

Timothy R H Regnault

List of Publications by Year in descending order

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Version: 2024-02-01

102
papers

3,357
citations

147801

31
h-index

155660

55
g-index

114
all docs

114
docs citations

114
times ranked

5686
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Placental Development in Normal and Compromised Pregnanciesâ€™” A Review. <i>Placenta</i> , 2002, 23, S119-S129. | 1.5 | 222 |
| 2 | Placental Adaptations in Growth Restriction. <i>Nutrients</i> , 2015, 7, 360-389. | 4.1 | 171 |
| 3 | Placental Transport and Metabolism of Amino Acids. <i>Placenta</i> , 2001, 22, 145-161. | 1.5 | 145 |
| 4 | Intrauterine Growth Restriction Increases Fetal Hepatic Gluconeogenic Capacity and Reduces Messenger Ribonucleic Acid Translation Initiation and Nutrient Sensing in Fetal Liver and Skeletal Muscle. <i>Endocrinology</i> , 2009, 150, 3021-3030. | 2.8 | 140 |
| 5 | The relationship between transplacental O ₂ diffusion and placental expression of PlGF, VEGF and their receptors in a placental insufficiency model of fetal growth restriction. <i>Journal of Physiology</i> , 2003, 550, 641-656. | 2.9 | 123 |
| 6 | Fetoplacental transport and utilization of amino acids in IUGR â€™” a review. <i>Placenta</i> , 2005, 26, S52-S62. | 1.5 | 122 |
| 7 | Transport and Metabolism of Amino Acids in Placenta. <i>Endocrine</i> , 2002, 19, 23-42. | 2.2 | 112 |
| 8 | Improving pregnancy outcomes in humans through studies in sheep. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2018, 315, R1123-R1153. | 1.8 | 111 |
| 9 | Development and Mechanisms of Fetal Hypoxia in Severe Fetal Growth Restriction. <i>Placenta</i> , 2007, 28, 714-723. | 1.5 | 109 |
| 10 | Guinea pig models for translation of the developmental origins of health and disease hypothesis into the clinic. <i>Journal of Physiology</i> , 2018, 596, 5535-5569. | 2.9 | 105 |
| 11 | Investigating the causes of low birth weight in contrasting ovine paradigms. <i>Journal of Physiology</i> , 2005, 565, 19-26. | 2.9 | 104 |
| 12 | Placental Expression of VEGF, PlGF and their Receptors in a Model of Placental Insufficiencyâ€™”Intrauterine Growth Restriction (PI-IUGR). <i>Placenta</i> , 2002, 23, 132-144. | 1.5 | 101 |
| 13 | <i>In Utero</i> Programming of Later Adiposity: The Role of Fetal Growth Restriction. <i>Journal of Pregnancy</i> , 2012, 2012, 1-10. | 2.4 | 91 |
| 14 | Fetal hypertension and abnormal Doppler velocimetry in an ovine model of intrauterine growth restriction. <i>American Journal of Obstetrics and Gynecology</i> , 2005, 192, 272-279. | 1.3 | 81 |
| 15 | Nutrition in Pregnancy: Optimising Maternal Diet and Fetal Adaptations to Altered Nutrient Supply. <i>Nutrients</i> , 2016, 8, 342. | 4.1 | 70 |
| 16 | Characterization of Glucose Transporter 8 (GLUT8) in the Ovine Placenta of Normal and Growth Restricted Fetuses. <i>Placenta</i> , 2004, 25, 70-77. | 1.5 | 68 |
| 17 | Placental uptake and transport of ACP, a neutral nonmetabolizable amino acid, in an ovine model of fetal growth restriction. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2004, 287, E1114-E1124. | 3.5 | 64 |
| 18 | Umbilical vein blood flow determination in the ovine fetus: Comparison of Doppler ultrasonographic and steady-state diffusion techniques. <i>American Journal of Obstetrics and Gynecology</i> , 1999, 181, 1149-1153. | 1.3 | 57 |

