

# Emilio A Herrera, Dvm

## List of Publications by Year in descending order

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103  
papers

2,978  
citations

147566

31  
h-index

197535

49  
g-index

105  
all docs

105  
docs citations

105  
times ranked

2763  
citing authors

#	ARTICLE	IF	CITATIONS
1	Developmental Programming of Cardiovascular Dysfunction by Prenatal Hypoxia and Oxidative Stress. PLoS ONE, 2012, 7, e31017.	1.1	228
2	Reduced Cystathionine $\beta$ -Lyase and Increased miR-21 Expression Are Associated with Increased Vascular Resistance in Growth-Restricted Pregnancies. American Journal of Pathology, 2013, 182, 1448-1458.	1.9	120
3	Improving pregnancy outcomes in humans through studies in sheep. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2018, 315, R1123-R1153.	0.9	111
4	Guinea pig models for translation of the developmental origins of health and disease hypothesis into the clinic. Journal of Physiology, 2018, 596, 5535-5569.	1.3	105
5	Melatonin and vitamin C increase umbilical blood flow via nitric oxide-dependent mechanisms. Journal of Pineal Research, 2010, 49, 399-406.	3.4	97
6	Low Arachidonic Acid Rather than $\alpha$ -Tocopherol Is Responsible for the Delayed Postnatal Development in Offspring of Rats Fed Fish Oil Instead of Olive Oil during Pregnancy and Lactation. Journal of Nutrition, 2000, 130, 2855-2865.	1.3	92
7	High-altitude chronic hypoxia during gestation and after birth modifies cardiovascular responses in newborn sheep. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2007, 292, R2234-R2240.	0.9	85
8	Partial contributions of developmental hypoxia and undernutrition to prenatal alterations in somatic growth and cardiovascular structure and function. American Journal of Obstetrics and Gynecology, 2010, 203, 495.e24-495.e34.	0.7	74
9	The placental pursuit for an adequate oxidant balance between the mother and the fetus. Frontiers in Pharmacology, 2014, 5, 149.	1.6	72
10	Evidence of a role for melatonin in fetal sheep physiology: direct actions of melatonin on fetal cerebral artery, brown adipose tissue and adrenal gland. Journal of Physiology, 2008, 586, 4017-4027.	1.3	71
11	Melatonin reduces oxidative stress and improves vascular function in pulmonary hypertensive newborn sheep. Journal of Pineal Research, 2015, 58, 362-373.	3.4	65
12	Long-term exposure to high-altitude chronic hypoxia during gestation induces neonatal pulmonary hypertension at sea level. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2010, 299, R1676-R1684.	0.9	61
13	Vitamin C Prevents Intrauterine Programming of in vivo Cardiovascular Dysfunction in the Rat. Circulation Journal, 2013, 77, 2604-2611.	0.7	60
14	Fetal <i>in vivo</i> continuous cardiovascular function during chronic hypoxia. Journal of Physiology, 2016, 594, 1247-1264.	1.3	60
15	Heart Disease Link to Fetal Hypoxia and Oxidative Stress. Advances in Experimental Medicine and Biology, 2014, 814, 77-87.	0.8	58
16	The Fetal Llama versus the Fetal Sheep: Different Strategies to Withstand Hypoxia. High Altitude Medicine and Biology, 2003, 4, 193-202.	0.5	53
17	Antioxidant Treatment Alters Peripheral Vascular Dysfunction Induced by Postnatal Glucocorticoid Therapy in Rats. PLoS ONE, 2010, 5, e9250.	1.1	53
18	Pharmacological models and approaches for pathophysiological conditions associated with hypoxia and oxidative stress. , 2016, 158, 1-23.		52

