Ludovic Vallier

List of Publications by Citations

99 papers	9,991 citations	41 h-index	99 g-index
115 ext. papers	12,153 ext. citations	13.8 avg, IF	6.09 L-index

#	Paper	IF	Citations
99	Derivation of pluripotent epiblast stem cells from mammalian embryos. *Nature*, **2007**, 448, 191-5	50.4	1564
98	Activin/Nodal and FGF pathways cooperate to maintain pluripotency of human embryonic stem cells. *Journal of Cell Science*, **2005**, 118, 4495-509	5.3	761
97	Targeted gene correction of α1-antitrypsin deficiency in induced pluripotent stem cells. *Nature*, **2011**, 478, 391-4	50.4	557
96	Modeling inherited metabolic disorders of the liver using human induced pluripotent stem cells. *Journal of Clinical Investigation*, **2010**, 120, 3127-36	15.9	457
95	The cell-cycle state of stem cells determines cell fate propensity. *Cell*, **2013**, 155, 135-47	56.2	392
94	Generation of functional hepatocytes from human embryonic stem cells under chemically defined conditions that recapitulate liver development. *Hepatology*, **2010**, 51, 1754-65	11.2	387
93	Activin/Nodal signalling maintains pluripotency by controlling Nanog expression. *Development (Cambridge)*, **2009**, 136, 1339-49	6.6	317
92	Nodal inhibits differentiation of human embryonic stem cells along the neuroectodermal default pathway. *Developmental Biology*, **2004**, 275, 403-21	3.1	301
91	Common genetic variation drives molecular heterogeneity in human iPSCs. *Nature*, **2017**, 546, 370-375	50.4	294
90	Pluripotency factors regulate definitive endoderm specification through eomesodermin. *Genes and Development*, **2011**, 25, 238-50	12.6	251
89	Cholangiocytes derived from human induced pluripotent stem cells for disease modeling and drug validation. *Nature Biotechnology*, **2015**, 33, 845-852	44.5	243
88	Inhibition of Activin/Nodal signaling promotes specification of human embryonic stem cells into neuroectoderm. *Developmental Biology*, **2008**, 313, 107-17	3.1	235
87	Production of hepatocyte-like cells from human pluripotent stem cells. *Nature Protocols*, **2013**, 8, 430-7	18.8	220
86	Phenotypic and functional analyses show stem cell-derived hepatocyte-like cells better mimic fetal rather than adult hepatocytes. *Journal of Hepatology*, **2015**, 62, 581-9	13.4	211
85	Genome editing reveals a role for OCT4 in human embryogenesis. *Nature*, **2017**, 550, 67-73	50.4	210
84	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	3.7	196
83	Human iPSC-derived motoneurons harbouring TARDBP or C9ORF72 ALS mutations are dysfunctional despite maintaining viability. *Nature Communications*, **2015**, 6, 5999	17.4	186

