Timo Otonkoski

List of Publications by Year
in descending order

76 papers	6,465 citations	101543 36 h-index	71685 76 g-index
88 all docs	88 docs citations	88 times ranked	9543 citing authors

#	Article	IF	Citations
1	Characterization of human embryonic stem cell lines by the International Stem Cell Initiative. Nature Biotechnology, 2007, 25, 803-816.	17.5	983
2	Copy number variation and selection during reprogramming to pluripotency. Nature, 2011, 471, 58-62.	27.8	870
3	Activating germline mutations in STAT3 cause early-onset multi-organ autoimmune disease. Nature Genetics, 2014, 46, 812-814.	21.4	411
4	IL-17 Immunity in Human Type 1 Diabetes. Journal of Immunology, 2010, 185, 1959-1967.	0.8	255
5	Autoimmunity, hypogammaglobulinemia, lymphoproliferation, and mycobacterial disease in patients with activating mutations in STAT3. Blood, 2015, 125, 639-648.	1.4	229
6	Characterization of Endocrine Progenitor Cells and Critical Factors for Their Differentiation in Human Adult Pancreatic Cell Culture. Diabetes, 2003, 52, 2007-2015.	0.6	227
7	Physical Exerciseâ€"Induced Hypoglycemia Caused by Failed Silencing of Monocarboxylate Transporter 1 in Pancreatic Î² Cells. American Journal of Human Genetics, 2007, 81, 467-474.	6.2	213
8	Genetic Variability Overrides the Impact of Parental Cell Type and Determines iPSC Differentiation Potential. Stem Cell Reports, 2016, 6, 200-212.	4.8	211
9	MANF Is Indispensable for the Proliferation and Survival of Pancreatic Î² Cells. Cell Reports, 2014, 7, 366-375.	6.4	161
10	Conditionally Stabilized dCas9 Activator for Controlling Gene Expression in Human Cell Reprogramming and Differentiation. Stem Cell Reports, 2015, 5, 448-459.	4.8	158
11	Physical Exercise-Induced Hyperinsulinemic Hypoglycemia Is an Autosomal-Dominant Trait Characterized by Abnormal Pyruvate-Induced Insulin Release. Diabetes, 2003, 52, 199-204.	0.6	135
12	Functional, metabolic and transcriptional maturation of human pancreatic islets derived from stem cells. Nature Biotechnology, 2022, 40, 1042-1055.	17.5	135
13	Human pluripotent reprogramming with CRISPR activators. Nature Communications, 2018, 9, 2643.	12.8	128
14	Insulin mutations impair beta-cell development in a patient-derived iPSC model of neonatal diabetes. ELife, 2018, 7, .	6.0	114
15	Growth Factor-Mediated Proliferation and Differentiation of Insulin-Producing INS-1 and RINm5F Cells: Identification of Betacellulin as a Novel Î²-Cell Mitogen*. Endocrinology, 1998, 139, 1494-1499.	2.8	112
16	Loss of ZnT8 function protects against diabetes by enhanced insulin secretion. Nature Genetics, 2019, 51, 1596-1606.	21.4	96
17	An Activating STAT3 Mutation Causes Neonatal Diabetes through Premature Induction of Pancreatic Differentiation. Cell Reports, 2017, 19, 281-294.	6.4	94
18	Pancreatic Î²-cell tRNA hypomethylation and fragmentation link TRMT10A deficiency with diabetes. Nucleic Acids Research, 2018, 46, 10302-10318.	14.5	93

