

# Matthias Hebrok

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

115  
papers

12,012  
citations

57  
h-index

109  
g-index

127  
ext. papers

13,693  
ext. citations

12.2  
avg, IF

6.33  
L-index

#	Paper	IF	Citations
115	Transcriptional changes and the role of ONECUT1 in hPSC pancreatic differentiation. <i>Communications Biology</i> , <b>2021</b> , 4, 1298	6.7	2
114	Mutations and variants of ONECUT1 in diabetes. <i>Nature Medicine</i> , <b>2021</b> , 27, 1928-1940	50.5	6
113	Single-cell transcriptome analysis defines heterogeneity of the murine pancreatic ductal tree. <i>ELife</i> , <b>2021</b> , 10,	8.9	7
112	Superporous agarose scaffolds for encapsulation of adult human islets and human stem-cell-derived $\beta$ cells for intravascular bioartificial pancreas applications. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2021</b> , 109, 2438-2448	5.4	2
111	Non-xenogeneic expansion and definitive endoderm differentiation of human pluripotent stem cells in an automated bioreactor. <i>Biotechnology and Bioengineering</i> , <b>2021</b> , 118, 979-991	4.9	1
110	Stem Cell-Based Clinical Trials for Diabetes Mellitus. <i>Frontiers in Endocrinology</i> , <b>2021</b> , 12, 631463	5.7	15
109	Selective deletion of human leukocyte antigens protects stem cell-derived islets from immune rejection. <i>Cell Reports</i> , <b>2021</b> , 36, 109538	10.6	7
108	Loss of the transcription factor MAFB limits $\beta$ cell derivation from human PSCs. <i>Nature Communications</i> , <b>2020</b> , 11, 2742	17.4	15
107	Emerging routes to the generation of functional $\beta$ cells for diabetes mellitus cell therapy. <i>Nature Reviews Endocrinology</i> , <b>2020</b> , 16, 506-518	15.2	37
106	Lipid Droplet Accumulation in Human Pancreatic Islets Is Dependent On Both Donor Age and Health. <i>Diabetes</i> , <b>2020</b> , 69, 342-354	0.9	18
105	LIN28B Impairs the Transition of hESC-Derived $\beta$ Cells from the Juvenile to Adult State. <i>Stem Cell Reports</i> , <b>2020</b> , 14, 9-20	8	5
104	Recapitulating endocrine cell clustering in culture promotes maturation of human stem-cell-derived $\beta$ cells. <i>Nature Cell Biology</i> , <b>2019</b> , 21, 263-274	23.4	182
103	The Pdx1-Bound Swi/Snf Chromatin Remodeling Complex Regulates Pancreatic Progenitor Cell Proliferation and Mature Islet $\beta$ Cell Function. <i>Diabetes</i> , <b>2019</b> , 68, 1806-1818	0.9	8
102	Pancreatic pericytes originate from the embryonic pancreatic mesenchyme. <i>Developmental Biology</i> , <b>2019</b> , 449, 14-20	3.1	15
101	Supporting Survival of Transplanted Stem-Cell-Derived Insulin-Producing Cells in an Encapsulation Device Augmented with Controlled Release of Amino Acids. <i>Advanced Biology</i> , <b>2019</b> , 3, 1900086	3.5	4
100	Using a barcoded AAV capsid library to select for clinically relevant gene therapy vectors. <i>JCI Insight</i> , <b>2019</b> , 4,	9.9	32
99	mTORC1 to AMPK switching underlies $\beta$ cell metabolic plasticity during maturation and diabetes. <i>Journal of Clinical Investigation</i> , <b>2019</b> , 129, 4124-4137	15.9	47

