

# Arvind P Pathak

## List of Publications by Year in descending order

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Version: 2024-02-01

54  
papers

2,650  
citations

236925

25  
h-index

206112

48  
g-index

54  
all docs

54  
docs citations

54  
times ranked

4563  
citing authors

#	ARTICLE	IF	CITATIONS
1	Imaging biomarker roadmap for cancer studies. <i>Nature Reviews Clinical Oncology</i> , 2017, 14, 169-186.	27.6	792
2	Utility of simultaneously acquired gradient-echo and spin-echo cerebral blood volume and morphology maps in brain tumor patients. <i>Magnetic Resonance in Medicine</i> , 2000, 43, 845-853.	3.0	226
3	Characterization of a first-pass gradient-echo spin-echo method to predict brain tumor grade and angiogenesis. <i>American Journal of Neuroradiology</i> , 2004, 25, 1524-32.	2.4	156
4	MR-derived cerebral blood volume maps: Issues regarding histological validation and assessment of tumor angiogenesis. <i>Magnetic Resonance in Medicine</i> , 2001, 46, 735-747.	3.0	123
5	A novel technique for modeling susceptibility-based contrast mechanisms for arbitrary microvascular geometries: The finite perturber method. <i>NeuroImage</i> , 2008, 40, 1130-1143.	4.2	81
6	Implications of neurovascular uncoupling in functional magnetic resonance imaging (fMRI) of brain tumors. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2017, 37, 3475-3487.	4.3	77
7	Molecular and Functional Imaging of Cancer: Advances in MRI and MRS. <i>Methods in Enzymology</i> , 2004, 386, 1-58.	1.0	74
8	A bioimage informatics based reconstruction of breast tumor microvasculature with computational blood flow predictions. <i>Microvascular Research</i> , 2014, 91, 8-21.	2.5	69
9	Characterizing Vascular Parameters in Hypoxic Regions: A Combined Magnetic Resonance and Optical Imaging Study of a Human Prostate Cancer Model. <i>Cancer Research</i> , 2006, 66, 9929-9936.	0.9	65
10	A miniature multi-contrast microscope for functional imaging in freely behaving animals. <i>Nature Communications</i> , 2019, 10, 99.	12.8	62
11	Antiangiogenic effects of dexamethasone in 9L gliosarcoma assessed by MRI cerebral blood volume maps. <i>Neuro-Oncology</i> , 2003, 5, 235-243.	1.2	61
12	Characterizing Extravascular Fluid Transport of Macromolecules in the Tumor Interstitium by Magnetic Resonance Imaging. <i>Cancer Research</i> , 2005, 65, 1425-1432.	0.9	61
13	In vivo laser speckle imaging reveals microvascular remodeling and hemodynamic changes during wound healing angiogenesis. <i>Angiogenesis</i> , 2012, 15, 87-98.	7.2	57
14	Structure and Function of a Prostate Cancer Dissemination-Permissive Extracellular Matrix. <i>Clinical Cancer Research</i> , 2017, 23, 2245-2254.	7.0	53
15	Multiscale Imaging and Computational Modeling of Blood Flow in the Tumor Vasculature. <i>Annals of Biomedical Engineering</i> , 2012, 40, 2425-2441.	2.5	52
16	Lymph Node Metastasis in Breast Cancer Xenografts Is Associated with Increased Regions of Extravascular Drain, Lymphatic Vessel Area, and Invasive Phenotype. <i>Cancer Research</i> , 2006, 66, 5151-5158.	0.9	47
17	Three-Dimensional Imaging of the Mouse Neurovasculature with Magnetic Resonance Microscopy. <i>PLoS ONE</i> , 2011, 6, e22643.	2.5	46
18	The effect of brain tumor angiogenesis on the in vivo relationship between the gradient-echo relaxation rate change ( $R_2^*$ ) and contrast agent (MION) dose. <i>Journal of Magnetic Resonance Imaging</i> , 2003, 18, 397-403.	3.4	45

