Julien Vermot

List of Publications by Year
in descending order

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71	4,466	101543	110387
papers	citations	36 h-index	64 g-index

84	84	84	5435
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Reversing Blood Flows Act through klf2a to Ensure Normal Valvulogenesis in the Developing Heart. PLoS Biology, 2009, 7, e1000246.	5.6	272
2	Retinoic acid coordinates somitogenesis and leftâ€“right patterning in vertebrate embryos. Nature, 2005, 435, 215-220.	27.8	239
3	Retinoic Acid Controls the Bilateral Symmetry of Somite Formation in the Mouse Embryo. Science, 2005, 308, 563-566.	12.6	214
4	The regional pattern of retinoic acid synthesis by RALDH2 is essential for the development of posterior pharyngeal arches and the enteric nervous system. Development (Cambridge), 2003, 130, 2525-2534.	2.5	200
5	Embryonic retinoic acid synthesis is required for forelimb growth and anteroposterior patterning in the mouse. Development (Cambridge), 2002, 129, 3563-3574.	2.5	185
6	Endothelial Cilia Mediate Low Flow Sensing during Zebrafish Vascular Development. Cell Reports, 2014, 6, 799-808.	6.4	180
7	Decreased embryonic retinoic acid synthesis results in a DiGeorge syndrome phenotype in newborn mice. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 1763-1768.	7.1	143
8	Oscillatory Flow Modulates Mechanosensitive klf2a Expression through trpv4 and trpp2 during Heart Valve Development. Current Biology, 2015, 25, 1354-1361.	3.9	143
9	Highly lipophilic fluorescent dyes in nano-emulsions: towards bright non-leaking nano-droplets. RSC Advances, 2012, 2, 11876.	3.6	133
10	Multicolor two-photon light-sheet microscopy. Nature Methods, 2014, 11, 600-601.	19.0	130
11	Regulation of Î²1 Integrin-Klf2-Mediated Angiogenesis by CCM Proteins. Developmental Cell, 2015, 32, 181-190.	7.0	127
12	Rfx6 is an Ngn3-dependent winged helix transcription factor required for pancreatic islet cell development. Development (Cambridge), 2010, 137, 203-212.	2.5	124
13	Fluid flows and forces in development: functions, features and biophysical principles. Development (Cambridge), 2012, 139, 1229-1245.	2.5	121
14	Hemodynamic Forces Sculpt Developing Heart Valves through a KLF2-WNT9B Paracrine Signaling Axis. Developmental Cell, 2017, 43, 274-289.e5.	7.0	114
15	Blood Flow Forces in Shaping the Vascular System: A Focus on Endothelial Cell Behavior. Frontiers in Physiology, 2020, 11, 552.	2.8	111
16	The dynein regulatory complex is required for ciliary motility and otolith biogenesis in the inner ear. Nature, 2009, 457, 205-209.	27.8	110
17	Retinaldehyde dehydrogenase 2 (RALDH2)- independent patterns of retinoic acid synthesis in the mouse embryo. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 16111-16116.	7.1	109
18	Mechanically activated piezo channels modulate outflow tract valve development through the Yap1 and Klf2-Notch signaling axis. ELife, 2019, 8, .	6.0	93

