Holger Gerhardt

List of Publications by Year
in descending order

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135 papers	26,853 citations	13854 67 h-index	12933 131 g-index
152 all docs	152 docs citations	152 times ranked	28609 citing authors

#	Article	IF	Citations
1	WASp controls oriented migration of endothelial cells to achieve functional vascular patterning. Development (Cambridge), 2022, 149, .	1.2	10
2	Formation and Maintenance of the Natural Bypass Vessels of the Brain. Frontiers in Cardiovascular Medicine, 2022, 9, 778773.	1.1	5
3	Svep1 stabilises developmental vascular anastomosis in reduced flow conditions. Development (Cambridge), 2022, 149, .	1.2	4
4	A YAP/TAZ-TEAD signalling module links endothelial nutrient acquisition to angiogenic growth. Nature Metabolism, 2022, 4, 672-682.	5.1	20
5	Blood flow meets mitophagy. Journal of Cell Biology, 2022, 221, .	2.3	1
6	On the preservation of vessel bifurcations during flow-mediated angiogenic remodelling. PLoS Computational Biology, 2021, 17, e1007715.	1.5	6
7	Vasohibin 1 selectively regulates secondary sprouting and lymphangiogenesis in the zebrafish trunk. Development (Cambridge), 2021, 148, .	1.2	4
8	Astrocyte-derived Wnt growth factors are required for endothelial blood-brain barrier maintenance. Progress in Neurobiology, 2021, 199, 101937.	2.8	68
9	Remodeling of an in vitro microvessel exposed to cyclic mechanical stretch. APL Bioengineering, 2021, 5, 026102.	3.3	17
10	Association between erythrocyte dynamics and vessel remodelling in developmental vascular networks. Journal of the Royal Society Interface, 2021, 18, 20210113.	1.5	20
11	A backward-mode optical-resolution photoacoustic microscope for 3D imaging using a planar Fabry-PÃ©rot sensor. Photoacoustics, 2021, 24, 100293.	4.4	2
12	Long-lived tumor-associated macrophages in glioma. Neuro-Oncology Advances, 2020, 2, vdaa127.	0.4	4
13	Intron with transgenic marker (InTraM) facilitates highâ€throughput screening of endogenous gene reporter lines. Genesis, 2020, 58, e23391.	0.8	0
14	Lymphoma Angiogenesis Is Orchestrated by Noncanonical Signaling Pathways. Cancer Research, 2020, 80, 1316-1329.	0.4	12
15	Opposite Macrophage Polarization in Different Subsets of Ovarian Cancer: Observation from a Pilot Study. Cells, 2020, 9, 305.	1.8	22
16	Endothelial Cell Orientation and Polarity Are Controlled by Shear Stress and VEGF Through Distinct Signaling Pathways. Frontiers in Physiology, 2020, 11, 623769.	1.3	47
17	ATTRACT. Circulation Research, 2019, 125, 262-264.	2.0	4
18	Endothelial Calcineurin Signaling Restrains Metastatic Outgrowth by Regulating Bmp2. Cell Reports, 2019, 26, 1227-1241.e6.	2.9	15

