Serge Nef

List of Publications by Year
in descending order

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135 papers	10,227 citations	36303 51 h-index	36028 97 g-index
150 all docs	150 docs citations	150 times ranked	12406 citing authors

#	Article	IF	Citations
1	Cryptorchidism in mice mutant for Insl3. Nature Genetics, 1999, 22, 295-299.	21.4	674
2	Cellular Source and Mechanisms of High Transcriptome Complexity in the Mammalian Testis. Cell Reports, 2013, 3, 2179-2190.	6.4	497
3	Brain-Derived Neurotrophic Factor Conditional Knockouts Show Gender Differences in Depression-Related Behaviors. Biological Psychiatry, 2007, 61, 187-197.	1.3	456
4	Perinatal Exposure to Bisphenol A Alters Early Adipogenesis in the Rat. Environmental Health Perspectives, 2009, 117, 1549-1555.	6.0	382
5	Pancreatic Insulin Content Regulation by the Estrogen Receptor ERÎ±. PLoS ONE, 2008, 3, e2069.	2.5	352
6	Soy, phytoestrogens and metabolism: A review. Molecular and Cellular Endocrinology, 2009, 304, 30-42.	3.2	299
7	Conditional Deletion of TrkB but Not BDNF Prevents Epileptogenesis in the Kindling Model. Neuron, 2004, 43, 31-42.	8.1	287
8	Sequential transcriptional waves direct the differentiation of newborn neurons in the mouse neocortex. Science, 2016, 351, 1443-1446.	12.6	264
9	Gene expression during sex determination reveals a robust female genetic program at the onset of ovarian development. Developmental Biology, 2005, 287, 361-377.	2.0	263
10	Testis determination requires insulin receptor family function in mice. Nature, 2003, 426, 291-295.	27.8	250
11	Prostaglandin D2 induces nuclear import of the sex-determining factor SOX9 via its cAMP-PKA phosphorylation. EMBO Journal, 2005, 24, 1798-1809.	7.8	201
12	An Essential Role for Insulin and IGF1 Receptors in Regulating Sertoli Cell Proliferation, Testis Size, and FSH Action in Mice. Molecular Endocrinology, 2013, 27, 814-827.	3.7	184
13	Dietary Phytoestrogens Activate AMP-Activated Protein Kinase With Improvement in Lipid and Glucose Metabolism. Diabetes, 2008, 57, 1176-1185.	0.6	177
14	A Molecular Basis for Estrogen-Induced Cryptorchidism. Developmental Biology, 2000, 224, 354-361.	2.0	176
15	Mutations in CFAP43 and CFAP44 cause male infertility and flagellum defects in Trypanosoma and human. Nature Communications, 2018, 9, 686.	12.8	173
16	Sertoli cell Dicer is essential for spermatogenesis in mice. Developmental Biology, 2009, 326, 250-259.	2.0	171
17	Soy, phytoestrogens and their impact on reproductive health. Molecular and Cellular Endocrinology, 2012, 355, 192-200.	3.2	168
18	Hormones in male sexual development. Genes and Development, 2000, 14, 3075-3086.	5.9	156

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19	microRNAs in the Testis: Building Up Male Fertility. Journal of Andrology, 2010, 31, 26-33.	2.0	150
20	Short-Term Treatment with Bisphenol-A Leads to Metabolic Abnormalities in Adult Male Mice. PLoS ONE, 2012, 7, e33814.	2.5	150
21	TrkB Has a Cell-Autonomous Role in the Establishment of Hippocampal Schaffer Collateral Synapses. Journal of Neuroscience, 2005, 25, 3774-3786.	3.6	146
22	Dicer Is Required for Haploid Male Germ Cell Differentiation in Mice. PLoS ONE, 2011, 6, e24821.	2.5	139
23	The Molecular Chaperone Hsp90Î± Is Required for Meiotic Progression of Spermatocytes beyond Pachytene in the Mouse. PLoS ONE, 2010, 5, e15770.	2.5	139
24	Dissecting Cell Lineage Specification and Sex Fate Determination in Gonadal Somatic Cells Using Single-Cell Transcriptomics. Cell Reports, 2019, 26, 3272-3283.e3.	6.4	137
