Sanjiv Kaul

List of Publications by Year
in descending order

128 papers	12,345 citations	31902 53 h-index	24915 109 g-index
130 all docs	130 docs citations	130 times ranked	7428 citing authors

#	ARTICLE	IF	CITATIONS
1	Quantification of Myocardial Blood Flow With Ultrasound-Induced Destruction of Microbubbles Administered as a Constant Venous Infusion. Circulation, 1998, 97, 473-483.	1.6	1,549
2	Correction of a pathogenic gene mutation in human embryos. Nature, 2017, 548, 413-419.	13.7	781
3	An Association between Collateral Blood Flow and Myocardial Viability in Patients with Recent Myocardial Infarction. New England Journal of Medicine, 1992, 327, 1825-1831.	13.9	555
4	Dualâ€Energy Xâ€Ray Absorptiometry for Quantification of Visceral Fat. Obesity, 2012, 20, 1313-1318.	1.5	474
5	Direct In Vivo Visualization of Intravascular Destruction of Microbubbles by Ultrasound and its Local Effects on Tissue. Circulation, 1998, 98, 290-293.	1.6	462
6	Imaging Tumor Angiogenesis With Contrast Ultrasound and Microbubbles Targeted to Î± v Î² 3. Circulation, 2003, 108, 336-341.	1.6	458
7	Noninvasive Assessment of Angiogenesis by Ultrasound and Microbubbles Targeted to Î± v -Integrins. Circulation, 2003, 107, 455-460.	1.6	355
8	Noninvasive Ultrasound Imaging of Inflammation Using Microbubbles Targeted to Activated Leukocytes. Circulation, 2000, 102, 2745-2750.	1.6	292
9	Interactions Between Microbubbles and Ultrasound: In Vitro and In Vivo Observations. Journal of the American College of Cardiology, 1997, 29, 1081-1088.	1.2	287
10	Targeted tissue transfection with ultrasound destruction of plasmid-bearing cationic microbubbles. Ultrasound in Medicine and Biology, 2003, 29, 1759-1767.	0.7	270
11	Detection of Coronary Artery Disease With Myocardial Contrast Echocardiography. Circulation, 1997, 96, 785-792.	1.6	252
12	Microvascular rheology of Definity microbubbles after intra-arterial and intravenous administration. Journal of the American Society of Echocardiography, 2002, 15, 396-403.	1.2	245
13	Noninvasive Imaging of Inflammation by Ultrasound Detection of Phagocytosed Microbubbles. Circulation, 2000, 102, 531-538.	1.6	231
14	Microbubble Persistence in the Microcirculation During Ischemia/Reperfusion and Inflammation Is Caused by Integrin- and Complement-Mediated Adherence to Activated Leukocytes. Circulation, 2000, 101, 668-675.	1.6	230
15	Noninvasive Quantification of Coronary Blood Flow Reserve in Humans Using Myocardial Contrast Echocardiography. Circulation, 2001, 103, 2560-2565.	1.6	226
16	Contrast echocardiography in acute myocardial ischemia: I. In vivo determination of total left ventricular â€œarea at riskâ€. Journal of the American College of Cardiology, 1984, 4, 1272-1282.	1.2	198
17	Basis for detection of stenosis using venous administration of microbubbles during myocardial contrast echocardiography: bolus or continuous infusion?. Journal of the American College of Cardiology, 1998, 32, 252-260.	1.2	190
18	Assessment of Endogenous and Therapeutic Arteriogenesis by Contrast Ultrasound Molecular Imaging of Integrin Expression. Circulation, 2005, 111, 3248-3254.	1.6	180

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19	Noninvasive Imaging of Myocardial Reperfusion Injury Using Leukocyte-Targeted Contrast Echocardiography. Circulation, 2002, 105, 1764-1767.	1.6	163
20	Myocardial Contrast Echocardiography Versus Thrombolysis in Myocardial Infarction Score in Patients Presenting to the Emergency Department With Chest Pain and a Nondiagnostic Electrocardiogram. Journal of the American College of Cardiology, 2005, 46, 920-927.	1.2	144
21	Albunex: A Safe and Effective Commercially Produced Agent for Myocardial Contrast Echocardiography. Journal of the American Society of Echocardiography, 1989, 2, 48-52.	1.2	142