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19	Artery-vein specification in the zebrafish trunk is pre-patterned by heterogeneous Notch activity and balanced by flow-mediated fine tuning. Development (Cambridge), 2019, 146, .	1.2	41
20	Imaging Glioma Progression by Intravital Microscopy. Methods in Molecular Biology, 2019, 1862, 227-243.	0.4	5
21	Endothelial PKA activity regulates angiogenesis by limiting autophagy through phosphorylation of ATG16L1. ELife, 2019, 8, .	2.8	25
22	GPIHBP1 expression in gliomas promotes utilization of lipoprotein-derived nutrients. ELife, 2019, 8, .	2.8	10
23	Primary cilia sensitize endothelial cells to BMP and prevent excessive vascular regression. Journal of Cell Biology, 2018, 217, 1651-1665.	2.3	84
24	Hold Me, but Not Too Tightâ€"Endothelial Cellâ€"Cell Junctions in Angiogenesis. Cold Spring Harbor Perspectives in Biology, 2018, 10, a029223.	2.3	57
25	Endothelial cell rearrangements during vascular patterning require PI3-kinase-mediated inhibition of actomyosin contractility. Nature Communications, 2018, 9, 4826.	5.8	53
26	Imaging of Endothelial Cell Dynamic Behavior in Zebrafish. Methods in Molecular Biology, 2018, 1846, 181-195.	0.4	1
27	NanoSIMS imaging reveals unexpected heterogeneity in nutrient uptake by brown adipocytes. Biochemical and Biophysical Research Communications, 2018, 504, 899-902.	1.0	8
28	YAP and TAZ regulate adherens junction dynamics and endothelial cell distribution during vascular development. ELife, 2018, 7, .	2.8	186
29	<scp>PAR</scp> â€ƀ controls endothelial planar polarity and vascular inflammation under laminar flow. EMBO Reports, 2018, 19, .	2.0	34
30	PolNet: A Tool to Quantify Network-Level Cell Polarity and Blood Flow in Vascular Remodeling. Biophysical Journal, 2018, 114, 2052-2058.	0.2	29
31	Pericytes or Mesenchymal Stem Cells: Is That the Question?. Cell Stem Cell, 2017, 20, 296-297.	5.2	38
32	Sensitization of glioblastoma tumor micro-environment to chemo- and immunotherapy by Galectin-1 intranasal knock-down strategy. Scientific Reports, 2017, 7, 1217.	1.6	105
33	Tumour ischaemia by interferon-Î³ resembles physiological blood vessel regression. Nature, 2017, 545, 98-102.	13.7	199
34	Morph or Move? How Distinct Endothelial Cell Responses to Blood Flow Shape Vascular Networks. Developmental Cell, 2017, 41, 574-576.	3.1	7
35	A reversible haploid mouse embryonic stem cell biobank resource for functional genomics. Nature, 2017, 550, 114-118.	13.7	58
36	Mouse Cutaneous Melanoma Induced by Mutant BRaf Arises from Expansion and Dedifferentiation of Mature Pigmented Melanocytes. Cell Stem Cell, 2017, 21, 679-693.e6.	5.2	93

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37	Dynamic stroma reorganization drives blood vessel dysmorphia during glioma growth. EMBO Molecular Medicine, 2017, 9, 1629-1645.	3.3	54
38	Blood flow boosts BMP signaling to keep vessels in shape. Journal of Cell Biology, 2016, 214, 793-795.	2.3	7
39	cAMP-dependent protein kinase A (PKA) regulates angiogenesis by modulating tip cell behavior in a Notch-independent manner. Development (Cambridge), 2016, 143, 3582-3590.	1.2	29
40	Glycolytic regulation of cell rearrangement in angiogenesis. Nature Communications, 2016, 7, 12240.	5.8	131
41	Knockout of the PKN Family of Rho Effector Kinases Reveals a Non-redundant Role for PKN2 in Developmental Mesoderm Expansion. Cell Reports, 2016, 14, 440-448.	2.9	40
42	Integrin signalling regulates YAP/TAZ to control skin homeostasis. Development (Cambridge), 2016, 143, 1674-87.	1.2	228
43	Development of siRNA-loaded chitosan nanoparticles targeting Galectin-1 for the treatment of glioblastoma multiforme via intranasal administration. Journal of Controlled Release, 2016, 227, 71-81.	4.8	123
44	Blood flow drives lumen formation by inverse membrane blebbing during angiogenesis inÂvivo. Nature Cell Biology, 2016, 18, 443-450.	4.6	159
45	FOXO1 couples metabolic activity and growth state in the vascular endothelium. Nature, 2016, 529, 216-220.	13.7	438
46	Non-canonical Wnt signalling modulates the endothelial shear stress flow sensor in vascular remodelling. ELife, 2016, 5, e07727.	2.8	125
47	Synchronization of endothelial Dll4-Notch dynamics switch blood vessels from branching to expansion. ELife, 2016, 5, .	2.8	115
48	Endothelial Alpha-Parvin Controls Integrity of Developing Vasculature and Is Required for Maintenance of Cellâ€“Cell Junctions. Circulation Research, 2015, 117, 29-40.	2.0	44
49	The Endothelial Transcription Factor ERG Promotes Vascular Stability and Growth through Wnt/Î²-Catenin Signaling. Developmental Cell, 2015, 32, 82-96.	3.1	190
50	Formin-Mediated Actin Polymerization at Endothelial Junctions Is Required for Vessel Lumen Formation and Stabilization. Developmental Cell, 2015, 32, 123-132.	3.1	87
51	Wiring the Vascular Network with Neural Cues: A CNS Perspective. Neuron, 2015, 87, 271-296.	3.8	140
52	Alk1 and Alk5 inhibition by Nrp1 controls vascular sprouting downstream of Notch. Nature Communications, 2015, 6, 7264.	5.8	143
53	Dynamic Endothelial Cell Rearrangements Drive Developmental Vessel Regression. PLoS Biology, 2015, 13, e1002125.	2.6	231
54	Fatty acid carbon is essential for dNTP synthesis in endothelial cells. Nature, 2015, 520, 192-197.	13.7	466