25	Dicer1 Depletion in Male Germ Cells Leads to Infertility Due to Cumulative Meiotic and Spermiogenic Defects. PLoS ONE, 2011, 6, e25241.	2.5	130
26	Deciphering Cell Lineage Specification during Male Sex Determination with Single-Cell RNA Sequencing. Cell Reports, 2018, 22, 1589-1599.	6.4	126
27	Stress-activatedmiR-21/miR-21*in hepatocytes promotes lipid and glucose metabolic disorders associated with high-fat diet consumption. Gut, 2016, 65, 1871-1881.	12.1	114
28	Bi-allelic Mutations in ARMC2 Lead to Severe Astheno-Teratozoospermia Due to Sperm Flagellum Malformations in Humans and Mice. American Journal of Human Genetics, 2019, 104, 331-340.	6.2	113
29	Insulin and IGF1 Receptors Are Essential for XX and XY Gonadal Differentiation and Adrenal Development in Mice. PLoS Genetics, 2013, 9, e1003160.	3.5	112
30	Homozygous mutation of PLCZ1 leads to defective human oocyte activation and infertility that is not rescued by the WW-binding protein PAWP. Human Molecular Genetics, 2016, 25, 878-891.	2.9	112
31	Sertoli cells control peritubular myoid cell fate and support adult Leydig cell development in the prepubertal testis. Development (Cambridge), 2014, 141, 2139-2149.	2.5	110
32	A Phytoestrogen-Rich Diet Increases Energy Expenditure and Decreases Adiposity in Mice. Environmental Health Perspectives, 2007, 115, 1467-1473.	6.0	105
33	Sertoli Cell Number Defines and Predicts Germ and Leydig Cell Population Sizes in the Adult Mouse Testis. Endocrinology, 2017, 158, 2955-2969.	2.8	105
34	Direct modulation of calmodulin targets by the neuronal calcium sensor NCS-1.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 9253-9258.	7.1	104
35	Preserved Pancreatic Î²-Cell Development and Function in Mice Lacking the Insulin Receptor-Related Receptor. Molecular and Cellular Biology, 2001, 21, 5624-5630.	2.3	97
36	Estrogen Receptor Î± Is a Major Contributor to Estrogen-Mediated Fetal Testis Dysgenesis and Cryptorchidism. Endocrinology, 2007, 148, 5507-5519.	2.8	96

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37	<scp>SPINK</scp>2 deficiency causes infertility by inducing sperm defects in heterozygotes and azoospermia inÂhomozygotes. EMBO Molecular Medicine, 2017, 9, 1132-1149.	6.9	95
38	Soy, phytoâ€œestrogens and male reproductive function: a review. Journal of Developmental and Physical Disabilities, 2010, 33, 304-316.	3.6	90
39	Olfaction in birds: differential embryonic expression of nine putative odorant receptor genes in the avian olfactory system. Mechanisms of Development, 1996, 55, 65-77.	1.7	83
40	Regulation of Rhodopsin Phosphorylation by a Family of Neuronal Calcium Sensors. Biochemical and Biophysical Research Communications, 1995, 216, 133-140.	2.1	82
41	Loss of Dicer in Sertoli Cells Has a Major Impact on the Testicular Proteome of Mice. Molecular and Cellular Proteomics, 2011, 10, M900587-MCP200.	3.8	80
42	The emerging role of insulin-like growth factors in testis development and function. Basic and Clinical Andrology, 2014, 24, 12.	1.9	75
43	Research Resource: The Dynamic Transcriptional Profile of Sertoli Cells During the Progression of Spermatogenesis. Molecular Endocrinology, 2015, 29, 627-642.	3.7	74
44	Cation binding and conformational changes in VILIP and NCS-1, two neuron-specific calcium-binding proteins. Journal of Biological Chemistry, 1994, 269, 32807-13.	3.4	74
45	Genetic Control of Gonadal Sex Determination and Development. Trends in Genetics, 2019, 35, 346-358.	6.7	72