98	Synaptotagmin 4 Regulates Pancreatic $\beta$ Cell Maturation by Modulating the Ca Sensitivity of Insulin Secretion Vesicles. <i>Developmental Cell</i> , <b>2018</b> , 45, 347-361.e5	10.2	48
97	Replication confers $\beta$ cell immaturity. <i>Nature Communications</i> , <b>2018</b> , 9, 485	17.4	72
96	The BRG1/SOX9 axis is critical for acinar cell-derived pancreatic tumorigenesis. <i>Journal of Clinical Investigation</i> , <b>2018</b> , 128, 3475-3489	15.9	32
95	Co-Transplant of Parathyroid Gland and Stem Cell-Derived Insulin-Producing Cells Enhances Graft Survival through Release of Pro-Angiogenic and Pro-Survival Factors. <i>Transplantation</i> , <b>2018</b> , 102, S350	1.8	1
94	Stem Cell Therapies for Treating Diabetes: Progress and Remaining Challenges. <i>Cell Stem Cell</i> , <b>2018</b> , 22, 810-823	18	125
93	Designing $\beta$ Cells. <i>Cell Metabolism</i> , <b>2017</b> , 25, 223-224	24.6	2
92	All mixed up: defining roles for $\beta$ cell subtypes in mature islets. <i>Genes and Development</i> , <b>2017</b> , 31, 228-240	12.6	43
91	Global Protease Activity Profiling Provides Differential Diagnosis of Pancreatic Cysts. <i>Clinical Cancer Research</i> , <b>2017</b> , 23, 4865-4874	12.9	27
90	Atypical flat lesions derive from pancreatic acinar cells. <i>Pancreatology</i> , <b>2017</b> , 17, 350-353	3.8	5
89	Nanoporous Immunoprotective Device for Stem-Cell-Derived $\beta$ Cell Replacement Therapy. <i>ACS Nano</i> , <b>2017</b> , 11, 7747-7757	16.7	53
88	Mitigating Ischemic Injury of Stem Cell-Derived Insulin-Producing Cells after Transplant. <i>Stem Cell Reports</i> , <b>2017</b> , 9, 807-819	8	28
87	Rebranding asymptomatic type 1 diabetes: the case for autoimmune beta cell disorder as a pathological and diagnostic entity. <i>Diabetologia</i> , <b>2017</b> , 60, 35-38	10.3	20
86	Development of the Endocrine Pancreas <b>2016</b> , 517-526.e5		1
85	Human islets contain four distinct subtypes of $\beta$ cells. <i>Nature Communications</i> , <b>2016</b> , 7, 11756	17.4	211
84	Life and death of $\beta$ cells in Type 1 diabetes: A comprehensive review. <i>Journal of Autoimmunity</i> , <b>2016</b> , 71, 51-8	15.5	57
83	Human pancreatic beta-like cells converted from fibroblasts. <i>Nature Communications</i> , <b>2016</b> , 7, 10080	17.4	81
82	Dynamic Proteomic Analysis of Pancreatic Mesenchyme Reveals Novel Factors That Enhance Human Embryonic Stem Cell to Pancreatic Cell Differentiation. <i>Stem Cells International</i> , <b>2016</b> , 2016, 6183562	5	18
81	Loss of Pancreas upon Activated Wnt Signaling Is Concomitant with Emergence of Gastrointestinal Identity. <i>PLoS ONE</i> , <b>2016</b> , 11, e0164714	3.7	6

