Kyle E Orwig

List of Publications by Year
in descending order

127 papers	8,529 citations	47006 47 h-index	46799 89 g-index
157 all docs	157 docs citations	157 times ranked	5666 citing authors

#	Article	IF	Citations
1	Essential role of Plzf in maintenance of spermatogonial stem cells. Nature Genetics, 2004, 36, 653-659.	21.4	852
2	Spermatogonial stem cell regulation and spermatogenesis. Philosophical Transactions of the Royal Society B: Biological Sciences, 2010, 365, 1663-1678.	4.0	369
3	Spermatogonial Stem Cell Transplantation into Rhesus Testes Regenerates Spermatogenesis Producing Functional Sperm. Cell Stem Cell, 2012, 11, 715-726.	11.1	359
4	Spermatogonial stem cell enrichment by multiparameter selection of mouse testis cells. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 8346-8351.	7.1	356
5	Transgenic mice produced by retroviral transduction of male germ-line stem cells. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 13090-13095.	7.1	281
6	Remodeling of the postnatal mouse testis is accompanied by dramatic changes in stem cell number and niche accessibility. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 6186-6191.	7.1	281
7	Effects of Aging and Niche Microenvironment on Spermatogonial Stem Cell Self-Renewal. Stem Cells, 2006, 24, 1505-1511.	3.2	235
8	Spermatogonial stem cells and spermatogenesis in mice, monkeys and men. Stem Cell Research, 2018, 29, 207-214.	0.7	224
9	Direct Differentiation of Human Pluripotent Stem Cells into Haploid Spermatogenic Cells. Cell Reports, 2012, 2, 440-446.	6.4	217
10	Autologous grafting of cryopreserved prepubertal rhesus testis produces sperm and offspring. Science, 2019, 363, 1314-1319.	12.6	217
11	Characterization, Cryopreservation, and Ablation of Spermatogonial Stem Cells in Adult Rhesus Macaques. Stem Cells, 2007, 25, 2330-2338.	3.2	198
12	GDNF Family Receptor alpha1 Phenotype of Spermatogonial Stem Cells in Immature Mouse Testes1. Biology of Reproduction, 2005, 73, 1011-1016.	2.7	193
13	SOHLH1 and SOHLH2 coordinate spermatogonial differentiation. Developmental Biology, 2012, 361, 301-312.	2.0	174
14	Spermatogonial stem cells in higher primates: are there differences from those in rodents?. Reproduction, 2010, 139, 479-493.	2.6	154
15	Single-Cell RNA Sequencing of Human, Macaque, and Mouse Testes Uncovers Conserved and Divergent Features of Mammalian Spermatogenesis. Developmental Cell, 2020, 54, 529-547.e12.	7.0	150
16	Phenotypic and functional characteristics of spermatogonial stem cells in rats. Developmental Biology, 2004, 274, 158-170.	2.0	145
17	Restoration of Fertility by Germ Cell Transplantation Requires Effective Recipient Preparation1. Biology of Reproduction, 2003, 69, 412-420.	2.7	144
18	Fluorescence- and magnetic-activated cell sorting strategies to isolate and enrich human spermatogonial stem cells. Fertility and Sterility, 2014, 102, 566-580.e7.	1.0	134