46	Germ Cell-Specific Targeting of DICER or DGCR8 Reveals a Novel Role for Endo-siRNAs in the Progression of Mammalian Spermatogenesis and Male Fertility. PLoS ONE, 2014, 9, e107023.	2.5	70
47	Potential detrimental effects of a phytoestrogen-rich diet on male fertility in mice. Molecular and Cellular Endocrinology, 2010, 321, 152-160.	3.2	67
48	Identification of a neuronal calcium sensor (NCS-1) possibly involved in the regulation of receptor phosphorylation. Journal of Receptor and Signal Transduction Research, 1995, 15, 365-378.	2.5	66
49	Loss of Function Mutation in the Palmitoyl-Transferase HHAT Leads to Syndromic 46,XY Disorder of Sex Development by Impeding Hedgehog Protein Palmitoylation and Signaling. PLoS Genetics, 2014, 10, e1004340.	3.5	63
50	Characterizing the bipotential mammalian gonad. Current Topics in Developmental Biology, 2019, 134, 167-194.	2.2	63
51	ZNRF3 functions in mammalian sex determination by inhibiting canonical WNT signaling. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5474-5479.	7.1	62
52	LEYDIG INSULIN-LIKE HORMONE, GUBERNACULAR DEVELOPMENT AND TESTICULAR DESCENT. Journal of Urology, 2001, 165, 1673-1675.	0.4	53
53	The Insulin-3 Gene: Lack of a Genetic Basis for Human Cryptorchidism. Journal of Urology, 2002, 167, 2534-2537.	0.4	53
54	<scp>PATL</scp> 2 is a key actor of oocyte maturation whose invalidation causes infertility in women and mice. EMBO Molecular Medicine, 2018, 10, .	6.9	53

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55	Testicular Dysgenesis Syndrome and Long-Lasting Epigenetic Silencing of Mouse Sperm Genes Involved in the Reproductive System after Prenatal Exposure to DEHP. PLoS ONE, 2017, 12, e0170441.	2.5	52
56	In vivo role of truncated trkb receptors during sensory ganglion neurogenesis. Neuroscience, 2003, 117, 847-858.	2.3	51
57	Genetic programs that regulate testicular and ovarian development. Molecular and Cellular Endocrinology, 2007, 265-266, 3-9.	3.2	51
58	mKlf7, a potential transcriptional regulator of TrkA nerve growth factor receptor expression in sensory and sympathetic neurons. Development (Cambridge), 2001, 128, 1147-1158.	2.5	51
59	Dcp1-Bodies in Mouse Oocytes. Molecular Biology of the Cell, 2009, 20, 4951-4961.	2.1	50
60	The ReproGenomics Viewer: a multi-omics and cross-species resource compatible with single-cell studies for the reproductive science community. Bioinformatics, 2019, 35, 3133-3139.	4.1	49
61	The Insulin/IGF System in Mammalian Sexual Development and Reproduction. International Journal of Molecular Sciences, 2019, 20, 4440.	4.1	47
62	Autocrine Action of IGF2 Regulates Adult Î²-Cell Mass and Function. Diabetes, 2015, 64, 4148-4157.	0.6	46
63	Olfaction: Transient expression of a putative odorant receptor in the avian notochord. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 4766-4771.	7.1	41
64	Meiosis occurs normally in the fetal ovary of mice lacking all retinoic acid receptors. Science Advances, 2020, 6, .	10.3	41
65	CatSper: The complex main gate of calcium entry in mammalian spermatozoa. Molecular and Cellular Endocrinology, 2020, 518, 110951.	3.2	40
66	Ablation of the canonical testosterone production pathway via knockout of the steroidogenic enzyme HSD17B3, reveals a novel mechanism of testicular testosterone production. FASEB Journal, 2020, 34, 10373-10386.	0.5	39
67	Neurotrophins Are Not Required for Normal Embryonic Development of Olfactory Neurons. Developmental Biology, 2001, 234, 80-92.	2.0	37