80	PDX1 dynamically regulates pancreatic ductal adenocarcinoma initiation and maintenance. <i>Genes and Development</i> , <b>2016</b> , 30, 2669-2683	12.6	62
79	p120 Catenin Suppresses Basal Epithelial Cell Extrusion in Invasive Pancreatic Neoplasia. <i>Cancer Research</i> , <b>2016</b> , 76, 3351-63	10.1	23
78	Genotype tunes pancreatic ductal adenocarcinoma tissue tension to induce matricellular fibrosis and tumor progression. <i>Nature Medicine</i> , <b>2016</b> , 22, 497-505	50.5	338
77	Islet formation in mice and men: lessons for the generation of functional insulin-producing $\beta$ cells from human pluripotent stem cells. <i>Current Opinion in Genetics and Development</i> , <b>2015</b> , 32, 171-80	4.9	69
76	Brg1 promotes both tumor-suppressive and oncogenic activities at distinct stages of pancreatic cancer formation. <i>Genes and Development</i> , <b>2015</b> , 29, 658-71	12.6	100
75	Human stem cells from single blastomeres reveal pathways of embryonic or trophoblast fate specification. <i>Development (Cambridge)</i> , <b>2015</b> , 142, 4010-25	6.6	49
74	$\beta$ Cell Insulin Secretion Requires the Ubiquitin Ligase COP1. <i>Cell</i> , <b>2015</b> , 163, 1457-67	56.2	31
73	Plasticity and dedifferentiation within the pancreas: development, homeostasis, and disease. <i>Cell Stem Cell</i> , <b>2015</b> , 16, 18-31	18	100
72	Controlled induction of human pancreatic progenitors produces functional beta-like cells in vitro. <i>EMBO Journal</i> , <b>2015</b> , 34, 1759-72	13	361
71	CDK1 inhibition targets the p53-NOXA-MCL1 axis, selectively kills embryonic stem cells, and prevents teratoma formation. <i>Stem Cell Reports</i> , <b>2015</b> , 4, 374-89	8	51
70	DNA methylation directs functional maturation of pancreatic $\beta$ cells. <i>Journal of Clinical Investigation</i> , <b>2015</b> , 125, 2851-60	15.9	102
69	Regulation of Cellular Identity in Cancer. <i>Developmental Cell</i> , <b>2015</b> , 35, 674-84	10.2	56
68	Antithetical NFATc1-Sox2 and p53-miR200 signaling networks govern pancreatic cancer cell plasticity. <i>EMBO Journal</i> , <b>2015</b> , 34, 517-30	13	63
67	Diabetes. Solving human $\beta$ cell development--what does the mouse say?. <i>Nature Reviews Endocrinology</i> , <b>2014</b> , 10, 253-5	15.2	3
66	The chromatin regulator Brg1 suppresses formation of intraductal papillary mucinous neoplasm and pancreatic ductal adenocarcinoma. <i>Nature Cell Biology</i> , <b>2014</b> , 16, 255-67	23.4	136
65	Small molecules facilitate the reprogramming of mouse fibroblasts into pancreatic lineages. <i>Cell Stem Cell</i> , <b>2014</b> , 14, 228-36	18	98
64	Dicer regulates differentiation and viability during mouse pancreatic cancer initiation. <i>PLoS ONE</i> , <b>2014</b> , 9, e95486	3.7	20
63	Aberrant innate immune activation following tissue injury impairs pancreatic regeneration. <i>PLoS ONE</i> , <b>2014</b> , 9, e102125	3.7	25

62	Taming the young and restless--epigenetic gene regulation in pancreas and beta-cell precursors. <i>EMBO Journal</i> , <b>2014</b> , 33, 2135-6	13	4
61	Nr5a2 maintains acinar cell differentiation and constrains oncogenic Kras-mediated pancreatic neoplastic initiation. <i>Gut</i> , <b>2014</b> , 63, 656-64	19.2	97
60	VHL-mediated disruption of Sox9 activity compromises $\beta$ cell identity and results in diabetes mellitus. <i>Genes and Development</i> , <b>2013</b> , 27, 2563-75	12.6	46
59	Factors expressed by murine embryonic pancreatic mesenchyme enhance generation of insulin-producing cells from hESCs. <i>Diabetes</i> , <b>2013</b> , 62, 1581-92	0.9	50
58	Numb regulates acinar cell dedifferentiation and survival during pancreatic damage and acinar-to-ductal metaplasia. <i>Gastroenterology</i> , <b>2013</b> , 145, 1088-1097.e8	13.3	25
57	Control of cell identity in pancreas development and regeneration. <i>Gastroenterology</i> , <b>2013</b> , 144, 1170-9	13.3	100
56	Generation of functional thymic epithelium from human embryonic stem cells that supports host T cell development. <i>Cell Stem Cell</i> , <b>2013</b> , 13, 219-29	18	109
55	Canonical wnt signaling is required for pancreatic carcinogenesis. <i>Cancer Research</i> , <b>2013</b> , 73, 4909-22	10.1	139
54	Dormant cancer cells contribute to residual disease in a model of reversible pancreatic cancer. <i>Cancer Research</i> , <b>2013</b> , 73, 1821-30	10.1	52
53	Elimination of von Hippel-Lindau function perturbs pancreas endocrine homeostasis in mice. <i>PLoS ONE</i> , <b>2013</b> , 8, e72213	3.7	9
52	Diabetic $\beta$ Cells: To Be or Not To Be?. <i>Cell</i> , <b>2012</b> , 150, 1103-4	56.2	21
51	Identification of Sox9-dependent acinar-to-ductal reprogramming as the principal mechanism for initiation of pancreatic ductal adenocarcinoma. <i>Cancer Cell</i> , <b>2012</b> , 22, 737-50	24.3	417
50	Bmi1 is required for regeneration of the exocrine pancreas in mice. <i>Gastroenterology</i> , <b>2012</b> , 143, 821-831.e3	19.3	30
49	Generating $\beta$ cells from stem cells-the story so far. <i>Cold Spring Harbor Perspectives in Medicine</i> , <b>2012</b> , 2, a007674	5.4	28
48	Transcriptional analysis of pluripotency reveals the Hippo pathway as a barrier to reprogramming. <i>Human Molecular Genetics</i> , <b>2012</b> , 21, 2054-67	5.6	70
47	How does type 1 diabetes develop?: the notion of homicide or $\beta$ cell suicide revisited. <i>Diabetes</i> , <b>2011</b> , 60, 1370-9	0.9	163
46	Incomplete DNA methylation underlies a transcriptional memory of somatic cells in human iPS cells. <i>Nature Cell Biology</i> , <b>2011</b> , 13, 541-9	23.4	442
45	Stat3 and MMP7 contribute to pancreatic ductal adenocarcinoma initiation and progression. <i>Cancer Cell</i> , <b>2011</b> , 19, 441-55	24.3	396

