

# Nozomi Nishimura

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/9260850/nozomi-nishimura-publications-by-citations.pdf>

**Version:** 2024-04-19

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

76  
papers

4,136  
citations

29  
h-index

64  
g-index

114  
ext. papers

5,265  
ext. citations

7.3  
avg, IF

5.15  
L-index

#	Paper	IF	Citations
76	Deep tissue multiphoton microscopy using longer wavelength excitation. <i>Optics Express</i> , <b>2009</b> , 17, 13354-54	5.64	391
75	Suppressed neuronal activity and concurrent arteriolar vasoconstriction may explain negative blood oxygenation level-dependent signal. <i>Journal of Neuroscience</i> , <b>2007</b> , 27, 4452-9	6.6	307
74	Two-photon microscopy as a tool to study blood flow and neurovascular coupling in the rodent brain. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2012</b> , 32, 1277-309	7.3	288
73	Two-photon imaging of cortical surface microvessels reveals a robust redistribution in blood flow after vascular occlusion. <i>PLoS Biology</i> , <b>2006</b> , 4, e22	9.7	274
72	Penetrating arterioles are a bottleneck in the perfusion of neocortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 365-70	11.5	268
71	In vivo three-photon imaging of activity of GCaMP6-labeled neurons deep in intact mouse brain. <i>Nature Methods</i> , <b>2017</b> , 14, 388-390	21.6	265
70	Age-related intimal stiffening enhances endothelial permeability and leukocyte transmigration. <i>Science Translational Medicine</i> , <b>2011</b> , 3, 112ra122	17.5	254
69	Targeted insult to subsurface cortical blood vessels using ultrashort laser pulses: three models of stroke. <i>Nature Methods</i> , <b>2006</b> , 3, 99-108	21.6	235
68	Dynamics of femtosecond laser-induced breakdown in water from femtoseconds to microseconds. <i>Optics Express</i> , <b>2002</b> , 10, 196-203	3.3	191
67	Neutrophil adhesion in brain capillaries reduces cortical blood flow and impairs memory function in Alzheimer's disease mouse models. <i>Nature Neuroscience</i> , <b>2019</b> , 22, 413-420	25.5	152
66	Preventing dementia by preventing stroke: The Berlin Manifesto. <i>Alzheimers and Dementia</i> , <b>2019</b> , 15, 961-984	1.2	113
65	In vivo two-photon excited fluorescence microscopy reveals cardiac- and respiration-dependent pulsatile blood flow in cortical blood vessels in mice. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2012</b> , 302, H1367-77	5.2	95
64	Limitations of collateral flow after occlusion of a single cortical penetrating arteriole. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2010</b> , 30, 1914-27	7.3	88
63	Preictal and ictal neurovascular and metabolic coupling surrounding a seizure focus. <i>Journal of Neuroscience</i> , <b>2011</b> , 31, 13292-300	6.6	87
62	Occlusion of cortical ascending venules causes blood flow decreases, reversals in flow direction, and vessel dilation in upstream capillaries. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2011</b> , 31, 2243-54	7.3	64
61	Robust and fragile aspects of cortical blood flow in relation to the underlying angioarchitecture. <i>Microcirculation</i> , <b>2015</b> , 22, 204-218	2.9	62
60	Minimally disruptive laser-induced breakdown in water. <i>Optics Letters</i> , <b>1997</b> , 22, 1817-9	3	58

