Julien Vermot

List of Publications by Year
in descending order

71 papers	4,466 citations	116194 36 h-index	124990 64 g-index
84 all docs	84 docs citations	84 times ranked	5963 citing authors

#	Article	IF	Citations
1	Cardiac forces regulate zebrafish heart valve delamination by modulating Nfat signaling. PLoS Biology, 2022, 20, e3001505.	2.6	7
2	Extracellular mechanical forces drive endocardial cell volume decrease during zebrafish cardiac valve morphogenesis. Developmental Cell, 2022, 57, 598-609.e5.	3.1	18
3	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.	2.3	9
4	Fluid mechanics of the zebrafish embryonic heart trabeculation. PLoS Computational Biology, 2022, 18, e1010142.	1.5	4
5	Bioelectric signaling and the control of cardiac cell identity in response to mechanical forces. Science, 2021, 374, 351-354.	6.0	40
6	Blood Flow Forces in Shaping the Vascular System: A Focus on Endothelial Cell Behavior. Frontiers in Physiology, 2020, 11, 552.	1.3	111
7	Intraflagellar Transport Complex B Proteins Regulate the Hippo Effector Yap1 during Cardiogenesis. Cell Reports, 2020, 32, 107932.	2.9	13
8	Notch and Bmp signaling pathways act coordinately during the formation of the proepicardium. Developmental Dynamics, 2020, 249, 1455-1469.	0.8	8
9	Blood Flow Limits Endothelial Cell Extrusion in the Zebrafish Dorsal Aorta. Cell Reports, 2020, 31, 107505.	2.9	22
10	How to define and optimize axial resolution in light-sheet microscopy: a simulation-based approach. Biomedical Optics Express, 2020, 11, 8.	1.5	46
11	The cilium as a force sensorâˆ'myth versus reality. Journal of Cell Science, 2019, 132, .	1.2	63
12	Mechanotransduction in cardiovascular morphogenesis and tissue engineering. Current Opinion in Genetics and Development, 2019, 57, 106-116.	1.5	38
13	Actin dynamics and the Bmp pathway drive apical extrusion of proepicardial cells. Development (Cambridge), 2019, 146, .	1.2	16
14	Mechanically activated piezo channels modulate outflow tract valve development through the Yap1 and Klf2-Notch signaling axis. ELife, 2019, 8, .	2.8	93
15	Hemodynamic-mediated endocardial signaling controls in vivo myocardial reprogramming. ELife, 2019, 8, .	2.8	30
16	Following Endocardial Tissue Movements via Cell Photoconversion in the Zebrafish Embryo. Journal of Visualized Experiments, 2018, , .	0.2	5
17	Chiral Cilia Orientation in the Left-Right Organizer. Cell Reports, 2018, 25, 2008-2016.e4.	2.9	14
18	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.	1.8	7

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19	Hippo signaling determines the number of venous pole cells that originate from the anterior lateral plate mesoderm in zebrafish. ELife, 2018, 7, .	2.8	20
20	Light-triggered release from dye-loaded fluorescent lipid nanocarriers in vitro and in vivo. Colloids and Surfaces B: Biointerfaces, 2017, 156, 414-421.	2.5	17
21	Hemodynamic Forces Sculpt Developing Heart Valves through a KLF2-WNT9B Paracrine Signaling Axis. Developmental Cell, 2017, 43, 274-289.e5.	3.1	114
22	Anisotropic shear stress patterns predict the orientation of convergent tissue movements in the embryonic heart. Development (Cambridge), 2017, 144, 4322-4327.	1.2	45
23	The balancing roles of mechanical forces during left-right patterning and asymmetric morphogenesis. Mechanisms of Development, 2017, 144, 71-80.	1.7	10
24	Physical limits of flow sensing in the left-right organizer. ELife, 2017, 6, .	2.8	45
25	The rise of photoresponsive protein technologies applications in vivo: a spotlight on zebrafish developmental and cell biology. F1000Research, 2017, 6, 459.	0.8	9
26	klf2a couples mechanotransduction and zebrafish valve morphogenesis through fibronectin synthesis. Nature Communications, 2016, 7, 11646.	5.8	88
27	Hemodynamics driven cardiac valve morphogenesis. Biochimica Et Biophysica Acta - Molecular Cell Research, 2016, 1863, 1760-1766.	1.9	53
28	Live imaging and modeling for shear stress quantification in the embryonic zebrafish heart. Methods, 2016, 94, 129-134.	1.9	35
29	Inhibition of PlexA1-mediated brain tumor growth and tumor-associated angiogenesis using a transmembrane domain targeting peptide. Oncotarget, 2016, 7, 57851-57865.	0.8	30
30	Regulation of Î²1 Integrin-Klf2-Mediated Angiogenesis by CCM Proteins. Developmental Cell, 2015, 32, 181-190.	3.1	127
31	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.	2.9	42
32	Blood flow mechanics in cardiovascular development. Cellular and Molecular Life Sciences, 2015, 72, 2545-2559.	2.4	92
33	Oscillatory Flow Modulates Mechanosensitive klf2a Expression through trpv4 and trpp2 during Heart Valve Development. Current Biology, 2015, 25, 1354-1361.	1.8	143
34	Multiphoton light-sheet microscopy using wavelength mixing: fast multicolor imaging of the beating Zebrafish heart with low photobleaching. , 2015, , .		0
35	A quantitative approach to study endothelial cilia bending stiffness during blood flow mechanodetection in vivo. Methods in Cell Biology, 2015, 127, 161-173.	0.5	5
36	Desmin in muscle and associated diseases: beyond the structural function. Cell and Tissue Research, 2015, 360, 591-608.	1.5	86

