

# Rebecca L Robker

## List of Publications by Year in descending order

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92  
papers

8,200  
citations

53660

45  
h-index

54797

84  
g-index

95  
all docs

95  
docs citations

95  
times ranked

7100  
citing authors

#	ARTICLE	IF	CITATIONS
1	Cyclin D2 is an FSH-responsive gene involved in gonadal cell proliferation and oncogenesis. <i>Nature</i> , 1996, 384, 470-474.	13.7	668
2	Progesterone-regulated genes in the ovulation process: ADAMTS-1 and cathepsin L proteases. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000, 97, 4689-4694.	3.3	484
3	Hormone-Induced Proliferation and Differentiation of Granulosa Cells: A Coordinated Balance of the Cell Cycle Regulators Cyclin D2 and p27 <sup>Kip1</sup> . <i>Molecular Endocrinology</i> , 1998, 12, 924-940.	3.7	383
4	Molecular mechanisms of ovulation: co-ordination through the cumulus complex. <i>Human Reproduction Update</i> , 2007, 13, 289-312.	5.2	349
5	Beta-Oxidation Is Essential for Mouse Oocyte Developmental Competence and Early Embryo Development. <i>Biology of Reproduction</i> , 2010, 83, 909-918.	1.2	324
6	Obese Women Exhibit Differences in Ovarian Metabolites, Hormones, and Gene Expression Compared with Moderate-Weight Women. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2009, 94, 1533-1540.	1.8	317
7	Lipids and oocyte developmental competence: the role of fatty acids and $\beta^2$ -oxidation. <i>Reproduction</i> , 2014, 148, R15-R27.	1.1	287
8	High-Fat Diet Causes Lipotoxicity Responses in Cumulus-Oocyte Complexes and Decreased Fertilization Rates. <i>Endocrinology</i> , 2010, 151, 5438-5445.	1.4	285
9	Macrophage contributions to ovarian function. <i>Human Reproduction Update</i> , 2004, 10, 119-133.	5.2	277
10	Parenting from before conception. <i>Science</i> , 2014, 345, 756-760.	6.0	244
11	Mitochondrial dysfunction in oocytes of obese mothers: transmission to offspring and reversal by pharmacological endoplasmic reticulum stress inhibitors. <i>Development (Cambridge)</i> , 2015, 142, 681-691.	1.2	223
12	Hormonal Control of the Cell Cycle in Ovarian Cells: Proliferation Versus Differentiation. <i>Biology of Reproduction</i> , 1998, 59, 476-482.	1.2	212
13	Molecular mechanisms of ovulation and luteinization. <i>Molecular and Cellular Endocrinology</i> , 1998, 145, 47-54.	1.6	205
14	Peroxisome Proliferator-Activated Receptor- $\beta$ Agonist Rosiglitazone Reverses the Adverse Effects of Diet-Induced Obesity on Oocyte Quality. <i>Endocrinology</i> , 2008, 149, 2646-2656.	1.4	200
15	Exposure to lipid-rich follicular fluid is associated with endoplasmic reticulum stress and impaired oocyte maturation in cumulus-oocyte complexes. <i>Fertility and Sterility</i> , 2012, 97, 1438-1443.	0.5	153
16	Evidence that obesity alters the quality of oocytes and embryos. <i>Pathophysiology</i> , 2008, 15, 115-121.	1.0	149
17	Ovulation: a multi-gene, multi-step process. <i>Steroids</i> , 2000, 65, 559-570.	0.8	137
18	ADAMTS1 Cleavage of Versican Mediates Essential Structural Remodeling of the Ovarian Follicle and Cumulus-Oocyte Matrix During Ovulation in Mice. <i>Biology of Reproduction</i> , 2010, 83, 549-557.	1.2	129

