John Graham Carroll

List of Publications by Year in descending order

63 papers	5,375 citations	76326 40 h-index	128289 60 g-index
63 all docs	63 docs citations	63 times ranked	4402 citing authors

#	Article	IF	Citations
1	The Role of Mitochondrial Function in the Oocyte and Embryo. Current Topics in Developmental Biology, 2007, 77, 21-49.	2.2	433
2	Epigenetic modifications during oocyte growth correlates with extended parthenogenetic development in the mouse. Nature Genetics, 1996, 13, 91-94.	21.4	247
3	Mitochondrial dysfunction in oocytes of obese mothers: transmission to offspring and reversal by pharmacological endoplasmic reticulum stress inhibitors. Development (Cambridge), 2015, 142, 681-691.	2.5	223
4	Physiology: Transplantation of frozenâ€"thawed mouse primordial follicles. Human Reproduction, 1993, 8, 1163-1167.	0.9	216
5	Mitochondrial function and redox state in mammalian embryos. Seminars in Cell and Developmental Biology, 2009, 20, 346-353.	5.0	214
6	Sperm-triggered [Ca2+] oscillations and Ca2+homeostasis in the mouse egg have an absolute requirement for mitochondrial ATP production. Development (Cambridge), 2004, 131, 3057-3067.	2.5	209
7	Regulation of redox metabolism in the mouse oocyte and embryo. Development (Cambridge), 2007, 134, 455-465.	2.5	201
8	Ionomycin, Thapsigargin, Ryanodine, and Sperm Induced Ca2+ Release Increase during Meiotic Maturation of Mouse Oocytes. Journal of Biological Chemistry, 1995, 270, 6671-6677.	3.4	171
9	A Spindle Assembly Checkpoint Protein Functions in Prophase I Arrest and Prometaphase Progression. Science, 2009, 326, 991-994.	12.6	158
10	Epigenetic Modifications Necessary for Normal Development Are Established During Oocyte Growth in Mice1. Biology of Reproduction, 2000, 62, 616-621.	2.7	153
11	Rac Activity Is Polarized and Regulates Meiotic Spindle Stability and Anchoring in Mammalian Oocytes. Developmental Cell, 2007, 12, 309-317.	7.0	141
12	Changes in endoplasmic reticulum structure during mouse oocyte maturation are controlled by the cytoskeleton and cytoplasmic dynein. Developmental Biology, 2007, 305, 133-144.	2.0	136
13	Fertilization and early embryology: The role of calcium in mammalian oocyte maturation and egg activation. Human Reproduction, 1993, 8, 1274-1281.	0.9	135
14	Cell cycle-dependent Ca2+ oscillations in mouse embryos are regulated by nuclear targeting of PLCÎ¶. Journal of Cell Science, 2004, 117, 2513-2521.	2.0	126
15	Follicle-Stimulating Hormone Induces a Gap Junction-Dependent Dynamic Change in [cAMP] and Protein Kinase A in Mammalian Oocytes. Developmental Biology, 2002, 246, 441-454.	2.0	125
16	Measurement of ATP in Single Oocytes: Impact of Maturation and Cumulus Cells on Levels and Consumption. Journal of Cellular Physiology, 2014, 229, 353-361.	4.1	124
17	Biased inheritance of mitochondria during asymmetric cell division in the mouse oocyte. Journal of Cell Science, 2013, 126, 2955-64.	2.0	123
18	Inositol 1,4,5-Trisphosphate Receptors Are Downregulated in Mouse Oocytes in Response to Sperm or Adenophostin A but Not to Increases in Intracellular Ca2+ or Egg Activation. Developmental Biology, 2000, 223, 251-265.	2.0	120

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19	Ca2+ oscillations at fertilization in mammals are regulated by the formation of pronuclei. Development (Cambridge), 2003, 130, 1461-1472.	2.5	114
20	DNA damage-induced metaphase I arrest is mediated by the spindle assembly checkpoint and maternal age. Nature Communications, 2015, 6, 8706.	12.8	114
21	Expression of Inositol 1,4,5-Trisphosphate Receptors in Mouse Oocytes and Early Embryos: The Type I Isoform Is Upregulated in Oocytes and Downregulated after Fertilization. Developmental Biology, 1998, 203, 451-461.	2.0	111
22	Oocytes Progress beyond Prophase in the Presence of DNA Damage. Current Biology, 2012, 22, 989-994.	3.9	104
23	Prophase I arrest and progression to metaphase I in mouse oocytes are controlled by Emi1-dependent regulation of APCCdh1. Journal of Cell Biology, 2007, 176, 65-75.	5.2	98
24	Polarized Cdc42 activation promotes polar body protrusion and asymmetric division in mouse oocytes. Developmental Biology, 2013, 377, 202-212.	2.0	88
25	Conventional PKCs regulate the temporal pattern of Ca2+ oscillations at fertilization in mouse eggs. Journal of Cell Biology, 2004, 164, 1033-1044.	5.2	82
26	Securin regulates entry into M-phase by modulating the stability of cyclin B. Nature Cell Biology, 2008, 10, 445-451.	10.3	82
27	Calcium wave pacemakers in eggs. Journal of Cell Science, 2002, 115, 3557-3564.	2.0	80
28	Cell Cycle-dependent Regulation of Structure of Endoplasmic Reticulum and Inositol 1,4,5-Trisphosphate-induced Ca2+Release in Mouse Oocytes and Embryos. Molecular Biology of the Cell, 2003, 14, 288-301.	2.1	78
29	The initiation and regulation of Ca2+signalling at fertilization in mammals. Seminars in Cell and Developmental Biology, 2001, 12, 37-43.	5.0	74
30	The DNA damage response in mammalian oocytes. Frontiers in Genetics, 2013, 4, 117.	2.3	72
31	The spatio-temporal dynamics of mitochondrial membrane potential during oocyte maturation. Molecular Human Reproduction, 2019, 25, 695-705.	2.8	66
32	High Rates of Survival and Fertilization of Mouse and Hamster Oocytes after Vitrification in Dimethylsulphoxide1. Biology of Reproduction, 1993, 49, 489-495.	2.7	63
33	The dynamics of cyclin B1 distribution during meiosis I in mouse oocytes. Reproduction, 2004, 128, 153-162.	2.6	63
34	The dynamics of plasma membrane PtdIns(4,5)P2 at fertilization of mouse eggs. Journal of Cell Science, 2002, 115, 2139-2149.	2.0	60
35	Mitochondria-targeted therapeutics, MitoQ and BGP-15, reverse aging-associated meiotic spindle defects in mouse and human oocytes. Human Reproduction, 2021, 36, 771-784.	0.9	54
36	Female reproductive life span is extended by targeted removal of fibrotic collagen from the mouse ovary. Science Advances, 2022, 8, .	10.3	54