82	Interaction of Salmonella enterica Serovar Typhimurium with Intestinal Organoids Derived from Human Induced Pluripotent Stem Cells. *Infection and Immunity*, **2015**, 83, 2926-34	3.7	182
81	The SMAD2/3 interactome reveals that TGF□controls mA mRNA methylation in pluripotency. *Nature*, **2018**, 555, 256-259	50.4	173
80	GDF15 mediates the effects of metformin on body weight and energy balance. *Nature*, **2020**, 578, 444-448	50.4	171
79	Reconstruction of the mouse extrahepatic biliary tree using primary human extrahepatic cholangiocyte organoids. *Nature Medicine*, **2017**, 23, 954-963	50.5	138
78	TEAD and YAP regulate the enhancer network of human embryonic pancreatic progenitors. *Nature Cell Biology*, **2015**, 17, 615-626	23.4	136
77	Signaling pathways controlling pluripotency and early cell fate decisions of human induced pluripotent stem cells. *Stem Cells*, **2009**, 27, 2655-66	5.8	135
76	Maturation of induced pluripotent stem cell derived hepatocytes by 3D-culture. *PLoS ONE*, **2014**, 9, e86372	3.7	131
75	Activin/Nodal signaling controls divergent transcriptional networks in human embryonic stem cells and in endoderm progenitors. *Stem Cells*, **2011**, 29, 1176-85	5.8	119
74	Enhancing and diminishing gene function in human embryonic stem cells. *Stem Cells*, **2004**, 22, 2-11	5.8	109
73	Activin/Nodal signalling in stem cells. *Development (Cambridge)*, **2015**, 142, 607-19	6.6	107
72	Early maturation and distinct tau pathology in induced pluripotent stem cell-derived neurons from patients with MAPT mutations. *Brain*, **2015**, 138, 3345-59	11.2	87
71	Initiation of stem cell differentiation involves cell cycle-dependent regulation of developmental genes by Cyclin D. *Genes and Development*, **2016**, 30, 421-33	12.6	80
70	Activin/nodal signaling and NANOG orchestrate human embryonic stem cell fate decisions by controlling the H3K4me3 chromatin mark. *Genes and Development*, **2015**, 29, 702-17	12.6	76
69	Single-cell RNA-sequencing of differentiating iPS cells reveals dynamic genetic effects on gene expression. *Nature Communications*, **2020**, 11, 810	17.4	76
68	Inducible and Deterministic Forward Programming of Human Pluripotent Stem Cells into Neurons, Skeletal Myocytes, and Oligodendrocytes. *Stem Cell Reports*, **2017**, 8, 803-812	8	73
67	DNA methylation defines regional identity of human intestinal epithelial organoids and undergoes dynamic changes during development. *Gut*, **2019**, 68, 49-61	19.2	73
66	Variability of human pluripotent stem cell lines. *Current Opinion in Genetics and Development*, **2017**, 46, 179-185	4.9	71
65	Directed differentiation of human induced pluripotent stem cells into functional cholangiocyte-like cells. *Nature Protocols*, **2017**, 12, 814-827	18.8	70

64	Emergence of a stage-dependent human liver disease signature with directed differentiation of alpha-1 antitrypsin-deficient iPS cells. *Stem Cell Reports*, **2015**, 4, 873-85	8	67
63	Interleukin-13 Activates Distinct Cellular Pathways Leading to Ductular Reaction, Steatosis, and Fibrosis. *Immunity*, **2016**, 45, 145-58	32.3	60
62	Single-Cell Sequencing of Developing Human Gut Reveals Transcriptional Links to Childhood Crohn's Disease. *Developmental Cell*, **2020**, 55, 771-783.e5	10.2	47
61	Human embryonic stem cells: an in vitro model to study mechanisms controlling pluripotency in early mammalian development. *Stem Cell Reviews and Reports*, **2005**, 1, 119-30	6.4	47
60	Report of the Key Opinion Leaders Meeting on Stem Cell-derived Beta Cells. *Transplantation*, **2018**, 102, 1223-1229	1.8	47
59	Cholangiocyte organoids can repair bile ducts after transplantation in the human liver. *Science*, **2021**, 371, 839-846	33.3	45
58	Optimized inducible shRNA and CRISPR/Cas9 platforms for in vitro studies of human development using hPSCs. *Development (Cambridge)*, **2016**, 143, 4405-4418	6.6	38
57	Isolation and propagation of primary human cholangiocyte organoids for the generation of bioengineered biliary tissue. *Nature Protocols*, **2019**, 14, 1884-1925	18.8	37
56	Combined single-cell profiling of expression and DNA methylation reveals splicing regulation and heterogeneity. *Genome Biology*, **2019**, 20, 30	18.3	36
55	Potential of human induced pluripotent stem cells in studies of liver disease. *Hepatology*, **2015**, 62, 303-11	11.2	34
54	Human Pluripotent Stem Cell-Derived Endoderm for Modeling Development and Clinical Applications. *Cell Stem Cell*, **2018**, 22, 485-499	18	33
53	Building consensus on definition and nomenclature of hepatic, pancreatic, and biliary organoids. *Cell Stem Cell*, **2021**, 28, 816-832	18	32
52	Successful Generation of Human Induced Pluripotent Stem Cell Lines from Blood Samples Held at Room Temperature for up to 48 hr. *Stem Cell Reports*, **2015**, 5, 660-71	8	31
51	Regional Differences in Human Biliary Tissues and Corresponding In Vitro-Derived Organoids. *Hepatology*, **2021**, 73, 247-267	11.2	31
50	Platelet function is modified by common sequence variation in megakaryocyte super enhancers. *Nature Communications*, **2017**, 8, 16058	17.4	30
49	Non-CG DNA methylation is a biomarker for assessing endodermal differentiation capacity in pluripotent stem cells. *Nature Communications*, **2016**, 7, 10458	17.4	29
48	hiPSC hepatocyte model demonstrates the role of unfolded protein response and inflammatory networks in □antitrypsin deficiency. *Journal of Hepatology*, **2018**, 69, 851-860	13.4	28
47	Conditional gene expression in human embryonic stem cells. *Stem Cells*, **2007**, 25, 1490-7	5.8	28

