

# Jan Huisken

## List of Publications by Citations

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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.

82

papers

6,841

citations

37

h-index

82

g-index

101

ext. papers

8,601

ext. citations

10.5

avg, IF

6.15

L-index

#	Paper	IF	Citations
82	Optical sectioning deep inside live embryos by selective plane illumination microscopy. <i>Science</i> , <b>2004</b> , 305, 1007-9	33.3	1531
81	Selective plane illumination microscopy techniques in developmental biology. <i>Development (Cambridge)</i> , <b>2009</b> , 136, 1963-75	6.6	393
80	Optogenetic control of cardiac function. <i>Science</i> , <b>2010</b> , 330, 971-4	33.3	338
79	A guide to light-sheet fluorescence microscopy for multiscale imaging. <i>Nature Methods</i> , <b>2017</b> , 14, 360-372	21.6	328
78	Even fluorescence excitation by multidirectional selective plane illumination microscopy (mSPIM). <i>Optics Letters</i> , <b>2007</b> , 32, 2608-10	3	270
77	Arterial-venous segregation by selective cell sprouting: an alternative mode of blood vessel formation. <i>Science</i> , <b>2009</b> , 326, 294-8	33.3	256
76	Rapid 3D light-sheet microscopy with a tunable lens. <i>Optics Express</i> , <b>2013</b> , 21, 21010-26	3.3	233
75	OpenSPIM: an open-access light-sheet microscopy platform. <i>Nature Methods</i> , <b>2013</b> , 10, 598-9	21.6	215
74	Genetic and physiologic dissection of the vertebrate cardiac conduction system. <i>PLoS Biology</i> , <b>2008</b> , 6, e109	9.7	196
73	Zebrafish model for human long QT syndrome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 11316-21	11.5	183
72	Genome-wide RNA Tomography in the zebrafish embryo. <i>Cell</i> , <b>2014</b> , 159, 662-75	56.2	174
71	Multilayer mounting enables long-term imaging of zebrafish development in a light sheet microscope. <i>Development (Cambridge)</i> , <b>2012</b> , 139, 3242-7	6.6	172
70	High-speed imaging of developing heart valves reveals interplay of morphogenesis and function. <i>Development (Cambridge)</i> , <b>2008</b> , 135, 1179-87	6.6	159
69	High-resolution reconstruction of the beating zebrafish heart. <i>Nature Methods</i> , <b>2014</b> , 11, 919-22	21.6	153
68	A dual role for ErbB2 signaling in cardiac trabeculation. <i>Development (Cambridge)</i> , <b>2010</b> , 137, 3867-75	6.6	151
67	Multi-view image fusion improves resolution in three-dimensional microscopy. <i>Optics Express</i> , <b>2007</b> , 15, 8029-42	3.3	147
66	Guide to light-sheet microscopy for adventurous biologists. <i>Nature Methods</i> , <b>2015</b> , 12, 30-4	21.6	135

65	High-speed panoramic light-sheet microscopy reveals global endodermal cell dynamics. <i>Nature Communications</i> , <b>2013</b> , 4, 2207	17.4	127
64	Light sheet microscopy for real-time developmental biology. <i>Current Opinion in Genetics and Development</i> , <b>2011</b> , 21, 566-72	4.9	109
63	Regulation of $\beta$ integrin-Klf2-mediated angiogenesis by CCM proteins. <i>Developmental Cell</i> , <b>2015</b> , 32, 181-90	10.2	99
62	Endothelial cell self-fusion during vascular pruning. <i>PLoS Biology</i> , <b>2015</b> , 13, e1002126	9.7	94
61	Mechanical Coupling between Endoderm Invagination and Axis Extension in Drosophila. <i>PLoS Biology</i> , <b>2015</b> , 13, e1002292	9.7	88
60	Hyperspectral light sheet microscopy. <i>Nature Communications</i> , <b>2015</b> , 6, 7990	17.4	74
59	The extracellular domain of Smoothed regulates ciliary localization and is required for high-level Hh signaling. <i>Current Biology</i> , <b>2009</b> , 19, 1034-9	6.3	70
58	Single continuous lumen formation in the zebrafish gut is mediated by smoothed-dependent tissue remodeling. <i>Development (Cambridge)</i> , <b>2014</b> , 141, 1110-9	6.6	65
57	Light sheet microscopy. <i>Methods in Cell Biology</i> , <b>2014</b> , 123, 193-215	1.8	60
56	Genetic evidence for a noncanonical function of seryl-tRNA synthetase in vascular development. <i>Circulation Research</i> , <b>2009</b> , 104, 1260-6	15.7	54
55	Optical tomography complements light sheet microscopy for in toto imaging of zebrafish development. <i>Development (Cambridge)</i> , <b>2015</b> , 142, 1016-20	6.6	53
54	The smart and gentle microscope. <i>Nature Biotechnology</i> , <b>2015</b> , 33, 815-8	44.5	52
53	Transgenic zebrafish illuminate the dynamics of thyroid morphogenesis and its relationship to cardiovascular development. <i>Developmental Biology</i> , <b>2012</b> , 372, 203-16	3.1	52
52	Multiple imaging axis microscopy improves resolution for thick-sample applications. <i>Optics Letters</i> , <b>2003</b> , 28, 1654-6	3	48
51	Regulation of neurocoel morphogenesis by Pard6 gamma b. <i>Developmental Biology</i> , <b>2008</b> , 324, 41-54	3.1	47
50	The Popeye domain containing 2 (popdc2) gene in zebrafish is required for heart and skeletal muscle development. <i>Developmental Biology</i> , <b>2012</b> , 363, 438-50	3.1	46
49	Cse1l is a negative regulator of CFTR-dependent fluid secretion. <i>Current Biology</i> , <b>2010</b> , 20, 1840-5	6.3	42
48	Multiple roles for Med12 in vertebrate endoderm development. <i>Developmental Biology</i> , <b>2008</b> , 317, 467-79	3.1	41

