Kyle P Quinn

List of Publications by Year
in descending order

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88 papers	2,866 citations	159585 30 h-index	189892 50 g-index
88 all docs	88 docs citations	88 times ranked	3149 citing authors

#	Article	IF	Citations
1	Multiscale Computational Model Predicts Mouse Skin Kinematics Under Tensile Loading. Journal of Biomechanical Engineering, 2022, 144, .	1.3	4
2	Automated Quantitative Analysis of Wound Histology Using Deep-Learning Neural Networks. Journal of Investigative Dermatology, 2021, 141, 1367-1370.	0.7	1
3	Automated Extraction of Skin Wound Healing Biomarkers From In Vivo Labelâ€Free Multiphoton Microscopy Using Convolutional Neural Networks. Lasers in Surgery and Medicine, 2021, 53, 1086-1095.	2.1	4
4	Tissue Imaging and Quantification Relying on Endogenous Contrast. Advances in Experimental Medicine and Biology, 2021, 3233, 257-288.	1.6	1
5	Three-Dimensional Quantification of Collagen Microstructure During Tensile Mechanical Loading of Skin. Frontiers in Bioengineering and Biotechnology, 2021, 9, 642866.	4.1	13
6	Efficacy of Combined in-vivo Electroporation-Mediated Gene Transfer of VEGF, HGF, and IL-10 on Skin Flap Survival, Monitored by Label-Free Optical Imaging: A Feasibility Study. Frontiers in Surgery, 2021, 8, 639661.	1.4	4
7	Label-Free Multiphoton Microscopy for the Detection and Monitoring of Calcific Aortic Valve Disease. Frontiers in Cardiovascular Medicine, 2021, 8, 688513.	2.4	3
8	N-Acetylcysteine Added to Local Anesthesia Reduces Scar Area and Width in Early Wound Healingâ€”An Animal Model Study. International Journal of Molecular Sciences, 2021, 22, 7549.	4.1	2
9	Single Dose of N-Acetylcysteine in Local Anesthesia Increases Expression of HIF1Î±, MAPK1, TGFÎ²1 and Growth Factors in Rat Wound Healing. International Journal of Molecular Sciences, 2021, 22, 8659.	4.1	3
10	Quantifying 3D tissue kinematics though second harmonic generation microscopy of skin during mechanical loading. , 2021, , .		0
11	Skin Structureâ€“Function Relationships and the Wound Healing Response to Intrinsic Aging. Advances in Wound Care, 2020, 9, 127-143.	5.1	87
12	Quantifying Age-Related Changes in Skin Wound Metabolism UsingIn VivoMultiphoton Microscopy. Advances in Wound Care, 2020, 9, 90-102.	5.1	17
13	Glutamine Metabolism Controls Stem Cell Fate Reversibility and Long-Term Maintenance in the Hair Follicle. Cell Metabolism, 2020, 32, 629-642.e8.	16.2	60
14	Label-free optical biomarkers detect early calcific aortic valve disease in a wild-type mouse model. BMC Cardiovascular Disorders, 2020, 20, 521.	1.7	3
15	Label-free metabolic biomarkers for assessing valve interstitial cell calcific progression. Scientific Reports, 2020, 10, 10317.	3.3	7
16	Optical Imaging of Metabolic Changes in Human Lung Tumor-Adjacent Normal Tissue. , 2020, , .		0
17	Segmenting Cutaneous Wounds from Tissue Sections and In Vivo Images using Deep Learning. , 2020, , .		0
18	Characterizing differences in the collagen fiber organization of skin wounds using quantitative polarized light imaging. Wound Repair and Regeneration, 2019, 27, 711-714.	3.0	22

