

Heng-Yu Fan

List of Publications by Year in descending order

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100
papers

5,510
citations

70961

41
h-index

91712

69
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102
all docs

102
docs citations

102
times ranked

5637
citing authors

#	ARTICLE	IF	CITATIONS
1	MAPK3/1 (ERK1/2) in Ovarian Granulosa Cells Are Essential for Female Fertility. <i>Science</i> , 2009, 324, 938-941.	6.0	559
2	Involvement of Mitogen-Activated Protein Kinase Cascade During Oocyte Maturation and Fertilization in Mammals. <i>Biology of Reproduction</i> , 2004, 70, 535-547.	1.2	277
3	BTG4 is a meiotic cell cycle-coupled maternal-zygotic-transition licensing factor in oocytes. <i>Nature Structural and Molecular Biology</i> , 2016, 23, 387-394.	3.6	209
4	High salt primes a specific activation state of macrophages, M(Na). <i>Cell Research</i> , 2015, 25, 893-910.	5.7	189
5	Targeted Disruption of Pten in Ovarian Granulosa Cells Enhances Ovulation and Extends the Life Span of Luteal Cells. <i>Molecular Endocrinology</i> , 2008, 22, 2128-2140.	3.7	162
6	Mechanisms Regulating Oocyte Meiotic Resumption: Roles of Mitogen-Activated Protein Kinase. <i>Molecular Endocrinology</i> , 2007, 21, 2037-2055.	3.7	161
7	β -Catenin (CTNNB1) Promotes Preovulatory Follicular Development but Represses LH-Mediated Ovulation and Luteinization. <i>Molecular Endocrinology</i> , 2010, 24, 1529-1542.	3.7	152
8	CCAAT/Enhancer-Binding Proteins (C/EBP)- β and γ Are Essential for Ovulation, Luteinization, and the Expression of Key Target Genes. <i>Molecular Endocrinology</i> , 2011, 25, 253-268.	3.7	135
9	FSH and FOXO1 Regulate Genes in the Sterol/Steroid and Lipid Biosynthetic Pathways in Granulosa Cells. <i>Molecular Endocrinology</i> , 2009, 23, 649-661.	3.7	134
10	YAP Promotes Ovarian Cancer Cell Tumorigenesis and Is Indicative of a Poor Prognosis for Ovarian Cancer Patients. <i>PLoS ONE</i> , 2014, 9, e91770.	1.1	130
11	Selective expression of <i>Kras</i> G12D in granulosa cells of the mouse ovary causes defects in follicle development and ovulation. <i>Development (Cambridge)</i> , 2008, 135, 2127-2137.	1.2	129
12	A story of birth and death: mRNA translation and clearance at the onset of maternal-to-zygotic transition in mammals. <i>Biology of Reproduction</i> , 2019, 101, 579-590.	1.2	124
13	Oocyte-expressed yes-associated protein is a key activator of the early zygotic genome in mouse. <i>Cell Research</i> , 2016, 26, 275-287.	5.7	108
14	Mitoguardin Regulates Mitochondrial Fusion through MitoPLD and Is Required for Neuronal Homeostasis. <i>Molecular Cell</i> , 2016, 61, 111-124.	4.5	104
15	CRL4 Complex Regulates Mammalian Oocyte Survival and Reprogramming by Activation of TET Proteins. <i>Science</i> , 2013, 342, 1518-1521.	6.0	100
16	CNOT6L couples the selective degradation of maternal transcripts to meiotic cell cycle progression in mouse oocyte. <i>EMBO Journal</i> , 2018, 37, .	3.5	97
17	Dynamics and clinical relevance of maternal mRNA clearance during the oocyte-to-embryo transition in humans. <i>Nature Communications</i> , 2020, 11, 4917.	5.8	94
18	CRL4VprBP E3 Ligase Promotes Monoubiquitylation and Chromatin Binding of TET Dioxygenases. <i>Molecular Cell</i> , 2015, 57, 247-260.	4.5	90