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19	Blood flow mechanics in cardiovascular development. Cellular and Molecular Life Sciences, 2015, 72, 2545-2559.	5.4	92
20	klf2a couples mechanotransduction and zebrafish valve morphogenesis through fibronectin synthesis. Nature Communications, 2016, 7, 11646.	12.8	88
21	Desmin in muscle and associated diseases: beyond the structural function. Cell and Tissue Research, 2015, 360, 591-608.	2.9	86
22	Fast fluorescence microscopy for imaging the dynamics of embryonic development. HFSP Journal, 2008, 2, 143-155.	2.5	76
23	An All-Optical Approach for Probing Microscopic Flows in Living Embryos. Biophysical Journal, 2008, 95, L29-L31.	0.5	71
24	Retinaldehyde dehydrogenase 2 and Hoxc8 are required in the murine brachial spinal cord for the specification of Lim1+ motoneurons and the correct distribution of Islet1+ motoneurons. Development (Cambridge), 2005, 132, 1611-1621.	2.5	70
25	Heartbeat-Driven Pericardiac Fluid Forces Contribute to Epicardium Morphogenesis. Current Biology, 2013, 23, 1726-1735.	3.9	68
26	The cilium as a force sensorâ˜myth versus reality. Journal of Cell Science, 2019, 132, .	2.0	63
27	Embryonic retinoic acid synthesis is required for forelimb growth and anteroposterior patterning in the mouse. Development (Cambridge), 2002, 129, 3563-74.	2.5	62
28	Counterion-enhanced cyanine dye loading into lipid nano-droplets for single-particle tracking in zebrafish. Biomaterials, 2014, 35, 4950-4957.	11.4	60
29	Expression of Enzymes Synthesizing (Aldehyde Dehydrogenase 1 and Retinaldehyde Dehydrogenase 2) and Metabolizing (Cyp26) Retinoic Acid in the Mouse Female Reproductive System*. Endocrinology, 2000, 141, 3638-3645.	2.8	59
30	Dynamin 2 homozygous mutation in humans with a lethal congenital syndrome. European Journal of Human Genetics, 2013, 21, 637-642.	2.8	53
31	Hemodynamics driven cardiac valve morphogenesis. Biochimica Et Biophysica Acta - Molecular Cell Research, 2016, 1863, 1760-1766.	4.1	53
32	Pulse propagation by a capacitive mechanism drives embryonic blood flow. Development (Cambridge), 2013, 140, 4426-4434.	2.5	48
33	Mechanistic Basis of Otolith Formation during Teleost Inner Ear Development. Developmental Cell, 2011, 20, 271-278.	7.0	47
34	How to define and optimize axial resolution in light-sheet microscopy: a simulation-based approach. Biomedical Optics Express, 2020, 11, 8.	2.9	46
35	Anisotropic shear stress patterns predict the orientation of convergent tissue movements in the embryonic heart. Development (Cambridge), 2017, 144, 4322-4327.	2.5	45
36	Physical limits of flow sensing in the left-right organizer. ELife, 2017, 6, .	6.0	45

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37	Developmental Alterations in Heart Biomechanics and Skeletal Muscle Function in Desmin Mutants Suggest an Early Pathological Root for Desminopathies. Cell Reports, 2015, 11, 1564-1576.	6.4	42
38	Bioelectric signaling and the control of cardiac cell identity in response to mechanical forces. Science, 2021, 374, 351-354.	12.6	40
39	Mechanotransduction in cardiovascular morphogenesis and tissue engineering. Current Opinion in Genetics and Development, 2019, 57, 106-116.	3.3	38
40	The Wall-stress Footprint of Blood Cells Flowing in Microvessels. Biophysical Journal, 2014, 106, 752-762.	0.5	37
41	Live imaging and modeling for shear stress quantification in the embryonic zebrafish heart. Methods, 2016, 94, 129-134.	3.8	35
42	Inhibition of PlexA1-mediated brain tumor growth and tumor-associated angiogenesis using a transmembrane domain targeting peptide. Oncotarget, 2016, 7, 57851-57865.	1.8	30
43	Hemodynamic-mediated endocardial signaling controls in vivo myocardial reprogramming. ELife, 2019, 8, .	6.0	30
44	Fate of retinoic acidâ€“activated embryonic cell lineages. Developmental Dynamics, 2010, 239, 3260-3274.	1.8	26
45	When multiphoton microscopy sees near infrared. Current Opinion in Genetics and Development, 2011, 21, 549-557.	3.3	23
46	Blood Flow Limits Endothelial Cell Extrusion in the Zebrafish Dorsal Aorta. Cell Reports, 2020, 31, 107505.	6.4	22
47	Hippo signaling determines the number of venous pole cells that originate from the anterior lateral plate mesoderm in zebrafish. ELife, 2018, 7, .	6.0	20
48	Extracellular mechanical forces drive endocardial cell volume decrease during zebrafish cardiac valve morphogenesis. Developmental Cell, 2022, 57, 598-609.e5.	7.0	18
49	From Cilia Hydrodynamics to Zebrafish Embryonic Development. Current Topics in Developmental Biology, 2011, 95, 33-66.	2.2	17
50	Light-triggered release from dye-loaded fluorescent lipid nanocarriers in vitro and in vivo. Colloids and Surfaces B: Biointerfaces, 2017, 156, 414-421.	5.0	17
51	Actin dynamics and the Bmp pathway drive apical extrusion of proepicardial cells. Development (Cambridge), 2019, 146, .	2.5	16
52	Regulation of expression of the retinoic acid metabolizing enzyme CYP26A1 in uteri of ovariectomized mice after treatment with ovarian steroid hormones. Molecular Reproduction and Development, 2007, 74, 258-264.	2.0	15
53	Using Correlative Light and Electron Microscopy to Study Zebrafish Vascular Morphogenesis. Methods in Molecular Biology, 2015, 1189, 31-46.	0.9	15
54	Conditional (loxP-flanked) allele for the gene encoding the retinoic acid-synthesizing enzyme retinaldehyde dehydrogenase 2 (RALDH2). Genesis, 2006, 44, 155-158.	1.6	14