22	Hemodynamic characteristics, myocardial kinetics and microvascular rheology of FS-069, a second-generation echocardiographic contrast agent capable of producing myocardial opacification from a venous injection. Journal of the American College of Cardiology, 1996, 28, 1292-1300.	1.2	141
23	Perfusion Versus Function: The Ischemic Cascade in Demand Ischemia. Circulation, 2002, 105, 987-992.	1.6	141
24	Myocardial Contrast Echocardiography. Circulation, 1997, 96, 3745-3760.	1.6	141
25	Myocardial Contrast Echocardiography. Circulation, 2008, 118, 291-308.	1.6	138
26	Assessment of Transmural Distribution of Myocardial Perfusion With Contrast Echocardiography. Circulation, 1998, 98, 1912-1920.	1.6	136
27	Assessment of resting perfusion with myocardial contrast echocardiography: Theoretical and practical considerations. American Heart Journal, 2000, 139, 231-240.	1.2	132
28	Noninvasive Prediction of Ultimate Infarct Size at the Time of Acute Coronary Occlusion Based on the Extent and Magnitude of Collateral-Derived Myocardial Blood Flow. Circulation, 2001, 104, 2471-2477.	1.6	122
29	Myocardial contrast echocardiography in humans. II. Assessment of coronary blood flow reserve. Journal of the American College of Cardiology, 1988, 12, 925-934.	1.2	116
30	Molecular Imaging of Endothelial Vascular Cell Adhesion Molecule-1 Expression and Inflammatory Cell Recruitment During Vasculogenesis and Ischemia-Mediated Arteriogenesis. Circulation, 2008, 117, 2902-2911.	1.6	113
31	There May Be More to Myocardial Viability Than Meets the Eye!. Circulation, 1995, 92, 2790-2793.	1.6	110
32	Diagnostic Value of Echocardiography in Suspected Endocarditis. Circulation, 1996, 93, 730-736.	1.6	110
33	Role of capillaries in determining CBF reserve: new insights using myocardial contrast echocardiography. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 277, H2363-H2372.	1.5	109
34	Incremental value of cardiac imaging in patients presenting to the emergency department with chest pain and without ST-segment elevation: a multicenter study. American Heart Journal, 2004, 148, 129-136.	1.2	109
35	Microvasculature in Acute Myocardial Ischemia: Part II. Circulation, 2004, 109, 310-315.	1.6	108
36	Myocardial contrast echocardiography without significant hemodynamic effects or reactive hyperemia: A major advantage in the imaging of regional myocardial perfusion. Journal of the American College of Cardiology, 1988, 12, 1039-1047.	1.2	106

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37	Regional left ventricular perfusion and function in patients presenting to the emergency department with chest pain and no ST-segment elevationâ€. European Heart Journal, 2005, 26, 1606-1611.	1.0	104
38	Enhancement of Left Ventricular Cavity Opacification by Harmonic Imaging After Venous Injection of Albunex. American Journal of Cardiology, 1997, 79, 1657-1662.	0.7	103
39	Myocardial contrast echocardiography in humans: I. Safetyâ€"A comparison with routine coronary arteriography. Journal of the American College of Cardiology, 1986, 8, 1066-1072.	1.2	98
40	Handheld Ultrasound Versus Physical Examination in Patients Referred for Transthoracic Echocardiography for aÂSuspected Cardiac Condition. JACC: Cardiovascular Imaging, 2014, 7, 983-990.	2.3	94
41	Hypertrophic cardiomyopathy: the future of treatment. European Journal of Heart Failure, 2020, 22, 228-240.	2.9	93
42	Contrast echocardiography in acute myocardial ischemia. III. An in vivo comparison of the extent of abnormal wall motion with the area at risk for necrosis. Journal of the American College of Cardiology, 1986, 7, 383-392.	1.2	92
43	Albumin Microbubble Persistence During Myocardial Contrast Echocardiography Is Associated With Microvascular Endothelial Glycocalyx Damage. Circulation, 1998, 98, 2187-2194.	1.6	89