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19	Breast cancer cell cyclooxygenase-2 expression alters extracellular matrix structure and function and numbers of cancer associated fibroblasts. <i>Oncotarget</i> , 2017, 8, 17981-17994.	1.8	42
20	Circulating and imaging markers for angiogenesis. <i>Angiogenesis</i> , 2008, 11, 321-335.	7.2	40
21	Brain tumors disrupt the resting-state connectome. <i>NeuroImage: Clinical</i> , 2018, 18, 279-289.	2.7	31
22	Multiexposure laser speckle contrast imaging of the angiogenic microenvironment. <i>Journal of Biomedical Optics</i> , 2011, 16, 056006.	2.6	29
23	Vascular phenotyping of brain tumors using magnetic resonance microscopy (1/4MRI). <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2011, 31, 1623-1636.	4.3	28
24	Multiscale and multi-modality visualization of angiogenesis in a human breast cancer model. <i>Angiogenesis</i> , 2014, 17, 695-709.	7.2	28
25	Miniaturized optical neuroimaging in unrestrained animals. <i>NeuroImage</i> , 2015, 113, 397-406.	4.2	27
26	MR Molecular Imaging of Tumor Vasculature and Vascular Targets. <i>Advances in Genetics</i> , 2010, 69, 1-30.	1.8	27
27	Assessing breast cancer angiogenesis in vivo: which susceptibility contrast MRI biomarkers are relevant?. <i>Magnetic Resonance in Medicine</i> , 2013, 70, 1106-1116.	3.0	25
28	Intracellular Expression of PAI-1 Specific Aptamers Alters Breast Cancer Cell Migration, Invasion and Angiogenesis. <i>PLoS ONE</i> , 2016, 11, e0164288.	2.5	25
29	Tumor Ensemble-Based Modeling and Visualization of Emergent Angiogenic Heterogeneity in Breast Cancer. <i>Scientific Reports</i> , 2019, 9, 5276.	3.3	24
30	Quantification and tracking of genetically engineered dendritic cells for studying immunotherapy. <i>Magnetic Resonance in Medicine</i> , 2018, 79, 1010-1019.	3.0	17
31	Hypoxic Tumor Environments Exhibit Disrupted Collagen I Fibers and Low Macromolecular Transport. <i>PLoS ONE</i> , 2013, 8, e81869.	2.5	16
32	Microdialysis measurement of intratumoral temozolomide concentration after cediranib, a pan-VEGF receptor tyrosine kinase inhibitor, in a U87 glioma model. <i>Cancer Chemotherapy and Pharmacology</i> , 2013, 72, 93-100.	2.3	15
33	VascuViz: a multimodality and multiscale imaging and visualization pipeline for vascular systems biology. <i>Nature Methods</i> , 2022, 19, 242-254.	19.0	15
34	In Vivo 19F-MRI Phenotyping Reveals Changes in Extracellular Matrix Transport and Vascularization That Mediate VEGF-Driven Increase in Breast Cancer Metastasis. <i>PLoS ONE</i> , 2013, 8, e63146.	2.5	14
35	Novel system for determining contrast agent concentration in mouse blood in vivo. <i>Magnetic Resonance in Medicine</i> , 2004, 51, 612-615.	3.0	13
36	A novel atherothrombotic model of ischemic stroke induced by injection of collagen into the cerebral vasculature. <i>Journal of Neuroscience Methods</i> , 2015, 239, 65-74.	2.5	11

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37	Visualizing Function in the Tumor-Associated Lymphatic System. <i>Lymphatic Research and Biology</i> , 2004, 2, 165-172.	1.1	10
38	Magnetic resonance susceptibility based perfusion imaging of tumors using iron oxide nanoparticles. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2009, 1, 84-97.	6.1	10
39	Vasculature-specific MRI reveals differential anti-angiogenic effects of a biomimetic peptide in an orthotopic breast cancer model. <i>Angiogenesis</i> , 2015, 18, 125-136.	7.2	9
40	Phenotyping the Microvasculature in Critical-Sized Calvarial Defects via Multimodal Optical Imaging. <i>Tissue Engineering - Part C: Methods</i> , 2018, 24, 430-440.	2.1	8
41	In vivo high-resolution diffusion tensor imaging of the developing neonatal rat cortex and its relationship to glial and dendritic maturation. <i>Brain Structure and Function</i> , 2019, 224, 1815-1829.	2.3	6
42	Advances in translational imaging of the microcirculation. <i>Microcirculation</i> , 2021, 28, e12683.	1.8	6
43	In vivo phenotyping of the microvasculature in necrotizing enterocolitis with multicontrast optical imaging. <i>Microcirculation</i> , 2022, 29, e12768.	1.8	6
44	HemoSYS: A Toolkit for Image-based Systems Biology of Tumor Hemodynamics. <i>Scientific Reports</i> , 2020, 10, 2372.	3.3	5
45	Optical Imaging of Microvascular Morphology and Perfusion. <i>Current Angiogenesis</i> , 2012, 1, 243-260.	0.1	5
46	A Novel Vascular Fiducials-based Approach (VASFID) for Co-registering Multiscale Imaging Data for Microcirculation Systems Biology. <i>FASEB Journal</i> , 2020, 34, 1-1.	0.5	4
47	Model system takes us a step closer to efficacious imaging biomarkers of angiogenesis in head and neck cancer. <i>Cancer Biology and Therapy</i> , 2009, 8, 2282-2283.	3.4	2
48	Magnetic Resonance Imaging of Tumor Physiology. , 2006, 124, 279-297.		2
49	Characterizing the Correlation Between Angiogenesis and Osteogenesis In Vivo Using Multicontrast Functional Imaging in a Calvarial Defect Model. <i>FASEB Journal</i> , 2022, 36, .	0.5	2
50	Effect of cranial window type on monitoring neurovasculature using laser speckle contrast imaging. , 2016, , .		1
51	A Portable Multicontrast Microscope for Multiscale Imaging of the Microcirculation. <i>FASEB Journal</i> , 2021, 35, .	0.5	0
52	Image-based Modeling of the Invasive Vascular Front in Breast Cancer. <i>FASEB Journal</i> , 2021, 35, .	0.5	0
53	Identification of morphological and hemodynamic biomarkers for tumor vascular perfusion through mathematical modeling and high-resolution imaging. <i>FASEB Journal</i> , 2013, 27, 685.12.	0.5	0
54	Design considerations for a miniature multicontrast neuroimager. , 2019, , .		0