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37	Using Correlative Light and Electron Microscopy to Study Zebrafish Vascular Morphogenesis. Methods in Molecular Biology, 2015, 1189, 31-46.	0.4	15
38	Endothelial Cilia Mediate Low Flow Sensing during Zebrafish Vascular Development. Cell Reports, 2014, 6, 799-808.	2.9	180
39	The Wall-stress Footprint of Blood Cells Flowing in Microvessels. Biophysical Journal, 2014, 106, 752-762.	0.2	37
40	Counterion-enhanced cyanine dye loading into lipid nano-droplets for single-particle tracking in zebrafish. Biomaterials, 2014, 35, 4950-4957.	5.7	60
41	Multicolor two-photon light-sheet microscopy. Nature Methods, 2014, 11, 600-601.	9.0	130
42	Pulse propagation by a capacitive mechanism drives embryonic blood flow. Development (Cambridge), 2013, 140, 4426-4434.	1.2	48
43	Heartbeat-Driven Pericardiac Fluid Forces Contribute to Epicardium Morphogenesis. Current Biology, 2013, 23, 1726-1735.	1.8	68
44	Dynamin 2 homozygous mutation in humans with a lethal congenital syndrome. European Journal of Human Genetics, 2013, 21, 637-642.	1.4	53
45	Fluid flows and forces in development: functions, features and biophysical principles. Development (Cambridge), 2012, 139, 3063-3063.	1.2	6
46	Fluid flows and forces in development: functions, features and biophysical principles. Development (Cambridge), 2012, 139, 1229-1245.	1.2	121
47	Highly lipophilic fluorescent dyes in nano-emulsions: towards bright non-leaking nano-droplets. RSC Advances, 2012, 2, 11876.	1.7	133
48	From Cilia Hydrodynamics to Zebrafish Embryonic Development. Current Topics in Developmental Biology, 2011, 95, 33-66.	1.0	17
49	Mechanistic Basis of Otolith Formation during Teleost Inner Ear Development. Developmental Cell, 2011, 20, 271-278.	3.1	47
50	When multiphoton microscopy sees near infrared. Current Opinion in Genetics and Development, 2011, 21, 549-557.	1.5	23
51	Fate of retinoic acidâ€“activated embryonic cell lineages. Developmental Dynamics, 2010, 239, 3260-3274.	0.8	26
52	Rfx6 is an Ngn3-dependent winged helix transcription factor required for pancreatic islet cell development. Development (Cambridge), 2010, 137, 203-212.	1.2	124
53	Reversing Blood Flows Act through klf2a to Ensure Normal Valvulogenesis in the Developing Heart. PLoS Biology, 2009, 7, e1000246.	2.6	272
54	The dynein regulatory complex is required for ciliary motility and otolith biogenesis in the inner ear. Nature, 2009, 457, 205-209.	13.7	110

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55	Probing cilia-driven flow in living embryos using femtosecond laser ablation and fast imaging. Proceedings of SPIE, 2009, , .	0.8	0
56	An All-Optical Approach for Probing Microscopic Flows in Living Embryos. Biophysical Journal, 2008, 95, L29-L31.	0.2	71
57	Fast fluorescence microscopy for imaging the dynamics of embryonic development. HFSP Journal, 2008, 2, 143-155.	2.5	76
58	Double time-scale image reconstruction of the beating and developing embryonic zebrafish heart. , 2008, , .		1
59	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.	1.0	15
60	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.	0.1	13
61	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.	1.0	10
62	Conditional (loxP-flanked) allele for the gene encoding the retinoic acid-synthesizing enzyme retinaldehyde dehydrogenase 2 (RALDH2). Genesis, 2006, 44, 155-158.	0.8	14
63	Retinoic acid coordinates somitogenesis and leftâ€“right patterning in vertebrate embryos. Nature, 2005, 435, 215-220.	13.7	239
64	Retinoic Acid Controls the Bilateral Symmetry of Somite Formation in the Mouse Embryo. Science, 2005, 308, 563-566.	6.0	214
65	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.	1.2	70
66	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.	3.3	143
67	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.	1.2	200
68	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.	3.3	109
69	Embryonic retinoic acid synthesis is required for forelimb growth and anteroposterior patterning in the mouse. Development (Cambridge), 2002, 129, 3563-3574.	1.2	185
70	Embryonic retinoic acid synthesis is required for forelimb growth and anteroposterior patterning in the mouse. Development (Cambridge), 2002, 129, 3563-74.	1.2	62
71	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.	1.4	59