44	Decrease in Coronary Blood Flow Reserve During Hyperlipidemia Is Secondary to an Increase in Blood Viscosity. Circulation, 2001, 104, 2704-2709.	1.6	88
45	Myocardial perfusion assessment in patients with medium probability of coronary artery disease and no prior myocardial infarction: comparison of myocardial contrast echocardiography with 99mTc single-photon emission computed tomography. American Heart Journal, 2004, 147, 1100-1105.	1.2	82
46	Further insights into the no-reflow phenomenon after primary angioplasty in acute myocardial infarction: The role of microthromboemboli. Journal of the American Society of Echocardiography, 2003, 16, 15-21.	1.2	74
47	Coronary Reserve Abnormalities in the Infarcted Myocardium. Circulation, 1996, 94, 748-754.	1.6	70
48	Contrast echocardiography in acute myocardial ischemia. II. The effect of site of injection of contrast agent on the estimation of area at risk for necrosis after coronary occlusion. Journal of the American College of Cardiology, 1985, 6, 825-830.	1.2	65
49	Intraoperative assessment of regional myocardial perfusion using quantitative myocardial contrast echocardiography: An experimental evaluation. Journal of the American College of Cardiology, 1990, 16, 1267-1279.	1.2	65
50	Delivery of Drugs with Ultrasound. Echocardiography, 2001, 18, 329-337.	0.3	65
51	The â€œno reflowâ€•phenomenon following acute myocardial infarction: Mechanisms and treatment options. Journal of Cardiology, 2014, 64, 77-85.	0.8	57
52	On-line intraoperative quantitation of regional myocardial perfusion during coronary artery bypass graft operations with myocardial contrast two-dimensional echocardiography. Journal of Thoracic and Cardiovascular Surgery, 1992, 104, 1524-1531.	0.4	54
53	Measurement of myocardial blood flow velocity reserve with myocardial contrast echocardiography in patients with suspected coronary artery disease: comparison with quantitative gated technetium 99m sestamibi single photon emission computed tomography. Journal of the American Society of Echocardiography, 2003, 16, 1171-1177.	1.2	54
54	Detection of Coronary Stenoses and Quantification of the Degree and Spatial Extent of Blood Flow Mismatch During Coronary Hyperemia With Myocardial Contrast Echocardiography. Circulation, 1995, 91, 821-830.	1.6	54

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55	Detection of peripheral vascular stenosis by assessing skeletal muscle flow reserve. Journal of the American College of Cardiology, 2005, 45, 780-785.	1.2	53
56	Relation between myocardial oxygen consumption and myocardial blood volume: A study using myocardial contrast echocardiography. Journal of the American Society of Echocardiography, 2002, 15, 857-863.	1.2	50
57	Myocardial Perfusion Characteristics and Hemodynamic Profile of MRX-115, a Venous Echocardiographic Contrast Agent, During Acute Myocardial Infarction. Journal of the American Society of Echocardiography, 1998, 11, 36-46.	1.2	49
58	Simultaneous integrin Î±Î² and glycoprotein IIb/IIIa inhibition causes reduction in infarct size in a model of acute coronary thrombosis and primary angioplasty. Cardiovascular Research, 2005, 66, 552-561.	1.8	48
59	Direct effects of dobutamine on the coronary microcirculation: comparison with adenosine using myocardial contrast echocardiography. Journal of the American Society of Echocardiography, 2003, 16, 871-879.	1.2	45
60	A Computer-aided Approach for the Quantitation of Regional Left Ventricular Function Using Two-dimensional Echocardiography. Journal of the American Society of Echocardiography, 1992, 5, 33-40.	1.2	43
61	Myocardial contrast echocardiography: Basic principles. Progress in Cardiovascular Diseases, 2001, 44, 1-11.	1.6	41
