Heng-Yu Fan

List of Publications by Year
in descending order

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100 papers	5,510 citations	71102 41 h-index	91884 69 g-index
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. Science, 2009, 324, 938-941.	12.6	559
2	Involvement of Mitogen-Activated Protein Kinase Cascade During Oocyte Maturation and Fertilization in Mammals1. Biology of Reproduction, 2004, 70, 535-547.	2.7	277
3	BTG4 is a meiotic cell cycleâ€“coupled maternal-zygotic-transition licensing factor in oocytes. Nature Structural and Molecular Biology, 2016, 23, 387-394.	8.2	209
4	High salt primes a specific activation state of macrophages, M(Na). Cell Research, 2015, 25, 893-910.	12.0	189
5	Targeted Disruption of Pten in Ovarian Granulosa Cells Enhances Ovulation and Extends the Life Span of Luteal Cells. Molecular Endocrinology, 2008, 22, 2128-2140.	3.7	162
6	Mechanisms Regulating Oocyte Meiotic Resumption: Roles of Mitogen-Activated Protein Kinase. Molecular Endocrinology, 2007, 21, 2037-2055.	3.7	161
7	Î²-Catenin (CTNNB1) Promotes Preovulatory Follicular Development but Represses LH-Mediated Ovulation and Luteinization. Molecular Endocrinology, 2010, 24, 1529-1542.	3.7	152
8	CCAAT/Enhancer-Binding Proteins (C/EBP)-Î± and -Î² Are Essential for Ovulation, Luteinization, and the Expression of Key Target Genes. Molecular Endocrinology, 2011, 25, 253-268.	3.7	135
9	FSH and FOXO1 Regulate Genes in the Sterol/Steroid and Lipid Biosynthetic Pathways in Granulosa Cells. Molecular Endocrinology, 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. PLoS ONE, 2014, 9, e91770.	2.5	130
11	Selective expression ofKrasG12Din granulosa cells of the mouse ovary causes defects in follicle development and ovulation. Development (Cambridge), 2008, 135, 2127-2137.	2.5	129
12	A story of birth and death: mRNA translation and clearance at the onset of maternal-to-zygotic transition in mammalsâ€. Biology of Reproduction, 2019, 101, 579-590.	2.7	124
13	Oocyte-expressed yes-associated protein is a key activator of the early zygotic genome in mouse. Cell Research, 2016, 26, 275-287.	12.0	108
14	Mitoguardin Regulates Mitochondrial Fusion through MitoPLD and Is Required for Neuronal Homeostasis. Molecular Cell, 2016, 61, 111-124.	9.7	104
15	CRL4 Complex Regulates Mammalian Oocyte Survival and Reprogramming by Activation of TET Proteins. Science, 2013, 342, 1518-1521.	12.6	100
16	<scp>CNOT</scp> 6L couples the selective degradation of maternal transcripts to meiotic cell cycle progression in mouse oocyte. EMBO Journal, 2018, 37, .	7.8	97
17	Dynamics and clinical relevance of maternal mRNA clearance during the oocyte-to-embryo transition in humans. Nature Communications, 2020, 11, 4917.	12.8	94
18	CRL4VprBP E3 Ligase Promotes Monoubiquitylation and Chromatin Binding of TET Dioxygenases. Molecular Cell, 2015, 57, 247-260.	9.7	90

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19	CFP1 Regulates Histone H3K4 Trimethylation and Developmental Potential in Mouse Oocytes. Cell Reports, 2017, 20, 1161-1172.	6.4	89
20	A Voltage-Gated Calcium Channel Regulates Lysosomal Fusion with Endosomes and Autophagosomes and Is Required for Neuronal Homeostasis. PLoS Biology, 2015, 13, e1002103.	5.6	85
21	High-efficiency and heritable gene targeting in mouse by transcription activator-like effector nucleases. Nucleic Acids Research, 2013, 41, e120-e120.	14.5	81
22	MAPK cascade couples maternal mRNA translation and degradation to meiotic cell cycle progression in mouse oocyte. Development (Cambridge), 2017, 144, 452-463.	2.5	78
23	Cell Typeâ€“Specific Targeted Mutations of Kras and Pten Document Proliferation Arrest in Granulosa Cells versus Oncogenic Insult to Ovarian Surface Epithelial Cells. Cancer Research, 2009, 69, 6463-6472.	0.9	76
24	Characterization of zygotic genome activation-dependent maternal mRNA clearance in mouse. Nucleic Acids Research, 2020, 48, 879-894.	14.5	75