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55	PTEN mediates Notch-dependent stalk cell arrest in angiogenesis. Nature Communications, 2015, 6, 7935.	5.8	86
56	Quantitative assessment of angiogenesis, perfused blood vessels and endothelial tip cells in the postnatal mouse brain. Nature Protocols, 2015, 10, 53-74.	5.5	105
57	Tissue guidance without filopodia. Communicative and Integrative Biology, 2014, 7, e28820.	0.6	9
58	Crim1 maintains retinal vascular stability during development by regulating endothelial cell Vegfa autocrine signaling. Development (Cambridge), 2014, 141, 448-459.	1.2	44
59	Lack of CCM1 induces hypersprouting and impairs response to flow. Human Molecular Genetics, 2014, 23, 6223-6234.	1.4	32
60	Gliomaâ€derived galectinâ€1 regulates innate and adaptive antitumor immunity. International Journal of Cancer, 2014, 134, 873-884.	2.3	71
61	Partial and Transient Reduction of Glycolysis by PFKFB3 Blockade Reduces Pathological Angiogenesis. Cell Metabolism, 2014, 19, 37-48.	7.2	429
62	The role of differential VE-cadherin dynamics in cell rearrangement during angiogenesis. Nature Cell Biology, 2014, 16, 309-321.	4.6	328
63	Computer simulations reveal complex distribution of haemodynamic forces in a mouse retina model of angiogenesis. Journal of the Royal Society Interface, 2014, 11, 20140543.	1.5	87
64	Tumor Vessel Normalization by Chloroquine Independent of Autophagy. Cancer Cell, 2014, 26, 190-206.	7.7	358
65	Role of PFKFB3-Driven Glycolysis in Vessel Sprouting. Cell, 2013, 154, 651-663.	13.5	1,117
66	PP2A regulatory subunit BÎ± controls endothelial contractility and vessel lumen integrity via regulation of HDAC7. EMBO Journal, 2013, 32, 2491-2503.	3.5	43
67	VEGF and Notch in Tip and Stalk Cell Selection. Cold Spring Harbor Perspectives in Medicine, 2013, 3, a006569-a006569.	2.9	484
68	A truncation allele in vascular endothelial growth factor c reveals distinct modes of signaling during lymphatic and vascular development. Development (Cambridge), 2013, 140, 1497-1506.	1.2	98
69	SRF selectively controls tip cell invasive behavior in angiogenesis. Development (Cambridge), 2013, 140, 2321-2333.	1.2	59
70	Intravital imaging reveals conversion between distinct tumor vascular morphologies and localized vascular response to Sunitinib. Intravital, 2013, 2, e24790.	2.0	18
71	Inhibition of the p110Î± isoform of PI 3-kinase stimulates nonfunctional tumor angiogenesis. Journal of Experimental Medicine, 2013, 210, 1937-1945.	4.2	56
72	Filopodia are dispensable for endothelial tip cell guidance. Development (Cambridge), 2013, 140, 4031-4040.	1.2	178