46	Genetic association analysis identifies variants associated with disease progression in primary sclerosing cholangitis. *Gut*, **2018**, 67, 1517-1524	19.2	28
45	Single-cell transcriptomic characterization of a gastrulating human embryo. *Nature*, **2021**, 600, 285-289	50.4	27
44	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	8	24
43	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, 53-8	3.7	24
42	HNF4A Haploinsufficiency in MODY1 Abrogates Liver and Pancreas Differentiation from Patient-Derived Induced Pluripotent Stem Cells. *IScience*, **2019**, 16, 192-205	6.1	22
41	Tissue-Engineering the Intestine: The Trials before the Trials. *Cell Stem Cell*, **2019**, 24, 855-859	18	19
40	Generation of Distal Airway Epithelium from Multipotent Human Foregut Stem Cells. *Stem Cells and Development*, **2015**, 24, 1680-90	4.4	17
39	Serum-free and feeder-free culture conditions for human embryonic stem cells. *Methods in Molecular Biology*, **2011**, 690, 57-66	1.4	17
38	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	4.4	17
37	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	8	16
36	Naive Pluripotent Stem Cells Exhibit Phenotypic Variability that Is Driven by Genetic Variation. *Cell Stem Cell*, **2020**, 27, 470-481.e6	18	16
35	Method to Synchronize Cell Cycle of Human Pluripotent Stem Cells without Affecting Their Fundamental Characteristics. *Stem Cell Reports*, **2019**, 12, 165-179	8	16
34	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	18.3	15
33	Culture of hESC-derived pancreatic progenitors in alginate-based scaffolds. *Journal of Biomedical Materials Research - Part A*, **2015**, 103, 3717-26	5.4	15
32	Cell Cycle Rules Pluripotency. *Cell Stem Cell*, **2015**, 17, 131-2	18	14
31	A spatially resolved single cell atlas of human gastrulation		14
30	Heps with pep: direct reprogramming into human hepatocytes. *Cell Stem Cell*, **2014**, 14, 267-9	18	13
29	Differentiation of human embryonic stem cells in adherent and in chemically defined culture conditions. *Current Protocols in Stem Cell Biology*, **2008**, Chapter 1, Unit 1D.4.1-1D.4.7	2.8	13

