

# Douglas L Miller

## List of Publications by Year in descending order

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112  
papers

5,984  
citations

109321

35  
h-index

74163

75  
g-index

113  
all docs

113  
docs citations

113  
times ranked

3545  
citing authors

#	ARTICLE	IF	CITATIONS
1	Acoustic droplet vaporization for therapeutic and diagnostic applications. <i>Ultrasound in Medicine and Biology</i> , 2000, 26, 1177-1189.	1.5	506
2	Overview of Therapeutic Ultrasound Applications and Safety Considerations. <i>Journal of Ultrasound in Medicine</i> , 2012, 31, 623-634.	1.7	493
3	A review of in vitro bioeffects of inertial ultrasonic cavitation from a mechanistic perspective. <i>Ultrasound in Medicine and Biology</i> , 1996, 22, 1131-1154.	1.5	476
4	Transfection of a reporter plasmid into cultured cells by sonoporation in vitro. <i>Ultrasound in Medicine and Biology</i> , 1997, 23, 953-959.	1.5	468
5	Sonoporation: mechanical DNA delivery by ultrasonic cavitation. <i>Somatic Cell and Molecular Genetics</i> , 2002, 27, 115-134.	0.7	317
6	Bioeffects Considerations for Diagnostic Ultrasound Contrast Agents. <i>Journal of Ultrasound in Medicine</i> , 2008, 27, 611-632.	1.7	213
7	Ultrasound contrast agents nucleate inertial cavitation in vitro. <i>Ultrasound in Medicine and Biology</i> , 1995, 21, 1059-1065.	1.5	167
8	A review of the ultrasonic bioeffects of microsonation, gas-body activation, and related cavitation-like phenomena. <i>Ultrasound in Medicine and Biology</i> , 1987, 13, 443-470.	1.5	156
9	Sonoporation of monolayer cells by diagnostic ultrasound activation of contrast-agent gas bodies. <i>Ultrasound in Medicine and Biology</i> , 2000, 26, 661-667.	1.5	156
10	Overview of experimental studies of biological effects of medical ultrasound caused by gas body activation and inertial cavitation. <i>Progress in Biophysics and Molecular Biology</i> , 2007, 93, 314-330.	2.9	146
11	Tumor growth reduction and DNA transfer by cavitation-enhanced high-intensity focused ultrasound in vivo. <i>Ultrasound in Medicine and Biology</i> , 2003, 29, 887-893.	1.5	126
12	Sonoporation of cultured cells in the rotating tube exposure system. <i>Ultrasound in Medicine and Biology</i> , 1999, 25, 143-149.	1.5	109
13	Impact of myocardial contrast echocardiography on vascular permeability: comparison of three different contrast agents. <i>Ultrasound in Medicine and Biology</i> , 2004, 30, 83-91.	1.5	106
14	Enhancement of Ultrasonically-Induced Hemolysis by Perfluorocarbon-based Compared to Air-based Echo-Contrast Agents. <i>Ultrasound in Medicine and Biology</i> , 1998, 24, 285-292.	1.5	98
15	Impact of myocardial contrast echocardiography on vascular permeability: an in vivo dose response study of delivery mode, pressure amplitude and contrast dose. <i>Ultrasound in Medicine and Biology</i> , 2003, 29, 1341-1349.	1.5	90
16	Ultrasonic enhancement of gene transfection in murine melanoma tumors. <i>Ultrasound in Medicine and Biology</i> , 1999, 25, 1425-1430.	1.5	89
17	Gas-body-based contrast agent enhances vascular bioeffects of 1.09 MHz ultrasound on mouse intestine. <i>Ultrasound in Medicine and Biology</i> , 1998, 24, 1201-1208.	1.5	84
18	The influence of ultrasound frequency and gas-body composition on the contrast agent-mediated enhancement of vascular bioeffects in mouse intestine. <i>Ultrasound in Medicine and Biology</i> , 2000, 26, 307-313.	1.5	78