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19	CFP1 Regulates Histone H3K4 Trimethylation and Developmental Potential in Mouse Oocytes. <i>Cell Reports</i> , 2017, 20, 1161-1172.	2.9	89
20	A Voltage-Gated Calcium Channel Regulates Lysosomal Fusion with Endosomes and Autophagosomes and Is Required for Neuronal Homeostasis. <i>PLoS Biology</i> , 2015, 13, e1002103.	2.6	85
21	High-efficiency and heritable gene targeting in mouse by transcription activator-like effector nucleases. <i>Nucleic Acids Research</i> , 2013, 41, e120-e120.	6.5	81
22	MAPK cascade couples maternal mRNA translation and degradation to meiotic cell cycle progression in mouse oocyte. <i>Development (Cambridge)</i> , 2017, 144, 452-463.	1.2	78
23	Cell Type-Specific Targeted Mutations of <i>Kras</i> and <i>Pten</i> Document Proliferation Arrest in Granulosa Cells versus Oncogenic Insult to Ovarian Surface Epithelial Cells. <i>Cancer Research</i> , 2009, 69, 6463-6472.	0.4	76
24	Characterization of zygotic genome activation-dependent maternal mRNA clearance in mouse. <i>Nucleic Acids Research</i> , 2020, 48, 879-894.	6.5	75
25	ZAR1 and ZAR2 are required for oocyte meiotic maturation by regulating the maternal transcriptome and mRNA translational activation. <i>Nucleic Acids Research</i> , 2019, 47, 11387-11402.	6.5	69
26	YAP/TEAD Co-Activator Regulated Pluripotency and Chemoresistance in Ovarian Cancer Initiated Cells. <i>PLoS ONE</i> , 2014, 9, e109575.	1.1	68
27	Ubiquitin E3 Ligase CRL4CDT2/DCAF2 as a Potential Chemotherapeutic Target for Ovarian Surface Epithelial Cancer. <i>Journal of Biological Chemistry</i> , 2013, 288, 29680-29691.	1.6	67
28	Protein Kinase C and Mitogen-Activated Protein Kinase Cascade in Mouse Cumulus Cells: Cross Talk and Effect on Meiotic Resumption of Oocyte1. <i>Biology of Reproduction</i> , 2004, 70, 1178-1187.	1.2	63
29	Homozygous Mutations in BTG4 Cause Zygotic Cleavage Failure and Female Infertility. <i>American Journal of Human Genetics</i> , 2020, 107, 24-33.	2.6	63
30	CRL4-DCAF1 ubiquitin E3 ligase directs protein phosphatase 2A degradation to control oocyte meiotic maturation. <i>Nature Communications</i> , 2015, 6, 8017.	5.8	62
31	Involvement of Calcium/Calmodulin-Dependent Protein Kinase II (CaMKII) in Meiotic Maturation and Activation of Pig Oocytes1. <i>Biology of Reproduction</i> , 2003, 69, 1552-1564.	1.2	60
32	RNA-Binding Protein IGF2BP2/IMP2 is a Critical Maternal Activator in Early Zygotic Genome Activation. <i>Advanced Science</i> , 2019, 6, 1900295.	5.6	57
33	Ultrasensitive Ribo-seq reveals translational landscapes during mammalian oocyte-to-embryo transition and pre-implantation development. <i>Nature Cell Biology</i> , 2022, 24, 968-980.	4.6	57
34	A combinatorial code for mRNA 3'-UTR-mediated translational control in the mouse oocyte. <i>Nucleic Acids Research</i> , 2019, 47, 328-340.	6.5	54
35	Consequences of RAS and MAPK activation in the ovary: The good, the bad and the ugly. <i>Molecular and Cellular Endocrinology</i> , 2012, 356, 74-79.	1.6	53
36	CFP1 coordinates histone H3 lysine-4 trimethylation and meiotic cell cycle progression in mouse oocytes. <i>Nature Communications</i> , 2018, 9, 3477.	5.8	51