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55	Chiral Cilia Orientation in the Left-Right Organizer. Cell Reports, 2018, 25, 2008-2016.e4.	6.4	14
56	Regulation of expression of the retinoic acid-synthesising enzymes retinaldehyde dehydrogenases in the uteri of ovariectomised mice after treatment with oestrogen, gestagen and their combination. Reproduction, Fertility and Development, 2006, 18, 339.	0.4	13
57	Intraflagellar Transport Complex B Proteins Regulate the Hippo Effector Yap1 during Cardiogenesis. Cell Reports, 2020, 32, 107932.	6.4	13
58	Rescue of morphogenetic defects and of retinoic acid signaling in retinaldehyde dehydrogenase 2 (Raldh2) mouse mutants by chimerism with wild-type cells. Differentiation, 2006, 74, 661-668.	1.9	10
59	The balancing roles of mechanical forces during left-right patterning and asymmetric morphogenesis. Mechanisms of Development, 2017, 144, 71-80.	1.7	10
60	The rise of photoresponsive protein technologies applications in vivo: a spotlight on zebrafish developmental and cell biology. F1000Research, 2017, 6, 459.	1.6	9
61	Mechanical control of tissue shape: Cell-extrinsic and -intrinsic mechanisms join forces to regulate morphogenesis. Seminars in Cell and Developmental Biology, 2022, 130, 45-55.	5.0	9
62	Notch and Bmp signaling pathways act coordinately during the formation of the proepicardium. Developmental Dynamics, 2020, 249, 1455-1469.	1.8	8
63	Three-dimensional microscopy and image analysis methodology for mapping and quantification of nuclear positions in tissues with approximate cylindrical geometry. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170332.	4.0	7
64	Cardiac forces regulate zebrafish heart valve delamination by modulating Nfat signaling. PLoS Biology, 2022, 20, e3001505.	5.6	7
65	Fluid flows and forces in development: functions, features and biophysical principles. Development (Cambridge), 2012, 139, 3063-3063.	2.5	6
66	A quantitative approach to study endothelial cilia bending stiffness during blood flow mechanodetection in vivo. Methods in Cell Biology, 2015, 127, 161-173.	1.1	5
67	Following Endocardial Tissue Movements via Cell Photoconversion in the Zebrafish Embryo. Journal of Visualized Experiments, 2018, , .	0.3	5
68	Fluid mechanics of the zebrafish embryonic heart trabeculation. PLoS Computational Biology, 2022, 18, e1010142.	3.2	4
69	Double time-scale image reconstruction of the beating and developing embryonic zebrafish heart. , 2008, , .		1
70	Probing cilia-driven flow in living embryos using femtosecond laser ablation and fast imaging. Proceedings of SPIE, 2009, , .	0.8	0
71	Multiphoton light-sheet microscopy using wavelength mixing: fast multicolor imaging of the beating Zebrafish heart with low photobleaching. , 2015, , .		0