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19	Biocompatible, Injectable Anionic Hydrogels Based on Poly(Oligo Ethylene Glycol) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 742 Td	3.2	8
20	Differences in colonic crypt morphology of spontaneous and colitis-associated murine models via second harmonic generation imaging to quantify colon cancer development. BMC Cancer, 2019, 19, 428.	2.6	7
21	Evaluating Cell Metabolism Through Autofluorescence Imaging of NAD(P)H and FAD. Antioxidants and Redox Signaling, 2019, 30, 875-889.	5.4	171
22	In vivo label-free multiphoton microscopy for monitoring delayed skin wound healing. , 2019, , .		0
23	Mapping metabolic changes by noninvasive, multiparametric, high-resolution imaging using endogenous contrast. Science Advances, 2018, 4, eaap9302.	10.3	128
24	Skin regeneration with all accessory organs following ablation with irreversible electroporation. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, 98-113.	2.7	22
25	Rapid quantification of mitochondrial fractal dimension in individual cells. Biomedical Optics Express, 2018, 9, 5269.	2.9	9
26	In vivo multiphoton microscopy detects longitudinal metabolic changes associated with delayed skin wound healing. Communications Biology, 2018, 1, 198.	4.4	58
27	Rejuvenation of aged rat skin with pulsed electric fields. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, 2309-2318.	2.7	8
28	3D organizational mapping of collagen fibers elucidates matrix remodeling in a hormone-sensitive 3D breast tissue model. Biomaterials, 2018, 179, 96-108.	11.4	28
29	A Radiosensitizing Inhibitor of HIF-1 alters the Optical Redox State of Human Lung Cancer Cells In Vitro. Scientific Reports, 2018, 8, 8815.	3.3	18
30	Endogenous Two-Photon Excited Fluorescence Imaging Characterizes Neuron and Astrocyte Metabolic Responses to Manganese Toxicity. Scientific Reports, 2017, 7, 1041.	3.3	32
31	Automated quantification of three-dimensional organization of fiber-like structures in biological tissues. Biomaterials, 2017, 116, 34-47.	11.4	55
32	Non-destructive two-photon excited fluorescence imaging identifies early nodules in calcific aortic-valve disease. Nature Biomedical Engineering, 2017, 1, 914-924.	22.5	29
33	Optical imaging of radiation-induced metabolic changes in radiation-sensitive and resistant cancer cells. Journal of Biomedical Optics, 2017, 22, 060502.	2.6	19
34	Functional Imaging of Wound Metabolism. Frontiers in Nanobiomedical Research, 2017, , 201-230.	0.1	1
35	Optical redox ratio identifies metastatic potential-dependent changes in breast cancer cell metabolism. Biomedical Optics Express, 2016, 7, 4364.	2.9	76
36	Imaging mitochondrial dynamics in human skin reveals depth-dependent hypoxia and malignant potential for diagnosis. Science Translational Medicine, 2016, 8, 367ra169.	12.4	82

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37	Valve interstitial cell contractile strength and metabolic state are dependent on its shape. Integrative Biology (United Kingdom), 2016, 8, 1079-1089.	1.3	32
38	Preventing Scars after Injury with Partial Irreversible Electroporation. Journal of Investigative Dermatology, 2016, 136, 2297-2304.	0.7	22
39	Optical metrics of the extracellular matrix predict compositional and mechanical changes after myocardial infarction. Scientific Reports, 2016, 6, 35823.	3.3	35
40	Quantitative differentiation of normal and scarred tissues using secondâ€harmonic generation microscopy. Scanning, 2016, 38, 684-693.	1.5	13
41	Non-invasive Assessments of Adipose Tissue Metabolism In Vitro. Annals of Biomedical Engineering, 2016, 44, 725-732.	2.5	6
42	Diabetic Wounds Exhibit Distinct Microstructural and Metabolic Heterogeneity through Label-Free Multiphoton Microscopy. Journal of Investigative Dermatology, 2016, 136, 342-344.	0.7	29
43	Membrane potential depolarization causes alterations in neuron arrangement and connectivity in cocultures. Brain and Behavior, 2015, 5, 24-38.	2.2	15
44	An automated image processing method to quantify collagen fibre organization within cutaneous scar tissue. Experimental Dermatology, 2015, 24, 78-80.	2.9	34
45	Equine model for softâ€tissue regeneration. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2015, 103, 1217-1227.	3.4	11
46	Skin Rejuvenation with Non-Invasive Pulsed Electric Fields. Scientific Reports, 2015, 5, 10187.	3.3	45
47	Rapid three-dimensional quantification of voxel-wise collagen fiber orientation. Biomedical Optics Express, 2015, 6, 2294.	2.9	52
48	Noninvasive assessment of mitochondrial organization in three-dimensional tissues reveals changes associated with cancer development. International Journal of Cancer, 2015, 136, 322-332.	5.1	36
49	Non-linear optical characterization of extracellular matrix changes following myocardial infarction. , 2015, , .		0
50	Characterizing diabetic wound metabolism and microstructure using multi-photon microscopy. , 2014, , .		1
51	Endogenous Two-Photon Fluorescence Imaging Elucidates Metabolic Changes Related to Enhanced Glycolysis and Glutamine Consumption in Precancerous Epithelial Tissues. Cancer Research, 2014, 74, 3067-3075.	0.9	129
52	Young developmental age cardiac extracellular matrix promotes the expansion of neonatal cardiomyocytes in vitro. Acta Biomaterialia, 2014, 10, 194-204.	8.3	168
53	Quantitative characterization of mineralized silk film remodeling during long-term osteoblastâ€“osteoclast co-culture. Biomaterials, 2014, 35, 3794-3802.	11.4	33
54	Hormonal Regulation of Epithelial Organization in a Three-Dimensional Breast Tissue Culture Model. Tissue Engineering - Part C: Methods, 2014, 20, 42-51.	2.1	23