47	Optical scanning holography as a technique for high-resolution three-dimensional biological microscopy. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , <b>2002</b> , 19, 1910-8	1.8	40
46	Cell-accurate optical mapping across the entire developing heart. <i>ELife</i> , <b>2017</b> , 6,	8.9	39
45	Neuromesodermal progenitors are a conserved source of spinal cord with divergent growth dynamics. <i>Development (Cambridge)</i> , <b>2018</b> , 145,	6.6	35
44	Slicing embryos gently with laser light sheets. <i>BioEssays</i> , <b>2012</b> , 34, 406-11	4.1	30
43	3Dscript: animating 3D/4D microscopy data using a natural-language-based syntax. <i>Nature Methods</i> , <b>2019</b> , 16, 278-280	21.6	29
42	Optical levitation of absorbing particles with a nominally Gaussian laser beam. <i>Optics Letters</i> , <b>2002</b> , 27, 1223-5	3	28
41	Continuous addition of progenitors forms the cardiac ventricle in zebrafish. <i>Nature Communications</i> , <b>2018</b> , 9, 2001	17.4	28
40	Multi-sample SPIM image acquisition, processing and analysis of vascular growth in zebrafish. <i>Development (Cambridge)</i> , <b>2019</b> , 146,	6.6	26
39	Real-time multi-view deconvolution. <i>Bioinformatics</i> , <b>2015</b> , 31, 3398-400	7.2	26
38	A conserved regulatory program initiates lateral plate mesoderm emergence across chordates. <i>Nature Communications</i> , <b>2019</b> , 10, 3857	17.4	24
37	Multi-scale imaging and analysis identify pan-embryo cell dynamics of germlayer formation in zebrafish. <i>Nature Communications</i> , <b>2019</b> , 10, 5753	17.4	22
36	Fast Fluorescence Microscopy with Light Sheets. <i>Biological Bulletin</i> , <b>2016</b> , 231, 14-25	1.5	20
35	In vivo imaging of cardiac development and function in zebrafish using light sheet microscopy. <i>Swiss Medical Weekly</i> , <b>2015</b> , 145, w14227	3.1	19
34	Multilayer mounting for long-term light sheet microscopy of zebrafish. <i>Journal of Visualized Experiments</i> , <b>2014</b> , e51119	1.6	18
33	Putting advanced microscopy in the hands of biologists. <i>Nature Methods</i> , <b>2019</b> , 16, 1069-1073	21.6	14
32	Fibrillin-2b regulates endocardial morphogenesis in zebrafish. <i>Developmental Biology</i> , <b>2012</b> , 372, 111-9	3.1	13
31	Tutorial: practical considerations for tissue clearing and imaging. <i>Nature Protocols</i> , <b>2021</b> , 16, 2732-2748	18.8	12
30	Label-free redox imaging of patient-derived organoids using selective plane illumination microscopy. <i>Biomedical Optics Express</i> , <b>2020</b> , 11, 2591-2606	3.5	11