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37	Regulation of cytosolic and mitochondrial ATP levels in mouse eggs and zygotes. Developmental Biology, 2008, 316, 431-440.	2.0	52
38	Identification of an activation site in Bak and mitochondrial Bax triggered by antibodies. Nature Communications, 2016, 7, 11734.	12.8	50
39	The dynamics of plasma membrane PtdIns(4,5)P(2) at fertilization of mouse eggs. Journal of Cell Science, 2002, 115, 2139-49.	2.0	50
40	The ability to generate normal Ca2+ transients in response to spermatozoa develops during the final stages of oocyte growth and maturation. Human Reproduction, 2000, 15, 1389-1395.	0.9	48
41	Maternal age-dependent APC/C-mediated decrease in securin causes premature sister chromatid separation in meiosis II. Nature Communications, 2017, 8, 15346.	12.8	45
42	Covalent Aurora A regulation by the metabolic integrator coenzyme A. Redox Biology, 2020, 28, 101318.	9.0	45
43	Constitutive PtdIns(3,4,5)P3 synthesis promotes the development and survival of early mammalian embryos. Development (Cambridge), 2008, 135, 425-429.	2.5	37
44	Fertilization and InsP3-induced Ca2+ release stimulate a persistent increase in the rate of degradation of cyclin B1 specifically in mature mouse oocytes. Developmental Biology, 2004, 272, 26-38.	2.0	36
45	Novel Role for p110Î² PI 3-Kinase in Male Fertility through Regulation of Androgen Receptor Activity in Sertoli Cells. PLoS Genetics, 2015, 11, e1005304.	3.5	35
46	The Ability to Develop an Activity That Transfers Histones onto Sperm Chromatin Is Acquired with Meiotic Competence during Oocyte Growth. Developmental Biology, 2002, 241, 195-206.	2.0	30
47	Cyclin A2 modulates kinetochoreâ€“microtubule attachment in meiosis II. Journal of Cell Biology, 2017, 216, 3133-3143.	5.2	30
48	Dual-mode regulation of the APC/C by CDK1 and MAPK controls meiosis I progression and fidelity. Journal of Cell Biology, 2014, 204, 891-900.	5.2	29
49	Label-free in vivo Raman microspectroscopic imaging of the macromolecular architecture of oocytes. Scientific Reports, 2017, 7, 8945.	3.3	28
50	Oocyte mitochondriaâ€”key regulators of oocyte function and potential therapeutic targets for improving fertility. Biology of Reproduction, 2022, 106, 366-377.	2.7	27
51	Developmentally acquired PKA localisation in mouse oocytes and embryos. Developmental Biology, 2008, 317, 36-45.	2.0	25
52	An increase in [Ca2+]i is sufficient but not necessary for driving mitosis in early mouse embryos. Journal of Cell Science, 2005, 118, 4563-4575.	2.0	22
53	Electrical-assisted microinjection for analysis of fertilization and cell division in mammalian oocytes and early embryos. Methods in Cell Biology, 2018, 144, 431-440.	1.1	14
54	Development of oocyte banks and systems for the in-vitro development of oocytes: future directions for the treatment of infertility. Human Reproduction, 1996, 11, 159-168.	0.9	12

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55	Cytoplasmic Determination of Meiotic Spindle Size Revealed by a Unique Inter-Species Germinal Vesicle Transfer Model. Scientific Reports, 2016, 6, 19827.	3.3	12
56	Ca2+ signalling and cortical re-organisation during the transition from meiosis to mitosis in mammalian oocytes. European Journal of Obstetrics, Gynecology and Reproductive Biology, 2004, 115, S61-S67.	1.1	10
57	Changes in subcellular structures and states of Pumilio1 regulate the translation of target Mad2 and Cyclin B1 mRNAs. Journal of Cell Science, 2020, 133, .	2.0	10
58	Depletion of oocyte dynamin-related protein 1 shows maternal-effect abnormalities in embryonic development. Science Advances, 2022, 8, .	10.3	9
59	Parthenogenetic Activation of Mouse Oocytes by Strontium.. Journal of Mammalian Ova Research, 1998, 15, 146-152.	0.1	5
60	HENMT1 is involved in the maintenance of normal female fertility in the mouse. Molecular Human Reproduction, 2021, 27, .	2.8	2
61	Egg activation: initiation and decoding of Ca2+ signaling. , 0, , 177-186.		0
62	Oocyte Meiotic Resumption Upon Puberty. , 2018, , 167-171.		0
63	Biased inheritance of mitochondria during asymmetric cell division in the mouse oocyte. Development (Cambridge), 2013, 140, e1508-e1508.	2.5	0