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19	Safety Assurance in Obstetrical Ultrasound. <i>Seminars in Ultrasound, CT and MRI</i> , 2008, 29, 156-164.	1.5	77
20	Investigation of cavitation in flowing media by lithotripter shock waves both in vitro and in vivo. <i>Ultrasound in Medicine and Biology</i> , 1989, 15, 53-60.	1.5	69
21	Induction of Apoptosis in Sonoporation and Ultrasonic Gene Transfer. <i>Ultrasound in Medicine and Biology</i> , 2009, 35, 144-154.	1.5	69
22	Bubble cycling as the explanation of the promotion of ultrasonic cavitation in a rotating tube exposure system. <i>Ultrasound in Medicine and Biology</i> , 1989, 15, 641-648.	1.5	68
23	Influence of Contrast Agent Dose and Ultrasound Exposure on Cardiomyocyte Injury Induced by Myocardial Contrast Echocardiography in Rats. <i>Radiology</i> , 2005, 237, 137-143.	7.3	67
24	Thresholds for hemorrhages in mouse skin and intestine induced by lithotripter shock waves. <i>Ultrasound in Medicine and Biology</i> , 1995, 21, 249-257.	1.5	62
25	Lithotripter shock waves with cavitation nucleation agents produce tumor growth reduction and gene transfer in vivo. <i>Ultrasound in Medicine and Biology</i> , 2002, 28, 1343-1348.	1.5	61
26	Ultrasonically induced hemolysis at high cell and gas body concentrations in a thin-disc exposure chamber. <i>Ultrasound in Medicine and Biology</i> , 1997, 23, 625-633.	1.5	59
27	DNA transfer and cell killing in epidermoid cells by diagnostic ultrasound activation of contrast agent gas bodies in vitro. <i>Ultrasound in Medicine and Biology</i> , 2003, 29, 601-607.	1.5	59
28	Microvascular Permeabilization and Cardiomyocyte Injury Provoked by Myocardial Contrast Echocardiography in a Canine Model. <i>Journal of the American College of Cardiology</i> , 2006, 47, 1464-1468.	2.8	59
29	Lysis and sonoporation of epidermoid and phagocytic monolayer cells by diagnostic ultrasound activation of contrast agent gas bodies. <i>Ultrasound in Medicine and Biology</i> , 2001, 27, 1107-1113.	1.5	57
30	The relationship of scattered subharmonic, 3.3-MHz fundamental and second harmonic signals to damage of monolayer cells by ultrasonically activated Albunex®. <i>Journal of the Acoustical Society of America</i> , 1998, 103, 1183-1189.	1.1	54
31	The interaction of ultrasonic heating and cavitation in vascular bioeffects on mouse intestine. <i>Ultrasound in Medicine and Biology</i> , 1998, 24, 123-128.	1.5	53
32	Frequency relationships for ultrasonic activation of free microbubbles, encapsulated microbubbles, and gas-filled micropores. <i>Journal of the Acoustical Society of America</i> , 1998, 104, 2498-2505.	1.1	43
33	Histological Characterization of Microlesions Induced by Myocardial Contrast Echocardiography. <i>Echocardiography</i> , 2005, 22, 25-34.	0.9	43
34	Cavitation nucleation agents for nonthermal ultrasound therapy. <i>Journal of the Acoustical Society of America</i> , 2000, 107, 3480-3486.	1.1	40
35	Frequency dependence of cavitation activity in a rotating tube exposure system compared to the mechanical index. <i>Journal of the Acoustical Society of America</i> , 1993, 93, 3475-3480.	1.1	37
36	Membrane damage thresholds for pulsed or continuous ultrasound in phagocytic cells loaded with contrast agent gas bodies. <i>Ultrasound in Medicine and Biology</i> , 2004, 30, 405-411.	1.5	36