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19	Ovarian Expression of a Disintegrin and Metalloproteinase with Thrombospondin Motifs During Ovulation in the Gonadotropin-Primed Immature Rat. <i>Biology of Reproduction</i> , 2000, 62, 1090-1095.	1.2	127
20	ICAM-1 expression in adipose tissue: effects of diet-induced obesity in mice. <i>American Journal of Physiology - Cell Physiology</i> , 2006, 291, C1232-C1239.	2.1	127
21	Coordination of Ovulation and Oocyte Maturation: A Good Egg at the Right Time. <i>Endocrinology</i> , 2018, 159, 3209-3218.	1.4	120
22	Expression of aromatase in the ovary: Down-regulation of mRNA by the ovulatory luteinizing hormone surge. <i>Steroids</i> , 1997, 62, 197-206.	0.8	119
23	Inflammatory pathways linking obesity and ovarian dysfunction. <i>Journal of Reproductive Immunology</i> , 2011, 88, 142-148.	0.8	118
24	Endoplasmic Reticulum (ER) Stress in Cumulus-Oocyte Complexes Impairs Pentraxin-3 Secretion, Mitochondrial Membrane Potential ( $\Delta\psi^m$ ), and Embryo Development. <i>Molecular Endocrinology</i> , 2012, 26, 562-573.	3.7	117
25	Regulation of Fatty Acid Oxidation in Mouse Cumulus-Oocyte Complexes during Maturation and Modulation by PPAR Agonists. <i>PLoS ONE</i> , 2014, 9, e87327.	1.1	117
26	Requirement for ADAMTS-1 in extracellular matrix remodeling during ovarian folliculogenesis and lymphangiogenesis. <i>Developmental Biology</i> , 2006, 300, 699-709.	0.9	113
27	Altered Glucose Metabolism in Mouse and Humans Conceived by IVF. <i>Diabetes</i> , 2014, 63, 3189-3198.	0.3	108
28	Peri-conception parental obesity, reproductive health, and transgenerational impacts. <i>Trends in Endocrinology and Metabolism</i> , 2015, 26, 84-90.	3.1	101
29	Increased Beta-Oxidation and Improved Oocyte Developmental Competence in Response to L-Carnitine During Ovarian In Vitro Follicle Development in Mice. <i>Biology of Reproduction</i> , 2011, 85, 548-555.	1.2	97
30	Utilization of endogenous fatty acid stores for energy production in bovine preimplantation embryos. <i>Theriogenology</i> , 2012, 77, 1632-1641.	0.9	93
31	Induction of Early Growth Response Protein-1 Gene Expression in the Rat Ovary in Response to an Ovulatory Dose of Human Chorionic Gonadotropin*. <i>Endocrinology</i> , 2000, 141, 2385-2391.	1.4	85
32	Ovarian leukocyte distribution and cytokine/chemokine mRNA expression in follicular fluid cells in women with polycystic ovary syndrome. <i>Human Reproduction</i> , 2007, 22, 527-535.	0.4	81
33	Control of oocyte release by progesterone receptor-regulated gene expression. <i>Nuclear Receptor Signaling</i> , 2009, 7, nrs.07012.	1.0	80
34	The impact of obesity on oocytes: evidence for lipotoxicity mechanisms. <i>Reproduction, Fertility and Development</i> , 2012, 24, 29.	0.1	78
35	Promoting lipid utilization with l-carnitine to improve oocyte quality. <i>Animal Reproduction Science</i> , 2012, 134, 69-75.	0.5	73
36	Null Mutation in Transforming Growth Factor $\beta$ 1 Disrupts Ovarian Function and Causes Oocyte Incompetence and Early Embryo Arrest. <i>Endocrinology</i> , 2006, 147, 835-845.	1.4	70