25	ZAR1 and ZAR2 are required for oocyte meiotic maturation by regulating the maternal transcriptome and mRNA translational activation. Nucleic Acids Research, 2019, 47, 11387-11402.	14.5	69
26	YAP/TEAD Co-Activator Regulated Pluripotency and Chemoresistance in Ovarian Cancer Initiated Cells. PLoS ONE, 2014, 9, e109575.	2.5	68
27	Ubiquitin E3 Ligase CRL4CDT2/DCAF2 as a Potential Chemotherapeutic Target for Ovarian Surface Epithelial Cancer. Journal of Biological Chemistry, 2013, 288, 29680-29691.	3.4	67
28	Protein Kinase C and Mitogen-Activated Protein Kinase Cascade in Mouse Cumulus Cells: Cross Talk and Effect on Meiotic Resumption of Oocyte1. Biology of Reproduction, 2004, 70, 1178-1187.	2.7	63
29	Homozygous Mutations in BTG4 Cause Zygotic Cleavage Failure and Female Infertility. American Journal of Human Genetics, 2020, 107, 24-33.	6.2	63
30	CRL4â€“DCAF1 ubiquitin E3 ligase directs protein phosphatase 2A degradation to control oocyte meiotic maturation. Nature Communications, 2015, 6, 8017.	12.8	62
31	Involvement of Calcium/Calmodulin-Dependent Protein Kinase II (CaMKII) in Meiotic Maturation and Activation of Pig Oocytes1. Biology of Reproduction, 2003, 69, 1552-1564.	2.7	60
32	RNAâ€Binding Protein IGF2BP2/IMP2 is a Critical Maternal Activator in Early Zygotic Genome Activation. Advanced Science, 2019, 6, 1900295.	11.2	57
33	Ultrasensitive Ribo-seq reveals translational landscapes during mammalian oocyte-to-embryo transition and pre-implantation development. Nature Cell Biology, 2022, 24, 968-980.	10.3	57
34	A combinatorial code for mRNA 3â€²-UTR-mediated translational control in the mouse oocyte. Nucleic Acids Research, 2019, 47, 328-340.	14.5	54
35	Consequences of RAS and MAPK activation in the ovary: The good, the bad and the ugly. Molecular and Cellular Endocrinology, 2012, 356, 74-79.	3.2	53
36	CFP1 coordinates histone H3 lysine-4 trimethylation and meiotic cell cycle progression in mouse oocytes. Nature Communications, 2018, 9, 3477.	12.8	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. Biology of Reproduction, 2003, 68, 968-977.	2.7	50
38	Selective Smad4 Knockout in Ovarian Preovulatory Follicles Results in Multiple Defects in Ovulation. Molecular Endocrinology, 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. Experimental Cell Research, 2002, 277, 183-191.	2.6	45
40	Metabolic remodelling during early mouse embryo development. Nature Metabolism, 2021, 3, 1372-1384.	11.9	45
41	Phosphoinositide 3-Kinase p110Î´ Mediates Estrogen- and FSH-Stimulated Ovarian Follicle Growth. Molecular Endocrinology, 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. Molecular Reproduction and Development, 2002, 63, 480-487.	2.0	43
43	Minireview: Physiological and Pathological Actions of RAS in the Ovary. Molecular Endocrinology, 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. Molecular Human Reproduction, 2017, 23, 698-707.	2.8	41
45	Mammalian nucleolar protein DCAF13 is essential for ovarian follicle maintenance and oocyte growth by mediating rRNA processing. Cell Death and Differentiation, 2019, 26, 1251-1266.	11.2	41
46	PABPN1L mediates cytoplasmic mRNA decay as a placeholder during the maternalâ€toâ€zygotic transition. EMBO Reports, 2020, 21, e49956.	4.5	40
47	<scp>DCAF</scp> 13 promotes pluripotency by negatively regulating <scp>SUV</scp> 39H1 stability during early embryonic development. EMBO Journal, 2018, 37, .	7.8	39
48	Regulation of Ubiquitin-Proteasome Pathway on Pig Oocyte Meiotic Maturation and Fertilization1. Biology of Reproduction, 2004, 71, 853-862.	2.7	37
49	Protein synthesis and degradation are critical to regulate germline stem cell homeostasis in Drosophila testes. Development (Cambridge), 2016, 143, 2930-45.	2.5	37
50	Maternal Sall4 Is Indispensable for Epigenetic Maturation of Mouse Oocytes. Journal of Biological Chemistry, 2017, 292, 1798-1807.	3.4	37