29	Image quality guided smart rotation improves coverage in microscopy. <i>Nature Communications</i> , <b>2020</b> , 11, 150	17.4	11
28	Long-term in vivo imaging reveals tumor-specific dissemination and captures host tumor interaction in zebrafish xenografts. <i>Scientific Reports</i> , <b>2020</b> , 10, 13254	4.9	11
27	Dynamic and non-contact 3D sample rotation for microscopy. <i>Nature Communications</i> , <b>2018</b> , 9, 5025	17.4	11
26	Cerebrovascular endothelial cells form transient Notch-dependent cystic structures in zebrafish. <i>EMBO Reports</i> , <b>2019</b> , 20, e47047	6.5	10
25	The effect of hyperglycemia on neurovascular coupling and cerebrovascular patterning in zebrafish. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2020</b> , 40, 298-313	7.3	10
24	Loss of the Polycomb group protein Rnf2 results in derepression of tbx-transcription factors and defects in embryonic and cardiac development. <i>Scientific Reports</i> , <b>2019</b> , 9, 4327	4.9	9
23	Three-dimensional optical manipulation using four collimated intersecting laser beams. <i>Optics Express</i> , <b>2007</b> , 15, 4921-8	3.3	9
22	Adaptable, illumination patterning light sheet microscopy. <i>Scientific Reports</i> , <b>2018</b> , 8, 9615	4.9	8
21	eduSPIM: Light Sheet Microscopy in the Museum. <i>PLoS ONE</i> , <b>2016</b> , 11, e0161402	3.7	8
20	Efficacy of Voriconazole against <i>Aspergillus fumigatus</i> Infection Depends on Host Immune Function. <i>Antimicrobial Agents and Chemotherapy</i> , <b>2020</b> , 64,	5.9	5
19	KRas-transformed epithelia cells invade and partially dedifferentiate by basal cell extrusion. <i>Nature Communications</i> , <b>2021</b> , 12, 7180	17.4	5
18	Pan-embryo cell dynamics of germlayer formation in zebrafish		4
17	Spatiotemporal Deformable Prototypes for Motion Anomaly Detection. <i>International Journal of Computer Vision</i> , <b>2017</b> , 122, 502-523	10.6	3
16	Hand2 delineates mesothelium progenitors and is reactivated in mesothelioma		3
15	Continuous high-resolution in vivo imaging reveals tumor-specific dissemination in an embryonic zebrafish xenograft model		3
14	Hand2 delineates mesothelium progenitors and is reactivated in mesothelioma.. <i>Nature Communications</i> , <b>2022</b> , 13, 1677	17.4	3
13	Light Sheet Microscopy <b>2017</b> , 243-265		2
12	Selective Plane Illumination Microscopy <b>2006</b> , 672-679		2

11	Biology-inspired visualization of morphogenetic motion in the zebrafish endoderm <b>2016</b> ,		2
10	Role of Secretoglobin (club cell) NFB/RelA-TGFβ signaling in aero-allergen-induced epithelial plasticity and subepithelial myofibroblast transdifferentiation.. <i>Respiratory Research</i> , <b>2021</b> , 22, 315	7.3	2
9	Active particle manipulation with four laser beams <b>2004</b> , 5322, 114		1
8	Software Framework for Controlling Unsupervised Scientific Instruments. <i>PLoS ONE</i> , <b>2016</b> , 11, e0161671	3.7	1
7	linus: Conveniently explore, share, and present large-scale biological trajectory data from a web browser		1
6	linus: Conveniently explore, share, and present large-scale biological trajectory data in a web browser. <i>PLoS Computational Biology</i> , <b>2021</b> , 17, e1009503	5	1
5	Studying live embryos in 4D: Selective plane illumination microscopy: a new technique for high-resolution four-dimensional imaging. <i>Biochemist</i> , <b>2005</b> , 27, 13-16	0.5	1
4	Spatial transcriptomics reveals antiparasitic targets associated with essential behaviors in the human parasite <i>Brugia malayi</i> .. <i>PLoS Pathogens</i> , <b>2022</b> , 18, e1010399	7.6	0
3	Smart Microscopy for Multi-Scale Developmental Biology in Real-Time. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 1166-1167	0.5	
2	Multidisciplinarity Is Critical to Unlock the Full Potential of Modern Light Microscopy. <i>Frontiers in Cell and Developmental Biology</i> , <b>2021</b> , 9, 739015	5.7	
1	Optical Trapping of Small Particles. <i>Springer Series in Optical Sciences</i> , <b>2003</b> , 357-388	0.5	