77	Prenatal betamethasone exposure has sex specific effects in reversal learning and attention in juvenile baboons. *American Journal of Obstetrics and Gynecology*, **2011**, 204, 545.e1-10	6.4	37
76	Influence of maternal undernutrition and overfeeding on cardiac ciliary neurotrophic factor receptor and ventricular size in fetal sheep. *Journal of Nutritional Biochemistry*, **2008**, 19, 409-14	6.3	37
75	In utero exposure to maternal obesity and diabetes: animal models that identify and characterize implications for future health. *Obstetrics and Gynecology Clinics of North America*, **2007**, 34, 201-12, vii-viii	3.3	37
74	Up-regulation of the fetal baboon hypothalamo-pituitary-adrenal axis in intrauterine growth restriction: coincidence with hypothalamic glucocorticoid receptor insensitivity and leptin receptor down-regulation. *Endocrinology*, **2013**, 154, 2365-73	4.8	34
73	Maternal obesity in sheep increases fatty acid synthesis, upregulates nutrient transporters, and increases adiposity in adult male offspring after a feeding challenge. *PLoS ONE*, **2015**, 10, e0122152	3.7	33
72	Accelerated aging of reproductive capacity in male rat offspring of protein-restricted mothers is associated with increased testicular and sperm oxidative stress. *Age*, **2014**, 36, 9721		31
71	Sexual dimorphism in the fetal cardiac response to maternal nutrient restriction. *Journal of Molecular and Cellular Cardiology*, **2017**, 108, 181-193	5.8	31
70	Sex-dependent cognitive performance in baboon offspring following maternal caloric restriction in pregnancy and lactation. *Reproductive Sciences*, **2012**, 19, 493-504	3	30
69	Maternal nutrient restriction during pregnancy and lactation leads to impaired right ventricular function in young adult baboons. *Journal of Physiology*, **2017**, 595, 4245-4260	3.9	28
68	Growth and insulin dynamics in two generations of female offspring of mothers receiving a single course of synthetic glucocorticoids. *American Journal of Obstetrics and Gynecology*, **2012**, 207, 203.e1-8	6.4	26
67	Influence of gestational overfeeding on myocardial proinflammatory mediators in fetal sheep heart. *Journal of Nutritional Biochemistry*, **2013**, 24, 1982-90	6.3	25
66	Elevated glucocorticoids during ovine pregnancy increase appetite and produce glucose dysregulation and adiposity in their granddaughters in response to ad libitum feeding at 1 year of age. *American Journal of Obstetrics and Gynecology*, **2013**, 209, 353.e1-9	6.4	25
65	Reduced placental amino acid transport in response to maternal nutrient restriction in the baboon. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2015**, 309, R740-6	3.2	25
64	Influence of gestational overfeeding on cardiac morphometry and hypertrophic protein markers in fetal sheep. *Journal of Nutritional Biochemistry*, **2011**, 22, 30-7	6.3	25
63	Effect of the oxytocin antagonist atosiban (1-deamino-2-D-tyr(OET)-4-thr-8-orn-vasotocin/oxytocin) on nocturanl myometrial contractions, maternal cardiovascular function, transplacental passage, and fetal oxygenation in the pregnant baboon during the last third of gestation. *Biology of Reproduction*, **1997**, 57, 320-4	3.9	25
62	Opposing effects of androgen and estrogen on pituitary-adrenal function in nonpregnant primates. *Biology of Reproduction*, **2000**, 62, 1445-51	3.9	25
61	Effects of moderate global maternal nutrient reduction on fetal baboon renal mitochondrial gene expression at 0.9 gestation. *American Journal of Physiology - Renal Physiology*, **2015**, 308, F1217-28	4.3	24