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19	Quercetin Prevents Diastolic Dysfunction Induced by a High-Cholesterol Diet: Role of Oxidative Stress and Bioenergetics in Hyperglycemic Rats. <i>Oxidative Medicine and Cellular Longevity</i> , 2018, 2018, 1-14.	1.9	48
20	Induction of controlled hypoxic pregnancy in large mammalian species. <i>Physiological Reports</i> , 2015, 3, e12614.	0.7	47
21	Impact of Maternal Melatonin Suppression on Amount and Functionality of Brown Adipose Tissue (BAT) in the Newborn Sheep. <i>Frontiers in Endocrinology</i> , 2014, 5, 232.	1.5	47
22	Statin treatment depresses the fetal defence to acute hypoxia via increasing nitric oxide bioavailability. <i>Journal of Physiology</i> , 2012, 590, 323-334.	1.3	43
23	Intervention against hypertension in the next generation programmed by developmental hypoxia. <i>PLoS Biology</i> , 2019, 17, e2006552.	2.6	43
24	Melatonin modulates the fetal cardiovascular defense response to acute hypoxia. <i>Journal of Pineal Research</i> , 2015, 59, 80-90.	3.4	41
25	Acetylcysteine, a glutathione precursor, reverts vascular dysfunction and endothelial epigenetic programming in intrauterine growth restricted guinea pigs. <i>Journal of Physiology</i> , 2017, 595, 1077-1092.	1.3	39
26	Carbon monoxide: a novel pulmonary artery vasodilator in neonatal llamas of the Andean altiplano. <i>Cardiovascular Research</i> , 2007, 77, 197-201.	1.8	38
27	Sildenafil Reverses Hypoxic Pulmonary Hypertension in Highland and Lowland Newborn Sheep. <i>Pediatric Research</i> , 2008, 63, 169-175.	1.1	38
28	The Augmentation of a Collagen/Glycosaminoglycan Biphasic Osteochondral Scaffold with Platelet-Rich Plasma and Concentrated Bone Marrow Aspirate for Osteochondral Defect Repair in Sheep. <i>Cartilage</i> , 2012, 3, 351-363.	1.4	36
29	Xanthine oxidase and the fetal cardiovascular defence to hypoxia in late gestation ovine pregnancy. <i>Journal of Physiology</i> , 2014, 592, 475-489.	1.3	36
30	Implication of Low Level Inflammation in the Insulin Resistance of Adipose Tissue at Late Pregnancy. <i>Endocrinology</i> , 2011, 152, 4094-4105.	1.4	35
31	Antioxidant treatment improves neonatal survival and prevents impaired cardiac function at adulthood following neonatal glucocorticoid therapy. <i>Journal of Physiology</i> , 2013, 591, 5083-5093.	1.3	34
32	Potential adverse effects of antenatal melatonin as a treatment for intrauterine growth restriction: findings in pregnant sheep. <i>American Journal of Obstetrics and Gynecology</i> , 2016, 215, 245.e1-245.e7.	0.7	34
33	Morphological and Functional Alterations in the Aorta of the Chronically Hypoxic Fetal Rat. <i>Journal of Vascular Research</i> , 2012, 49, 50-58.	0.6	31
34	A role for xanthine oxidase in the control of fetal cardiovascular function in late gestation sheep. <i>Journal of Physiology</i> , 2012, 590, 1825-1837.	1.3	31
35	Low-Dose Inhaled Carbon Monoxide Reduces Pulmonary Vascular Resistance During Acute Hypoxemia in Adult Sheep. <i>High Altitude Medicine and Biology</i> , 2001, 2, 377-385.	0.5	30
36	Assessment of <i>in vivo</i> fetal growth and placental vascular function in a novel intrauterine growth restriction model of progressive uterine artery occlusion in guinea pigs. <i>Journal of Physiology</i> , 2016, 594, 1553-1561.	1.3	30