51	DNA Topoisomerase II Is Dispensable for Oocyte Meiotic Resumption but Is Essential for Meiotic Chromosome Condensation and Separation in Mice1. Biology of Reproduction, 2013, 89, 118.	2.7	35
52	ERK1/2 Activities Are Dispensable for Oocyte Growth but Are Required for Meiotic Maturation and Pronuclear Formation in Mouse. Journal of Genetics and Genomics, 2015, 42, 477-485.	3.9	35
53	Loss of oocyte Rps26 in mice arrests oocyte growth and causes premature ovarian failure. Cell Death and Disease, 2018, 9, 1144.	6.3	34
54	Laser microbeam-induced DNA damage inhibits cell division in fertilized eggs and early embryos. Cell Cycle, 2013, 12, 3336-3344.	2.6	31

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55	Characterization of poloâ€like kinaseâ€1 in rat oocytes and early embryos implies its functional roles in the regulation of meiotic maturation, fertilization, and cleavage. Molecular Reproduction and Development, 2003, 65, 318-329.	2.0	28
56	Mitoguardin-1 and -2 promote maturation and the developmental potential of mouse oocytes by maintaining mitochondrial dynamics and functions. Oncotarget, 2016, 7, 1155-1167.	1.8	27
57	Biallelic mutations in MOS cause female infertility characterized by human early embryonic arrest and fragmentation. EMBO Molecular Medicine, 2021, 13, e14887.	6.9	27
58	CBP-CITED4 is required for luteinizing hormone-triggered target gene expression during ovulation. Molecular Human Reproduction, 2014, 20, 850-860.	2.8	26
59	Histone acetyltransferase KAT8 is essential for mouse oocyte development by regulating ROS levels. Development (Cambridge), 2017, 144, 2165-2174.	2.5	25
60	The CRL4-DCAF13 ubiquitin E3 ligase supports oocyte meiotic resumption by targeting PTEN degradation. Cellular and Molecular Life Sciences, 2020, 77, 2181-2197.	5.4	25
61	Function and Regulation of Histone H3 Lysine-4 Methylation During Oocyte Meiosis and Maternal-to-Zygotic Transition. Frontiers in Cell and Developmental Biology, 2020, 8, 597498.	3.7	24
62	CRL4DCAF1 is required in activated oocytes for follicle maintenance and ovulation. Molecular Human Reproduction, 2015, 21, 195-205.	2.8	21
63	Evolutionarily-conserved MZIP2 is essential for crossover formation in mammalian meiosis. Communications Biology, 2018, 1, 147.	4.4	21
64	TOP2Î² Is Essential for Ovarian Follicles That Are Hypersensitive to Chemotherapeutic Drugs. Molecular Endocrinology, 2013, 27, 1678-1691.	3.7	20
65	NAT10-mediated N4-acetylcytidine modification is required for meiosis entry and progression in male germ cells. Nucleic Acids Research, 2022, 50, 10896-10913.	14.5	20
66	CFP1-dependent histone H3K4 trimethylation in murine oocytes facilitates ovarian follicle recruitment and ovulation in a cell-nonautonomous manner. Cellular and Molecular Life Sciences, 2020, 77, 2997-3012.	5.4	19
67	Positive Feedback Stimulation of Ccnb1 and Mos mRNA Translation by MAPK Cascade During Mouse Oocyte Maturation. Frontiers in Cell and Developmental Biology, 2020, 8, 609430.	3.7	19
68	Oocyte meiosis-coupled poly(A) polymerase Î± phosphorylation and activation trigger maternal mRNA translation in mice. Nucleic Acids Research, 2021, 49, 5867-5880.	14.5	18
69	ERK/MAPK signaling is essential for intestinal development through Wnt pathway modulation. Development (Cambridge), 2020, 147, .	2.5	17
70	Roles of MAP kinase signaling pathway in oocyte meiosis. Science Bulletin, 2002, 47, 1157-1162.	1.7	16
71	Maternal DCAF2 is crucial for maintenance of genome stability during the first cell cycle in mice. Journal of Cell Science, 2017, 130, 3297-3307.	2.0	16
72	Development and characterization of a novel long-acting recombinant follicle stimulating hormone agonist by fusing Fc to an FSH-Î² subunit. Human Reproduction, 2016, 31, 169-182.	0.9	15

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73	Role of CxxC-finger protein 1 in establishing mouse oocyte epigenetic landscapes. Nucleic Acids Research, 2021, 49, 2569-2582.	14.5	15