60	Role of catecholamines in maternal-fetal stress transfer in sheep. *American Journal of Obstetrics and Gynecology*, **2015**, 213, 684.e1-9	6.4	24

59	Maternal obesity accelerates rat offspring metabolic ageing in a sex-dependent manner. *Journal of Physiology*, **2019**, 597, 5549-5563	3.9	23
58	The insulin-like growth factor system and the fetal brain: effects of poor maternal nutrition. *Reviews in Endocrine and Metabolic Disorders*, **2007**, 8, 71-84	10.5	22
57	Behavioral responses of the chronically instrumented sheep fetus to chemosensory stimuli presented in utero.. *Behavioral Neuroscience*, **1995**, 109, 551-562	2.1	21
56	Premature Brain Aging in Baboons Resulting from Moderate Fetal Undernutrition. *Frontiers in Aging Neuroscience*, **2017**, 9, 92	5.3	20
55	Timing of the switch from myometrial contractures to contractions in late-gestation pregnant rhesus monkeys as recorded by myometrial electromyogram during spontaneous term and androstenedione-induced labor. *Biology of Reproduction*, **1997**, 56, 557-62	3.9	20
54	Prostaglandin regulation of fetal plasma adrenocorticotropin and cortisol concentrations in late-gestation sheep. *Biology of Reproduction*, **1998**, 58, 514-9	3.9	19
53	Intrauterine growth restriction results in persistent vascular mismatch in adulthood. *Journal of Physiology*, **2018**, 596, 5777-5790	3.9	19
52	Maternal obesity disrupts the methionine cycle in baboon pregnancy. *Physiological Reports*, **2015**, 3, e12564	2.1	18
51	Diet reduction to requirements in obese/overfed ewes from early gestation prevents glucose/insulin dysregulation and returns fetal adiposity and organ development to control levels. *American Journal of Physiology - Endocrinology and Metabolism*, **2013**, 305, E868-78	6	18
50	The prolonged effect of repeated maternal glucocorticoid exposure on the maternal and fetal leptin/insulin-like growth factor axis in Papio species. *Reproductive Sciences*, **2009**, 16, 308-19	3	18
49	Characterization of decorin mRNA in pregnant intrauterine tissues of the ewe and regulation by steroids. *American Journal of Physiology - Cell Physiology*, **2000**, 278, C199-206	5.4	18
48	Effect of moderate, 30 percent global maternal nutrient reduction on fetal and postnatal baboon phenotype. *Journal of Medical Primatology*, **2017**, 46, 293-303	0.7	17
47	Maternal obesity impairs fetal cardiomyocyte contractile function in sheep. *FASEB Journal*, **2019**, 33, 2587-2598	0.9	16
46	Maternal obesity in the ewe increases cardiac ventricular expression of glucocorticoid receptors, proinflammatory cytokines and fibrosis in adult male offspring. *PLoS ONE*, **2017**, 12, e0189977	3.7	13
45	Maternal nutrient restriction predisposes ventricular remodeling in adult sheep offspring. *Journal of Nutritional Biochemistry*, **2013**, 24, 1258-65	6.3	13
44	Different Statistical Approaches to Characterization of Adipocyte Size in Offspring of Obese Rats: Effects of Maternal or Offspring Exercise Intervention. *Frontiers in Physiology*, **2018**, 9, 1571	4.6	13
43	Electrocortical activity in fetal sheep in the last seven days of gestation. *Journal of Physiology*, **1998** , 513 (Pt 1), 273-81	3.9	12
42	Fetal sheep adrenal blood flow responses to hypoxemia after splanchnicotomy using fluorescent microspheres. *Journal of Applied Physiology*, **1998**, 84, 82-9	3.7	12

41	Increased aggressive and affiliative display behavior in intrauterine growth restricted baboons. *Journal of Medical Primatology*, **2015**, 44, 143-57	0.7	11
40	Increased myometrial contracture frequency at 96-140 days accelerates fetal cardiovascular maturation. *American Journal of Physiology - Heart and Circulatory Physiology*, **2000**, 278, H41-9	5.2	11