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19	The Uteroplacental Prolactin Family and Pregnancy1. Biology of Reproduction, 1998, 58, 273-284.	2.7	133
20	Molecular dissection of the male germ cell lineage identifies putative spermatogonial stem cells in rhesus macaques. Human Reproduction, 2009, 24, 1704-1716.	0.9	132
21	Restoration of Spermatogenesis in Infertile Mice by Sertoli Cell Transplantation1. Biology of Reproduction, 2003, 68, 1064-1071.	2.7	127
22	Eliminating malignant contamination from therapeutic human spermatogonial stem cells. Journal of Clinical Investigation, 2013, 123, 1833-1843.	8.2	119
23	Differentiation of trophoblast endocrine cells. Placenta, 1996, 17, 277-289.	1.5	118
24	Experimental methods to preserve male fertility and treat male factor infertility. Fertility and Sterility, 2016, 105, 256-266.	1.0	108
25	Cryopreservation and Transplantation of Spermatogonia and Testicular Tissue for Preservation of Male Fertility. Journal of the National Cancer Institute Monographs, 2005, 2005, 51-56.	2.1	106
26	â€œTissue Papersâ€•from Organâ€Specific Decellularized Extracellular Matrices. Advanced Functional Materials, 2017, 27, 1700992.	14.9	104
27	SALL4 Expression in Gonocytes and Spermatogonial Clones of Postnatal Mouse Testes. PLoS ONE, 2013, 8, e53976.	2.5	99
28	Stem cell and niche development in the postnatal rat testis. Developmental Biology, 2003, 263, 253-263.	2.0	94
29	Fate of iPSCs Derived from Azoospermic and Fertile Men following Xenotransplantation to Murine Seminiferous Tubules. Cell Reports, 2014, 7, 1284-1297.	6.4	91
30	Germline stem cells: toward the regeneration of spermatogenesis. Fertility and Sterility, 2014, 101, 3-13.	1.0	85
31	Efficient Generation of Transgenic Rats Through the Male Germline Using Lentiviral Transduction and Transplantation of Spermatogonial Stem Cells. Journal of Andrology, 2006, 28, 353-360.	2.0	84
32	Male germ-line stem cell potential is predicted by morphology of cells in neonatal rat testes. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 11706-11711.	7.1	83
33	Functional Analysis of Stem Cells in the Adult Rat Testis1. Biology of Reproduction, 2002, 66, 944-949.	2.7	79
34	Separating spermatogonia from cancer cells in contaminated prepubertal primate testis cell suspensions. Human Reproduction, 2011, 26, 3222-3231.	0.9	78
35	Standardizing Risk Assessment for Treatment-Related Gonadal Insufficiency and Infertility in Childhood Adolescent and Young Adult Cancer: The Pediatric Initiative Network Risk Stratification System. Journal of Adolescent and Young Adult Oncology, 2020, 9, 662-666.	1.3	77
36	Fertility Preservation for Pediatric Patients: Current State and Future Possibilities. Journal of Urology, 2017, 198, 186-194.	0.4	75

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37	Mouse Spermatogenesis Requires Classical and Nonclassical Testosterone Signaling1. Biology of Reproduction, 2016, 94, 11.	2.7	74
38	Formation of organotypic testicular organoids in microwell cultureâ€. Biology of Reproduction, 2019, 100, 1648-1660.	2.7	74
39	Germ Line Stem Cell Competition in Postnatal Mouse Testes1. Biology of Reproduction, 2002, 66, 1491-1497.	2.7	73
40	Retrovirus-Mediated Modification of Male Germline Stem Cells in Rats1. Biology of Reproduction, 2002, 67, 874-879.	2.7	69
41	DDX3Y gene rescue of a Y chromosome AZFa deletion restores germ cell formation and transcriptional programs. Scientific Reports, 2015, 5, 15041.	3.3	63
42	Constitutively Active Protein Kinase A Qualitatively Mimics the Effects of Follicle-Stimulating Hormone on Granulosa Cell Differentiation. Molecular Endocrinology, 2008, 22, 1842-1852.	3.7	58
43	Fate of induced pluripotent stem cells following transplantation to murine seminiferous tubules. Human Molecular Genetics, 2014, 23, 3071-3084.	2.9	56
44	High telomerase is a hallmark of undifferentiated spermatogonia and is required for maintenance of male germline stem cells. Genes and Development, 2015, 29, 2420-2434.	5.9	56
45	Dual Expression of Prolactin-Related Protein in Decidua and Trophoblast Tissues during Pregnancy in Rats1. Biology of Reproduction, 1997, 56, 647-654.	2.7	55
46	Purification of GFRÎ±1+ and GFRÎ±1â€“ Spermatogonial Stem Cells Reveals aÂNiche-Dependent Mechanism for Fate Determination. Stem Cell Reports, 2018, 10, 553-567.	4.8	54
47	Granulocyte colony-stimulating factor with or without stem cell factor extends time to premature ovarian insufficiency in female mice treated with alkylating chemotherapy. Fertility and Sterility, 2013, 99, 2045-2054.e3.	1.0	52
48	The Homeobox Transcription Factor RHOX10 Drives Mouse Spermatogonial Stem Cell Establishment. Cell Reports, 2016, 17, 149-164.	6.4	50
49	Identification and Characterization of a Mouse Homolog for Decidual/Trophoblast Prolactin-Related Protein*. Endocrinology, 1997, 138, 5511-5517.	2.8	48
50	Decidual/Trophoblast Prolactin-Related Protein: Characterization of Gene Structure and Cell-Specific Expression¹. Endocrinology, 1997, 138, 2491-2500.	2.8	47
51	Differentiation of primate primordial germ cell-like cells following transplantation into the adult gonadal niche. Nature Communications, 2018, 9, 5339.	12.8	47
52	Single-cell analysis of human testis aging and correlation with elevated body mass index. Developmental Cell, 2022, 57, 1160-1176.e5.	7.0	47
53	Transcriptome profiling reveals signaling conditions dictating human spermatogonia fate in vitro. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17832-17841.	7.1	46
54	Ovarian tissue cryopreservation as standard of care: what does this mean for pediatric populations?. Journal of Assisted Reproduction and Genetics, 2020, 37, 1323-1326.	2.5	40