#	Article	IF	Citations
19	Downregulation of EGF Receptor Signaling in Pancreatic Islets Causes Diabetes Due to Impaired Postnatal Â-Cell Growth. Diabetes, 2006, 55, 3299-3308.	0.6	82
20	ErbB Signaling Regulates Lineage Determination of Developing Pancreatic Islet Cells in Embryonic Organ Culture. Endocrinology, 2002, 143, 4437-4446.	2.8	78
21	Noninvasive diagnosis of focal hyperinsulinism of infancy with [18F]-DOPA positron emission tomography. Diabetes, 2006, 55, 13-8.	0.6	76
22	mtDNA Mutagenesis Disrupts Pluripotent Stem Cell Function by Altering Redox Signaling. Cell Reports, 2015, 11, 1614-1624.	6.4	66
23	MANF protects human pancreatic beta cells against stress-induced cell death. Diabetologia, 2018, 61, 2202-2214.	6.3	66
24	Distinct differentiation characteristics of individual human embryonic stem cell lines. BMC Developmental Biology, 2006, 6, 40.	2.1	65
25	Comparative Analysis of Targeted Differentiation of Human Induced Pluripotent Stem Cells (hiPSCs) and Human Embryonic Stem Cells Reveals Variability Associated With Incomplete Transgene Silencing in Retrovirally Derived hiPSC Lines. Stem Cells Translational Medicine, 2013, 2, 83-93.	3.3	64
26	Combined negative effect of donor age and time in culture on the reprogramming efficiency into induced pluripotent stem cells. Stem Cell Research, 2015, 15, 254-262.	0.7	64
27	Activin A and Wnt-dependent specification of human definitive endoderm cells. Experimental Cell Research, 2013, 319, 2535-2544.	2.6	60
28	Pharmacological reactivation of MYC-dependent apoptosis induces susceptibility to anti-PD-1 immunotherapy. Nature Communications, 2019, 10, 620.	12.8	60
29	A Strong Contractile Actin Fence and Large Adhesions Direct Human Pluripotent Colony Morphology and Adhesion. Stem Cell Reports, 2017, 9, 67-76.	4.8	59
30	YIPF5 mutations cause neonatal diabetes and microcephaly through endoplasmic reticulum stress. Journal of Clinical Investigation, 2020, 130, 6338-6353.	8.2	58
31	MANF Is Required for the Postnatal Expansion and Maintenance of Pancreatic Î²-Cell Mass in Mice. Diabetes, 2019, 68, 66-80.	0.6	50
32	EGF- and TGF-Î±-Like Peptides in Human Fetal Gut. Pediatric Research, 1989, 26, 25-30.	2.3	47
33	Metabolic determination of cell fate through selective inheritance of mitochondria. Nature Cell Biology, 2022, 24, 148-154.	10.3	46
34	Concise Review: Human Pluripotent Stem Cells for the Modeling of Pancreatic Î²-Cell Pathology. Stem Cells, 2019, 37, 33-41.	3.2	45
35	In vitro insulin secretion by pancreatic tissue from infants with diazoxide-resistant congenital hyperinsulinism deviates from model predictions. Journal of Clinical Investigation, 2011, 121, 3932-3942.	8.2	44
36	Small Molecule Inhibitors Promote Efficient Generation of Induced Pluripotent Stem Cells From Human Skeletal Myoblasts. Stem Cells and Development, 2013, 22, 114-123.	2.1	40

#	Article	IF	Citations
37	Weighing up Î²-cell mass in mice and humans: Self-renewal, progenitors or stem cells?. Molecular and Cellular Endocrinology, 2008, 288, 79-85.	3.2	39
38	Generation of iPSC line HEL24.3 from human neonatal foreskin fibroblasts. Stem Cell Research, 2015, 15, 266-268.	0.7	38
39	Early Detection of Peripheral Blood Cell Signature in Children Developing Î²-Cell Autoimmunity at a Young Age. Diabetes, 2019, 68, 2024-2034.	0.6	37
40	Loss of MANF Causes Childhood-Onset Syndromic Diabetes Due to Increased Endoplasmic Reticulum Stress. Diabetes, 2021, 70, 1006-1018.	0.6	37
41	Advanced Feeder-Free Generation of Induced Pluripotent Stem Cells Directly From Blood Cells. Stem Cells Translational Medicine, 2014, 3, 1402-1409.	3.3	31
42	EGFR Signaling Promotes Î²-Cell Proliferation and Survivin Expression during Pregnancy. PLoS ONE, 2014, 9, e93651.	2.5	30
43	Patient-Specific Induced Pluripotent Stem Cellâ€"Derived RPE Cells: Understanding the Pathogenesis of Retinopathy in Long-Chain 3-Hydroxyacyl-CoA Dehydrogenase Deficiency. , 2015, 56, 3371.		29
44	A Novel Feeder-Free Culture System for Human Pluripotent Stem Cell Culture and Induced Pluripotent Stem Cell Derivation. PLoS ONE, 2013, 8, e76205.	2.5	28
45	A Mouse Model of Human Hyperinsulinism Produced by the E1506K Mutation in the Sulphonylurea Receptor SUR1. Diabetes, 2013, 62, 3797-3806.	0.6	28
46	Clinical, Genetic, and Biochemical Characteristics of Early-Onset Diabetes in the Finnish Population. Journal of Clinical Endocrinology and Metabolism, 2016, 101, 3018-3026.	3.6	28
47	Human pluripotent stem cell based islet models for diabetes research. Best Practice and Research in Clinical Endocrinology and Metabolism, 2015, 29, 899-909.	4.7	25
48	SUR1-mutant iPS cell-derived islets recapitulate the pathophysiology of congenital hyperinsulinism. Diabetologia, 2021, 64, 630-640.	6.3	25
49	Selective MicroRNA-Offset RNA Expression in Human Embryonic Stem Cells. PLoS ONE, 2015, 10, e0116668.	2.5	25
50	Stem cells in the treatment of diabetes. Annals of Medicine, 2005, 37, 513-520.	3.8	24
51	ALS and Parkinson's disease genes CHCHD10 and CHCHD2 modify synaptic transcriptomes in human iPSC-derived motor neurons. Neurobiology of Disease, 2020, 141, 104940.	4.4	24
52	Intestinal Commitment and Maturation of Human Pluripotent Stem Cells Is Independent of Exogenous FGF4 and R-spondin1. PLoS ONE, 2015, 10, e0134551.	2.5	23
53	Maturation of beta cells: lessons from in vivo and in vitro models. Diabetologia, 2022, 65, 917-930.	6.3	21
54	Regulation of Human Pluripotent Stem Cell-Derived Hepatic Cell Phenotype by Three-Dimensional Hydrogel Models. Tissue Engineering - Part A, 2016, 22, 971-984.	3.1	20

