Ludovic Vallier

List of Publications by Year
in descending order

94 papers	13,699 citations	46918 47 h-index	35952 97 g-index
115 all docs	115 docs citations	115 times ranked	16991 citing authors

#	Article	IF	Citations
1	Derivation of pluripotent epiblast stem cells from mammalian embryos. Nature, 2007, 448, 191-195.	13.7	1,842
2	Activin/Nodal and FGF pathways cooperate to maintain pluripotency of human embryonic stem cells. Journal of Cell Science, 2005, 118, 4495-4509.	1.2	852
3	Targeted gene correction of Î±1-antitrypsin deficiency in induced pluripotent stem cells. Nature, 2011, 478, 391-394.	13.7	635
4	The Cell-Cycle State of Stem Cells Determines Cell Fate Propensity. Cell, 2013, 155, 135-147.	13.5	541
5	Modeling inherited metabolic disorders of the liver using human induced pluripotent stem cells. Journal of Clinical Investigation, 2010, 120, 3127-3136.	3.9	534
6	Common genetic variation drives molecular heterogeneity in human iPSCs. Nature, 2017, 546, 370-375.	13.7	491
7	Generation of functional hepatocytes from human embryonic stem cells under chemically defined conditions that recapitulate liver development. Hepatology, 2010, 51, 1754-1765.	3.6	449
8	Activin/Nodal signalling maintains pluripotency by controlling Nanog expression. Development (Cambridge), 2009, 136, 1339-1349.	1.2	379
9	Nodal inhibits differentiation of human embryonic stem cells along the neuroectodermal default pathway. Developmental Biology, 2004, 275, 403-421.	0.9	330
10	GDF15 mediates the effects of metformin on body weight and energy balance. Nature, 2020, 578, 444-448.	13.7	326
11	Cholangiocytes derived from human induced pluripotent stem cells for disease modeling and drug validation. Nature Biotechnology, 2015, 33, 845-852.	9.4	318
12	Genome editing reveals a role for OCT4 in human embryogenesis. Nature, 2017, 550, 67-73.	13.7	315
13	Pluripotency factors regulate definitive endoderm specification through eomesodermin. Genes and Development, 2011, 25, 238-250.	2.7	303
14	Production of hepatocyte-like cells from human pluripotent stem cells. Nature Protocols, 2013, 8, 430-437.	5.5	292
15	The SMAD2/3 interactome reveals that TGFÎ² controls m6A mRNA methylation in pluripotency. Nature, 2018, 555, 256-259.	13.7	283
16	Phenotypic and functional analyses show stem cell-derived hepatocyte-like cells better mimic fetal rather than adult hepatocytes. Journal of Hepatology, 2015, 62, 581-589.	1.8	271
17	Inhibition of Activin/Nodal signaling promotes specification of human embryonic stem cells into neuroectoderm. Developmental Biology, 2008, 313, 107-117.	0.9	268
18	Human iPSC-derived motoneurons harbouring TARDBP or C9ORF72 ALS mutations are dysfunctional despite maintaining viability. Nature Communications, 2015, 6, 5999.	5.8	241