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37	Characterization of Ribosomal S6 Protein Kinase p90rsk During Meiotic Maturation and Fertilization in Pig Oocytes: Mitogen-Activated Protein Kinase-Associated Activation and Localization1. <i>Biology of Reproduction</i> , 2003, 68, 968-977.	1.2	50
38	Selective Smad4 Knockout in Ovarian Preovulatory Follicles Results in Multiple Defects in Ovulation. <i>Molecular Endocrinology</i> , 2013, 27, 966-978.	3.7	50
39	Translocation of the Classic Protein Kinase C Isoforms in Porcine Oocytes: Implications of Protein Kinase C Involvement in the Regulation of Nuclear Activity and Cortical Granule Exocytosis. <i>Experimental Cell Research</i> , 2002, 277, 183-191.	1.2	45
40	Metabolic remodelling during early mouse embryo development. <i>Nature Metabolism</i> , 2021, 3, 1372-1384.	5.1	45
41	Phosphoinositide 3-Kinase p110 β Mediates Estrogen- and FSH-Stimulated Ovarian Follicle Growth. <i>Molecular Endocrinology</i> , 2013, 27, 1468-1482.	3.7	44
42	Inhibitory effects of cAMP and protein kinase C on meiotic maturation and MAP kinase phosphorylation in porcine oocytes. <i>Molecular Reproduction and Development</i> , 2002, 63, 480-487.	1.0	43
43	Minireview: Physiological and Pathological Actions of RAS in the Ovary. <i>Molecular Endocrinology</i> , 2010, 24, 286-298.	3.7	43
44	The polycystic ovary syndrome-associated gene Yap1 is regulated by gonadotropins and sex steroid hormones in hyperandrogenism-induced oligo-ovulation in mouse. <i>Molecular Human Reproduction</i> , 2017, 23, 698-707.	1.3	41
45	Mammalian nucleolar protein DCAF13 is essential for ovarian follicle maintenance and oocyte growth by mediating rRNA processing. <i>Cell Death and Differentiation</i> , 2019, 26, 1251-1266.	5.0	41
46	PABPN1L mediates cytoplasmic mRNA decay as a placeholder during the maternal-to-zygotic transition. <i>EMBO Reports</i> , 2020, 21, e49956.	2.0	40
47	<sc>DCAF</sc> 13 promotes pluripotency by negatively regulating <sc>SUV</sc> 39H1 stability during early embryonic development. <i>EMBO Journal</i> , 2018, 37, .	3.5	39
48	Regulation of Ubiquitin-Proteasome Pathway on Pig Oocyte Meiotic Maturation and Fertilization1. <i>Biology of Reproduction</i> , 2004, 71, 853-862.	1.2	37
49	Protein synthesis and degradation are critical to regulate germline stem cell homeostasis in <i>Drosophila</i> testes. <i>Development (Cambridge)</i> , 2016, 143, 2930-45.	1.2	37
50	Maternal Sall4 Is Indispensable for Epigenetic Maturation of Mouse Oocytes. <i>Journal of Biological Chemistry</i> , 2017, 292, 1798-1807.	1.6	37
51	DNA Topoisomerase II Is Dispensable for Oocyte Meiotic Resumption but Is Essential for Meiotic Chromosome Condensation and Separation in Mice1. <i>Biology of Reproduction</i> , 2013, 89, 118.	1.2	35
52	ERK1/2 Activities Are Dispensable for Oocyte Growth but Are Required for Meiotic Maturation and Pronuclear Formation in Mouse. <i>Journal of Genetics and Genomics</i> , 2015, 42, 477-485.	1.7	35
53	Loss of oocyte Rps26 in mice arrests oocyte growth and causes premature ovarian failure. <i>Cell Death and Disease</i> , 2018, 9, 1144.	2.7	34
54	Laser microbeam-induced DNA damage inhibits cell division in fertilized eggs and early embryos. <i>Cell Cycle</i> , 2013, 12, 3336-3344.	1.3	31

