

# Jeffrey L Segar

## List of Publications by Year in descending order

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110  
papers

1,983  
citations

201385

27  
h-index

329751

37  
g-index

118  
all docs

118  
docs citations

118  
times ranked

1782  
citing authors

#	ARTICLE	IF	CITATIONS
1	The effect of inhaled nitric oxide therapy on bleeding time and platelet aggregation in neonates. <i>Journal of Pediatrics</i> , 1998, 132, 731-734.	0.9	84
2	Effect of Cortisol on Gene Expression of the Renin-Angiotensin System in Fetal Sheep. <i>Pediatric Research</i> , 1995, 37, 741-746.	1.1	67
3	Differential Gene Expression and Regulation of Renal Angiotensin II Receptor Subtypes (AT1 and AT2) during Fetal Life in Sheep. <i>Pediatric Research</i> , 1995, 38, 896-904.	1.1	52
4	Development of baroreflex influences on heart rate variability in preterm infants. <i>Early Human Development</i> , 1998, 53, 37-52.	0.8	52
5	Neonatal Diuretic Therapy: Furosemide, Thiazides, and Spironolactone. <i>Clinics in Perinatology</i> , 2012, 39, 209-220.	0.8	52
6	Mechanisms regulating renal sodium excretion during development. <i>Pediatric Nephrology</i> , 1992, 6, 205-213.	0.9	51
7	Ontogenic Changes and Regulation of Renal Angiotensin II Type 1 Receptor Gene Expression during Fetal and Newborn Life. <i>Pediatric Research</i> , 1994, 36, 755-762.	1.1	47
8	Vascular nitric oxide and superoxide anion contribute to sex-specific programmed cardiovascular physiology in mice. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2009, 296, R651-R662.	0.9	47
9	Metabolic Adaptation of the Fetal and Postnatal Ovine Heart: Regulatory Role of Hypoxia-Inducible Factors and Nuclear Respiratory Factor-1. <i>Pediatric Research</i> , 2002, 52, 269-278.	1.1	46
10	Localization and function of the brain excitatory amino acid transporter type 1 in cardiac mitochondria. <i>Journal of Molecular and Cellular Cardiology</i> , 2004, 37, 33-41.	0.9	45
11	Neonatal vulnerability to ischemia and reperfusion: cardioplegic arrest causes greater myocardial apoptosis in neonatal lambs than in mature lambs. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2004, 127, 490-497.	0.4	41
12	Programming of growth, insulin resistance and vascular dysfunction in offspring of late gestation diabetic rats. <i>Clinical Science</i> , 2009, 117, 129-138.	1.8	39
13	Sex-specific programming of hypertension in offspring of late-gestation diabetic rats. <i>Pediatric Research</i> , 2012, 72, 352-361.	1.1	39
14	Newborn lamb coronary artery reactivity is programmed by early gestation dexamethasone before the onset of systemic hypertension. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2005, 289, R1169-R1176.	0.9	38
15	Early gestation dexamethasone alters baroreflex and vascular responses in newborn lambs before hypertension. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2006, 291, R481-R488.	0.9	38
16	Urinary metabolomic markers of aminoglycoside nephrotoxicity in newborn rats. <i>Pediatric Research</i> , 2013, 73, 585-591.	1.1	38
17	Metabolic Adaptation of the Hypertrophied Heart: Role of the Malate/Aspartate and $\hat{I}^{\pm}$ -Glycerophosphate Shuttles. <i>Journal of Molecular and Cellular Cardiology</i> , 2000, 32, 2287-2297.	0.9	37
18	Addition of metolazone to overcome tolerance to furosemide in infants with bronchopulmonary dysplasia. <i>Journal of Pediatrics</i> , 1992, 120, 966-973.	0.9	36