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55	Identification of novel homologous microRNA genes in the rhesus macaque genome. BMC Genomics, 2008, 9, 8.	2.8	38
56	Hormone suppression with GnRH antagonist promotes spermatogenic recovery from transplanted spermatogonial stem cells in irradiated cynomolgus monkeys. Andrology, 2013, 1, 886-898.	3.5	38
57	The Transition from Stem Cell to Progenitor Spermatogonia and Male Fertility Requires the SHP2 Protein Tyrosine Phosphatase. Stem Cells, 2014, 32, 741-753.	3.2	38
58	Homologues for Prolactin-Like Proteins A and B are Present in the Mouse1. Biology of Reproduction, 1998, 58, 45-51.	2.7	36
59	Genes Involved in Post-Transcriptional Regulation Are Overrepresented in Stem/Progenitor Spermatogonia of Cryptorchid Mouse Testes. Stem Cells, 2008, 26, 927-938.	3.2	36
60	Human Testis Extracellular Matrix Enhances Human Spermatogonial Stem Cell Survival In Vitro. Tissue Engineering - Part A, 2019, 25, 663-676.	3.1	35
61	A PAX5â€“OCT4â€“PRDM1 developmental switch specifies human primordial germ cells. Nature Cell Biology, 2018, 20, 655-665.	10.3	33
62	The National Physicians Cooperative: transforming fertility management in the cancer setting and beyond. Future Oncology, 2018, 14, 3059-3072.	2.4	30
63	Pedigreed Primate Embryonic Stem Cells Express Homogeneous Familial Gene Profiles. Stem Cells, 2007, 25, 2695-2704.	3.2	28
64	Variants in GCNA, X-linked germ-cell genome integrity gene, identified in men with primary spermatogenic failure. Human Genetics, 2021, 140, 1169-1182.	3.8	27
65	TCF21+ mesenchymal cells contribute to testis somatic cell development, homeostasis, and regeneration in mice. Nature Communications, 2021, 12, 3876.	12.8	27
66	Fruitful progress to fertility: Male fertility in the test tube. Nature Medicine, 2011, 17, 1564-1565.	30.7	26
67	Progress in translational reproductive science: testicular tissue transplantation and inÂvitro spermatogenesis. Fertility and Sterility, 2020, 113, 500-509.	1.0	26
68	The production of glial cell line-derived neurotrophic factor by human sertoli cells is substantially reduced in sertoli cell-only testes. Human Reproduction, 2017, 32, 1108-1117.	0.9	25
69	A View from the past into our collective future: the oncofertility consortium vision statement. Journal of Assisted Reproduction and Genetics, 2021, 38, 3-15.	2.5	25
70	Human germ cell formation in xenotransplants of induced pluripotent stem cells carrying X chromosome aneuploidies. Scientific Reports, 2014, 4, 6432.	3.3	24
71	Restoration of functional sperm production in irradiated pubertal rhesus monkeys by spermatogonial stem cell transplantation. Andrology, 2020, 8, 1428-1441.	3.5	22
72	Over Expression of NANOS3 and DAZL in Human Embryonic Stem Cells. PLoS ONE, 2016, 11, e0165268.	2.5	22