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19	Single-cell RNA-sequencing of differentiating iPS cells reveals dynamic genetic effects on gene expression. Nature Communications, 2020, 11, 810.	5.8	235
20	Early Cell Fate Decisions of Human Embryonic Stem Cells and Mouse Epiblast Stem Cells Are Controlled by the Same Signalling Pathways. PLoS ONE, 2009, 4, e6082.	1.1	232
21	Interaction of Salmonella enterica Serovar Typhimurium with Intestinal Organoids Derived from Human Induced Pluripotent Stem Cells. Infection and Immunity, 2015, 83, 2926-2934.	1.0	221
22	Reconstruction of the mouse extrahepatic biliary tree using primary human extrahepatic cholangiocyte organoids. Nature Medicine, 2017, 23, 954-963.	15.2	210
23	Single-cell transcriptomic characterization of a gastrulating human embryo. Nature, 2021, 600, 285-289.	13.7	202
24	TEAD and YAP regulate the enhancer network of human embryonic pancreatic progenitors. Nature Cell Biology, 2015, 17, 615-626.	4.6	188
25	Cholangiocyte organoids can repair bile ducts after transplantation in the human liver. Science, 2021, 371, 839-846.	6.0	170
26	Single-Cell Sequencing of Developing Human Gut Reveals Transcriptional Links to Childhood Crohnâ€™s Disease. Developmental Cell, 2020, 55, 771-783.e5.	3.1	164
27	Signaling Pathways Controlling Pluripotency and Early Cell Fate Decisions of Human Induced Pluripotent Stem Cells. Stem Cells, 2009, 27, 2655-2666.	1.4	160
28	Maturation of Induced Pluripotent Stem Cell Derived Hepatocytes by 3D-Culture. PLoS ONE, 2014, 9, e86372.	1.1	156
29	Activin/Nodal Signaling Controls Divergent Transcriptional Networks in Human Embryonic Stem Cells and in Endoderm Progenitors. Stem Cells, 2011, 29, 1176-1185.	1.4	150
30	Activin/Nodal signalling in stem cells. Development (Cambridge), 2015, 142, 607-619.	1.2	147
31	Building consensus on definition and nomenclature of hepatic, pancreatic, and biliary organoids. Cell Stem Cell, 2021, 28, 816-832.	5.2	133
32	Enhancing and Diminishing Gene Function in Human Embryonic Stem Cells. Stem Cells, 2004, 22, 2-11.	1.4	119
33	Early maturation and distinct tau pathology in induced pluripotent stem cell-derived neurons from patients with<i>MAPT</i>mutations. Brain, 2015, 138, 3345-3359.	3.7	116
34	DNA methylation defines regional identity of human intestinal epithelial organoids and undergoes dynamic changes during development. Gut, 2019, 68, 49-61.	6.1	116
35	Activin/Nodal signaling and NANOG orchestrate human embryonic stem cell fate decisions by controlling the H3K4me3 chromatin mark. Genes and Development, 2015, 29, 702-717.	2.7	115
36	Initiation of stem cell differentiation involves cell cycle-dependent regulation of developmental genes by Cyclin D. Genes and Development, 2016, 30, 421-433.	2.7	115

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37	Inducible and Deterministic Forward Programming of Human Pluripotent Stem Cells into Neurons, Skeletal Myocytes, and Oligodendrocytes. Stem Cell Reports, 2017, 8, 803-812.	2.3	115
38	Interleukin-13 Activates Distinct Cellular Pathways Leading to Ductular Reaction, Steatosis, and Fibrosis. Immunity, 2016, 45, 145-158.	6.6	98
39	Variability of human pluripotent stem cell lines. Current Opinion in Genetics and Development, 2017, 46, 179-185.	1.5	98
40	Directed differentiation of human induced pluripotent stem cells into functional cholangiocyte-like cells. Nature Protocols, 2017, 12, 814-827.	5.5	93
41	Emergence of a Stage-Dependent Human Liver Disease Signature with Directed Differentiation of Alpha-1 Antitrypsin-Deficient iPS Cells. Stem Cell Reports, 2015, 4, 873-885.	2.3	77
42	Optimized inducible shRNA and CRISPR/Cas9 platforms for <i>in vitro</i> studies of human development using hPSCs. Development (Cambridge), 2016, 143, 4405-4418.	1.2	75
43	Report of the Key Opinion Leaders Meeting on Stem Cell-derived Beta Cells. Transplantation, 2018, 102, 1223-1229.	0.5	72
44	Isolation and propagation of primary human cholangiocyte organoids for the generation of bioengineered biliary tissue. Nature Protocols, 2019, 14, 1884-1925.	5.5	67
45	Combined single-cell profiling of expression and DNA methylation reveals splicing regulation and heterogeneity. Genome Biology, 2019, 20, 30.	3.8	61
46	Regional Differences in Human Biliary Tissues and Corresponding In Vitroâ€“Derived Organoids. Hepatology, 2021, 73, 247-267.	3.6	61
47	Human Pluripotent Stem Cell-Derived Endoderm for Modeling Development and Clinical Applications. Cell Stem Cell, 2018, 22, 485-499.	5.2	58
48	Successful Generation of Human Induced Pluripotent Stem Cell Lines from Blood Samples Held at Room Temperature for up to 48Âhr. Stem Cell Reports, 2015, 5, 660-671.	2.3	51
49	Human Embryonic Stem Cells: An In Vitro Model to Study Mechanisms Controlling Pluripotency in Early Mammalian Development. Stem Cell Reviews and Reports, 2005, 1, 119-130.	5.6	50
50	Platelet function is modified by common sequence variation in megakaryocyte super enhancers. Nature Communications, 2017, 8, 16058.	5.8	50
51	hiPSC hepatocyte model demonstrates the role of unfolded protein response and inflammatory networks in Î±1-antitrypsin deficiency. Journal of Hepatology, 2018, 69, 851-860.	1.8	48
52	Potential of human induced pluripotent stem cells in studies of liver disease. Hepatology, 2015, 62, 303-311.	3.6	42
53	Genetic association analysis identifies variants associated with disease progression in primary sclerosing cholangitis. Gut, 2018, 67, 1517-1524.	6.1	42
54	Tissue-Engineering the Intestine: The Trials before the Trials. Cell Stem Cell, 2019, 24, 855-859.	5.2	39

