Alexander Medvinsky

List of Publications by Year
in descending order

52 papers	5,935 citations	147801 31 h-index	182427 51 g-index
55 all docs	55 docs citations	55 times ranked	4863 citing authors

#	Article	IF	Citations
1	Definitive Hematopoiesis Is Autonomously Initiated by the AGM Region. Cell, 1996, 86, 897-906.	28.9	1,349
2	Development of hematopoietic stem cell activity in the mouse embryo. Immunity, 1994, 1, 291-301.	14.3	804
3	Quantitative developmental anatomy of definitive haematopoietic stem cells/long-term repopulating units (HSC/RUs): role of the aorta-gonad-mesonephros (AGM) region and the yolk sac in colonisation of the mouse embryonic liver. Development (Cambridge), 2002, 129, 4891-4899.	2.5	340
4	Embryonic origin of the adult hematopoietic system: advances and questions. Development (Cambridge), 2011, 138, 1017-1031.	2.5	327
5	Blood flow controls bone vascular function and osteogenesis. Nature Communications, 2016, 7, 13601.	12.8	261
6	Extensive Hematopoietic Stem Cell Generation in the AGM Region via Maturation of VE-Cadherin+CD45+ Pre-Definitive HSCs. Cell Stem Cell, 2008, 3, 99-108.	11.1	242
7	Hierarchical organization and early hematopoietic specification of the developing HSC lineage in the AGM region. Journal of Experimental Medicine, 2011, 208, 1305-1315.	8.5	223
8	Highly potent human hematopoietic stem cells first emerge in the intraembryonic aorta-gonad-mesonephros region. Journal of Experimental Medicine, 2011, 208, 2417-2427.	8.5	204
9	Human haematopoietic stem cell development: from the embryo to the dish. Development (Cambridge), 2017, 144, 2323-2337.	2.5	195
10	Functional identification of the hematopoietic stem cell niche in the ventral domain of the embryonic dorsal aorta. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 9399-9403.	7.1	183
11	Quantitative developmental anatomy of definitive haematopoietic stem cells/long-term repopulating units (HSC/RUs): role of the aorta-gonad-mesonephros (AGM) region and the yolk sac in colonisation of the mouse embryonic liver. Development (Cambridge), 2002, 129, 4891-9.	2.5	152
12	Tracing the Origin of the HSC Hierarchy Reveals an SCF-Dependent, IL-3-Independent CD43â˘ Embryonic Precursor. Stem Cell Reports, 2014, 3, 489-501.	4.8	122
13	Progressive divergence of definitive haematopoietic stem cells from the endothelial compartment does not depend on contact with the foetal liver. Development (Cambridge), 2005, 132, 4179-4191.	2.5	119
14	Signaling from the Sympathetic Nervous System Regulates Hematopoietic Stem Cell Emergence during Embryogenesis. Cell Stem Cell, 2012, 11, 554-566.	11.1	106
15	Concealed expansion of immature precursors underpins acute burst of adult HSC activity in foetal liver. Development (Cambridge), 2016, 143, 1284-1289.	2.5	102
16	Mouse extraembryonic arterial vessels harbor precursors capable of maturing into definitive HSCs. Blood, 2013, 122, 2338-2345.	1.4	84
17	Cellular Origin and Functional Relevance of Collagen I Production in the Kidney. Journal of the American Society of Nephrology: JASN, 2018, 29, 1859-1873.	6.1	82
18	Identification of the Niche and Phenotype of the First Human Hematopoietic Stem Cells. Stem Cell Reports, 2014, 2, 449-456.	4.8	79