59	Cortical microhemorrhages cause local inflammation but do not trigger widespread dendrite degeneration. <i>PLoS ONE</i> , <b>2011</b> , 6, e26612	3.7	56
58	Impaired prosaposin lysosomal trafficking in frontotemporal lobar degeneration due to progranulin mutations. <i>Nature Communications</i> , <b>2017</b> , 8, 15277	17.4	53
57	Flexible microfluidic devices supported by biodegradable insertion scaffolds for convection-enhanced neural drug delivery. <i>Biomedical Microdevices</i> , <b>2009</b> , 11, 915-24	3.7	50
56	Optoporation and genetic manipulation of cells using femtosecond laser pulses. <i>Biophysical Journal</i> , <b>2013</b> , 105, 862-71	2.9	47
55	Endothelial cells promote 3D invasion of GBM by IL-8-dependent induction of cancer stem cell properties. <i>Scientific Reports</i> , <b>2019</b> , 9, 9069	4.9	45
54	Simultaneous optical and electrical in vivo analysis of the enteric nervous system. <i>Nature Communications</i> , <b>2016</b> , 7, 11800	17.4	39
53	Real-time imaging of perivascular transport of nanoparticles during convection-enhanced delivery in the rat cortex. <i>Annals of Biomedical Engineering</i> , <b>2012</b> , 40, 292-303	4.7	35
52	Mechanistic insight into the TH1-biased immune response to recombinant subunit vaccines delivered by probiotic bacteria-derived outer membrane vesicles. <i>PLoS ONE</i> , <b>2014</b> , 9, e112802	3.7	33
51	A circuit motif in the zebrafish hindbrain for a two alternative behavioral choice to turn left or right. <i>ELife</i> , <b>2016</b> , 5,	8.9	33
50	Three-photon excited fluorescence imaging of unstained tissue using a GRIN lens endoscope. <i>Biomedical Optics Express</i> , <b>2013</b> , 4, 652-8	3.5	31
49	Stalled cerebral capillary blood flow in mouse models of essential thrombocythemia and polycythemia vera revealed by in vivo two-photon imaging. <i>Journal of Thrombosis and Haemostasis</i> , <b>2014</b> , 12, 2120-30	15.4	30
48	A Notch positive feedback in the intestinal stem cell niche is essential for stem cell self-renewal. <i>Molecular Systems Biology</i> , <b>2017</b> , 13, 927	12.2	29
47	Brain Capillary Networks Across Species: A few Simple Organizational Requirements Are Sufficient to Reproduce Both Structure and Function. <i>Frontiers in Physiology</i> , <b>2019</b> , 10, 233	4.6	29
46	Deep convolutional neural networks for segmenting 3D in vivo multiphoton images of vasculature in Alzheimer disease mouse models. <i>PLoS ONE</i> , <b>2019</b> , 14, e0213539	3.7	29
45	Two-photon microscopy-guided femtosecond-laser photoablation of avian cardiogenesis: noninvasive creation of localized heart defects. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2010</b> , 299, H1728-35	5.2	29
44	Diverse Inflammatory Response After Cerebral Microbleeds Includes Coordinated Microglial Migration and Proliferation. <i>Stroke</i> , <b>2018</b> , 49, 1719-1726	6.7	27
43	Comprehensive models of human primary and metastatic colorectal tumors in immunodeficient and immunocompetent mice by chemokine targeting. <i>Nature Biotechnology</i> , <b>2015</b> , 33, 656-60	44.5	25
42	Stimulus-evoked calcium transients in somatosensory cortex are temporarily inhibited by a nearby microhemorrhage. <i>PLoS ONE</i> , <b>2013</b> , 8, e65663	3.7	25

41	Growth and hemodynamics after early embryonic aortic arch occlusion. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2015</b> , 14, 735-51	3.8	23
40	Calcium Imaging of Cardiomyocytes in the Beating Mouse Heart With Multiphoton Microscopy. <i>Frontiers in Physiology</i> , <b>2018</b> , 9, 969	4.6	22
39	High fat diet worsens Alzheimer's disease-related behavioral abnormalities and neuropathology in APP/PS1 mice, but not by synergistically decreasing cerebral blood flow. <i>Scientific Reports</i> , <b>2020</b> , 10, 9884	4.9	21
38	Principles, Design, and Construction of a Two-Photon Laser-Scanning Microscope for In Vitro and In Vivo Brain Imaging. <i>Frontiers in Neuroscience</i> , <b>2002</b> ,		16
37	Ultrafast laser-induced microexplosions: explosive dynamics and submicrometer structures <b>1998</b> , 3269, 36		15
36	Intestinal crypts recover rapidly from focal damage with coordinated motion of stem cells that is impaired by aging. <i>Scientific Reports</i> , <b>2018</b> , 8, 10989	4.9	14
35	Big effects from tiny vessels: imaging the impact of microvascular clots and hemorrhages on the brain. <i>Stroke</i> , <b>2013</b> , 44, S90-2	6.7	14
34	An intravital window to image the colon in real time. <i>Nature Communications</i> , <b>2019</b> , 10, 5647	17.4	13
33	Advanced Circuit and Cellular Imaging Methods in Nonhuman Primates. <i>Journal of Neuroscience</i> , <b>2019</b> , 39, 8267-8274	6.6	12
32	Thresholds for femtosecond laser-induced breakdown in bulk transparent solids and water <b>1998</b> , 3451, 2		12
31	Hyperspectral multiphoton microscopy for visualization of multiple, spectrally overlapped fluorescent labels. <i>Optica</i> , <b>2020</b> , 7, 1587-1601	8.6	12
30	Causes and consequences of baseline cerebral blood flow reductions in Alzheimer's disease. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2021</b> , 41, 1501-1516	7.3	12
29	Optically induced occlusion of single blood vessels in rodent neocortex. <i>Cold Spring Harbor Protocols</i> , <b>2013</b> , 2013, 1153-60	1.2	11
28	In Vivo Three-photon Calcium Imaging of Brain Activity from Layer 6 Neurons in Mouse Brain <b>2014</b> ,		10
27	Sub-surface, micrometer-scale incisions produced in rodent cortex using tightly-focused femtosecond laser pulses. <i>Lasers in Surgery and Medicine</i> , <b>2011</b> , 43, 382-91	3.6	10
26	Label-free imaging of atherosclerotic plaques using third-harmonic generation microscopy. <i>Biomedical Optics Express</i> , <b>2018</b> , 9, 214-229	3.5	9
25	Special topic section: linkages among cerebrovascular, cardiovascular, and cognitive disorders: Preventing dementia by preventing stroke: The Berlin Manifesto. <i>International Journal of Stroke</i> , <b>2019</b> , 1747493019871915	6.3	8
24	Intravital Microscopy of the Beating Murine Heart to Understand Cardiac Leukocyte Dynamics. <i>Frontiers in Immunology</i> , <b>2020</b> , 11, 92	8.4	7