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73	Blood vessels on a chip. Nature, 2012, 488, 465-466.	13.7	48
74	Visualization of Endothelial Actin Cytoskeleton in the Mouse Retina. PLoS ONE, 2012, 7, e47488.	1.1	34
75	Coordinating cell behaviour during blood vessel formation. Development (Cambridge), 2011, 138, 4569-4583.	1.2	313
76	Basic and Therapeutic Aspects of Angiogenesis. Cell, 2011, 146, 873-887.	13.5	2,263
77	VEGFR-3 controls tip to stalk conversion at vessel fusion sites by reinforcing Notch signalling. Nature Cell Biology, 2011, 13, 1202-1213.	4.6	272
78	A Two-Way Communication between Microglial Cells and Angiogenic Sprouts Regulates Angiogenesis in Aortic Ring Cultures. PLoS ONE, 2011, 6, e15846.	1.1	200
79	N-CAM Exhibits a Regulatory Function in Pathological Angiogenesis in Oxygen Induced Retinopathy. PLoS ONE, 2011, 6, e26026.	1.1	10
80	Acetylation-dependent regulation of endothelial Notch signalling by the SIRT1 deacetylase. Nature, 2011, 473, 234-238.	13.7	350
81	Regulation of angiogenesis by a non-canonical Wntâ€“Flt1 pathway in myeloid cells. Nature, 2011, 474, 511-515.	13.7	244
82	Endothelial development taking shape. Current Opinion in Cell Biology, 2011, 23, 676-85.	2.6	70
83	Laminin-Binding Integrins Induce Dll4 Expression and Notch Signaling in Endothelial Cells. Circulation Research, 2011, 109, 172-182.	2.0	101
84	Endothelial basement membrane limits tip cell formation by inducing Dll4/Notch signalling in vivo. EMBO Reports, 2011, 12, 1135-1143.	2.0	129
85	Integrin-dependent and -independent functions of astrocytic fibronectin in retinal angiogenesis. Development (Cambridge), 2011, 138, 4451-4463.	1.2	116
86	Endothelial cells dynamically compete for the tip cell position during angiogenic sprouting. Nature Cell Biology, 2010, 12, 943-953.	4.6	820
87	Role of Delta-like-4/Notch in the Formation and Wiring of the Lymphatic Network in Zebrafish. Arteriosclerosis, Thrombosis, and Vascular Biology, 2010, 30, 1695-1702.	1.1	118
88	Endothelial Tip Cell Guidance and Mechanisms. FASEB Journal, 2010, 24, 9.1.	0.2	0
89	VEGFRs and Notch: a dynamic collaboration in vascular patterning. Biochemical Society Transactions, 2009, 37, 1233-1236.	1.6	140
90	Tipping the Balance: Robustness of Tip Cell Selection, Migration and Fusion in Angiogenesis. PLoS Computational Biology, 2009, 5, e1000549.	1.5	187

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91	Cyclic Nrarp mRNA expression is regulated by the somitic oscillator but Nrarp protein levels do not oscillate. Developmental Dynamics, 2009, 238, 3043-3055.	0.8	16
92	Nrarp Coordinates Endothelial Notch and Wnt Signaling to Control Vessel Density in Angiogenesis. Developmental Cell, 2009, 16, 70-82.	3.1	326
93	Angiogenesis: A Team Effort Coordinated by Notch. Developmental Cell, 2009, 16, 196-208.	3.1	707
94	Vascular morphogenesis: a Wnt for every vessel?. Current Opinion in Genetics and Development, 2009, 19, 476-483.	1.5	120
95	Peripheral mural cell recruitment requires cell-autonomous heparan sulfate. Blood, 2009, 114, 915-924.	0.6	37
96	Imaging Transient Blood Vessel Fusion Events in Zebrafish by Correlative Volume Electron Microscopy. PLoS ONE, 2009, 4, e7716.	1.1	61
97	Agent-based simulation of notch-mediated tip cell selection in angiogenic sprout initialisation. Journal of Theoretical Biology, 2008, 250, 25-36.	0.8	234
98	Pericytes: gatekeepers in tumour cell metastasis?. Journal of Molecular Medicine, 2008, 86, 135-144.	1.7	142
99	Dendritic cell expression of the Notch ligand jagged2 is not essential for Th2 response induction in vivo. European Journal of Immunology, 2008, 38, 1043-1049.	1.6	50
100	Angiogenesis selectively requires the p110Î± isoform of PI3K to control endothelial cell migration. Nature, 2008, 453, 662-666.	13.7	459
101	Robo4 stabilizes the vascular network by inhibiting pathologic angiogenesis and endothelial hyperpermeability. Nature Medicine, 2008, 14, 448-453.	15.2	346
102	Wnt/Î²-catenin signaling controls development of the bloodâ€“brain barrier. Journal of Cell Biology, 2008, 183, 409-417.	2.3	680
103	VEGF and endothelial guidance in angiogenic sprouting. Organogenesis, 2008, 4, 241-246.	0.4	237
104	Therapeutic antibodies targeting angiomotin inhibit angiogenesis in vivo. FASEB Journal, 2008, 22, 880-889.	0.2	30
105	VEGF and Endothelial Guidance in Angiogenic Sprouting. , 2008, , 68-78.		11
106	Endothelial cell O-glycan deficiency causes blood/lymphatic misconnections and consequent fatty liver disease in mice. Journal of Clinical Investigation, 2008, 118, 3725-3737.	3.9	216
107	Defective N-sulfation of heparan sulfate proteoglycans limits PDGF-BB binding and pericyte recruitment in vascular development. Genes and Development, 2007, 21, 316-331.	2.7	157
108	VEGF and Notch Signaling. Cell Adhesion and Migration, 2007, 1, 133-136.	1.1	139