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37	Evolving in thin air—Lessons from the llama fetus in the altiplano. <i>Respiratory Physiology and Neurobiology</i> , 2007, 158, 298-306.	0.7	29
38	Fetal brain hypometabolism during prolonged hypoxaemia in the llama. <i>Journal of Physiology</i> , 2005, 567, 963-975.	1.3	27
39	Store-operated channels in the pulmonary circulation of high- and low-altitude neonatal lambs. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2013, 304, L540-L548.	1.3	26
40	Melatonin improves cerebrovascular function and decreases oxidative stress in chronically hypoxic lambs. <i>Journal of Pineal Research</i> , 2014, 57, 33-42.	3.4	26
41	Fetal Growth Restriction Induces Heterogeneous Effects on Vascular Biomechanical and Functional Properties in Guinea Pigs ( <i>Cavia porcellus</i> ). <i>Frontiers in Physiology</i> , 2017, 8, 144.	1.3	26
42	Melatonin Decreases Pulmonary Vascular Remodeling and Oxygen Sensitivity in Pulmonary Hypertensive Newborn Lambs. <i>Frontiers in Physiology</i> , 2018, 9, 185.	1.3	26
43	Antenatal melatonin modulates an enhanced antioxidant/pro-oxidant ratio in pulmonary hypertensive newborn sheep. <i>Redox Biology</i> , 2019, 22, 101128.	3.9	26
44	Mechanisms of Cardiovascular Protection Associated with Intermittent Hypobaric Hypoxia Exposure in a Rat Model: Role of Oxidative Stress. <i>International Journal of Molecular Sciences</i> , 2018, 19, 366.	1.8	24
45	Fetal and postnatal pulmonary circulation in the Alto Andino. <i>Placenta</i> , 2011, 32, S100-S103.	0.7	23
46	Revisiting the Role of TRP, Orai, and ASIC Channels in the Pulmonary Arterial Response to Hypoxia. <i>Frontiers in Physiology</i> , 2018, 9, 486.	1.3	23
47	Pharmacological approaches in either intermittent or permanent hypoxia: A tale of two exposures. <i>Pharmacological Research</i> , 2015, 101, 94-101.	3.1	22
48	Cardiovascular function in term fetal sheep conceived, gestated and studied in the hypobaric hypoxia of the Andean <i>altiplano</i> . <i>Journal of Physiology</i> , 2016, 594, 1231-1245.	1.3	22
49	Role of the RhoA/ROCK pathway in high-altitude associated neonatal pulmonary hypertension in lambs. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2016, 310, R1053-R1063.	0.9	22
50	Endothelial heterogeneity in the umbilico-placental unit: DNA methylation as an innuendo of epigenetic diversity. <i>Frontiers in Pharmacology</i> , 2014, 5, 49.	1.6	21
51	Î©3 Supplementation and Intermittent Hypobaric Hypoxia Induce Cardioprotection Enhancing Antioxidant Mechanisms in Adult Rats. <i>Marine Drugs</i> , 2015, 13, 838-860.	2.2	21
52	Regional brain blood flow and cerebral hemispheric oxygen consumption during acute hypoxaemia in the llama fetus. <i>Journal of Physiology</i> , 2002, 538, 975-983.	1.3	20
53	High altitude hypoxia and blood pressure dysregulation in adult chickens. <i>Journal of Developmental Origins of Health and Disease</i> , 2013, 4, 69-76.	0.7	19
54	The heme oxygenase—carbon monoxide system in the regulation of cardiorespiratory function at high altitude. <i>Respiratory Physiology and Neurobiology</i> , 2012, 184, 186-191.	0.7	18