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|----|---|-----|-----------|
| 19 | Altered Placental and Fetal Expression of IGFs and IGF-Binding Proteins Associated With Intrauterine Growth Restriction in Fetal Sheep During Early and Mid-Pregnancy. <i>Pediatric Research</i> , 2006, 60, 507-512. | 2.3 | 52 |
| 20 | Altered maternal and placental lipid metabolism and fetal fat development in obesity: Current knowledge and advances in non-invasive assessment. <i>Placenta</i> , 2018, 69, 118-124. | 1.5 | 52 |
| 21 | Fructose, pregnancy and later life impacts. <i>Clinical and Experimental Pharmacology and Physiology</i> , 2013, 40, 824-837. | 1.9 | 50 |
| 22 | Altered arterial concentrations of placental hormones during maximal placental growth in a model of placental insufficiency. <i>Journal of Endocrinology</i> , 1999, 162, 433-442. | 2.6 | 49 |
| 23 | In Utero Origins of Adult Insulin Resistance and Vascular Dysfunction. <i>Seminars in Reproductive Medicine</i> , 2011, 29, 211-224. | 1.1 | 49 |
| 24 | Umbilical uptakes and transplacental concentration ratios of amino acids in severe fetal growth restriction. <i>Pediatric Research</i> , 2013, 73, 602-611. | 2.3 | 46 |
| 25 | Chronic late-gestation hypoglycemia upregulates hepatic PEPCK associated with increased PGC1 α mRNA and phosphorylated CREB in fetal sheep. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2008, 294, E365-E370. | 3.5 | 45 |
| 26 | Chronic intrauterine hypoxia interferes with aortic development in the late gestation ovine fetus. <i>Journal of Physiology</i> , 2011, 589, 3319-3332. | 2.9 | 43 |
| 27 | Male gender promotes an increased inflammatory response to lipopolysaccharide in umbilical vein blood. <i>Journal of Maternal-Fetal and Neonatal Medicine</i> , 2012, 25, 2470-2474. | 1.5 | 41 |
| 28 | Altered Fetal Skeletal Muscle Nutrient Metabolism Following an Adverse In Utero Environment and the Modulation of Later Life Insulin Sensitivity. <i>Nutrients</i> , 2015, 7, 1202-1216. | 4.1 | 39 |
| 29 | The expression of ovine placental lactogen, StAR and progesterone-associated steroidogenic enzymes in placentae of overnourished growing adolescent ewes. <i>Reproduction</i> , 2007, 133, 785-796. | 2.6 | 37 |
| 30 | The Long and Short of It: The Role of Telomeres in Fetal Origins of Adult Disease. <i>Journal of Pregnancy</i> , 2012, 2012, 1-8. | 2.4 | 34 |
| 31 | Glucose-stimulated insulin response in pregnant sheep following acute suppression of plasma non-esterified fatty acid concentrations. <i>Reproductive Biology and Endocrinology</i> , 2004, 2, 64. | 3.3 | 33 |
| 32 | Placental Expression of Angiopoietin-1, Angiopoietin-2 and Tie-2 during Placental Development in an Ovine Model of Placental Insufficiency-Fetal Growth Restriction. <i>Pediatric Research</i> , 2005, 58, 1228-1232. | 2.3 | 32 |
| 33 | Obstetric conditions and the placental weight ratio. <i>Placenta</i> , 2014, 35, 582-586. | 1.5 | 31 |
| 34 | Developmental Changes in Ovine Myocardial Glucose Transporters and Insulin Signaling Following Hyperthermia-Induced Intrauterine Fetal Growth Restriction. <i>Experimental Biology and Medicine</i> , 2006, 231, 566-575. | 2.4 | 30 |
| 35 | Low Birth Weight Male Guinea Pig Offspring Display Increased Visceral Adiposity in Early Adulthood. <i>PLoS ONE</i> , 2014, 9, e98433. | 2.5 | 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. | 2.9 | 30 |