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109	Growth Factor Gradients in Vascular Patterning. Novartis Foundation Symposium, 2007, 283, 194-206.	1.2	30
110	Dll4 signalling through Notch1 regulates formation of tip cells during angiogenesis. Nature, 2007, 445, 776-780.	13.7	1,515
111	Endothelial guidance in vascular patterning. FASEB Journal, 2007, 21, A133.	0.2	0
112	Pericytes limit tumor cell metastasis. Journal of Clinical Investigation, 2006, 116, 642-651.	3.9	294
113	Unique vascular phenotypes following over-expression of individual VEGFA isoforms from the developing lens. Angiogenesis, 2006, 9, 209-224.	3.7	30
114	How do endothelial cells orientate?. , 2005, , 3-15.		72
115	Role of pericytes in vascular morphogenesis. , 2005, , 115-125.		103
116	Neuropilin-1 is required for endothelial tip cell guidance in the developing central nervous system. Developmental Dynamics, 2004, 231, 503-509.	0.8	243
117	Role of platelet-derived growth factor in mesangium development and vasculopathies: lessons from platelet-derived growth factor and platelet-derived growth factor receptor mutations in mice. Current Opinion in Nephrology and Hypertension, 2004, 13, 45-52.	1.0	57
118	Endothelial-pericyte interactions in angiogenesis. Cell and Tissue Research, 2003, 314, 15-23.	1.5	931
119	Cortical and retinal defects caused by dosage-dependent reductions in VEGF-A paracrine signaling. Developmental Biology, 2003, 262, 225-241.	0.9	243
120	Endothelial PDGF-B retention is required for proper investment of pericytes in the microvessel wall. Genes and Development, 2003, 17, 1835-1840.	2.7	557
121	VEGF guides angiogenic sprouting utilizing endothelial tip cell filopodia. Journal of Cell Biology, 2003, 161, 1163-1177.	2.3	2,483
122	Spatially restricted patterning cues provided by heparin-binding VEGF-A control blood vessel branching morphogenesis. Genes and Development, 2002, 16, 2684-2698.	2.7	779
123	A New Method for Large Scale Isolation of Kidney Glomeruli from Mice. American Journal of Pathology, 2002, 161, 799-805.	1.9	457
124	Defective Associations between Blood Vessels and Brain Parenchyma Lead to Cerebral Hemorrhage in Mice Lacking Î±v Integrins. Molecular and Cellular Biology, 2002, 22, 7667-7677.	1.1	162
125	Endothelium-specific platelet-derived growth factor-B ablation mimics diabetic retinopathy. EMBO Journal, 2002, 21, 4307-4316.	3.5	339
126	Lack of Pericytes Leads to Endothelial Hyperplasia and Abnormal Vascular Morphogenesis. Journal of Cell Biology, 2001, 153, 543-554.	2.3	949

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127	Differential expression of endothelial ?-catenin and plakoglobin during development and maturation of the blood-brain and blood-retina barrier in the chicken. Developmental Dynamics, 2000, 217, 86-98.	0.8	41
128	N-cadherin mediates pericytic-endothelial interaction during brain angiogenesis in the chicken. Developmental Dynamics, 2000, 218, 472-479.	0.8	231
129	The peripapillary glia of the optic nerve head in the chicken retina. The Anatomical Record, 2000, 259, 263-275.	2.3	23
130	R- and B-cadherin expression defines subpopulations of glial cells involved in axonal guidance in the optic nerve head of the chicken. Glia, 2000, 31, 131-143.	2.5	16
131	The Pecten Oculi of the Chicken: A Model System for Vascular Differentiation and Barrier Maturation. International Review of Cytology, 1999, 187, 111-159.	6.2	45
132	Ultrastructural localization of adhesion molecules in the healthy. Cell and Tissue Research, 1999, 296, 259-269.	1.5	86
133	Differentiation of a unique macroglial cell type in the pecten oculi of the chicken. , 1999, 28, 201-214.		12
134	Maturation of the bloodâ€“retina barrier in the developing pecten oculi of the chicken. Developmental Brain Research, 1997, 100, 205-219.	2.1	35
135	The pecten oculi of the chicken as a new in vivo model of the blood-brain barrier. Cell and Tissue Research, 1996, 285, 91-100.	1.5	36