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19	Early gestation dexamethasone programs enhanced postnatal ovine coronary artery vascular reactivity. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2005, 288, R46-R53.	0.9	36
20	Hyperglycemia induces embryopathy, even in the absence of systemic maternal diabetes: An in vivo test of the fuel mediated teratogenesis hypothesis. <i>Reproductive Toxicology</i> , 2014, 46, 129-136.	1.3	32
21	Cardiomyopathy in offspring of diabetic rats is associated with activation of the MAPK and apoptotic pathways. <i>Cardiovascular Diabetology</i> , 2009, 8, 43.	2.7	31
22	Early-Life Course Socioeconomic Factors and Chronic Kidney Disease. <i>Advances in Chronic Kidney Disease</i> , 2015, 22, 16-23.	0.6	31
23	Angiotensin II in cardiac pressure-overload hypertrophy in fetal sheep. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2001, 281, R2037-R2047.	0.9	30
24	Glucocorticoid modulation of cardiovascular and autonomic function in preterm lambs: role of ANG II. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2001, 280, R646-R654.	0.9	30
25	Role of Sympathetic Activity in the Generation of Heart Rate and Arterial Pressure Variability in Fetal Sheep. <i>Pediatric Research</i> , 1994, 35, 250-254.	1.1	29
26	Maternal Hyperglycemia Disrupts Histone 3 Lysine 36 Trimethylation of the IGF-1 Gene. <i>Journal of Nutrition and Metabolism</i> , 2012, 2012, 1-7.	0.7	29
27	Maternal Hyperglycemia Directly and Rapidly Induces Cardiac Septal Overgrowth in Fetal Rats. <i>Journal of Diabetes Research</i> , 2015, 2015, 1-11.	1.0	29
28	Optimization of high-frequency oscillatory ventilation for the treatment of experimental pneumothorax. <i>Critical Care Medicine</i> , 2002, 30, 1131-1135.	0.4	28
29	Thyroid hormone is required for growth adaptation to pressure load in the ovine fetal heart. <i>Experimental Physiology</i> , 2013, 98, 722-733.	0.9	28
30	Angiotensin AT1receptor blockade fails to attenuate pressure-overload cardiac hypertrophy in fetal sheep. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 1997, 273, R1501-R1508.	0.9	26
31	Correlation between myocardial malate/aspartate shuttle activity and EAAT1 protein expression in hyper- and hypothyroidism. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2005, 288, H2521-H2526.	1.5	26
32	Myocardial vascular and metabolic adaptations in chronically anemic fetal sheep. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2005, 289, R1736-R1745.	0.9	26
33	Maternal antioxidant blocks programmed cardiovascular and behavioural stress responses in adult mice. <i>Clinical Science</i> , 2011, 121, 427-436.	1.8	26
34	Apoptosis-related mitochondrial dysfunction in the early postoperative neonatal lamb heart. <i>Annals of Thoracic Surgery</i> , 2004, 78, 948-955.	0.7	24
35	Ontogeny and Regulation of Cardiac Angiotensin Types 1 and 2 Receptors during Fetal Life in Sheep. <i>Pediatric Research</i> , 1998, 44, 323-329.	1.1	24
36	Endothelial Superoxide Production Is Altered in Sheep Programmed by Early Gestation Dexamethasone Exposure. <i>Neonatology</i> , 2008, 93, 19-27.	0.9	22