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37	Sonoporation of erythrocytes by lithotripter shockwaves in vitro. <i>Ultrasonics</i> , 1998, 36, 947-952.	3.9	35
38	Frequency Dependence of Kidney Injury Induced by Contrast-Aided Diagnostic Ultrasound in Rats. <i>Ultrasound in Medicine and Biology</i> , 2008, 34, 1678-1687.	1.5	35
39	Induction of Pulmonary Hemorrhage in Rats During Diagnostic Ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2012, 38, 1476-1482.	1.5	35
40	Heating as a mechanism for ultrasonically-induced petechial hemorrhages in mouse intestine. <i>Ultrasound in Medicine and Biology</i> , 1994, 20, 493-503.	1.5	33
41	An in vivo rat model simulating imaging of human kidney by diagnostic ultrasound with gas-body contrast agent. <i>Ultrasound in Medicine and Biology</i> , 2007, 33, 129-135.	1.5	33
42	Evans Blue Staining of Cardiomyocytes Induced by Myocardial Contrast Echocardiography in Rats: Evidence for Necrosis Instead of Apoptosis. <i>Ultrasound in Medicine and Biology</i> , 2007, 33, 1988-1996.	1.5	33
43	Diagnostic Ultrasound Safety Review for Point-of-Care Ultrasound Practitioners. <i>Journal of Ultrasound in Medicine</i> , 2020, 39, 1069-1084.	1.7	33
44	An ex vivo Study of the Correlation Between Acoustic Emission and Microvascular Damage. <i>Ultrasound in Medicine and Biology</i> , 2009, 35, 1574-1586.	1.5	32
45	Combined shock-wave and immunogene therapy of mouse melanoma and renal carcinoma tumors. <i>Ultrasound in Medicine and Biology</i> , 2002, 28, 957-964.	1.5	31
46	Are ECG Premature Complexes Induced by Ultrasonic Cavitation Electrophysiological Responses to Irreversible Cardiomyocyte Injury?. <i>Ultrasound in Medicine and Biology</i> , 2011, 37, 312-320.	1.5	30
47	The potential for enhancement of mouse melanoma metastasis by diagnostic and high-amplitude ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2006, 32, 1097-1101.	1.5	29
48	Nephron Injury Induced by Diagnostic Ultrasound Imaging at High Mechanical Index with Gas Body Contrast Agent. <i>Ultrasound in Medicine and Biology</i> , 2007, 33, 1336-1344.	1.5	29
49	The botanical effects of ultrasound: A review. <i>Environmental and Experimental Botany</i> , 1983, 23, 1-27.	4.2	28
50	Microstreaming shear as a mechanism of cell death in Elodea leaves exposed to ultrasound. <i>Ultrasound in Medicine and Biology</i> , 1985, 11, 285-292.	1.5	27
51	Membrane damage thresholds for 1- to 10-MHz pulsed ultrasound exposure of phagocytic cells loaded with contrast agent gas bodies in vitro. <i>Ultrasound in Medicine and Biology</i> , 2004, 30, 973-977.	1.5	27
52	Pulmonary Capillary Hemorrhage Induced by Different Imaging Modes of Diagnostic Ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2018, 44, 1012-1021.	1.5	27
53	Dependence of Thresholds for Pulmonary Capillary Hemorrhage on Diagnostic Ultrasound Frequency. <i>Ultrasound in Medicine and Biology</i> , 2015, 41, 1640-1650.	1.5	26
54	Further investigations of ATP release from human erythrocytes exposed to ultrasonically activated gas-filled pores. <i>Ultrasound in Medicine and Biology</i> , 1983, 9, 297-307.	1.5	24