44	Elevated Hedgehog/Gli signaling causes beta-cell dedifferentiation in mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2011</b> , 108, 17010-5	11.5	50
43	Pancreatic mesenchyme regulates epithelial organogenesis throughout development. <i>PLoS Biology</i> , <b>2011</b> , 9, e1001143	9.7	101
42	KRAS, Hedgehog, Wnt and the twisted developmental biology of pancreatic ductal adenocarcinoma. <i>Nature Reviews Cancer</i> , <b>2010</b> , 10, 683-95	31.3	431
41	Hedgehog signaling in pancreas epithelium regulates embryonic organ formation and adult beta-cell function. <i>Diabetes</i> , <b>2010</b> , 59, 1211-21	0.9	40
40	Primary cilia regulate Gli/Hedgehog activation in pancreas. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 10109-14	11.5	45
39	Dynamic switch of negative feedback regulation in Drosophila Akt-TOR signaling. <i>PLoS Genetics</i> , <b>2010</b> , 6, e1000990	6	51
38	Cellular plasticity within the pancreas--lessons learned from development. <i>Developmental Cell</i> , <b>2010</b> , 18, 342-56	10.2	130
37	Beta-catenin blocks Kras-dependent reprogramming of acini into pancreatic cancer precursor lesions in mice. <i>Journal of Clinical Investigation</i> , <b>2010</b> , 120, 508-20	15.9	259
36	A role for von Hippel-Lindau protein in pancreatic beta-cell function. <i>Diabetes</i> , <b>2009</b> , 58, 433-41	0.9	69
35	GLI1 is regulated through Smoothed-independent mechanisms in neoplastic pancreatic ducts and mediates PDAC cell survival and transformation. <i>Genes and Development</i> , <b>2009</b> , 23, 24-36	12.6	309
34	It's a free for all--insulin-positive cells join the group of potential progenitors for pancreatic ductal adenocarcinoma. <i>Cancer Cell</i> , <b>2009</b> , 16, 359-61	24.3	3
33	Dicer is required for proper liver zonation. <i>Journal of Pathology</i> , <b>2009</b> , 219, 365-72	9.4	72
32	Stem cells to pancreatic beta-cells: new sources for diabetes cell therapy. <i>Endocrine Reviews</i> , <b>2009</b> , 30, 214-27	27.2	86
31	Wnt5a is essential for intestinal elongation in mice. <i>Developmental Biology</i> , <b>2009</b> , 326, 285-94	3.1	120
30	Disruption of Dicer1 induces dysregulated fetal gene expression and promotes hepatocarcinogenesis. <i>Gastroenterology</i> , <b>2009</b> , 136, 2304-2315.e1-4	13.3	150
29	Stabilization of beta-catenin induces pancreas tumor formation. <i>Gastroenterology</i> , <b>2008</b> , 135, 1288-300	13.3	126
28	Regulated beta-cell regeneration in the adult mouse pancreas. <i>Diabetes</i> , <b>2008</b> , 57, 958-66	0.9	80
27	Wnt signaling regulates pancreatic beta cell proliferation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 6247-52	11.5	279