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55	Cellâ€Tethered Ligands Modulate Bone Remodeling by Osteoblasts and Osteoclasts. Advanced Functional Materials, 2014, 24, 472-479.	14.9	21
56	Quantitative optical biomarkers for non-invasive detection of cancerous transformation in live, 3D squamous epithelia. , 2014, , .		0
57	From Single Cells to Tissues: Interactions between the Matrix and Human Breast Cells in Real Time. PLoS ONE, 2014, 9, e93325.	2.5	39
58	Label-free assessment of mitochondrial organization in three-dimensional tissues. , 2014, , .		0
59	Quantitative metabolic imaging using endogenous fluorescence to detect stem cell differentiation. Scientific Reports, 2013, 3, 3432.	3.3	215
60	Non-invasive monitoring of cell metabolism and lipid production in 3D engineered human adipose tissues using label-free multiphoton microscopy. Biomaterials, 2013, 34, 8607-8616.	11.4	35
61	Autocorrelation method for fractal analysis in nonrectangular image domains. Optics Letters, 2013, 38, 4477.	3.3	2
62	Non-destructive, label-free metabolic mapping during stem cell differentiation. , 2013, , .		0
63	Rapid quantification of pixel-wise fiber orientation data in micrographs. Journal of Biomedical Optics, 2013, 18, 046003.	2.6	53
64	Noninvasive Metabolic Imaging of Engineered 3D Human Adipose Tissue in a Perfusion Bioreactor. PLoS ONE, 2013, 8, e55696.	2.5	38
65	Quantitative, Functional Biomarkers of Stem Cell Differentiation in 3D Using Multi-modal Non-linear Imaging with Endogenous Contrast. , 2013, , .		0
66	Monitoring Osteoblastic Differentiation with Multivariate Analysis of Fluorescence Lifetime Imaging. , 2013, , .		0
67	Rapid quantification of pixel-wise fiber orientation data in micrographs. Journal of Biomedical Optics, 2013, 18, 040102.	2.6	0
68	Improved Fourier-based characterization of intracellular fractal features. Optics Express, 2012, 20, 23442.	3.4	37
69	Optical Imaging Using Endogenous Contrast to Assess Metabolic State. Annual Review of Biomedical Engineering, 2012, 14, 351-367.	12.3	257
70	Non-invasive Optical Detection of Cell Differentiation Status Using Endogenous Sources of Optical Contrast. , 2012, , .		0
71	Characterization of metabolic changes associated with the functional development of 3D engineered tissues by non-invasive, dynamic measurement of individual cell redox ratios. Biomaterials, 2012, 33, 5341-5348.	11.4	77
72	Imaging Approaches to Quantify Tissue Structure and Function from the Microscale to the Macroscale. , 2012, , 485-512.		0

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73	Preconditioning is Correlated With Altered Collagen Fiber Alignment in Ligament. Journal of Biomechanical Engineering, 2011, 133, 064506.	1.3	51
74	Detection of Altered Collagen Fiber Alignment in the Cervical Facet Capsule After Whiplash-Like Joint Retraction. Annals of Biomedical Engineering, 2011, 39, 2163-2173.	2.5	22
75	Neuronal hyperexcitability in the dorsal horn after painful facet joint injury. Pain, 2010, 151, 414-421.	4.2	62
76	Anomalous fiber realignment during tensile loading of the rat facet capsular ligament identifies mechanically induced damage and physiological dysfunction. Journal of Biomechanics, 2010, 43, 1870-1875.	2.1	30
77	Full field strain measurements of collagenous tissue by tracking fiber alignment through vector correlation. Journal of Biomechanics, 2010, 43, 2637-2640.	2.1	24
78	Microstructural Modeling of Fiber Kinematics and Biomechanics of the Human Facet Capsular Ligament During Subfailure Loading. , 2010, , .		0
79	Localizing Damage in the Cervical Facet Capsular Ligament With Image-Based Multiscale Models. , 2010, , .		0
80	Vector correlation technique for pixel-wise detection of collagen fiber realignment during injurious tensile loading. Journal of Biomedical Optics, 2009, 14, 054010.	2.6	34
81	The Onset of Structural Yield During Tensile Loading Increases With Age in the Pediatric PMHS Cervical Spine. , 2009, , .		0
82	Force at Damage and Failure Decreases With Age in the Human Cadaveric Facet Capsular Ligament During Tension. , 2009, , .		0
83	Altered collagen fiber kinematics define the onset of localized ligament damage during loading. Journal of Applied Physiology, 2008, 105, 1881-1888.	2.5	65
84	Head-Turned Postures Increase the Risk of Cervical Facet Capsule Injury During Whiplash. Spine, 2008, 33, 1643-1649.	2.0	27
85	Joint Distractions Sufficient to Produce Pain Increase Collagen Fiber Undulation in the Cervical Facet Capsular Ligament in the Rat. , 2008, , .		0
86	The role of graded nerve root compression on axonal damage, neuropeptide changes, and pain-related behaviors. Stapp Car Crash Journal, 2008, 52, 33-58.	1.1	18
87	Cervical facet capsular ligament yield defines the threshold for injury and persistent joint-mediated neck pain. Journal of Biomechanics, 2007, 40, 2299-2306.	2.1	60
88	Structural changes in the cervical facet capsular ligament: potential contributions to pain following subfailure loading. Stapp Car Crash Journal, 2007, 51, 169-87.	1.1	33