28	Single-cell RNA-sequencing of differentiating iPS cells reveals dynamic genetic effects on gene expression		12
27	Advances in the generation of bioengineered bile ducts. *Biochimica Et Biophysica Acta - Molecular Basis of Disease*, **2018**, 1864, 1532-1538	6.9	12
26	Generation of Human Induced Pluripotent Stem Cells from Peripheral Blood Mononuclear Cells Using Sendai Virus. *Methods in Molecular Biology*, **2016**, 1357, 23-31	1.4	11
25	Science-based assessment of source materials for cell-based medicines: report of a stakeholders workshop. *Regenerative Medicine*, **2018**, 13, 935-944	2.5	10
24	Cell cycle regulators control mesoderm specification in human pluripotent stem cells. *Journal of Biological Chemistry*, **2019**, 294, 17903-17914	5.4	9
23	Genome-Wide Epigenetic and Transcriptomic Characterization of Human-Induced Pluripotent Stem Cell-Derived Intestinal Epithelial Organoids. *Cellular and Molecular Gastroenterology and Hepatology*, **2019**, 7, 285-288	7.9	8
22	Regenerative cell therapy for the treatment of hyperbilirubinemic Gunn rats with fresh and frozen human induced pluripotent stem cells-derived hepatic stem cells. *Xenotransplantation*, **2020**, 27, e12544	2.8	8
21	Common genetic variation drives molecular heterogeneity in human IPSCs		7
20	GMP-grade neural progenitor derivation and differentiation from clinical-grade human embryonic stem cells. *Stem Cell Research and Therapy*, **2020**, 11, 406	8.3	5
19	Putting induced pluripotent stem cells to the test. *Nature Biotechnology*, **2015**, 33, 1145-6	44.5	4
18	Proteomic Comparison of Various Hepatic Cell Cultures for Preclinical Safety Pharmacology. *Toxicological Sciences*, **2018**, 164, 229-239	4.4	4
17	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	2.8	4
16	Modeling PNPLA3-Associated NAFLD Using Human-Induced Pluripotent Stem Cells. *Hepatology*, **2021**, 74, 2998-3017	11.2	4
15	Use of Biliary Organoids in Cholestasis Research. *Methods in Molecular Biology*, **2019**, 1981, 373-382	1.4	3
14	A p53-Dependent Checkpoint Induced upon DNA Damage Alters Cell Fate during hiPSC Differentiation. *Stem Cell Reports*, **2020**, 15, 827-835	8	3
13	Generation of Hepatocytes from Pluripotent Stem Cells for Drug Screening and Developmental Modeling. *Methods in Molecular Biology*, **2015**, 1250, 123-42	1.4	2
12	A Novel Chemically Differentiated Mouse Embryonic Stem Cell-Based Model to Study Liver Stages of Plasmodium berghei. *Stem Cell Reports*, **2020**, 14, 1123-1134	8	2
11	Unraveling the Developmental Roadmap toward Human Brown Adipose Tissue. *Stem Cell Reports*, **2021**, 16, 641-655	8	2

List of Publications

10	FXR inhibition reduces ACE2 expression, SARS-CoV-2 infection and may improve COVID-19 outcome		2
9	Monogenic Diabetes Modeling: Pancreatic Differentiation From Human Pluripotent Stem Cells Gains Momentum. *Frontiers in Endocrinology*, **2021**, 12, 692596	5.7	2
8	TGFβ signalling is required to maintain pluripotency of human naïve pluripotent stem cells. *ELife*, **2021**, 10,	8.9	2
7	An in vitro stem cell model of human epiblast and yolk sac interaction. *ELife*, **2021**, 10,	8.9	2
6	Conditional Gene Knockout in Human Cells with Inducible CRISPR/Cas9. *Methods in Molecular Biology*, **2019**, 1961, 185-209	1.4	1
5	Combined single-cell profiling of expression and DNA methylation reveals splicing regulation and heterogeneity		1
4	Derivation of Multipotent Neural Progenitors from Human Embryonic Stem Cells for Cell Therapy and Biomedical Applications. *Methods in Molecular Biology*, **2021**, 1	1.4	0
3	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	8	0
2	Human branching cholangiocyte organoids recapitulate functional bile duct formation.. *Cell Stem Cell*, **2022**, 29, 776-794.e13	18	0
1	A practical guide to human stem cell biology. *Development (Cambridge)*, **2011**, 138, 5276-5277	6.6	