39	Differences in the in vitro sensitivity of ovine myometrium and mesometrium to oxytocin and prostaglandins E2 and F2alpha. *Biology of Reproduction*, **1998**, 58, 73-8	3.9	11
38	Alteration of fetal oxygenation and responses to acute hypoxemia by increased myometrial contracture frequency produced by pulse administration of oxytocin to the pregnant ewe from 96 to 131 daysTgestation. *American Journal of Obstetrics and Gynecology*, **1999**, 180, 1202-8	6.4	11
37	Effects of maternal stress and nutrient restriction during gestation on offspring neuroanatomy in humans. *Neuroscience and Biobehavioral Reviews*, **2020**, 117, 5-25	9	9
36	Ageing changes in biventricular cardiac function in male and female baboons (Papio spp.). *Journal of Physiology*, **2018**, 596, 5083-5098	3.9	9
35	Cell type-specific regulation of fetal fibronectin expression in amnion: conservation of glucocorticoid responsiveness in human and nonhuman primates. *Biology of Reproduction*, **2000**, 62, 1812-7	3.9	9
34	Changes in Adrenocorticotropin and Cortisol Responsiveness after Repeated Partial Umbilical Cord Occlusions in the Late Gestation Ovine Fetus		8
33	Strength of nonhuman primate studies of developmental programming: review of sample sizes, challenges, and steps for future work. *Journal of Developmental Origins of Health and Disease*, **2020**, 11, 297-306	2.4	8
32	Maternal nutrient restriction in baboon programs later-life cellular growth and respiration of cultured skin fibroblasts: a potential model for the study of aging-programming interactions. *GeroScience*, **2018**, 40, 269-278	8.9	7
31	Antenatal Synthetic Glucocorticoid Exposure at Human Therapeutic Equivalent Doses Predisposes Middle-Age Male Offspring Baboons to an Obese Phenotype That Emerges With Aging. *Reproductive Sciences*, **2019**, 26, 591-599	3	7
30	Contractile activity of the uterus prior to labor alters the temporal organization of spontaneous motor activity in the fetal sheep. *Developmental Psychobiology*, **1996**, 29, 667-83	3	7
29	Comparison of the myometrial response to oxytocin during daylight with the response obtained during the early hours of darkness in the fetectomized rhesus monkey at 160-172 days gestational age. *Biology of Reproduction*, **1993**, 48, 779-85	3.9	7
28	Anesthetic management for instrumentation of the pregnant rhesus monkey. *Journal of Medical Primatology*, **1991**, 20, 223-228	0.7	7
27	A decline in female baboon hypothalamo-pituitary-adrenal axis activity anticipates aging. *Aging*, **2017**, 9, 1375-1385	5.6	7
26	Nonhuman primate breath volatile organic compounds associate with developmental programming and cardio-metabolic status. *Journal of Breath Research*, **2018**, 12, 036016	3.1	5
25	Role of pregnancy and obesity on vitamin D status, transport, and metabolism in baboons. *American Journal of Physiology - Endocrinology and Metabolism*, **2019**, 316, E63-E72	6	5
24	Effect of maternal obesity on fetal and postnatal baboon (Papio species) early life phenotype. *Journal of Medical Primatology*, **2019**, 48, 90-98	0.7	4

23	Prostaglandin synthase activity of fetal sheep cotyledons at 122 days of gestation and term: expression of prostaglandin synthetic capacity in fetal cotyledonary tissue near labor is location-dependent. *Biology of Reproduction*, **1995**, 52, 737-44	3.9	4
22	Development of a 96-well based assay for kinetic determination of catalase enzymatic-activity in biological samples. *Toxicology in Vitro*, **2020**, 69, 104996	3.6	4
21	The nonhuman primate hypothalamo-pituitary-adrenal axis is an orchestrator of programming-aging interactions: role of nutrition. *Nutrition Reviews*, **2020**, 78, 48-61	6.4	4