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55	Melatonin long-lasting beneficial effects on pulmonary vascular reactivity and redox balance in chronic hypoxic ovine neonates. <i>Journal of Pineal Research</i> , 2020, 68, e12613.	3.4	18
56	Maternal chronic hypoxia increases expression of genes regulating lung liquid movement and surfactant maturation in male fetuses in late gestation. <i>Journal of Physiology</i> , 2017, 595, 4329-4350.	1.3	17
57	Cardiovascular Responses to Arginine Vasopressin Blockade During Acute Hypoxemia in the Llama Fetus. <i>High Altitude Medicine and Biology</i> , 2000, 1, 175-184.	0.5	16
58	Vasodilator tone in the llama fetus: the role of nitric oxide during normoxemia and hypoxemia. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2005, 289, R776-R783.	0.9	16
59	The role of nitric oxide in the cardiopulmonary response to hypoxia in highland and lowland newborn llamas. <i>Journal of Physiology</i> , 2018, 596, 5907-5923.	1.3	16
60	Progressive uterine artery occlusion in the Guinea pig leads to defects in placental structure that relate to fetal growth. <i>Placenta</i> , 2018, 72-73, 36-40.	0.7	16
61	2-Aminoethyl-diphenylborinate modifies the pulmonary circulation in pulmonary hypertensive newborn lambs partially gestated at high altitude. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2016, 311, L788-L799.	1.3	14
62	Comment on Melatonin as a potential adjuvant treatment for COVID-19. <i>Life Sciences</i> , 2020, 253, 117739.	2.0	14
63	Long-term consequences of under-nutrition during suckling on glucose tolerance and lipoprotein profile in female and male rats. <i>British Journal of Nutrition</i> , 2006, 96, 1030-1037.	1.2	12
64	Role of the $\beta$ -adrenergic system in femoral vascular reactivity in neonatal llamas and sheep: a comparative study between highland and lowland species. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2011, 301, R1153-R1160.	0.9	12
65	Modelling and numerical simulation of the in vivo mechanical response of the ascending aortic aneurysm in Marfan syndrome. <i>Medical and Biological Engineering and Computing</i> , 2017, 55, 419-428.	1.6	12
66	Gestational Hypoxia and Blood-Brain Barrier Permeability: Early Origins of Cerebrovascular Dysfunction Induced by Epigenetic Mechanisms. <i>Frontiers in Physiology</i> , 2021, 12, 717550.	1.3	12
67	Melatonin Reduces Oxidative Stress in the Right Ventricle of Newborn Sheep Gestated under Chronic Hypoxia. <i>Antioxidants</i> , 2021, 10, 1658.	2.2	12
68	Maternal melatonin: Effective intervention against developmental programming of cardiovascular dysfunction in adult offspring of complicated pregnancy. <i>Journal of Pineal Research</i> , 2022, 72, e12766.	3.4	11
69	Adult vascular dysfunction in foetal growth-restricted guinea-pigs is associated with a neonate-adult switching in Nos3 DNA methylation. <i>Acta Physiologica</i> , 2019, 227, e13328.	1.8	10
70	The newborn sheep translational model for pulmonary arterial hypertension of the neonate at high altitude. <i>Journal of Developmental Origins of Health and Disease</i> , 2020, 11, 452-463.	0.7	10
71	Statins prevent adverse effects of postnatal glucocorticoid therapy on the developing brain in rats. <i>Pediatric Research</i> , 2013, 74, 639-645.	1.1	9
72	Premature Vascular Aging in Guinea Pigs Affected by Fetal Growth Restriction. <i>International Journal of Molecular Sciences</i> , 2019, 20, 3474.	1.8	9

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73	The role of nitric oxide signaling in pulmonary circulation of high- and low-altitude newborn sheep under basal and acute hypoxic conditions. <i>Nitric Oxide - Biology and Chemistry</i> , 2019, 89, 71-80.	1.2	9
74	Altered Cardiovascular Defense to Hypotensive Stress in the Chronically Hypoxic Fetus. <i>Hypertension</i> , 2020, 76, 1195-1207.	1.3	9
75	Use of fetal biometry to determine fetal age in late pregnancy in llamas. <i>Animal Reproduction Science</i> , 2002, 74, 101-109.	0.5	8
76	Effects of melatonin on the passive mechanical response of arteries in chronic hypoxic newborn lambs. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 112, 104013.	1.5	8
77	Biomechanical and structural responses of the aorta to intermittent hypobaric hypoxia in a rat model. <i>Scientific Reports</i> , 2022, 12, 3790.	1.6	7
78	Impaired Nitric Oxide Mediated Vasodilation In The Peripheral Circulation In The R6/2 Mouse Model Of Huntington's Disease. <i>Scientific Reports</i> , 2016, 6, 25979.	1.6	6
79	Pre-gestational overweight in guinea pig sows induces fetal vascular dysfunction and increased rate of large and small fetuses. <i>Journal of Developmental Origins of Health and Disease</i> , 2016, 7, 237-243.	0.7	6
80	Mechanical characterization of arteries affected by fetal growth restriction in guinea pigs ( <i>Cavia</i> ) Tj ETQq0 0 0 rgBT, /Overlock 10 Tf 50 4	1.5	6
81	Beneficial effects of melatonin on prostanoids pathways in pulmonary hypertensive neonates. <i>Vascular Pharmacology</i> , 2021, 138, 106853.	1.0	6
82	Biomechanical characterization of the passive response of the thoracic aorta in chronic hypoxic newborn lambs using an evolutionary strategy. <i>Scientific Reports</i> , 2021, 11, 13875.	1.6	6
83	High Altitude Pregnancies and Vascular Dysfunction: Observations From Latin American Studies. <i>Frontiers in Physiology</i> , 2021, 12, 786038.	1.3	6
84	Effects of Melatonin on the Defense to Acute Hypoxia in Newborn Lambs. <i>Frontiers in Endocrinology</i> , 2019, 10, 433.	1.5	5
85	Molecular regulation of lung maturation in near-term fetal sheep by maternal daily vitamin C treatment in late gestation. <i>Pediatric Research</i> , 2022, 91, 828-838.	1.1	5
86	Cardioprotective Antioxidant and Anti-Inflammatory Mechanisms Induced by Intermittent Hypobaric Hypoxia. <i>Antioxidants</i> , 2022, 11, 1043.	2.2	5
87	Counterpoint: High Altitude is not for the Birds!. <i>Journal of Applied Physiology</i> , 2011, 111, 1515-1518.	1.2	4
88	Study of the Effect of Treatment With Atrial Natriuretic Peptide (ANP) and Cinaciguat in Chronic Hypoxic Neonatal Lambs on Residual Strain and Microstructure of the Arteries. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 590488.	2.0	4
89	Perinatal cardiopulmonary adaptation to the thin air of the Alto Andino by a native Altiplano dweller, the llama. <i>Journal of Applied Physiology</i> , 2020, 129, 152-161.	1.2	3
90	Blood-brain barrier dysfunction in hemorrhagic transformation: a therapeutic opportunity for nanoparticles and melatonin. <i>Journal of Neurophysiology</i> , 2021, 125, 2025-2033.	0.9	3