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|----|--|-----|-----------|
| 37 | Central stiffening in adulthood linked to aberrant aortic remodeling under suboptimal intrauterine conditions. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2011, 301, R1731-R1737. | 1.8 | 29 |
| 38 | Cotyledon and binucleate cell nitric oxide synthase expression in an ovine model of fetal growth restriction. <i>Journal of Applied Physiology</i> , 2001, 90, 2420-2426. | 2.5 | 28 |
| 39 | Maternal Nutrient Restriction in Guinea Pigs as an Animal Model for Inducing Fetal Growth Restriction. <i>Reproductive Sciences</i> , 2016, 23, 219-227. | 2.5 | 28 |
| 40 | Systematic review: Impact of resveratrol exposure during pregnancy on maternal and fetal outcomes in animal models of human pregnancy complications—Are we ready for the clinic?. <i>Pharmacological Research</i> , 2019, 144, 264-278. | 7.1 | 28 |
| 41 | Dimming the Powerhouse: Mitochondrial Dysfunction in the Liver and Skeletal Muscle of Intrauterine Growth Restricted Fetuses. <i>Frontiers in Endocrinology</i> , 2021, 12, 612888. | 3.5 | 28 |
| 42 | The tissue and plasma concentration of polyols and sugars in sheep intrauterine growth retardation. <i>Experimental Biology and Medicine</i> , 2010, 235, 999-1006. | 2.4 | 27 |
| 43 | Maternal nutrient restriction in guinea pigs leads to fetal growth restriction with evidence for chronic hypoxia. <i>Pediatric Research</i> , 2017, 82, 141-147. | 2.3 | 27 |
| 44 | Population-Based Placental Weight Ratio Distributions. <i>International Journal of Pediatrics (United)</i> Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 | 0.8 | 26 |
| 45 | The differential effects of low birth weight and Western diet consumption upon early life hepatic fibrosis development in guinea pig. <i>Journal of Physiology</i> , 2016, 594, 1753-1772. | 2.9 | 26 |
| 46 | Health Benefits of Supplementing Nursery Pig Diets with Microalgae or Fish Oil. <i>Animals</i> , 2019, 9, 80. | 2.3 | 25 |
| 47 | Low birth weight followed by postnatal overnutrition in the guinea pig exposes a predominant player in the development of vascular dysfunction. <i>Journal of Physiology</i> , 2014, 592, 5429-5443. | 2.9 | 21 |
| 48 | Maternal body mass index impacts fetal-placental size at birth and umbilical cord oxygen values with implications for regulatory mechanisms. <i>Early Human Development</i> , 2017, 112, 42-47. | 1.8 | 18 |
| 49 | The lifelong impact of fetal growth restriction on cardiac development. <i>Pediatric Research</i> , 2018, 84, 537-544. | 2.3 | 17 |
| 50 | Hyperpolarized [¹³ C]pyruvate MRI for noninvasive examination of placental metabolism and nutrient transport: A feasibility study in pregnant guinea pigs. <i>Journal of Magnetic Resonance Imaging</i> , 2016, 43, 750-755. | 3.4 | 15 |
| 51 | The effects of tracheal occlusion on Wnt signaling in a rabbit model of congenital diaphragmatic hernia. <i>Journal of Pediatric Surgery</i> , 2019, 54, 937-944. | 1.6 | 15 |
| 52 | Quantification of fetal organ volume and fat deposition following in utero exposure to maternal Western Diet using MRI. <i>PLoS ONE</i> , 2018, 13, e0192900. | 2.5 | 15 |
| 53 | Peroxisome Proliferator-Activated Receptor α , β , δ Agonists and Resveratrol Modulate Hypoxia Induced Changes in Nuclear Receptor Activators of Muscle Oxidative Metabolism. <i>PPAR Research</i> , 2010, 2010, 1-13. | 2.4 | 14 |
| 54 | Ontogeny of endothelial nitric oxide synthase mRNA in an ovine model of fetal and placental growth restriction. <i>American Journal of Obstetrics and Gynecology</i> , 2007, 197, 420.e1-420.e5. | 1.3 | 12 |