62	Prognostic Value of Dipyridamole Stress Myocardial Contrast Echocardiography: Comparison With Single Photon Emission Computed Tomography. Journal of the American Society of Echocardiography, 2009, 22, 954-960.	1.2	41
63	Relation between anterograde blood flow through a coronary artery and the size of the perfusion bed it supplies: Experimental and clinical implications. Journal of the American College of Cardiology, 1991, 17, 1403-1413.	1.2	38
64	Mechanism of Inducible Regional Dysfunction During Dipyridamole Stress. Circulation, 2002, 106, 112-117.	1.6	38
65	Myocardial Capillaries and Coronary Flow Reserve. Journal of the American College of Cardiology, 2008, 52, 1399-1401.	1.2	38
66	Mechanism of reversible ^{99m}Tc-sestamibi perfusion defects during pharmacologically induced vasodilatation. American Journal of Physiology - Heart and Circulatory Physiology, 2001, 280, H1896-H1904.	1.5	36
67	Noninvasive Imaging in Adult Congenital Heart Disease. Circulation Research, 2017, 120, 995-1014.	2.0	36
68	Detection of Noncritical Coronary Stenosis at Rest Without Recourse to Exercise or Pharmacological Stress. Circulation, 2002, 105, 218-223.	1.6	35
69	Detection of Coronary Stenoses at Rest With Myocardial Contrast Echocardiography. Circulation, 2005, 112, 1154-1160.	1.6	35
70	A canine model of chronic ischemic cardiomyopathy: characterization of regional flow-function relations. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 276, H446-H455.	1.5	34
71	Dobutamine versus dipyridamole for inducing reversible perfusion defects in chronic multivessel coronary artery stenosis. Journal of the American College of Cardiology, 2002, 40, 167-174.	1.2	34
72	Role of collateral blood flow in the apparent disparity between the extent of abnormal wall thickening and perfusion defect size during acute myocardial infarction and demand ischemia. Journal of the American College of Cardiology, 2005, 45, 565-572.	1.2	34

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73	Relationship Between Dual-Energy X-Ray Absorptiometry Volumetric Assessment and X-ray Computed Tomographyâ€“Derived Single-Slice Measurement of Visceral Fat. Journal of Clinical Densitometry, 2014, 17, 78-83.	0.5	33
74	Therapeutic Genome Editing in Cardiovascular Diseases. JACC Basic To Translational Science, 2019, 4, 122-131.	1.9	32
75	Cost-Efficiency of Myocardial Contrast Echocardiography in Patients Presenting to the Emergency Department With Chest Pain of Suspected Cardiac Origin and a Nondiagnostic Electrocardiogram. American Journal of Cardiology, 2008, 102, 649-652.	0.7	31
76	Functional screening for G protein-coupled receptor targets of 14,15-epoxyeicosatrienoic acid. Prostaglandins and Other Lipid Mediators, 2017, 132, 31-40.	1.0	31
77	Success of internal mammary bypass grafting can be assessed intraoperatively using myocardial contrast echocardiography. Journal of the American College of Cardiology, 1988, 12, 196-201.	1.2	30
78	Anti-inflammatory and pro-angiogenic effects of beta blockers in a canine model of chronic ischemic cardiomyopathy: comparison between carvedilol and metoprolol. Basic Research in Cardiology, 2013, 108, 384.	2.5	29
79	Contractile Versus Microvascular Reserve for the Determination of the Extent of Myocardial Salvage After Reperfusion. Circulation, 1996, 94, 1430-1440.	1.6	29
80	Instrumentation for contrast echocardiography: technology and techniques. American Journal of Cardiology, 2002, 90, 8-14.	0.7	25
81	Evaluating the â€˜no reflowâ€™ phenomenon with myocardial contrast echocardiography. Basic Research in Cardiology, 2006, 101, 391-399.	2.5	25
82	Effects of Nitroglycerin on Erythrocyte Rheology and Oxygen Unloading. Circulation, 2006, 113, 2502-2508.	1.6	25
83	Coronary Autoregulation Is Abnormal in Syndrome X: Insights Using Myocardial Contrast Echocardiography. Journal of the American Society of Echocardiography, 2013, 26, 290-296.	1.2	25