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37	Hormone Induction of Progesterone Receptor (PR) Messenger Ribonucleic Acid and Activation of PR Promoter Regions in Ovarian Granulosa Cells: Evidence for a Role of Cyclic Adenosine 3'5'-Monophosphate but Not Estradiol. <i>Molecular Endocrinology</i> , 1998, 12, 1201-1214.	3.7	68
38	Nonesterified Fatty Acid-Induced Endoplasmic Reticulum Stress in Cattle Cumulus Oocyte Complexes Alters Cell Metabolism and Developmental Competence. <i>Biology of Reproduction</i> , 2016, 94, 23.	1.2	66
39	The spatio-temporal dynamics of mitochondrial membrane potential during oocyte maturation. <i>Molecular Human Reproduction</i> , 2019, 25, 695-705.	1.3	66
40	Leukocyte Migration in Adipose Tissue of Mice Null for ICAM-1 and Mac-1 Adhesion Receptors. <i>Obesity</i> , 2004, 12, 936-940.	4.0	61
41	Altered composition of the cumulus-oocyte complex matrix during in vitro maturation of oocytes. <i>Human Reproduction</i> , 2007, 22, 2842-2850.	0.4	60
42	Mitochondria-targeted therapeutics, MitoQ and BGP-15, reverse aging-associated meiotic spindle defects in mouse and human oocytes. <i>Human Reproduction</i> , 2021, 36, 771-784.	0.4	54
43	Female reproductive life span is extended by targeted removal of fibrotic collagen from the mouse ovary. <i>Science Advances</i> , 2022, 8, .	4.7	54
44	Development and Hormonal Regulation of the Ovarian Lymphatic Vasculature. <i>Endocrinology</i> , 2010, 151, 5446-5455.	1.4	49
45	Identification of Perilipin-2 as a lipid droplet protein regulated in oocytes during maturation. <i>Reproduction, Fertility and Development</i> , 2010, 22, 1262.	0.1	49
46	Heparan Sulfate Proteoglycans Regulate Responses to Oocyte Paracrine Signals in Ovarian Follicle Morphogenesis. <i>Endocrinology</i> , 2012, 153, 4544-4555.	1.4	48
47	Developmental programming of obesity and insulin resistance: does mitochondrial dysfunction in oocytes play a role?. <i>Molecular Human Reproduction</i> , 2015, 21, 23-30.	1.3	47
48	Sex-Specific Control of Human Heart Maturation by the Progesterone Receptor. <i>Circulation</i> , 2021, 143, 1614-1628.	1.6	42
49	Inflammatory markers in human follicular fluid correlate with lipid levels and Body Mass Index. <i>Journal of Reproductive Immunology</i> , 2018, 130, 25-29.	0.8	41
50	Suppressor of cytokine signaling 4 (SOCS4): Moderator of ovarian primordial follicle activation. <i>Journal of Cellular Physiology</i> , 2012, 227, 1188-1198.	2.0	38
51	Transient Invasive Migration in Mouse Cumulus Oocyte Complexes Induced at Ovulation by Luteinizing Hormone. <i>Biology of Reproduction</i> , 2012, 86, 125.	1.2	37
52	PPAR Gamma: Coordinating Metabolic and Immune Contributions to Female Fertility. <i>PPAR Research</i> , 2008, 2008, 1-19.	1.1	36
53	A Hyperandrogenic Environment Causes Intrinsic Defects That Are Detrimental to Follicular Dynamics in a PCOS Mouse Model. <i>Endocrinology</i> , 2019, 160, 699-715.	1.4	32
54	Hemoglobin: a Gas Transport Molecule That Is Hormonally Regulated in the Ovarian Follicle in Mice and Humans. <i>Biology of Reproduction</i> , 2015, 92, 26.	1.2	31

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55	Progesterone receptor-dependent regulation of genes in the oviducts of female mice. <i>Physiological Genomics</i> , 2014, 46, 583-592.	1.0	30
56	Recombinant human follicle-stimulating hormone alters maternal ovarian hormone concentrations and the uterus and perturbs fetal development in mice. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2006, 291, E761-E770.	1.8	29
57	Troglitazone Regulates Peroxisome Proliferator-Activated Receptors and Inducible Nitric Oxide Synthase in Murine Ovarian Macrophages. <i>Biology of Reproduction</i> , 2006, 74, 153-160.	1.2	29
58	Activation of Mouse Cumulus-Oocyte Complex Maturation In Vitro Through EGF-Like Activity of Versican. <i>Biology of Reproduction</i> , 2015, 92, 116.	1.2	28
59	Female offspring sired by diet induced obese male mice display impaired blastocyst development with molecular alterations to their ovaries, oocytes and cumulus cells. <i>Journal of Assisted Reproduction and Genetics</i> , 2015, 32, 725-735.	1.2	25
60	Regulation of the ovarian inflammatory response at ovulation by nuclear progesterone receptor. <i>American Journal of Reproductive Immunology</i> , 2018, 79, e12835.	1.2	25
61	Impaired Glucose Metabolism in Response to High Fat Diet in Female Mice Conceived by In Vitro Fertilization (IVF) or Ovarian Stimulation Alone. <i>PLoS ONE</i> , 2014, 9, e113155.	1.1	24
62	Molecular Filtration Properties of the Mouse Expanded Cumulus Matrix: Controlled Supply of Metabolites and Extracellular Signals to Cumulus Cells and the Oocyte. <i>Biology of Reproduction</i> , 2012, 87, 89.	1.2	22
63	Expression and localisation of c-kit and KITL in the adult human ovary. <i>Journal of Ovarian Research</i> , 2015, 8, 31.	1.3	22
64	Distinct localisation of lipids in the ovarian follicular environment. <i>Reproduction, Fertility and Development</i> , 2015, 27, 593.	0.1	21
65	Identification of Sites of STAT3 Action in the Female Reproductive Tract through Conditional Gene Deletion. <i>PLoS ONE</i> , 2014, 9, e101182.	1.1	20
66	Effects of obesity on assisted reproductive technology outcomes. <i>Fertility and Sterility</i> , 2008, 89, 1611-1612.	0.5	19
67	Obesity and oocyte quality: significant implications for ART and emerging mechanistic insights. <i>Biology of Reproduction</i> , 2022, 106, 338-350.	1.2	18
68	Pubertal mammary gland development is a key determinant of adult mammographic density. <i>Seminars in Cell and Developmental Biology</i> , 2021, 114, 143-158.	2.3	17
69	Hyperglycaemia and lipid differentially impair mouse oocyte developmental competence. <i>Reproduction, Fertility and Development</i> , 2015, 27, 583.	0.1	15
70	Arrdc4-dependent extracellular vesicle biogenesis is required for sperm maturation. <i>Journal of Extracellular Vesicles</i> , 2021, 10, e12113.	5.5	14
71	Altered pregnancy outcomes in mice following treatment with the hyperglycaemia mimetic, glucosamine, during the periconception period. <i>Reproduction, Fertility and Development</i> , 2013, 25, 405.	0.1	12
72	The Mechanistic Basis for Sexual Dysfunction in Male Transforming Growth Factor $\beta$ 1 Null Mutant Mice. <i>Journal of Andrology</i> , 2010, 31, 95-107.	2.0	10