68	The liver receptor homolog-1 (LRH-1) is expressed in human islets and protects Î²-cells against stress-induced apoptosis. Human Molecular Genetics, 2011, 20, 2823-2833.	2.9	37
69	Singleâ€cell transcriptomics reveal temporal dynamics of critical regulators of germ cell fate during mouse sex determination. FASEB Journal, 2021, 35, e21452.	0.5	36
70	Effects of Orchiopexy on Congenitally Cryptorchid Insulin-3 Knockout Mice. Journal of Urology, 2002, 168, 1779-1783.	0.4	35
71	Pathogenic variants in the DEAH-box RNA helicase DHX37 are a frequent cause of 46,XY gonadal dysgenesis and 46,XY testicular regression syndrome. Genetics in Medicine, 2020, 22, 150-159.	2.4	34
72	FSH-stimulated PTEN activity accounts for the lack of FSH mitogenic effect in prepubertal rat Sertoli cells. Molecular and Cellular Endocrinology, 2010, 315, 271-276.	3.2	32

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73	Origin, specification and differentiation of a rare supporting-like lineage in the developing mouse gonad. Science Advances, 2022, 8, .	10.3	32
74	Altered regulation of brain-derived neurotrophic factor protein in hippocampus following slice preparation. Neuroscience, 2004, 126, 859-869.	2.3	31
75	Complementary pathways in mammalian female sex determination. Journal of Biology, 2009, 8, 74.	2.7	31
76	Insulin and IGF1 receptors are essential for the development and steroidogenic function of adult Leydig cells. FASEB Journal, 2018, 32, 3321-3335.	0.5	31
77	MPC1-like Is a Placental Mammal-specific Mitochondrial Pyruvate Carrier Subunit Expressed in Postmeiotic Male Germ Cells. Journal of Biological Chemistry, 2016, 291, 16448-16461.	3.4	30
78	Semen quality of young men in Switzerland: a nationwide crossâ€sectional populationâ€based study. Andrology, 2019, 7, 818-826.	3.5	30
79	Retinoic acid synthesis by ALDH1A proteins is dispensable for meiosis initiation in the mouse fetal ovary. Science Advances, 2020, 6, eaaz1261.	10.3	29
80	DICER Regulates the Formation and Maintenance of Cell-Cell Junctions in the Mouse Seminiferous Epithelium1. Biology of Reproduction, 2015, 93, 139.	2.7	27
81	Hematopoietic prostaglandin D synthase (Hâ€Pgds) is expressed in the early embryonic gonad and participates to the initial nuclear translocation of the SOX9 protein. Developmental Dynamics, 2011, 240, 2335-2343.	1.8	26
82	Prevention of Diabetes in db/db Mice by Dietary Soy Is Independent of Isoflavone Levels. Endocrinology, 2012, 153, 5200-5211.	2.8	26
83	Loss of Insl3 : A Potential Predisposing Factor for Testicular Torsion. Journal of Urology, 2010, 183, 2373-2379.	0.4	24
84	Beta- and Gamma-Cytoplasmic Actins Are Required for Meiosis in Mouse Oocytes1. Biology of Reproduction, 2011, 85, 1025-1039.	2.7	24
85	Creation of knock out and knock in mice by CRISPR/Cas9 to validate candidate genes for human male infertility, interest, difficulties and feasibility. Molecular and Cellular Endocrinology, 2018, 468, 70-80.	3.2	24
86	The Glucocorticoid-Induced Leucine Zipper (GILZ) Is Essential for Spermatogonial Survival and Spermatogenesis. Sexual Development, 2012, 6, 169-177.	2.0	22
87	Insulin Receptor and IGF1R Are Not Required for Oocyte Growth, Differentiation, and Maturation in Mice. Sexual Development, 2009, 3, 264-272.	2.0	21
88	Genetic Ablation of MiR-22 Fosters Diet-Induced Obesity and NAFLD Development. Journal of Personalized Medicine, 2020, 10, 170.	2.5	21
89	Fetal Programming of Adult Glucose Homeostasis in Mice. PLoS ONE, 2009, 4, e7281.	2.5	20
90	A brief history of sex determination. Molecular and Cellular Endocrinology, 2018, 468, 3-10.	3.2	20