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37	Hemodynamic Changes during Endotracheal Suctioning Are Mediated by Increased Autonomic Activity. <i>Pediatric Research</i> , 1993, 33, 649-652.	1.1	21
38	Changes in body water compartments with diuretic therapy in infants with chronic lung disease. <i>Early Human Development</i> , 1997, 48, 99-107.	0.8	21
39	Physiological Approach to Sodium Supplementation in Preterm Infants. <i>American Journal of Perinatology</i> , 2018, 35, 994-1000.	0.6	21
40	Causes and circumstances of death in a neonatal unit over 20 years. <i>Pediatric Research</i> , 2018, 83, 829-833.	1.1	21
41	Late-gestation betamethasone enhances coronary artery responsiveness to angiotensin II in fetal sheep. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2004, 286, R80-R88.	0.9	20
42	Programming of Adult Cardiovascular Disease following Exposure to Late-Gestation Hyperglycemia. <i>Neonatology</i> , 2011, 100, 198-205.	0.9	20
43	Genotype-specific alterations in vascular smooth muscle cell function in cystic fibrosis piglets. <i>Journal of Cystic Fibrosis</i> , 2014, 13, 251-259.	0.3	20
44	Responses of Fetal Ovine Systemic and Umbilical Arteries to Angiotensin II. <i>Pediatric Research</i> , 2001, 49, 826-833.	1.1	18
45	Murine aortic reactivity is programmed equally by maternal low protein diet or late gestation dexamethasone. <i>Journal of Maternal-Fetal and Neonatal Medicine</i> , 2007, 20, 833-841.	0.7	18
46	Effects of gestational age on myocardial blood flow and coronary flow reserve in pressure-loaded ovine fetal hearts. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2002, 282, H1359-H1369.	1.5	17
47	Renal adaptive changes and sodium handling in the fetal-to-newborn transition. <i>Seminars in Fetal and Neonatal Medicine</i> , 2017, 22, 76-82.	1.1	17
48	Influence of renal nerves on renal function during development. <i>Pediatric Nephrology</i> , 1993, 7, 667-671.	0.9	16
49	Effects of fetal ovine adrenalectomy on sympathetic and baroreflex responses at birth. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2002, 283, R460-R467.	0.9	16
50	Fetal programming alters reactive oxygen species production in sheep cardiac mitochondria. <i>Clinical Science</i> , 2009, 116, 659-668.	1.8	16
51	Autonomic Adjustments to Severe Hypotension in Fetal and Neonatal Sheep. <i>Pediatric Research</i> , 2001, 49, 56-62.	1.1	15
52	Transfusion Effects on Cardiomyocyte Growth and Proliferation in Fetal Sheep After Chronic Anemia. <i>Pediatric Research</i> , 2011, 69, 485-490.	1.1	15
53	Quantification of body fluid compartmentalization by combined time-domain nuclear magnetic resonance and bioimpedance spectroscopy. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2021, 320, R44-R54.	0.9	15
54	Methods for the Comprehensive in vivo Analysis of Energy Flux, Fluid Homeostasis, Blood Pressure, and Ventilatory Function in Rodents. <i>Frontiers in Physiology</i> , 2022, 13, 855054.	1.3	15