84	The role of capillaries in determining coronary blood flow reserve: Implications for stress-induced reversible perfusion defects. Journal of Nuclear Cardiology, 2001, 8, 694-700.	1.4	21
85	Mechanism and potential treatment of the â€œno reflowâ€• phenomenon after acute myocardial infarction: role of pericytes and GPR39. American Journal of Physiology - Heart and Circulatory Physiology, 2021, 321, H1030-H1041.	1.5	21
86	Control of coronary vascular resistance by eicosanoids via a novel GPCR. American Journal of Physiology - Cell Physiology, 2022, 322, C1011-C1021.	2.1	21
87	Computer versus visual analysis of exercise thallium-201 images: A critical appraisal in 325 patients with chest pain. American Heart Journal, 1987, 114, 1129-1137.	1.2	20
88	Determinants of microvascular flow. European Heart Journal, 2006, 27, 2272-2274.	1.0	19
89	Intraoperative Assessment of Myocardial Perfusion Using Contrast Echocardiography. Echocardiography, 1990, 7, 209-228.	0.3	18
90	Pericyte constriction underlies capillary derecruitment during hyperemia in the setting of arterial stenosis. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 317, H255-H263.	1.5	18

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91	New developments in ultrasound systems for contrast echocardiography. Clinical Cardiology, 1997, 20, 27-30.	0.7	17
92	Deoxygenated blood minimizes adherence of sonicated albumin microbubbles during cardioplegic arrest and after blood reperfusion: Experimental and clinical observations with myocardial contrast echocardiography. Journal of Thoracic and Cardiovascular Surgery, 1997, 113, 1100-1108.	0.4	16
93	A Predictive Instrument Using Contrast Echocardiography in Patients Presenting to the Emergency Department with Chest Pain and without ST-Segment Elevation. Journal of the American Society of Echocardiography, 2010, 23, 636-642.	1.2	16
94	Molecular imaging with contrast enhanced ultrasound. Journal of Nuclear Cardiology, 2010, 17, 667-677.	1.4	14
95	Efficacy and spatial distribution of ultrasound-mediated clot lysis in the absence of thrombolytics. Thrombosis and Haemostasis, 2015, 113, 1357-1369.	1.8	14
96	Molecular imaging identifies regions with microthromboemboli during primary angioplasty in acute coronary thrombosis. Journal of Nuclear Medicine, 2004, 45, 1194-200.	2.8	14
97	Cyclic Variation in Ultrasonic Myocardial Integrated Backscatter Is Due to Phasic Changes in the Number of Patent Myocardial Microvessels. Journal of Ultrasound in Medicine, 2006, 25, 1009-1019.	0.8	12
98	Ultrasound stimulates formation and release of vasoactive compounds in brain endothelial cells. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H583-H591.	1.5	12
99	Mechanism of myocardial dysfunction in the Presence of chronic coronary stenosis and Normal resting myocardial blood flow: Clinical implications. Journal of the American Society of Echocardiography, 2001, 14, 1047-1056.	1.2	11
100	Myocardial contrast echocardiography, single-photon emission computed tomography, and regional function analysis for coronary stenosis description during vasodilator stress. American Journal of Cardiology, 2003, 91, 445-448.	0.7	11
101	Therapeutic Ultrasound Increases Myocardial Blood Flow in Ischemic Myocardium and Cardiac Endothelial Cells: Results of InÂVivo and InÂVitro Experiments. Journal of the American Society of Echocardiography, 2019, 32, 1151-1160.	1.2	9
102	A-receptor blockade: a novel approach for assessing myocardial viability in chronic ischemic cardiomyopathy. Journal of the American Society of Echocardiography, 2003, 16, 764-769.	1.2	8
103	Phasic changes in arterial blood volume is influenced by collateral blood flow: implications for the quantification of coronary stenosis at rest. Heart, 2007, 93, 438-443.	1.2	8