20	Importance of the lactation period in developmental programming in rodents. *Nutrition Reviews*, **2020**, 78, 32-47	6.4	4
19	Sex-dependent vulnerability of fetal nonhuman primate cardiac mitochondria to moderate maternal nutrient reduction. *Clinical Science*, **2021**, 135, 1103-1126	6.5	4
18	Rodent studies of developmental programming and ageing mechanisms: Special issue: In utero and early life programming of ageing and disease. *European Journal of Clinical Investigation*, **2021**, 51, e13631	4.6	4
17	A heretical view: rather than a solely placental protective function, placental 11□hydroxysteroid dehydrogenase 2 also provides substrate for fetal peripheral cortisol synthesis in obese pregnant ewes. *Journal of Developmental Origins of Health and Disease*, **2021**, 12, 94-100	2.4	3
16	Strengths and validity of three methods for assessing rat body fat across the life course. *International Journal of Obesity*, **2020**, 44, 2430-2435	5.5	2
15	Aging Endocrine and Metabolic Phenotypes Are Programmed by Mother□s Age at Conception in a Sex-Dependent Fashion in the Rat. *Journals of Gerontology - Series A Biological Sciences and Medical Sciences*, **2020**, 75, 2304-2307	6.4	2
14	Age and sex modify cellular proliferation responses to oxidative stress and glucocorticoid challenges in baboon cells. *GeroScience*, **2021**, 43, 2067-2085	8.9	2
13	Maternal obesity in sheep impairs foetal hepatic mitochondrial respiratory chain capacity. *European Journal of Clinical Investigation*, **2021**, 51, e13375	4.6	2
12	Dipeptidyl peptidase IV inhibition delays developmental programming of obesity and metabolic disease in male offspring of obese mothers.. *Journal of Developmental Origins of Health and Disease* , **2022**, 1-14	2.4	1
11	Maternal obesity (MO) programs morphological changes in aged rat offspring small intestine in a sex dependent manner: Effects of maternal resveratrol supplementation. *Experimental Gerontology* , **2021**, 154, 111511	4.5	1
10	Developmental programming and ageing of male reproductive function. *European Journal of Clinical Investigation*, **2021**, 51, e13637	4.6	0
9	Maternal programming by hypoxia alters the molecular composition of the oviduct of her offspring, the first pathway her grandchildren will transit: a potential novel pathway for intergenerational programming?. *Journal of Physiology*, **2019**, 597, 2325-2326	3.9	
8	Prenatal stress: Biomarkers of brain development. *Neuroscience and Biobehavioral Reviews*, **2020**, 117, 140-141	9	
7	Cellular resilience and baboon aging. *Aging*, **2021**, 13, 24482-24484	5.6	
6	Hematological and blood chemistry responses to docosahexaenoic acid (DHA) and arachidonic acid (ARA) supplementation in baboon neonates. *FASEB Journal*, **2006**, 20, A136	0.9	

5	The influence of moderate and high levels of long chain polyunsaturated fatty acid (LCPUFA) supplementation on 12 week old baboon neonate tissue fatty acids. *FASEB Journal*, **2006**, 20, A137	0.9
4	Effects of Maternal Nutrition Excess (MNE) on Fetal Cardiac Mitochondrial Transcripts and Protein at 0.9 G in Non-Human Primates (NHP). *FASEB Journal*, **2012**, 26, 137.4	0.9
3	Stiffening the sinews of the heart *Journal of Physiology*, **2018**, 596, 2279-2280	3.9
2	Cortical responsive neurostimulation in a baboon with genetic generalized epilepsy. *Epilepsy and Behavior*, **2021**, 120, 107973	3.2
1	Sexual dimorphism in liver cell cycle and senescence signalling pathways in young and old rats. *Journal of Physiology*, **2021**, 599, 4309-4320	3.9