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55	Mechanisms for Induction of Pulmonary Capillary Hemorrhage by Diagnostic Ultrasound: Review and Consideration of Acoustical Radiation Surface Pressure. <i>Ultrasound in Medicine and Biology</i> , 2016, 42, 2743-2757.	1.5	24
56	Glomerular Capillary Hemorrhage Induced in Rats by Diagnostic Ultrasound with Gas-Body Contrast Agent Produces Intratubular Obstruction. <i>Ultrasound in Medicine and Biology</i> , 2009, 35, 869-877.	1.5	23
57	Diagnostic ultrasound-induced membrane damage in phagocytic cells loaded with contrast agent and its relation to Doppler-mode images. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2002, 49, 1094-1102.	3.0	22
58	Anesthetic Techniques Influence the Induction of Pulmonary Capillary Hemorrhage During Diagnostic Ultrasound Scanning in Rats. <i>Journal of Ultrasound in Medicine</i> , 2015, 34, 289-297.	1.7	20
59	The Effect of Time and of Vasoactive Drugs on Capillary Leakage Induced During Myocardial Contrast Echocardiography. <i>Echocardiography</i> , 2004, 21, 125-132.	0.9	19
60	WFUMB safety symposium on echo-contrast agents: In vitro bioeffects. <i>Ultrasound in Medicine and Biology</i> , 2007, 33, 197-204.	1.5	19
61	Lithotripter Shockwave-Induced Enhancement of Mouse Melanoma Lung Metastasis: Dependence on Cavitation Nucleation. <i>Journal of Endourology</i> , 2004, 18, 925-929.	2.1	18
62	Ultrasound-enhanced transfection activity of HPMA-stabilized DNA polyplexes with prolonged plasma circulation. <i>Journal of Controlled Release</i> , 2005, 106, 416-427.	9.9	18
63	Optimization of Ultrasound Parameters of Myocardial Cavitation Microlesions for Therapeutic Application. <i>Ultrasound in Medicine and Biology</i> , 2014, 40, 1228-1236.	1.5	18
64	Use of Theranostic Strategies in Myocardial Cavitation-Enabled Therapy. <i>Ultrasound in Medicine and Biology</i> , 2015, 41, 1865-1875.	1.5	14
65	Influence of Scan Duration on Pulmonary Capillary Hemorrhage Induced by Diagnostic Ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2016, 42, 1942-1950.	1.5	14
66	Contrast-Enhanced Diagnostic Ultrasound Causes Renal Tissue Damage in a Porcine Model. <i>Journal of Ultrasound in Medicine</i> , 2010, 29, 1391-1401.	1.7	13
67	Pulmonary Capillary Hemorrhage Induced by Fixed-Beam Pulsed Ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2015, 41, 2212-2219.	1.5	13
68	The Influence of Dexmedetomidine on Ultrasound-induced Pulmonary Capillary Hemorrhage in Rats. <i>Ultrasound in Medicine and Biology</i> , 2016, 42, 964-970.	1.5	13
69	Contrast-Aided Diagnostic Ultrasound Does Not Enhance Lung Metastasis in a Mouse Melanoma Tumor Model. <i>Journal of Ultrasound in Medicine</i> , 2005, 24, 349-354.	1.7	12
70	Simulation of diagnostic ultrasound image pulse sequences in cavitation bioeffects research. <i>Journal of the Acoustical Society of America</i> , 2007, 122, 2002-2008.	1.1	12
71	Ultrasonic Cavitation-Enabled Treatment for Therapy of Hypertrophic Cardiomyopathy: Proof of Principle. <i>Ultrasound in Medicine and Biology</i> , 2018, 44, 1439-1450.	1.5	12
72	In Vivo Gas Body Efficacy for Glomerular Capillary Hemorrhage Induced by Diagnostic Ultrasound in Rats. <i>IEEE Transactions on Biomedical Engineering</i> , 2010, 57, 167-174.	4.2	11