23	In vivo manipulation of biological systems with femtosecond laser pulses <b>2006</b> ,		7
22	Laser-induced microexplosions in transparent materials: microstructuring with nanojoules <b>1999</b> ,		6
21	Use of Tethered Enzymes as a Platform Technology for Rapid Analyte Detection. <i>PLoS ONE</i> , <b>2015</b> , 10, e0142326	3.7	5
20	Microvessel occlusions alter amyloid-beta plaque morphology in a mouse model of Alzheimer's disease. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2020</b> , 40, 2115-2131	7.3	5
19	A topological encoding convolutional neural network for segmentation of 3D multiphoton images of brain vasculature using persistent homology. <i>IEEE Computer Society Conference on Computer Vision and Pattern Recognition Workshops</i> , <b>2020</b> , 2020, 4262-4271	1.3	5
18	Experimentally constrained circuit model of cortical arteriole networks for understanding flow redistribution due to occlusion and neural activation. <i>Journal of Cerebral Blood Flow and Metabolism</i> , <b>2018</b> , 38, 38-44	7.3	5
17	Computed optical coherence microscopy of mouse brain ex vivo. <i>Journal of Biomedical Optics</i> , <b>2019</b> , 24, 1-18	3.5	4
16	Aspirin treatment does not increase microhemorrhage size in young or aged mice. <i>PLoS ONE</i> , <b>2019</b> , 14, e0204295	3.7	2
15	Higher-Order Multiphoton Microscopy of the Beating Mouse Heart Using Resonant Scanning <b>2016</b> ,		2
14	In Vivo Femtosecond Laser Subsurface Cortical Microtransections Attenuate Acute Rat Focal Seizures. <i>Cerebral Cortex</i> , <b>2019</b> , 29, 3415-3426	5.1	2
13	In vivo deep tissue imaging with long wavelength multiphoton excitation <b>2010</b> ,		1
12	All-optical thrombotic stroke model for near-surface blood vessels in rat: focal illumination of exogenous photosensitizers combined with real-time two-photon imaging <b>2003</b> ,		1
11	Differential regulation of progranulin derived granulin peptides.. <i>Molecular Neurodegeneration</i> , <b>2022</b> , 17, 15	19	1
10	Stimulus-Evoked Calcium Transients in Somatosensory Cortex are Inhibited After a Nearby Microhemorrhage <b>2010</b> ,		1
9	In-Vivo Three-Photon Excited Fluorescence Imaging in the Spinal Cord of Awake, Locomoting Mouse <b>2016</b> ,		1
8	In Vivo Multiphoton Microscopy of the Beating Mouse Heart in Health and Disease <b>2019</b> ,		1
7	Comparison of convolutional neural and fully convolutional networks for segmentation of 3D in vivo multiphoton microscopy images of brain vasculature <b>2019</b> ,		1
6	Genetically engineered mice for combinatorial cardiovascular optobiology. <i>ELife</i> , <b>2021</b> , 10,	8.9	1

- 5 Neurological and Inflammatory Effects of Radio Frequency and Cryoablation in a Rat Sciatic Nerve Model of Submucosal Nerve Ablation.. *American Journal of Rhinology and Allergy*, **2022**, 19458924221099377 <sup>3,4</sup> ○
- 4 In vivo Three Photon Imaging of Neuronal Activities from Hippocampus in Intact Mouse Brain. *Microscopy and Microanalysis*, **2015**, 21, 1721-1722 0.5
- 3 A mathematical model relating cortical oxygenated and deoxygenated hemoglobin flows and volumes to neural activity. *Journal of Neural Engineering*, **2015**, 12, 046013 5
- 2 Intravital Multiphoton Microscopy of the Beating Mouse Heart Reveals Altered Cardiomyocyte Contraction Dynamics and Increased Microvascular Patrolling by Leukocytes during Cardiac Hypertrophy. *FASEB Journal*, **2020**, 34, 1-1 0.9
- 1 In Vivo Imaging of Cerebral Circulation In Mouse Models of Polycythemia Vera. *Blood*, **2010**, 116, 4091-4091