#	Article	IF	Citations
55	Genome editing of human pancreatic beta cell models: problems, possibilities and outlook. Diabetologia, 2019, 62, 1329-1336.	6.3	20
56	DUX4 is a multifunctional factor priming human embryonic genome activation. IScience, 2022, 25, 104137.	4.1	20
57	Insulin and Glucagon Secretory Responses to Arginine, Glue agon, and Theophylline During Perifusion of Human Fetal Islet-Like Cell Clusters*. Journal of Clinical Endocrinology and Metabolism, 1988, 67, 734-740.	3.6	19
58	⁶⁸Ga-NODAGA-Exendin-4 PET/CT Improves the Detection of Focal Congenital Hyperinsulinism. Journal of Nuclear Medicine, 2022, 63, 310-315.	5.0	19
59	p73 is required for appropriate BMP-induced mesenchymal-to-epithelial transition during somatic cell reprogramming. Cell Death and Disease, 2017, 8, e3034-e3034.	6.3	16
60	Generation of iPSC line HEL47.2 from healthy human adult fibroblasts. Stem Cell Research, 2015, 15, 263-265.	0.7	14
61	Long-Term Outcome and Treatment in Persistent and Transient Congenital Hyperinsulinism: A Finnish Population-Based Study. Journal of Clinical Endocrinology and Metabolism, 2021, 106, 1542-1551.	3.6	14
62	CRISPR activation enables high-fidelity reprogramming into human pluripotent stem cells. Stem Cell Reports, 2022, 17, 413-426.	4.8	13
63	Generation of a SOX2 reporter human induced pluripotent stem cell line using CRISPR/SaCas9. Stem Cell Research, 2017, 22, 16-19.	0.7	11
64	Clinical and Genetic Characterization of 153 Patients with Persistent or Transient Congenital Hyperinsulinism. Journal of Clinical Endocrinology and Metabolism, 2020, 105, e1686-e1694.	3.6	11
65	Early-Onset Diabetic E1-DN Mice Develop Albuminuria and Glomerular Injury Typical of Diabetic Nephropathy. BioMed Research International, 2015, 2015, 1-11.	1.9	10
66	Screening enteroviruses for Î²-cell tropism using foetal porcine Î²-cells. Journal of General Virology, 2001, 82, 1909-1916.	2.9	10
67	Simultaneous high-efficiency base editing and reprogramming of patient fibroblasts. Stem Cell Reports, 2021, 16, 3064-3075.	4.8	8
68	PTPN2 Regulates the Interferon Signaling and Endoplasmic Reticulum Stress Response in Pancreatic Î²-Cells in Autoimmune Diabetes. Diabetes, 2022, 71, 653-668.	0.6	8
69	sept7b is required for the differentiation of pancreatic endocrine progenitors. Scientific Reports, 2016, 6, 24992.	3.3	5
70	Characterization of neural crest-derived stem cells isolated from human bone marrow for improvement of transplanted islet function. Upsala Journal of Medical Sciences, 2019, 124, 228-237.	0.9	5
71	Generation of an OCT4 reporter human induced pluripotent stem cell line using CRISPR/SpCas9. Stem Cell Research, 2017, 23, 105-108.	0.7	4
72	New tools for experimental diabetes research: Cellular reprogramming and genome editing. Upsala Journal of Medical Sciences, 2016, 121, 146-150.	0.9	3

#	Article	IF	Citations
73	Kaposiâ€™s Sarcoma-Associated Herpesvirus Reactivation by Targeting of a dCas9-Based Transcription Activator to the ORF50 Promoter. Viruses, 2020, 12, 952.	3.3	3
74	Integrative genomics and transcriptomics analysis of human embryonic and induced pluripotent stem cells. BioData Mining, 2014, 7, 32.	4.0	2
75	Stem Cell Based Models in Congenital Hyperinsulinism â€“ Perspective on Practicalities and Possibilities. Frontiers in Endocrinology, 2022, 13, 837450.	3.5	2
76	Exercise-Induced Hyperinsulinism: A Failure of Monocarboxylate Transporter 1 Expression Silencing. Frontiers in Diabetes, 2012, , 172-181.	0.4	1