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91	Tumor Suppressor PTEN Regulates Negatively Sertoli Cell Proliferation, Testis Size, and Sperm Production In Vivo. Endocrinology, 2019, 160, 387-398.	2.8	20
92	Single cell transcriptome sequencing: A new approach for the study of mammalian sex determination. Molecular and Cellular Endocrinology, 2018, 468, 11-18.	3.2	19
93	Specific Transcriptomic Signatures and Dual Regulation of Steroidogenesis Between Fetal and Adult Mouse Leydig Cells. Frontiers in Cell and Developmental Biology, 2021, 9, 695546.	3.7	19
94	Expression of Serpinb6 serpins in germ and somatic cells of mouse gonads. Molecular Reproduction and Development, 2006, 73, 9-19.	2.0	18
95	Genetic resistance to DEHP-induced transgenerational endocrine disruption. PLoS ONE, 2019, 14, e0208371.	2.5	18
96	cpp32 messenger RNA neosynthesis is induced by fatal axotomy and is not regulated by athanatal Bcl-2 over-expression. Neuroscience, 1999, 90, 653-664.	2.3	16
97	Emotions are building up in the field of extracellular proteolysis. Trends in Molecular Medicine, 2003, 9, 183-185.	6.7	16
98	Steroid profiles in both blood serum and seminal plasma are not correlated and do not reflect sperm quality: Study on the male reproductive health of fifty young Swiss men. Clinical Biochemistry, 2018, 62, 39-46.	1.9	16
99	Maternal occupational exposure to endocrine-disrupting chemicals during pregnancy and semen parameters in adulthood: results of a nationwide cross-sectional study among Swiss conscripts. Human Reproduction, 2021, 36, 1948-1958.	0.9	16
100	The antidepressant Sertraline inhibits CatSper Ca2+ channels in human sperm. Human Reproduction, 2021, 36, 2638-2648.	0.9	15
101	Insulin/IGF1 signaling regulates the mitochondrial biogenesis markers in steroidogenic cells of prepubertal testis, but not ovaryâ€. Biology of Reproduction, 2019, 100, 253-267.	2.7	14
102	Steroid profile analysis by LC-HRMS in human seminal fluid. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2020, 1136, 121929.	2.3	13
103	Regional difference in semen quality of young men: a review on the implication of environmental and lifestyle factors during fetal life and adulthood. Basic and Clinical Andrology, 2020, 30, 16.	1.9	13
104	A Case of Wiedemann-Steiner Syndrome Associated with a 46,XY Disorder of Sexual Development and Gonadal Dysgenesis. Sexual Development, 2015, 9, 289-295.	2.0	12
105	The gene encoding the ketogenic enzyme HMGCS2 displays a unique expression during gonad development in mice. PLoS ONE, 2020, 15, e0227411.	2.5	12
106	Oligogenic heterozygous inheritance of sperm abnormalities in mouse. ELife, 2022, 11, .	6.0	12
107	Semen endocannabinoids are correlated to sperm quality in a cohort of 200 young Swiss men. Andrology, 2020, 8, 1126-1135.	3.5	11
108	Deciphering the origins and fates of steroidogenic lineages in the mouse testis. Cell Reports, 2022, 39, 110935.	6.4	11

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109	DNA Methylation Profiling of the Fibrinogen Gene Landscape in Human Cells and during Mouse and Zebrafish Development. PLoS ONE, 2013, 8, e73089.	2.5	9
110	Pantoprazole, a protonâ€pump inhibitor, impairs human sperm motility and capacitation in vitro. Andrology, 2020, 8, 1795-1804.	3.5	9
111	Single-cell transcriptomics identifies potential cells of origin of MYC rhabdoid tumors. Nature Communications, 2022, 13, 1544.	12.8	9
112	Hormonal Regulation of Male Reproductive Tract Development. Annals of the New York Academy of Sciences, 2005, 1061, 1-8.	3.8	8