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|----|--|-----|-----------|
| 55 | Sex-specific effects of low protein diet on in utero programming of renal G-protein coupled receptors. <i>Journal of Developmental Origins of Health and Disease</i> , 2014, 5, 36-44. | 1.4 | 12 |
| 56 | Maternal nutrient restriction in guinea pigs as an animal model for studying growth-restricted offspring with postnatal catch-up growth. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2018, 314, R647-R654. | 1.8 | 11 |
| 57 | Impact of birth weight and postnatal diet on the gut microbiota of young adult guinea pigs. <i>PeerJ</i> , 2017, 5, e2840. | 2.0 | 11 |
| 58 | The Impact of Maternal Body Composition and Dietary Fat Consumption upon Placental Lipid Processing and Offspring Metabolic Health. <i>Nutrients</i> , 2020, 12, 3031. | 4.1 | 10 |
| 59 | Microalgae supplementation to late gestation sows and its effects on the health status of weaned piglets fed diets containing high- or low-quality protein sources. <i>Veterinary Immunology and Immunopathology</i> , 2019, 218, 109937. | 1.2 | 9 |
| 60 | Western diet consumption through early life induces microvesicular hepatic steatosis in association with an altered metabolome in low birth weight Guinea pigs. <i>Journal of Nutritional Biochemistry</i> , 2019, 67, 219-233. | 4.2 | 9 |
| 61 | Increased collagen deposition in the heart of chronically hypoxic ovine fetuses. <i>Journal of Developmental Origins of Health and Disease</i> , 2013, 4, 470-478. | 1.4 | 8 |
| 62 | Understanding Fetoplacental Growth Through Transgenic IGF Models. <i>Pediatric Research</i> , 2003, 53, 537-537. | 2.3 | 7 |
| 63 | BMP4 and LGL1 are Down Regulated in an Ovine Model of Congenital Diaphragmatic Hernia. <i>Frontiers in Surgery</i> , 2014, 1, 44. | 1.4 | 7 |
| 64 | Fishmeal supplementation during ovine pregnancy and lactation protects against maternal stress-induced programming of the offspring immune system. <i>BMC Veterinary Research</i> , 2015, 11, 266. | 1.9 | 7 |
| 65 | Fetal Requirements and Placental Transfer of Nitrogenous Compounds. , 2017, , 444-458.e4. | | 7 |
| 66 | Translating developmental origins of health and disease in practice: health care providersâ€™ perspectives. <i>Journal of Developmental Origins of Health and Disease</i> , 2021, 12, 404-410. | 1.4 | 7 |
| 67 | In Vivo Techniques for Studying Fetoplacental Nutrient Uptake, Metabolism, and Transport. , 2006, 122, 205-224. | | 6 |
| 68 | Effects of early gestation GH administration on placental and fetal development in sheep. <i>Journal of Endocrinology</i> , 2008, 198, 91-99. | 2.6 | 6 |
| 69 | Species-specific metabolic responses of songbird, shorebird, and murine cultured myotubes to n-3 polyunsaturated fatty acids. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2021, 320, R362-R376. | 1.8 | 6 |
| 70 | Syncytialization and prolonged exposure to palmitate impacts BeWo respiration. <i>Reproduction</i> , 2021, 161, 73-88. | 2.6 | 6 |
| 71 | Secondary photosensitisation of sheep grazing bambatsi grass (<i>Panicum coloratum</i> var) Tj ETQq1 1 0.784314 rgBT_1/Overlock_10 Tf 50 1 1.1 | | 5 |
| 72 | Induction of Glutamate Dehydrogenase in the Ovine Fetal Liver by Dexamethasone Infusion during Late Gestation¹. <i>Experimental Biology and Medicine</i> , 2003, 228, 100-105. | 2.4 | 5 |

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|----|---|-----|-----------|
| 73 | Ruminant models of prenatal growth restriction. <i>Bioscientifica Proceedings</i> , 0, , . | 1.0 | 5 |
| 74 | Maternal Fructose Intake Causes Developmental Reprogramming of Hepatic Mitochondrial Catalytic Activity and Lipid Metabolism in Weanling and Young Adult Offspring. <i>International Journal of Molecular Sciences</i> , 2022, 23, 999. | 4.1 | 5 |
| 75 | Fetal sex impacts birth to placental weight ratio and umbilical cord oxygen values with implications for regulatory mechanisms. <i>Biology of Sex Differences</i> , 2022, 13, . | 4.1 | 5 |
| 76 | The IGF-II-deficient placenta: aspects of its function. <i>Trends in Endocrinology and Metabolism</i> , 2002, 13, 410-412. | 7.1 | 4 |
| 77 | Seeing the fetus from a DOHaD perspective: discussion paper from the advanced imaging techniques of DOHaD applications workshop held at the 2019 DOHaD World Congress. <i>Journal of Developmental Origins of Health and Disease</i> , 2021, 12, 153-167. | 1.4 | 4 |
| 78 | Placental insufficiency induces a sexually dimorphic response in the expression of cardiac growth and metabolic signalling molecules upon exposure to a postnatal western diet in guinea pigs. <i>Journal of Developmental Origins of Health and Disease</i> , 2022, 13, 345-357. | 1.4 | 4 |
| 79 | Extraordinarily rapid proliferation of cultured muscle satellite cells from migratory birds. <i>Biology Letters</i> , 2021, 17, 20210200. | 2.3 | 4 |
| 80 | Gestational age impacts birth to placental weight ratio and umbilical cord oxygen values with implications for the fetal oxygen margin of safety. <i>Early Human Development</i> , 2022, 164, 105511. | 1.8 | 4 |
| 81 | Hepatic cytochrome P450 function is reduced by life-long Western diet consumption in guinea pig independent of birth weight. <i>Life Sciences</i> , 2021, 287, 120133. | 4.3 | 4 |
| 82 | Inefficient transduction of sheep in utero after intra-amniotic injection of retroviral producer cells. <i>American Journal of Obstetrics and Gynecology</i> , 2002, 187, 469-474. | 1.3 | 3 |
| 83 | Endothelial nitric oxide synthase in uteroplacental vasculature in an ovine model of IUGR. <i>American Journal of Obstetrics and Gynecology</i> , 2003, 189, S193. | 1.3 | 3 |
| 84 | The expression of ovine placental lactogen, StAR and progesterone-associated steroidogenic enzymes in placentae of overnourished growing adolescent ewes. <i>Reproduction</i> , 2008, 135, 889. | 2.6 | 3 |
| 85 | The Effect of Intermittent Umbilical Cord Occlusion on Elastin Composition in the Ovine Fetus. <i>Reproductive Sciences</i> , 2011, 18, 990-997. | 2.5 | 3 |
| 86 | Basic Experimental and Clinical Advances in the Mechanisms Underlying Abnormal Pregnancy Outcomes. <i>Journal of Pregnancy</i> , 2013, 2013, 1-3. | 2.4 | 3 |
| 87 | Maternal Undernourishment in Guinea Pigs Leads to Fetal Growth Restriction with Increased Hypoxic Cells and Oxidative Stress in the Brain. <i>Developmental Neuroscience</i> , 2019, 41, 290-299. | 2.0 | 3 |
| 88 | In Vivo Magnetic Resonance Spectroscopy of Hyperpolarized [¹³ C]Pyruvate and Proton Density Fat Fraction in a Guinea Pig Model of Non-Alcoholic Fatty Liver Disease Development After Life-Long Western Diet Consumption. <i>Journal of Magnetic Resonance Imaging</i> , 2021, 54, 1404-1414. | 3.4 | 3 |
| 89 | Time Mating Guinea Pigs by Monitoring Changes to the Vaginal Membrane throughout the Estrus Cycle and with Ultrasound Confirmation. <i>Methods and Protocols</i> , 2021, 4, 58. | 2.0 | 3 |
| 90 | Aspects of fetoplacental nutrition in intrauterine growth restriction and macrosomia. , 0, , 32-46. | | 2 |