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55	Myocardial apoptosis after cardioplegic arrest in the neonatal lamb. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2003, 125, 1268-1273.	0.4	14
56	Effect of Insulin and Dexamethasone on Fetal Assimilation of Maternal Glucose. <i>Endocrinology</i> , 2011, 152, 255-262.	1.4	14
57	Mitogen-activated protein kinase activation and regulation in the pressure-loaded fetal ovine heart. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2006, 290, H1587-H1595.	1.5	13
58	Fetal hyperglycemia acutely induces persistent insulin resistance in skeletal muscle. <i>Journal of Endocrinology</i> , 2019, 242, M1-M15.	1.2	12
59	Fluid management considerations in extremely preterm infants born at 22-24 weeks of gestation. <i>Seminars in Perinatology</i> , 2022, 46, 151541.	1.1	12
60	The Mitogen-Activated Protein Kinases and Akt Are Developmentally Regulated in the Chronically Anemic Fetal Sheep Heart. <i>Journal of the Society for Gynecologic Investigation</i> , 2006, 13, 157-165.	1.9	11
61	Increased aortic stiffness and elevated blood pressure in response to exercise in adult survivors of prematurity. <i>Physiological Reports</i> , 2020, 8, e14462.	0.7	11
62	Inhibition of sympathetic responses at birth in sheep by lesion of the paraventricular nucleus. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2002, 283, R1395-R1403.	0.9	10
63	Regulation of Myocardial Glucose Transporters GLUT1 and GLUT4 in Chronically Anemic Fetal Lambs. <i>Pediatric Research</i> , 2005, 58, 713-718.	1.1	10
64	Coronary Constriction to Angiotensin II Is Enhanced by Endothelial Superoxide Production in Sheep Programmed by Dexamethasone. <i>Pediatric Research</i> , 2008, 63, 370-374.	1.1	10
65	Rethinking furosemide use for infants with bronchopulmonary dysplasia. <i>Pediatric Pulmonology</i> , 2020, 55, 1100-1103.	1.0	10
66	Feeding Formula Eliminates the Necessity of Bacterial Dysbiosis and Induces Inflammation and Injury in the Paneth Cell Disruption Murine NEC Model in an Osmolality-Dependent Manner. <i>Nutrients</i> , 2020, 12, 900.	1.7	10
67	Neural control of renal hemodynamics and function during development. <i>Pediatric Nephrology</i> , 1990, 4, 436-441.	0.9	9
68	Localized Fetomaternal Hyperglycemia: Spatial and Kinetic Definition by Positron Emission Tomography. <i>PLoS ONE</i> , 2010, 5, e12027.	1.1	9
69	ANG II modulation of cardiac growth and remodeling in immature fetal sheep. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2015, 308, R965-R972.	0.9	9
70	Cardiorespiratory management of infants born at 22 weeks gestation: The Iowa approach. <i>Seminars in Perinatology</i> , 2022, 46, 151545.	1.1	9
71	The effect of adrenalectomy on the cardiac response to subacute fetal anemia. <i>Canadian Journal of Physiology and Pharmacology</i> , 2011, 89, 79-88.	0.7	8
72	Angiotensin II-induced cardiovascular load regulates cardiac remodeling and related gene expression in late-gestation fetal sheep. <i>Pediatric Research</i> , 2014, 75, 689-696.	1.1	8

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73	Maturational changes in sodium metabolism in periviable infants. <i>Pediatric Nephrology</i> , 2021, 36, 3693-3698.	0.9	8
74	Fluid management, electrolytes imbalance and renal management in neonates with neonatal encephalopathy treated with hypothermia. <i>Seminars in Fetal and Neonatal Medicine</i> , 2021, 26, 101261.	1.1	8
75	Increasing fetal ovine number per gestation alters fetal plasma clinical chemistry values. <i>Physiological Reports</i> , 2016, 4, e12905.	0.7	7
76	Cardiometabolic effects of DOCA-salt in male C57BL/6J mice are variably dependent on sodium and nonsodium components of diet. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2022, 322, R467-R485.	0.9	7
77	Increased Erythropoietin Elimination in Fetal Sheep Following Chronic Phlebotomy. <i>Pharmaceutical Research</i> , 2007, 24, 1653-1659.	1.7	6
78	Coronary endothelial function and vascular smooth muscle proliferation are programmed by early-gestation dexamethasone exposure in sheep. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2010, 298, R1607-R1614.	0.9	6
79	Chronic Kidney Disease: A Life Course Health Development Perspective. , 2018, , 375-401.		6
80	Fetal storage of osmotically inactive sodium. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2020, 318, R512-R514.	0.9	6
81	Dissociable effects of dietary sodium in early life upon somatic growth, fluid homeostasis, and spatial memory in mice of both sexes. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2021, 320, R438-R451.	0.9	6
82	Activation of the Mitogen-Activated Protein Kinases and Akt in Response to Pulmonary Artery Banding in the Fetal Sheep Heart Is Developmentally Regulated. <i>Neonatology</i> , 2008, 93, 145-152.	0.9	5
83	Neonatal growth restriction-related leptin deficiency enhances leptin-triggered sympathetic activation and central angiotensin II receptor-dependent stress-evoked hypertension. <i>Pediatric Research</i> , 2016, 80, 244-251.	1.1	5
84	Impact of maternal dexamethasone on coronary PGE2 production and prostaglandin-dependent coronary reactivity. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2012, 303, R513-R519.	0.9	4
85	Chronic intracerebroventricular infusion of angiotensin II causes dose- and sex-dependent effects on intake behaviors and energy homeostasis in C57BL/6J mice. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2022, 323, R410-R421.	0.9	4
86	Mechano- and chemoreceptor modulation of renal sympathetic nerve activity at birth in fetal sheep. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 1999, 276, R1295-R1301.	0.9	3
87	Ontogeny of Vascular Growth Factors in Perinatal Sheep Myocardium. <i>Journal of the Society for Gynecologic Investigation</i> , 2004, 11, 503-510.	1.9	3
88	Maintenance Intravenous Fluids. <i>Pediatrics</i> , 2019, 143, .	1.0	3
89	Role of dopamine and selective dopamine receptor agonists on mouse ductus arteriosus tone and responsiveness. <i>Pediatric Research</i> , 2020, 87, 991-997.	1.1	3
90	Metabolic Adaptation of the Fetal and Postnatal Ovine Heart: Regulatory Role of Hypoxia-Inducible Factors and Nuclear Respiratory Factor-1. , 0, .		3