104	Effect of modest alcohol consumption over 1-2 weeks on the coronary microcirculation of normal subjects. European Journal of Echocardiography, 2010, 11, 683-689.	2.3	8
105	Plasma Oxylipins: A Potential Risk Assessment Tool in Atherosclerotic Coronary Artery Disease. Frontiers in Cardiovascular Medicine, 2021, 8, 645786.	1.1	8
106	Microbubbles and ultrasound: a bird's eye view. Transactions of the American Clinical and Climatological Association, 2004, 115, 137-48; discussion 148.	0.9	8
107	Contrast echocardiography and myocardial perfusion. Clinical Cardiology, 2009, 14, V-15-V-18.	0.7	7
108	Relation between regional function and coronary blood flow reserve in multivessel coronary artery stenosis. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 279, H3058-H3064.	1.5	5

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109	Therapeutic Ultrasound Improves Myocardial Blood Flow and Reduces Infarct Size in a Canine Model of Coronary Microthromboembolism. Journal of the American Society of Echocardiography, 2020, 33, 234-246.	1.2	5
110	Persistent Coronary Vasomotor Tone During Myocardial Ischemia Occurs at the Capillary Level and May Involve Pericytes. Frontiers in Cardiovascular Medicine, 0, 9, .	1.1	5
111	Echocardiographic insights into regional flow-function relationships in coronary artery disease. Journal of Nuclear Cardiology, 2005, 12, 216-226.	1.4	4
112	Myocardial Contrast Echocardiography. JACC: Cardiovascular Imaging, 2010, 3, 212-218.	2.3	4
113	Is it time to replace physical examination with a hand-held ultrasound device?. Journal of Cardiovascular Echography, 2014, 24, 97.	0.1	4
114	What is coronary blood flow reserve? Insights using myocardial contrast echocardiography. Journal of Echocardiography, 2012, 10, 1-7.	0.4	3
115	Assessment of Myocardial Collateral Blood Flow with Contrast Echocardiography. Korean Circulation Journal, 2015, 45, 351.	0.7	3
116	The Role of Pericytes in Hyperemia-Induced Capillary De-Recruitment Following Stenosis. Current Tissue Microenvironment Reports, 2020, 1, 163-169.	1.3	3
117	Quantification of microbubbleâ€induced sonothrombolysis in an ex vivo nonâ€human primate model. Journal of Thrombosis and Haemostasis, 2021, 19, 502-512.	1.9	3
118	Phosphoproteomic response of cardiac endothelial cells to ischemia and ultrasound. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2021, 1869, 140683.	1.1	3
119	Workshop on Contrast Echocardiography: Myocardial Perfusion.. Echocardiography, 1988, 5, 277-292.	0.3	2
120	Transmyocardial revascularization ameliorates ischemia by attenuating paradoxical catecholamine-induced vasoconstriction. Journal of Nuclear Cardiology, 2007, 14, 207-214.	1.4	2
121	Ultrasound therapy for treatment of lower extremity intermittent claudication. American Journal of Surgery, 2021, 221, 1271-1275.	0.9	2
122	Role of Doppler Echocardiography in Coronary Artery Disease. Journal of Intensive Care Medicine, 1991, 6, 238-256.	1.3	1
123	Myocardial contrast echocardiography in coronary artery disease. Journal of Cardiovascular Echography, 2011, 21, 1-11.	0.1	1
124	VIEWS FROM THE MASTERS: Pocket ultrasound devices: time to discard the stethoscope?. Journal of Animal Science and Technology, 2014, 1, E7-E8.	0.8	1
125	Reply. JACC: Cardiovascular Imaging, 2015, 8, 622.	2.3	1
126	Reply. JACC: Cardiovascular Imaging, 2015, 8, 620-621.	2.3	0

#	Article	IF	Citations
127	Response to commentary on JTHâ€2020â€"01486.R1 â€•Quantification of microbubbleâ€induced sonothrombolysis in an exâ€vivo nonâ€human primate model. Journal of Thrombosis and Haemostasis, 2021, 19, 874-875.	1.9	0
128	(Phospho)Proteomic dataset of ischemia- and ultrasound- stimulated mouse cardiac endothelial cells in vitro. Data in Brief, 2021, 38, 107343.	0.5	0