74	Mitochondrial Function Regulated by Mitoguardin-1/2 Is Crucial for Ovarian Endocrine Functions and Ovulation. Endocrinology, 2017, 158, 3988-3999.	2.8	14
75	Functional coupling of Tmem74 and HCN1 channels regulates anxiety-like behavior in BLA neurons. Molecular Psychiatry, 2019, 24, 1461-1477.	7.9	14
76	Revisiting poly(A)â€binding proteins: Multifaceted regulators during gametogenesis and early embryogenesis. BioEssays, 2021, 43, e2000335.	2.5	14
77	CxxC finger protein 1-mediated histone H3 lysine-4 trimethylation is essential for proper meiotic crossover formation in mice. Development (Cambridge), 2020, 147, .	2.5	13
78	Nuclear poly(A) binding protein 1 (PABPN1) mediates zygotic genome activation-dependent maternal mRNA clearance during mouse early embryonic development. Nucleic Acids Research, 2022, 50, 458-472.	14.5	13
79	TET1 inhibits cell proliferation by inducing RASSF5 expression. Oncotarget, 2017, 8, 86395-86409.	1.8	12
80	Biallelic variants in ZFP36L2 cause female infertility characterised by recurrent preimplantation embryo arrest. Journal of Medical Genetics, 2022, 59, 850-857.	3.2	12
81	Five questions toward mRNA degradation in oocytes and preimplantation embryos: when, who, to whom, how, and why?. Biology of Reproduction, 2022, 107, 62-75.	2.7	12
82	Maternal DCAF13 Regulates Chromatin Tightness to Contribute to Embryonic Development. Scientific Reports, 2019, 9, 6278.	3.3	11
83	The CNOT4 Subunit of the CCR4â€NOT Complex is Involved in mRNA Degradation, Efficient DNA Damage Repair, and XY Chromosome Crossover during Male Germ Cell Meiosis. Advanced Science, 2021, 8, 2003636.	11.2	11
84	CNOT6/6L-mediated mRNA degradation in ovarian granulosa cells is a key mechanism of gonadotropin-triggered follicle development. Cell Reports, 2021, 37, 110007.	6.4	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. Molecular Human Reproduction, 2021, 27, .	2.8	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. Journal of Autoimmunity, 2019, 96, 74-85.	6.5	9
89	Dynamic mRNA degradome analyses indicate a role of histone H3K4 trimethylation in association with meiosis-coupled mRNA decay in oocyte aging. Nature Communications, 2022, 13, .	12.8	9
90	Revisiting ZAR proteins: the understudied regulator of female fertility and beyond. Cellular and Molecular Life Sciences, 2022, 79, 92.	5.4	7

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91	USP16-mediated histone H2A lysine-119 deubiquitination during oocyte maturation is a prerequisite for zygotic genome activation. Nucleic Acids Research, 2022, 50, 5599-5616.	14.5	7
92	HMCES safeguards genome integrity and long-term self-renewal of hematopoietic stem cells during stress responses. Leukemia, 2022, 36, 1123-1131.	7.2	5
93	Biallelic variants in MOS cause large polar body in oocyte and human female infertility. Human Reproduction, 2022, 37, 1932-1944.	0.9	5
94	Roles of protein kinase C in oocyte meiotic maturation and fertilization*. Progress in Natural Science: Materials International, 2003, 13, 401-406.	4.4	3
95	The DDB1-DCAF2 complex is essential for B cell development because it regulates cell cycle progression. Cellular and Molecular Immunology, 2021, 18, 758-760.	10.5	2
96	Selective inhibition of Tmem74 expression in BLA pyramidal neurons. Molecular Psychiatry, 2019, 24, 1399-1399.	7.9	1
97	Selective Expression of Constitutively Active KrasG12D in Granulosa Cells of the Mouse Ovary Causes Defects in Follicle Development and Ovulation.. Biology of Reproduction, 2008, 78, 127-127.	2.7	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.. Biology of Reproduction, 2010, 83, 151-151.	2.7	1
99	Regulation of Cytoskeletal Functions in Pig Oocytes. Microscopy and Microanalysis, 2003, 9, 1200-1201.	0.4	0
100	Function and interaction of maturation-promoting factor and mitogen-activated protein kinase during meiotic maturation and fertilization of oocyte*. Progress in Natural Science: Materials International, 2004, 14, 562-567.	4.4	0