RaphaÃ«l Turcotte

List of Publications by Year
in descending order

48 papers	2,859 citations	331670 21 h-index	289244 40 g-index
50 all docs	50 docs citations	50 times ranked	4905 citing authors

#	Article	IF	Citations
1	Direct measurement of local oxygen concentration in the bone marrow of live animals. Nature, 2014, 508, 269-273.	27.8	933
2	Self-renewal of a purified Tie2 ⁺ hematopoietic stem cell population relies on mitochondrial clearance. Science, 2016, 354, 1156-1160.	12.6	251
3	Arterial Extracellular Matrix: A Mechanobiological Study of the Contributions and Interactions of Elastin and Collagen. Biophysical Journal, 2014, 106, 2684-2692.	0.5	172
4	Live-animal imaging of native haematopoietic stem and progenitor cells. Nature, 2020, 578, 278-283.	27.8	171
5	Characterization of Multilayer Anti-Fog Coatings. ACS Applied Materials & Interfaces, 2011, 3, 750-758.	8.0	137
6	Proximity-Based Differential Single-Cell Analysis of the Niche to Identify Stem/Progenitor Cell Regulators. Cell Stem Cell, 2016, 19, 530-543.	11.1	136
7	Subcellular spatial resolution achieved for deep-brain imaging in vivo using a minimally invasive multimode fiber. Light: Science and Applications, 2018, 7, 110.	16.6	118
8	Dynamic super-resolution structured illumination imaging in the living brain. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9586-9591.	7.1	103
9	Adaptive optics for high-resolution imaging. Nature Reviews Methods Primers, 2021, 1, .	21.2	90
10	Glycosaminoglycans contribute to extracellular matrix fiber recruitment and arterial wall mechanics. Biomechanics and Modeling in Mechanobiology, 2017, 16, 213-225.	2.8	78
11	Characterization of Biaxial Mechanical Behavior of Porcine Aorta under Gradual Elastin Degradation. Annals of Biomedical Engineering, 2013, 41, 1528-1538.	2.5	59
12	Contribution of Collagen Fiber Undulation to Regional Biomechanical Properties Along Porcine Thoracic Aorta. Journal of Biomechanical Engineering, 2015, 137, 051001.	1.3	58
13	Soluble Guanylate Cyclase Î±1â€“Deficient Mice: A Novel Murine Model for Primary Open Angle Glaucoma. PLoS ONE, 2013, 8, e60156.	2.5	55
14	Vascular Smooth Muscle Sirtuinâ€1 Protects Against Aortic Dissection During Angiotensin IIâ€“Induced Hypertension. Journal of the American Heart Association, 2015, 4, e002384.	3.7	54
15	Tracking Single Cells in Live Animals Using a Photoconvertible Near-Infrared Cell Membrane Label. PLoS ONE, 2013, 8, e69257.	2.5	50
16	Adaptive optical versus spherical aberration corrections for in vivo brain imaging. Biomedical Optics Express, 2017, 8, 3891.	2.9	46
17	Fast widefield imaging of neuronal structure and function with optical sectioning in vivo. Science Advances, 2020, 6, eaaz3870.	10.3	39
18	Intravital imaging of osteocytes in mouse calvaria using third harmonic generation microscopy. PLoS ONE, 2017, 12, e0186846.	2.5	38

#	Article	IF	Citations
19	Femtosecond laser bone ablation with a high repetition rate fiber laser source. Biomedical Optics Express, 2015, 6, 32.	2.9	37
20	Characterization of multiphoton microscopy in the bone marrow following intravital laser osteotomy. Biomedical Optics Express, 2014, 5, 3578.	2.9	33
21	Micromechanics of elastic lamellae: unravelling the role of structural inhomogeneity in multi-scale arterial mechanics. Journal of the Royal Society Interface, 2018, 15, 20180492.	3.4	28
22	Deconvolution for multimode fiber imaging: modeling of spatially variant PSF. Biomedical Optics Express, 2020, 11, 4759.	2.9	18
23	A universal framework for microscope sensorless adaptive optics: Generalized aberration representations. APL Photonics, 2020, 5, .	5.7	17
24	Image-guided transplantation of single cells in the bone marrow of live animals. Scientific Reports, 2017, 7, 3875.	3.3	15
25	Volumetric two-photon fluorescence imaging of live neurons using a multimode optical fiber. Optics Letters, 2020, 45, 6599.	3.3	15
26	Active compensation of extrinsic polarization errors using adaptive optics. Optics Express, 2019, 27, 35797.	3.4	14
27	Intravital assessment of myelin molecular order with polarimetric multiphoton microscopy. Scientific Reports, 2016, 6, 31685.	3.3	13
28	Molecular Order of Arterial Collagen Using Circular Polarization Second-Harmonic Generation Imaging. Biophysical Journal, 2016, 110, 530-533.	0.5	13
29	Optical alignment device for two-photon microscopy. Biomedical Optics Express, 2018, 9, 3624.	2.9	12
30	Focusing light in biological tissue through a multimode optical fiber: refractive index matching. Optics Letters, 2019, 44, 2386.	3.3	12
31	Defining Clonal Color in Fluorescent Multi-Clonal Tracking. Scientific Reports, 2016, 6, 24303.	3.3	10
32	Maintaining polarization in polarimetric multiphoton microscopy. Journal of Biophotonics, 2015, 8, 884-888.	2.3	8
33	Compact and contactless reflectance confocal microscope for neurosurgery. Biomedical Optics Express, 2020, 11, 4772.	2.9	7
34	Intravital multiphoton photoconversion with a cell membrane dye. Journal of Biophotonics, 2017, 10, 206-210.	2.3	4
35	Extended range and aberration-free autofocusing via remote focusing and sequence-dependent learning. Optics Express, 2021, 29, 36660.	3.4	4
36	Soluble Guanylate Cyclase a1â€“Deficient Mice: A Novel Murine Model for Primary Open Angle Glaucoma. Annals of Neurosciences, 2013, 20, 65-6.	1.7	3

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37	Embigin Regulates HSPC Homing and Quiescence and Acts As a Cell Surface Marker for a Niche Factor-Enriched Subset of Osteolineage Cells. Blood, 2015, 126, 663-663.	1.4	2
38	Repeated imaging through a multimode optical fiber using adaptive optics. Biomedical Optics Express, 2022, 13, 662.	2.9	2
39	Characterization of Biaxial Mechanical Behavior of Porcine Aorta under Gradual Elastin Degradation. , 2013, 41, 1528.		1
40	Intrinsic Optical Imaging of ECM Mechanics. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2020, , 165-202.	1.0	1
41	Remote-Focussing for Volumetric Imaging in a Contactless and Label-Free Neurosurgical Microscope. , 2021, , .		1
42	Compressed imaging with focused light. Journal of Optics (United Kingdom), 2022, 24, 065301.	2.2	1
43	Constitutive Modeling of Biaxial Mechanical Response of Arteries Subjected to Gradual Elastin Degradation. , 2013, , .		0
44	In Vivo Femtosecond Ablation and Imaging in Bone with a High Repetition Rate Source. , 2015, , .		0
45	Elastin in the Arterial ECM: Interactions With Collagen and the Mechanical Properties After Elastin Degradation. , 2013, , .		0
46	Sensorless shift-compensation for microscopy through a multimode optical fibre. , 2021, , .		0
47	Computational super-resolution imaging with multimode fiber using optimized illuminations. , 2022, , .		0
48	Sensorless adaptive optics for multimode optical fibre endo-microscopy. , 2021, , .		0