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73	Identification of two new members of the mouse prolactin gene family. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 1998, 1396, 251-258.	2.4	21
74	Spermatogonial Stem Cells and Spermatogenesis. , 2015, , 595-635.		21
75	Male fertility preservation and restoration strategies for patients undergoing gonadotoxic therapies. Biology of Reproduction, 2022, 107, 382-405.	2.7	21
76	Transcriptional Activation of the Decidual/Trophoblast Prolactin-Related Protein Gene1. Endocrinology, 1999, 140, 4032-4039.	2.8	20
77	Spermatogonial Stem Cell Culture in Oncofertility. Urologic Clinics of North America, 2020, 47, 227-244.	1.8	19
78	Unique metabolic phenotype and its transition during maturation of juvenile male germ cells. FASEB Journal, 2021, 35, e21513.	0.5	19
79	Primate Primordial Germ Cells Acquire Transplantation Potential by Carnegie Stage 23. Stem Cell Reports, 2017, 9, 329-341.	4.8	18
80	Postpubertal spermatogonial stem cell transplantation restores functional sperm production in rhesus monkeys irradiated before and after puberty. Andrology, 2021, 9, 1603-1616.	3.5	18
81	Identification and Characterization of a Mouse Homolog for Decidual/Trophoblast Prolactin-Related Protein. Endocrinology, 1997, 138, 5511-5517.	2.8	18
82	Interspecies chimera between primate embryonic stem cells and mouse embryos: Monkey ESCs engraft into mouse embryos, but not post-implantation fetuses. Stem Cell Research, 2011, 7, 28-40.	0.7	17
83	Donor spermatogenesis in de novo formed seminiferous tubules from transplanted testicular cells in rhesus monkey testis. Human Reproduction, 2018, 33, 2249-2255.	0.9	17
84	Testicular wedge biopsy for fertility preservation in children at significant risk for azoospermia after gonadotoxic therapy. Journal of Pediatric Surgery, 2019, 54, 1901-1905.	1.6	17
85	Germ cell transplantation into mouse testes procedure. Fertility and Sterility, 2014, 102, e11-e12.	1.0	16
86	A New Member of the Mouse Prolactin (PRL)-Like Protein-C Subfamily, PRL-Like Protein-CÎ±: Structure and Expression**This work was supported by grants from the National Institute of Child Health and Human Development (HD-20676, HD-29797, HD-33994; to M.J.S.) and the Paul Patton Memorial Trust (to) Tj ETQq0 0 0 rgBT /Overlock	2.8	15
87	Generation and characterization of a Tet-On (rtTA-M2) transgenic rat. BMC Developmental Biology, 2010, 10, 17.	2.1	15
88	Rapid Assembly of Customized TALENs into Multiple Delivery Systems. PLoS ONE, 2013, 8, e80281.	2.5	15
89	Cryopreservation of Ovarian Tissue for Pediatric Fertility. Biopreservation and Biobanking, 2021, 19, 130-135.	1.0	15
90	Decidual/Trophoblast Prolactin-Related Protein: Characterization of Gene Structure and Cell-Specific Expression. Endocrinology, 1997, 138, 2491-2500.	2.8	15

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91	Multiresolution identification of germ layer components in teratomas derived from human and nonhuman primate embryonic stem cells. , 2008, , .		14
92	The Elusive Spermatogonial Stem Cell Marker?1. Biology of Reproduction, 2011, 85, 221-223.	2.7	13
93	DDX4-EGFP transgenic rat model for the study of germline development and spermatogenesis â€. Biology of Reproduction, 2017, 96, 707-719.	2.7	12
94	Whole-Mount Immunohistochemistry to Study Spermatogonial Stem Cells and Spermatogenic Lineage Development in Mice, Monkeys, and Humans. Methods in Molecular Biology, 2014, 1210, 193-202.	0.9	11
95	Systems biology discoveries using non-human primate pluripotent stem and germ cells: novel gene and genomic imprinting interactions as well as unique expression patterns. Stem Cell Research and Therapy, 2010, 1, 24.	5.5	10
96	An integration-free, virus-free rhesus macaque induced pluripotent stem cell line (riPSC89) from embryonic fibroblasts. Stem Cell Research, 2016, 17, 444-447.	0.7	10
97	Leptin promotes proliferation of neonatal mouse stem/progenitor spermatogonia. Journal of Assisted Reproduction and Genetics, 2020, 37, 2825-2838.	2.5	10
98	The Rodent Placental Prolactin Family and Pregnancy. , 1998, , 145-176.		9
99	Unique metabolites of eicosapentaenoic acid interfere with corpus luteum function in the ewe. Prostaglandins, 1992, 44, 519-530.	1.2	8
100	An integration-free, virus-free rhesus macaque induced pluripotent stem cell line (riPSC90) from embryonic fibroblasts. Stem Cell Research, 2017, 21, 5-8.	0.7	8
101	Immunochemical characterization and cellular distribution of protein kinase C isozymes in the bovine corpus luteum. Comparative Biochemistry and Physiology Part B: Comparative Biochemistry, 1994, 108, 53-57.	0.2	7
102	Stem Cell Therapies for Male Infertility: Where Are We Now and Where Are We Going?. , 2015, , 17-39.		7
103	Expression and functional analyses of ephrin type-A receptor 2 in mouse spermatogonial stem cellsâ€. Biology of Reproduction, 2020, 102, 220-232.	2.7	6
104	Spermatogonial Stem Cell Numbers Are Reduced by Transient Inhibition ofÂGDNF Signaling but Restored by Self-Renewing Replication when SignalingÂResumes. Stem Cell Reports, 2021, 16, 597-609.	4.8	6
105	Blastocyst development after fertilization with inÂvitro spermatids derived from nonhuman primate embryonic stem cells. F&S Science, 2021, 2, 365-375.	0.9	6
106	A New Member of the Mouse Prolactin (PRL)-Like Protein-C Subfamily, PRL-Like Protein-CÂ: Structure and Expression. Endocrinology, 1998, 139, 5157-5163.	2.8	6
107	Decidual signals in the establishment of pregnancy: The prolactin family. Placenta, 1997, 18, 329-343.	1.5	5
108	Recent advances: fertility preservation and fertility restoration options for males and females. Faculty Reviews, 2021, 10, 55.	3.9	5