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73	Differential impacts of gonadotrophins, IVF and embryo culture on mouse blastocyst development. <i>Reproductive BioMedicine Online</i> , 2019, 39, 372-382.	1.1	10
74	Depletion of oocyte dynamin-related protein 1 shows maternal-effect abnormalities in embryonic development. <i>Science Advances</i> , 2022, 8, .	4.7	9
75	Transgenerational Obesity and Healthy Aging in <i>Drosophila</i> . <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2019, 74, 1582-1589.	1.7	8
76	A study relating the composition of follicular fluid and blood plasma from individual Holstein dairy cows to the in vitro developmental competence of pooled abattoir-derived oocytes. <i>Theriogenology</i> , 2014, 82, 95-103.	0.9	7
77	Mouse GDF9 decreases KITL gene expression in human granulosa cells. <i>Endocrine</i> , 2015, 48, 686-695.	1.1	6
78	Exogenous transforming growth factor beta1 replacement and fertility in male <i>Tgfb1</i> null mutant mice. <i>Reproduction, Fertility and Development</i> , 2009, 21, 561.	0.1	5
79	Ovulation: The Coordination of Intrafollicular Networks to Ensure Oocyte Release. , 2019, , 217-234.		5
80	Intraovarian, Isoform-Specific Transcriptional Roles of Progesterone Receptor in Ovulation. <i>Cells</i> , 2022, 11, 1563.	1.8	5
81	Cumulus Cells. , 2018, , 43-46.		4
82	Development of Automated Microscopy-Assisted High-Content Multiparametric Assays for Cell Cycle Staging and Foci Quantitation. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2020, 97, 378-393.	1.1	4
83	Effect of obesity on the ovarian follicular environment and developmental competence of the oocyte. <i>Current Opinion in Endocrine and Metabolic Research</i> , 2021, 18, 152-158.	0.6	4
84	A Primate-Specific Mediator of Ovulation?. <i>Endocrinology</i> , 2016, 157, 4209-4211.	1.4	2
85	HENMT1 is involved in the maintenance of normal female fertility in the mouse. <i>Molecular Human Reproduction</i> , 2021, 27, .	1.3	2
86	Maternal and paternal sugar consumption interact to modify offspring life history and physiology. <i>Functional Ecology</i> , 2022, 36, 1124-1136.	1.7	2
87	Obesity and oocyte quality. , 0, , 362-370.		1
88	OR08-1 Context-Specific Chromatin Binding Properties of Progesterone Receptor and Consequential Effects on Gene Expression in Mouse Reproductive Tissues. <i>Journal of the Endocrine Society</i> , 2019, 3, .	0.1	1
89	INCREASED HEPATIC INJURY IN ICAM-1 DEFICIENT MICE EXPOSED TO LISTERIA MONOCYTOGENES. <i>Critical Care Medicine</i> , 2004, 32, A130.	0.4	0
90	The Critical Granulosa Cell Complement: Lessons from the Cyclin D2 Knockout. , 2000, , 49-58.		0

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91	78. Macrophage migration and luteal regression in ovaries of leukocyte adhesion molecule-deficient (ICAM-1 -/-) mice. <i>Reproduction, Fertility and Development</i> , 2003, 15, 78.	0.1	0
92	Mitochondrial dysfunction in oocytes of obese mothers: transmission to offspring and reversal by pharmacological endoplasmic reticulum stress inhibitors. <i>Journal of Cell Science</i> , 2015, 128, e1-e1.	1.2	0