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|-----|--|-----|-----------|
| 91 | Sex-specific alterations in hepatic cholesterol metabolism in low birth weight adult guinea pigs. <i>Pediatric Research</i> , 2022, 91, 1078-1089. | 2.3 | 2 |
| 92 | Surgical technique for developing a rabbit model of congenital diaphragmatic hernia and tracheal occlusion. <i>MethodsX</i> , 2019, 6, 594-600. | 1.6 | 1 |
| 93 | Fetal Requirements and Placental Transfer of Nitrogenous Compounds. , 2004, , 509-527. | | 1 |
| 94 | Differential and Synergistic Effects of Low Birth Weight and Western Diet on Skeletal Muscle Vasculature, Mitochondrial Lipid Metabolism and Insulin Signaling in Male Guinea Pigs. <i>Nutrients</i> , 2021, 13, 4315. | 4.1 | 1 |
| 95 | 639 Ultrasound detection of reduced placentome size in an ovine model of intrauterine growth restriction. <i>American Journal of Obstetrics and Gynecology</i> , 2001, 185, S253. | 1.3 | 0 |
| 96 | Progressive hemodynamic and acid-base alterations in an ovine model of IUGR of different severity. <i>American Journal of Obstetrics and Gynecology</i> , 2003, 189, S221. | 1.3 | 0 |
| 97 | Reduction of amniotic and allantoic fluid volume in an ovine model of fetal growth restriction. <i>American Journal of Obstetrics and Gynecology</i> , 2005, 193, S135. | 1.3 | 0 |
| 98 | Mid-gestation transcriptional control of eNOS in the placenta and uterine-umbilical vasculature in an ovine model of fetal growth restriction. <i>American Journal of Obstetrics and Gynecology</i> , 2006, 195, S169. | 1.3 | 0 |
| 99 | Placental and vascular transcriptional regulation of eNOS in an ovine model of fetal growth restriction. <i>American Journal of Obstetrics and Gynecology</i> , 2006, 195, S169. | 1.3 | 0 |
| 100 | O-OBS-MFM-MD-070 Imaging Fetal Subcutaneous Fat Development Using 3D Water-Fat MRI. <i>Journal of Obstetrics and Gynaecology Canada</i> , 2017, 39, 387. | 0.7 | 0 |
| 101 | Endothelial Nitric Oxide Synthase Protein Content in Uterine and Umbilical Vessels in the Early Gestation, Heat-Stress, Ovine Model of Intrauterine Growth Restriction. <i>Pediatric Research</i> , 1999, 45, 51A-51A. | 2.3 | 0 |
| 102 | Adverse In utero and Postnatal Environments Promote Hepatic Microvesicular Steatosis in conjunction with Differential Alterations in Fatty Acid and Amino Acid Metabolism in Early Adulthood. <i>FASEB Journal</i> , 2015, 29, . | 0.5 | 0 |