113	A Case of Two Sisters Suffering from 46,XY Gonadal Dysgenesis and Carrying a Mutation of a Novel Candidate Sex-Determining Gene <i>STARD8</i> on the X Chromosome. Sexual Development, 2018, 12, 191-195.	2.0	8
114	A Novel WT1 Mutation Identified in a 46,XX Testicular/Ovotesticular DSD Patient Results in the Retention of Intron 9. Biology, 2021, 10, 1248.	2.8	8
115	Induction of enhanced green fluorescent protein expression in response to lesions in the nervous system. Journal of Comparative Neurology, 2004, 474, 108-122.	1.6	6
116	The FKBP4 Gene, Encoding a Regulator of the Androgen Receptor Signaling Pathway, Is a Novel Candidate Gene for Androgen Insensitivity Syndrome. International Journal of Molecular Sciences, 2020, 21, 8403.	4.1	6
117	Protection Against XY Gonadal Sex Reversal by a Variant Region on Mouse Chromosome 13. Genetics, 2020, 214, 467-477.	2.9	6
118	Effects of orchiopexy on congenitally cryptorchid insulin-3 knockout mice. Journal of Urology, 2002, 168, 1779-83; discussion 1783.	0.4	6
119	Deficiency in insulinâ€like growth factors signalling in mouse Leydig cells increase conversion of testosterone to estradiol because of feminization. Acta Physiologica, 2021, 231, e13563.	3.8	5
120	Special issue on the topic: Role of endocrine disruptors from the environment in the aetiology of obesity and diabetes. Molecular and Cellular Endocrinology, 2009, 304, 1-2.	3.2	4
121	NRG1 signalling regulates the establishment of Sertoli cell stock in the mouse testis. Molecular and Cellular Endocrinology, 2018, 478, 17-31.	3.2	4
122	The Insulin-3 Gene: Lack of a Genetic Basis for Human Cryptorchidism. Journal of Urology, 2002, , 2534-2537.	0.4	4
123	Diethylstilbestrol Action on Leydig Cell Function and Testicular Descent. Chimia, 2008, 62, 401.	0.6	2
124	Use of rodent and human cell culture systems for the investigation of testicular toxicity. Toxicology Letters, 2013, 221, S216.	0.8	2
125	Genes and Gene Defects Affecting Gonad Development and Primary Sex Determinationâ˜†. , 2015, , .		2
126	Loss of NEDD4 causes complete XY gonadal sex reversal in mice. Cell Death and Disease, 2022, 13, 75.	6.3	2

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127	LEYDIG INSULIN-LIKE HORMONE, GUBERNACULAR DEVELOPMENT AND TESTICULAR DESCENT. Journal of Urology, 2001, , 1673-1675.	0.4	1
128	Combined Use of Whole Exome Sequencing and CRISPR/Cas9 to Study the Etiology of Non-Obstructive Azoospermia: Demonstration of the Dispensable Role of the Testis-Specific Genes C1orf185 and CCT6B. Cells, 2022, 11, 118.	4.1	1
129	1288 miR-21 DEFICIENCY IMPROVES GLUCOSE TOLERANCE AND HEPATIC LIPID CATABOLISM IN MICE FED A HIGH-FAT DIET. Journal of Hepatology, 2013, 58, S520-S521.	3.7	0
130	P0956 : MIR-22 deficiency exacerbates systemic and hepatic metabolic disorders associated with diet-induced obesity in mice. Journal of Hepatology, 2015, 62, S704.	3.7	0
131	The impact of new technologies in our understanding of testis formation and function. Molecular and Cellular Endocrinology, 2018, 468, 1-2.	3.2	0
132	O-228 The SSRI antidepressant Sertraline inhibits CatSper calcium channels in human sperm. Human Reproduction, 2021, 36, .	0.9	0
133	Molecular genetics of Insulin3. , 2001, , 337-345.		0
134	Acute reduction of Sertoli cell numbers during development leads to a subsequent reduction in sperm numbers in adulthood. Reproduction Abstracts, 0, , .	0.0	0
135	ATRT-15. Primordial germ cells identified as one potential cell of origin of MYC rhabdoid tumors. Neuro-Oncology, 2022, 24, i6-i6.	1.2	0