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109	Transcriptional Activation of the Decidual/Trophoblast Prolactin-Related Protein Gene. Endocrinology, 1999, 140, 4032-4039.	2.8	5
110	Translating Spermatogonial Stem Cell Transplantation to the Clinic. , 2011, , 227-253.		4
111	Male Fertility Preservation: Current Options and Advances in Research. , 2017, , 119-142.		3
112	Fertility Preservation and Restoration in Pediatric Males. , 2019, , 385-394.		3
113	In Vitro Fertilization (IVF) Intracytoplasmic Sperm Injection (ICSI) Using Sperm Exposed to Cyclophosphamide Reduces Preimplantation Embryo Development and Live Birth after Embryo Transfer (ET). Fertility and Sterility, 2015, 103, e4-e5.	1.0	2
114	Male Fertility Preservation: Current Options and Advances in Research. , 2019, , 209-227.		2
115	Trophoblast-specific regulation of endocrine-related genes. Placenta, 1998, 19, 65-85.	1.5	1
116	Bioimaterials: â€œTissue Papersâ€•from Organâ€Specific Decellularized Extracellular Matrices (Adv. Funct. Tj ETQq0 0 0 rgBT /Overlock 14.9	5	1
117	Fertility Preservation in Cancer Patients. , 2017, , 315-341.		1
118	Fertility preservation for a 13-year-old male with relapsed osteosarcoma. Journal of Pediatric Surgery Case Reports, 2019, 43, 28-31.	0.2	1
119	Induced pluripotent stem cell line from a mouse model of human azoospermia with a frameshift mutation Tex11_1260Ins(TT). Stem Cell Research, 2022, 60, 102728.	0.7	1
120	Editorial. Stem Cell Research, 2018, 29, 179.	0.7	0
121	Spermatogonia. , 2018, , 24-35.		0
122	Access and Barriers to Fertility Preservation for Women Prior to Gonadotoxic or Sterilizing Treatment [39H]. Obstetrics and Gynecology, 2019, 133, 95S-95S.	2.4	0
123	Single-cell RNA sequencing reveals novel markers of stem/progenitor spermatogonia in higher primates. Fertility and Sterility, 2019, 112, e373.	1.0	0
124	Donor Spermatogenesis in De Novo Formed Seminiferous Tubules From Transplanted Testicular Cells in Rhesus Monkey Testis. Obstetrical and Gynecological Survey, 2019, 74, 159-160.	0.4	0
125	SINGLE CELL TRANSCRIPTOME ANALYSIS IDENTIFIES PUTATIVE CELL SURFACE MARKERS OF HUMAN SPERMATOGONIAL STEM CELLS. Fertility and Sterility, 2020, 114, e100-e101.	1.0	0
126	Recent Progress Studying Spermatogonial Stem Cells in Primates.. Biology of Reproduction, 2008, 78, 89-90.	2.7	0

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127	Genetic resiliency associated with dominant lethal TPM1 mutation causing atrial septal defect with high heritability. Cell Reports Medicine, 2022, 3, 100501.	6.5	0