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55	Characterization of polo-like kinase-1 in rat oocytes and early embryos implies its functional roles in the regulation of meiotic maturation, fertilization, and cleavage. <i>Molecular Reproduction and Development</i> , 2003, 65, 318-329.	1.0	28
56	Mitoguardin-1 and -2 promote maturation and the developmental potential of mouse oocytes by maintaining mitochondrial dynamics and functions. <i>Oncotarget</i> , 2016, 7, 1155-1167.	0.8	27
57	Biallelic mutations in <i>MOS</i> cause female infertility characterized by human early embryonic arrest and fragmentation. <i>EMBO Molecular Medicine</i> , 2021, 13, e14887.	3.3	27
58	CBP-CITED4 is required for luteinizing hormone-triggered target gene expression during ovulation. <i>Molecular Human Reproduction</i> , 2014, 20, 850-860.	1.3	26
59	Histone acetyltransferase KAT8 is essential for mouse oocyte development by regulating ROS levels. <i>Development (Cambridge)</i> , 2017, 144, 2165-2174.	1.2	25
60	The CRL4-DCAF13 ubiquitin E3 ligase supports oocyte meiotic resumption by targeting PTEN degradation. <i>Cellular and Molecular Life Sciences</i> , 2020, 77, 2181-2197.	2.4	25
61	Function and Regulation of Histone H3 Lysine-4 Methylation During Oocyte Meiosis and Maternal-to-Zygotic Transition. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 597498.	1.8	24
62	CRL4DCAF1 is required in activated oocytes for follicle maintenance and ovulation. <i>Molecular Human Reproduction</i> , 2015, 21, 195-205.	1.3	21
63	Evolutionarily-conserved MZIP2 is essential for crossover formation in mammalian meiosis. <i>Communications Biology</i> , 2018, 1, 147.	2.0	21
64	TOP2 β Is Essential for Ovarian Follicles That Are Hypersensitive to Chemotherapeutic Drugs. <i>Molecular Endocrinology</i> , 2013, 27, 1678-1691.	3.7	20
65	NAT10-mediated <i>N</i> ⁴ -acetylcytidine modification is required for meiosis entry and progression in male germ cells. <i>Nucleic Acids Research</i> , 2022, 50, 10896-10913.	6.5	20
66	CFP1-dependent histone H3K4 trimethylation in murine oocytes facilitates ovarian follicle recruitment and ovulation in a cell-nonautonomous manner. <i>Cellular and Molecular Life Sciences</i> , 2020, 77, 2997-3012.	2.4	19
67	Positive Feedback Stimulation of <i>Ccnb1</i> and <i>Mos</i> mRNA Translation by MAPK Cascade During Mouse Oocyte Maturation. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 609430.	1.8	19
68	Oocyte meiosis-coupled poly(A) polymerase β phosphorylation and activation trigger maternal mRNA translation in mice. <i>Nucleic Acids Research</i> , 2021, 49, 5867-5880.	6.5	18
69	ERK/MAPK signaling is essential for intestinal development through Wnt pathway modulation. <i>Development (Cambridge)</i> , 2020, 147, .	1.2	17
70	Roles of MAP kinase signaling pathway in oocyte meiosis. <i>Science Bulletin</i> , 2002, 47, 1157-1162.	1.7	16
71	Maternal DCAF2 is crucial for maintenance of genome stability during the first cell cycle in mice. <i>Journal of Cell Science</i> , 2017, 130, 3297-3307.	1.2	16
72	Development and characterization of a novel long-acting recombinant follicle stimulating hormone agonist by fusing Fc to an FSH- β subunit. <i>Human Reproduction</i> , 2016, 31, 169-182.	0.4	15