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91	Reply. Journal of Pediatrics, 1999, 134, 383-384.	0.9	2
92	Impact of the ovarian cycle and pregnancy on plasma chemistry values in ewes. Journal of Veterinary Diagnostic Investigation, 2018, 30, 238-244.	0.5	2
93	Neural Regulation of Blood Pressure During Fetal and Newborn Life. , 2004, , 717-726.		2
94	Ovine uterine space restriction causes dysregulation of the renin-angiotensin system in fetal kidneys. Biology of Reproduction, 2016, 96, 211-220.	1.2	1
95	Fluid and Electrolyte Management of High-Risk Infants. , 2019, , 151-164.		1
96	Diuretic use, acute kidney injury, and premature infants: the call for evidence-based guidelines. Pediatric Nephrology, 2021, 36, 3807-3811.	0.9	1
97	Neurohumoral Regulation of Blood Pressure in Early Development. , 2004, , 3-21.		1
98	Neural Regulation of Blood Pressure During Fetal and Newborn Life. , 2011, , 789-798.		1
99	Low Sodium Supply in Early Life Causes Growth Restriction and Programs Long-Term Changes in Energy Homeostasis. FASEB Journal, 2022, 36, .	0.2	1
100	Postnatal fluid balance it's time to pay attention. Journal of Perinatology, 0, , .	0.9	1
101	Neurohumoral and Autonomic Regulation of Blood Pressure. , 2013, , 3-23.		0
102	Neural Regulation of Blood Pressure During Fetal and Newborn Life. , 2017, , 573-584.e4.		0
103	William E. Segar (1923-2021): pioneer and educator. Pediatric Research, 2022, 91, 262-263.	1.1	0
104	Expression of 11 $\beta$ -hydroxysteroid dehydrogenase type 2 in the murine placenta and its regulation in cultured placental trophoblasts. FASEB Journal, 2007, 21, A1420.	0.2	0
105	Maternal Low Protein Diet and Fetal Glucocorticoid Exposure Program Adult Murine Cardiovascular and Endocrine Status. FASEB Journal, 2008, 22, 947.10.	0.2	0
106	Neurohumoral Regulation of Blood Pressure in Early Development. , 2011, , 3-22.		0
107	Neurohumoral and Autonomic Regulation of Blood Pressure. , 2017, , 1-25.		0
108	Neurohumoral and Autonomic Regulation of Blood Pressure. , 2018, , 3-26.		0

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109	Human Fetuses Accrue Osmotically Inactive Sodium Stores in Anticipation of Birth. FASEB Journal, 2020, 34, 1-1.	0.2	0
110	Deletion of Prorenin Receptor in the Rostral Ventrolateral Medulla Results in Biphasic and Sex-Dependent Pressor Responses in Deoxycorticosterone Acetate-Salt Hypertension. FASEB Journal, 2022, 36, .	0.2	0