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91	Melatonin treatment during chronic hypoxic gestation improves neonatal cerebrovascular function. <i>Vascular Pharmacology</i> , 2022, 144, 106971.	1.0	3
92	Epigenetic Programming of Cardiovascular Disease by Perinatal Hypoxia and Fetal Growth Restriction. <i>Journal of Hypertension</i> , 2021, 39, 1069-1078.	0.8	2
93	Pulmonary Hypertension due to Lung Diseases and/or Hypoxia: What Do We Actually Know?. <i>Canadian Respiratory Journal</i> , 2017, 2017, 1-2.	0.8	2
94	Streptozotocin-induced leukocyte DNA damage in rats. <i>Drug and Chemical Toxicology</i> , 2020, 43, 165-168.	1.2	2
95	Cinaciguat (BAY-582667) Modifies Cardiopulmonary and Systemic Circulation in Chronically Hypoxic and Pulmonary Hypertensive Neonatal Lambs in the Alto Andino. <i>Frontiers in Physiology</i> , 2021, 12, 765281.	1.3	2
96	The Action of 2-Aminoethyl-diphenyl Borinate on the Pulmonary Arterial Hypertension and Remodeling of High-Altitude Hypoxemic Lambs. <i>Frontiers in Physiology</i> , 2021, 12, 765281.	1.3	1
97	Professor Giorgio Pardi and His Legacy. <i>Reproductive Sciences</i> , 2010, 17, 101-101.	1.1	0
98	Last Word on Point:Counterpoint: High altitude is/is not for the birds!. <i>Journal of Applied Physiology</i> , 2011, 111, 1526-1526.	1.2	0
99	Foetal and umbilical vascular reactivity in a model of IUGR through gradual uterine artery occlusion in guinea pigs. <i>Placenta</i> , 2014, 35, A43-A44.	0.7	0
100	Efectos Morfológicos y Mecánicos en Ratas Sprague Dawley Sometidas a Ciclos de Hipoxia. <i>International Journal of Morphology</i> , 2019, 37, 908-911.	0.1	0
101	Neonatal glucocorticoid overexposure alters cardiovascular function in young adult horses in a sex-linked manner. <i>Journal of Developmental Origins of Health and Disease</i> , 2021, 12, 309-318.	0.7	0
102	Analysis of the passive biomechanical behavior of a sheep-specific aortic artery in pulsatile flow conditions. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2021, 24, 1228-1241.	0.9	0
103	Caracterización del daño mecánico de la aorta en condiciones de hipoxia. <i>Revista Materia</i> , 2021, 26, 1-10.	0.1	0