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73	Role of CxxC-finger protein 1 in establishing mouse oocyte epigenetic landscapes. <i>Nucleic Acids Research</i> , 2021, 49, 2569-2582.	6.5	15
74	Mitochondrial Function Regulated by Mitoguardin-1/2 Is Crucial for Ovarian Endocrine Functions and Ovulation. <i>Endocrinology</i> , 2017, 158, 3988-3999.	1.4	14
75	Functional coupling of Tmem74 and HCN1 channels regulates anxiety-like behavior in BLA neurons. <i>Molecular Psychiatry</i> , 2019, 24, 1461-1477.	4.1	14
76	Revisiting poly(A) binding proteins: Multifaceted regulators during gametogenesis and early embryogenesis. <i>BioEssays</i> , 2021, 43, e2000335.	1.2	14
77	CxxC finger protein 1-mediated histone H3 lysine-4 trimethylation is essential for proper meiotic crossover formation in mice. <i>Development (Cambridge)</i> , 2020, 147, .	1.2	13
78	Nuclear poly(A) binding protein 1 (PABPN1) mediates zygotic genome activation-dependent maternal mRNA clearance during mouse early embryonic development. <i>Nucleic Acids Research</i> , 2022, 50, 458-472.	6.5	13
79	TET1 inhibits cell proliferation by inducing RASSF5 expression. <i>Oncotarget</i> , 2017, 8, 86395-86409.	0.8	12
80	Biallelic variants in <i>ZFP36L2</i> cause female infertility characterised by recurrent preimplantation embryo arrest. <i>Journal of Medical Genetics</i> , 2022, 59, 850-857.	1.5	12
81	Five questions toward mRNA degradation in oocytes and preimplantation embryos: when, who, to whom, how, and why?. <i>Biology of Reproduction</i> , 2022, 107, 62-75.	1.2	12
82	Maternal DCAF13 Regulates Chromatin Tightness to Contribute to Embryonic Development. <i>Scientific Reports</i> , 2019, 9, 6278.	1.6	11
83	The CNOT4 Subunit of the CCR4-NOT Complex is Involved in mRNA Degradation, Efficient DNA Damage Repair, and XY Chromosome Crossover during Male Germ Cell Meiosis. <i>Advanced Science</i> , 2021, 8, 2003636.	5.6	11
84	CNOT6/6L-mediated mRNA degradation in ovarian granulosa cells is a key mechanism of gonadotropin-triggered follicle development. <i>Cell Reports</i> , 2021, 37, 110007.	2.9	11
85	Oocyte Meiotic Maturation. , 2019, , 181-203.		10
86	Lysophosphatidic acid improves oocyte quality during IVM by activating the ERK1/2 pathway in cumulus cells and oocytes. <i>Molecular Human Reproduction</i> , 2021, 27, .	1.3	10
87	In Vitro Maturation and Fertilization of Pig Oocytes. , 2004, 253, 227-234.		9
88	CRL4DCAF2 is required for mature T-cell expansion via Aurora B-regulated proteasome activity. <i>Journal of Autoimmunity</i> , 2019, 96, 74-85.	3.0	9
89	Dynamic mRNA degradome analyses indicate a role of histone H3K4 trimethylation in association with meiosis-coupled mRNA decay in oocyte aging. <i>Nature Communications</i> , 2022, 13, .	5.8	9
90	Revisiting ZAR proteins: the understudied regulator of female fertility and beyond. <i>Cellular and Molecular Life Sciences</i> , 2022, 79, 92.	2.4	7

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91	USP16-mediated histone H2A lysine-119 deubiquitination during oocyte maturation is a prerequisite for zygotic genome activation. <i>Nucleic Acids Research</i> , 2022, 50, 5599-5616.	6.5	7
92	HMCES safeguards genome integrity and long-term self-renewal of hematopoietic stem cells during stress responses. <i>Leukemia</i> , 2022, 36, 1123-1131.	3.3	5
93	Biallelic variants in <i>MOS</i> cause large polar body in oocyte and human female infertility. <i>Human Reproduction</i> , 2022, 37, 1932-1944.	0.4	5
94	Roles of protein kinase C in oocyte meiotic maturation and fertilization*. <i>Progress in Natural Science: Materials International</i> , 2003, 13, 401-406.	1.8	3
95	The DDB1-DCAF2 complex is essential for B cell development because it regulates cell cycle progression. <i>Cellular and Molecular Immunology</i> , 2021, 18, 758-760.	4.8	2
96	Selective inhibition of Tmem74 expression in BLA pyramidal neurons. <i>Molecular Psychiatry</i> , 2019, 24, 1399-1399.	4.1	1
97	Selective Expression of Constitutively Active KrasG12D in Granulosa Cells of the Mouse Ovary Causes Defects in Follicle Development and Ovulation.. <i>Biology of Reproduction</i> , 2008, 78, 127-127.	1.2	1
98	CCAAT/Enhancer Binding Protein (C/EBP)-alpha and -beta Are Essential for Ovulation and Luteinization by Regulating the Expression of Novel Target Genes.. <i>Biology of Reproduction</i> , 2010, 83, 151-151.	1.2	1
99	Regulation of Cytoskeletal Functions in Pig Oocytes. <i>Microscopy and Microanalysis</i> , 2003, 9, 1200-1201.	0.2	0
100	Function and interaction of maturation-promoting factor and mitogen-activated protein kinase during meiotic maturation and fertilization of oocyte*. <i>Progress in Natural Science: Materials International</i> , 2004, 14, 562-567.	1.8	0