26	Common activation of canonical Wnt signaling in pancreatic adenocarcinoma. <i>PLoS ONE</i> , <b>2007</b> , 2, e1155	3.7	182
25	Liver-specific loss of beta-catenin results in delayed hepatocyte proliferation after partial hepatectomy. <i>Hepatology</i> , <b>2007</b> , 45, 361-8	11.2	113
24	Sonic hedgehog acts at multiple stages during pancreatic tumorigenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 5103-8	11.5	192
23	Dynamics of embryonic pancreas development using real-time imaging. <i>Developmental Biology</i> , <b>2007</b> , 306, 82-93	3.1	68
22	Pancreatic innervation in mouse development and beta-cell regeneration. <i>Neuroscience</i> , <b>2007</b> , 150, 592-602	9.9	39
21	Probing cell type-specific functions of Gi in vivo identifies GPCR regulators of insulin secretion. <i>Journal of Clinical Investigation</i> , <b>2007</b> , 117, 4034-43	15.9	177
20	Extracellular sulfatases, elements of the Wnt signaling pathway, positively regulate growth and tumorigenicity of human pancreatic cancer cells. <i>PLoS ONE</i> , <b>2007</b> , 2, e392	3.7	144
19	Liver-specific loss of beta-catenin blocks glutamine synthesis pathway activity and cytochrome p450 expression in mice. <i>Hepatology</i> , <b>2006</b> , 43, 817-25	11.2	194
18	Stabilization of beta-catenin impacts pancreas growth. <i>Development (Cambridge)</i> , <b>2006</b> , 133, 2023-32	6.6	186
17	Hedgehog/Ras interactions regulate early stages of pancreatic cancer. <i>Genes and Development</i> , <b>2006</b> , 20, 3161-73	12.6	246
16	Primary cilia deletion in pancreatic epithelial cells results in cyst formation and pancreatitis. <i>Gastroenterology</i> , <b>2006</b> , 131, 1856-69	13.3	107
15	Hedgehog Signaling in Endodermally Derived Tumors <b>2006</b> , 215-224		
14	Hedgehog signaling regulates expansion of pancreatic epithelial cells. <i>Developmental Biology</i> , <b>2005</b> , 280, 111-21	3.1	79
13	Matrix metalloproteinases 2 and 9 are dispensable for pancreatic islet formation and function in vivo. <i>Diabetes</i> , <b>2005</b> , 54, 694-701	0.9	37
12	Brain meets pancreas: netrin, an axon guidance molecule, controls epithelial cell migration. <i>Trends in Cell Biology</i> , <b>2004</b> , 14, 153-5	18.3	27
11	Development and Cancer: Lessons Learned in the Pancreas. <i>Cell Cycle</i> , <b>2004</b> , 3, 268-270	4.7	21
10	Hedgehog is an early and late mediator of pancreatic cancer tumorigenesis. <i>Nature</i> , <b>2003</b> , 425, 851-6	50.4	1280
9	Hedgehog signalling in cancer formation and maintenance. <i>Nature Reviews Cancer</i> , <b>2003</b> , 3, 903-11	31.3	705

8	Hedgehog signaling in pancreas development. <i>Mechanisms of Development</i> , <b>2003</b> , 120, 45-57	1.7	123
7	Combined activities of hedgehog signaling inhibitors regulate pancreas development. <i>Development (Cambridge)</i> , <b>2003</b> , 130, 4871-9	6.6	97
6	Activin receptor patterning of foregut organogenesis. <i>Genes and Development</i> , <b>2000</b> , 14, 1866-1871	12.6	160
5	Repression of muscle-specific gene activation by the murine Twist protein. <i>Experimental Cell Research</i> , <b>1997</b> , 232, 295-303	4.2	57
4	M-twist expression inhibits mouse embryonic stem cell-derived myogenic differentiation in vitro. <i>Experimental Cell Research</i> , <b>1995</b> , 220, 92-100	4.2	89
3	M-twist is an inhibitor of muscle differentiation. <i>Developmental Biology</i> , <b>1994</b> , 165, 537-44	3.1	144
2	Rapid generation of functional mature pancreatic islet-beta cells from human pluripotent stem cells. <i>Protocol Exchange</i> ,		2
1	SMARCA4 supports the oncogenic landscape of KRAS-driven lung tumors		2