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19	Inductive interactions mediated by interplay of asymmetric signalling underlie development of adult haematopoietic stem cells. Nature Communications, 2016, 7, 10784.	12.8	70
20	Alternative Runx1 promoter usage in mouse developmental hematopoiesis. Blood Cells, Molecules, and Diseases, 2009, 43, 35-42.	1.4	52
21	A lineage of diploid platelet-forming cells precedes polyploid megakaryocyte formation in the mouse embryo. Blood, 2014, 124, 2725-2729.	1.4	52
22	Understanding Hematopoietic Stem Cell Development through Functional Correlation of Their Proliferative Status with the Intra-aortic Cluster Architecture. Stem Cell Reports, 2017, 8, 1549-1562.	4.8	52
23	Multi-layered Spatial Transcriptomics Identify Secretory Factors Promoting Human Hematopoietic Stem Cell Development. Cell Stem Cell, 2020, 27, 822-839.e8.	11.1	51
24	A molecular roadmap of the AGM region reveals BMPER as a novel regulator of HSC maturation. Journal of Experimental Medicine, 2017, 214, 3731-3751.	8.5	50
25	Developing HSCs become Notch independent by the end of maturation in the AGM region. Blood, 2016, 128, 1567-1577.	1.4	46
26	The essential requirement for Runx1 in the development of the sternum. Developmental Biology, 2010, 340, 539-546.	2.0	44
27	Single-cell analyses and machine learning define hematopoietic progenitor and HSC-like cells derived from human PSCs. Blood, 2020, 136, 2893-2904.	1.4	44
28	Suppression of interneuron programs and maintenance of selected spinal motor neuron fates by the transcription factor AML1/Runx1. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6451-6456.	7.1	37
29	Restoration of Runx1 Expression in the Tie2 Cell Compartment Rescues Definitive Hematopoietic Stem Cells and Extends Life of Runx1 Knockout Animals Until Birth. Stem Cells, 2009, 27, 1616-1624.	3.2	36
30	Runx1 is required for progression of CD41+ embryonic precursors into HSCs but not prior to this. Development (Cambridge), 2014, 141, 3319-3323.	2.5	36
31	Transcription Factors Runx1 to 3 Are Expressed in the Lacrimal Gland Epithelium and Are Involved in Regulation of Gland Morphogenesis and Regeneration. , 2013, 54, 3115.		35
32	Cardiosphere-Derived Cells Require Endoglin for Paracrine-Mediated Angiogenesis. Stem Cell Reports, 2017, 8, 1287-1298.	4.8	35
33	Identification of the genes regulated by Wnt-4, a critical signal for commitment of the ovary. Experimental Cell Research, 2015, 332, 163-178.	2.6	34
34	Limb development genes underlie variation in human fingerprint patterns. Cell, 2022, 185, 95-112.e18.	28.9	30
35	Labeling of hematopoietic stem and progenitor cells in novel activatable EGFP reporter mice. Genesis, 2003, 36, 168-176.	1.6	27
36	The discovery of a source of adult hematopoietic cells in the embryo. Development (Cambridge), 2008, 135, 2343-2346.	2.5	27

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37	The differentiation program of embryonic definitive hematopoietic stem cells is largely Î±4 integrin independent. Blood, 2006, 108, 501-509.	1.4	26
38	Hematopoietic stem cell activity in the aorta-gonad-mesonephros region enhances after mid-day 11 of mouse development. International Journal of Developmental Biology, 2010, 54, 1055-1060.	0.6	24
39	A novel method for the generation of reaggregated organotypic cultures that permits juxtaposition of defined cell populations. Genesis, 2009, 47, 346-351.	1.6	22
40	Multifunctional reversible knockout/reporter system enabling fully functional reconstitution of the AML1/Runx1 locus and rescue of hematopoiesis. Genesis, 2006, 44, 115-121.	1.6	17
41	Transgenic tools for analysis of the haematopoietic system: Knock-in CD45 reporter and deletor mice. Journal of Immunological Methods, 2008, 337, 81-87.	1.4	17
42	Analysis of Runx1 Using Induced Gene Ablation Reveals Its Essential Role in Pre-liver HSC Development and Limitations of an InÂVivo Approach. Stem Cell Reports, 2018, 11, 784-794.	4.8	12
43	Analysis of the Spatiotemporal Development of Hematopoietic Stem and Progenitor Cells in the Early Human Embryo. Stem Cell Reports, 2019, 12, 1056-1068.	4.8	12
44	Intrinsic factors and the embryonic environment influence the formation of extragonadal teratomas during gestation. BMC Developmental Biology, 2015, 15, 35.	2.1	10
45	Endothelio-hematopoietic relationship: getting closer to the beginnings. BMC Biology, 2011, 9, 88.	3.8	9
46	Vast Self-Renewal Potential of Human AGM Region HSCs Dramatically Declines in the Umbilical Cord Blood. Stem Cell Reports, 2020, 15, 811-816.	4.8	9
47	Deletion of Pten in CD45-expressing cells leads to development of T-cell lymphoblastic lymphoma but not myeloid malignancies. Blood, 2016, 127, 1907-1911.	1.4	7
48	Modulation of APLNR Signaling Is Required during the Development and Maintenance of the Hematopoietic System. Stem Cell Reports, 2021, 16, 727-740.	4.8	7
49	Postmenstrual gestational age should be used with care in studies of early human hematopoietic development. Blood, 2013, 121, 3051-3052.	1.4	6
50	Ontogeny of the Hematopoietic System. , 2016, , 1-14.		6
51	Directed Differentiation of Embryonic Stem Cells Using a Bead-Based Combinatorial Screening Method. PLoS ONE, 2014, 9, e104301.	2.5	4
52	In Search of Human Hematopoietic Stem Cell Identity. Cell Stem Cell, 2015, 16, 5-6.	11.1	3