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55	Non-CG DNA methylation is a biomarker for assessing endodermal differentiation capacity in pluripotent stem cells. Nature Communications, 2016, 7, 10458.	5.8	38
56	Naive Pluripotent Stem Cells Exhibit Phenotypic Variability that Is Driven by Genetic Variation. Cell Stem Cell, 2020, 27, 470-481.e6.	5.2	38
57	Laser Capture and Deep Sequencing Reveals the Transcriptomic Programmes Regulating the Onset of Pancreas and Liver Differentiation in Human Embryos. Stem Cell Reports, 2017, 9, 1387-1394.	2.3	37
58	HNF4A Haploinsufficiency in MODY1 Abrogates Liver and Pancreas Differentiation from Patient-Derived Induced Pluripotent Stem Cells. IScience, 2019, 16, 192-205.	1.9	37
59	A Novel Human Pluripotent Stem Cell-Derived Neural Crest Model of Treacher Collins Syndrome Shows Defects in Cell Death and Migration. Stem Cells and Development, 2019, 28, 81-100.	1.1	37
60	Method to Synchronize Cell Cycle of Human Pluripotent Stem Cells without Affecting Their Fundamental Characteristics. Stem Cell Reports, 2019, 12, 165-179.	2.3	35
61	Analysis of endothelial-to-haematopoietic transition at the single cell level identifies cell cycle regulation as a driver of differentiation. Genome Biology, 2020, 21, 157.	3.8	35
62	Modeling PNPLA3â€Associated NAFLD Using Humanâ€Induced Pluripotent Stem Cells. Hepatology, 2021, 74, 2998-3017.	3.6	35
63	Investigating the feasibility of scale up and automation of human induced pluripotent stem cells cultured in aggregates in feeder free conditions. Journal of Biotechnology, 2014, 173, 53-58.	1.9	33
64	GATA6 Cooperates with EOMES/SMAD2/3 to Deploy the Gene Regulatory Network Governing Human Definitive Endoderm and Pancreas Formation. Stem Cell Reports, 2019, 12, 57-70.	2.3	33
65	Conditional Gene Expression in Human Embryonic Stem Cells. Stem Cells, 2007, 25, 1490-1497.	1.4	32
66	Generation of Distal Airway Epithelium from Multipotent Human Foregut Stem Cells. Stem Cells and Development, 2015, 24, 1680-1690.	1.1	31
67	TGFÎ² signalling is required to maintain pluripotency of human naÃ¯ve pluripotent stem cells. ELife, 2021, 10, .	2.8	24
68	An in vitro stem cell model of human epiblast and yolk sac interaction. ELife, 2021, 10, .	2.8	24
69	Cell Cycle Rules Pluripotency. Cell Stem Cell, 2015, 17, 131-132.	5.2	21
70	Serum-Free and Feeder-Free Culture Conditions for Human Embryonic Stem Cells. Methods in Molecular Biology, 2011, 690, 57-66.	0.4	20
71	Culture of hESCâ€derived pancreatic progenitors in alginateâ€based scaffolds. Journal of Biomedical Materials Research - Part A, 2015, 103, 3717-3726.	2.1	19
72	Generation of Human Induced Pluripotent Stem Cells from Peripheral Blood Mononuclear Cells Using Sendai Virus. Methods in Molecular Biology, 2015, 1357, 23-31.	0.4	17

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73	Advances in the generation of bioengineered bile ducts. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2018, 1864, 1532-1538.	1.8	17
74	Human branching cholangiocyte organoids recapitulate functional bile duct formation. Cell Stem Cell, 2022, 29, 776-794.e13.	5.2	17
75	Heps with Pep: Direct Reprogramming into Human Hepatocytes. Cell Stem Cell, 2014, 14, 267-269.	5.2	15
76	Cell cycle regulators control mesoderm specification in human pluripotent stem cells. Journal of Biological Chemistry, 2019, 294, 17903-17914.	1.6	13
77	Differentiation of Human Embryonic Stem Cells in Adherent and in Chemically Defined Culture Conditions. Current Protocols in Stem Cell Biology, 2008, 4, Unit 1D.4.1-1D.4.7.	3.0	13
78	Science-based assessment of source materials for cell-based medicines: report of a stakeholders workshop. Regenerative Medicine, 2018, 13, 935-944.	0.8	12
79	Regenerative cell therapy for the treatment of hyperbilirubinemic Gunn rats with fresh and frozen human induced pluripotent stem cellsâ€derived hepatic stem cells. Xenotransplantation, 2020, 27, e12544.	1.6	12
80	Conditional Manipulation of Gene Function in Human Cells with Optimized Inducible shRNA. Current Protocols in Stem Cell Biology, 2018, 44, 5C.4.1-5C.4.48.	3.0	11
81	Genome-Wide EpigeneticÂand Transcriptomic Characterization of Human-Induced Pluripotent Stem Cellâ€"Derived Intestinal Epithelial Organoids. Cellular and Molecular Gastroenterology and Hepatology, 2019, 7, 285-288.	2.3	11
82	Unraveling the Developmental Roadmap toward Human Brown Adipose Tissue. Stem Cell Reports, 2021, 16, 641-655.	2.3	10
83	Monogenic Diabetes Modeling: In Vitro Pancreatic Differentiation From Human Pluripotent Stem Cells Gains Momentum. Frontiers in Endocrinology, 2021, 12, 692596.	1.5	10
84	GMP-grade neural progenitor derivation and differentiation from clinical-grade human embryonic stem cells. Stem Cell Research and Therapy, 2020, 11, 406.	2.4	7
85	Modeling HNF1B-associated monogenic diabetes using human iPSCs reveals an early stage impairment of the pancreatic developmental program. Stem Cell Reports, 2021, 16, 2289-2304.	2.3	7
86	Putting induced pluripotent stem cells to the test. Nature Biotechnology, 2015, 33, 1145-1146.	9.4	5
87	Proteomic Comparison of Various Hepatic Cell Cultures for Preclinical Safety Pharmacology. Toxicological Sciences, 2018, 164, 229-239.	1.4	5
88	A p53-Dependent Checkpoint Induced upon DNA Damage Alters Cell Fate during hiPSC Differentiation. Stem Cell Reports, 2020, 15, 827-835.	2.3	5
89	Conditional Gene Knockout in Human Cells with Inducible CRISPR/Cas9. Methods in Molecular Biology, 2019, 1961, 185-209.	0.4	4
90	A Novel Chemically Differentiated Mouse Embryonic Stem Cell-Based Model to Study Liver Stages of Plasmodium berghei. Stem Cell Reports, 2020, 14, 1123-1134.	2.3	4

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91	Generation of Hepatocytes from Pluripotent Stem Cells for Drug Screening and Developmental Modeling. Methods in Molecular Biology, 2015, 1250, 123-142.	0.4	4
92	Use of Biliary Organoids in Cholestasis Research. Methods in Molecular Biology, 2019, 1981, 373-382.	0.4	3
93	Derivation of Multipotent Neural Progenitors from Human Embryonic Stem Cells for Cell Therapy and Biomedical Applications. Methods in Molecular Biology, 2021, , 1.	0.4	2
94	A practical guide to human stem cell biology. Development (Cambridge), 2011, 138, 5276-5277.	1.2	0