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73	A Two-Criterion Model for Microvascular Bio-Effects Induced In Vivo by Contrast Microbubbles Exposed to Medical Ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2016, 42, 1385-1398.	1.5	11
74	Photodisruptive laser nucleation of ultrasonic cavitation for biomedical applications. <i>Journal of Biomedical Optics</i> , 2001, 6, 351.	2.6	10
75	The influence of agent delivery mode on cardiomyocyte injury induced by myocardial contrast echocardiography in rats. <i>Ultrasound in Medicine and Biology</i> , 2005, 31, 1257-1263.	1.5	10
76	Magnetic resonance imaging of microvascular leakage induced by myocardial contrast echocardiography in rats. <i>Magnetic Resonance Imaging</i> , 2006, 24, 603-609.	1.8	10
77	Characterization of ultrasound-induced pulmonary capillary hemorrhage in rats. <i>Microvascular Research</i> , 2014, 93, 42-45.	2.5	10
78	The Dependence of Glomerular Capillary Hemorrhage Induced by Contrast Enhanced Diagnostic Ultrasound on Microbubble Diameter. <i>Ultrasound in Medicine and Biology</i> , 2018, 44, 613-621.	1.5	10
79	Capillary Hemorrhage Induced by Contrast-Enhanced Diagnostic Ultrasound in Rat Intestine. <i>Ultrasound in Medicine and Biology</i> , 2019, 45, 2133-2139.	1.5	10
80	Experimental Measurements of Ultrasound Attenuation in Human Chest Wall and Assessment of the Mechanical Index for Lung Ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2020, 46, 1442-1454.	1.5	10
81	Heating vs. cavitation in the induction of mouse hindlimb paralysis by ultrasound. <i>Ultrasound in Medicine and Biology</i> , 1999, 25, 1145-1150.	1.5	9
82	Diagnostic ultrasound should be performed without upper intensity limits. <i>Medical Physics</i> , 2001, 28, 1-3.	3.0	9
83	The relationship of acoustic emission and pulse-repetition frequency in the detection of gas body stability and cell death. <i>Ultrasound in Medicine and Biology</i> , 2006, 32, 439-447.	1.5	9
84	An in vitro study of the correlation between bubble distribution, acoustic emission, and cell damage by contrast ultrasound. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2009, 56, 589-599.	3.0	9
85	Histological Observation of Islet Hemorrhage Induced by Diagnostic Ultrasound with Contrast Agent in Rat Pancreas. <i>PLoS ONE</i> , 2011, 6, e21617.	2.5	9
86	Pulmonary Capillary Hemorrhage Induced by Diagnostic Ultrasound in Ventilated Rats. <i>Ultrasound in Medicine and Biology</i> , 2018, 44, 1810-1817.	1.5	9
87	Pulmonary Capillary Hemorrhage Induced by Acoustic Radiation Force Impulse Shear Wave Elastography in Ventilated Rats. <i>Journal of Ultrasound in Medicine</i> , 2019, 38, 2575-2587.	1.7	9
88	Theoretical microbubble dynamics in a viscoelastic medium at capillary breaching thresholds. <i>Journal of the Acoustical Society of America</i> , 2012, 132, 3770-3777.	1.1	8
89	Characterization of Macrolesions Induced by Myocardial Cavitation-Enabled Therapy. <i>IEEE Transactions on Biomedical Engineering</i> , 2015, 62, 717-727.	4.2	8
90	Influence of Microbubble Size and Pulse Amplitude on Hepatocyte Injury Induced by Contrast-Enhanced Diagnostic Ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2019, 45, 170-176.	1.5	7

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91	Doppler Mode Pulse Sequences Mitigate Glomerular Capillary Hemorrhage in Contrast-Aided Diagnostic Ultrasound of Rat Kidney. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2007, 54, 1802-1810.	3.0	6
92	Cardiac Arrhythmia and Injury Induced in Rats by Burst and Pulsed Mode Ultrasound With a Gas Body Contrast Agent. <i>Journal of Ultrasound in Medicine</i> , 2009, 28, 1519-1526.	1.7	6
93	Quantitative assessment of damage during MCET: a parametric study in a rodent model. <i>Journal of Therapeutic Ultrasound</i> , 2015, 3, 18.	2.2	6
94	Frequency Dependence of Petechial Hemorrhage and Cardiomyocyte Injury Induced during Myocardial Contrast Echocardiography. <i>Ultrasound in Medicine and Biology</i> , 2016, 42, 1929-1941.	1.5	6
95	Do Anesthetic Techniques Influence the Threshold for Glomerular Capillary Hemorrhage Induced in Rats by Contrast-Enhanced Diagnostic Ultrasound?. <i>Journal of Ultrasound in Medicine</i> , 2016, 35, 373-380.	1.7	6
96	Theoretical gas body pulsation in relation to empirical gas-body destabilization and to cell membrane damage thresholds. <i>Journal of the Acoustical Society of America</i> , 2004, 116, 3742-3749.	1.1	5
97	Timing of high-intensity pulses for myocardial cavitation-enabled therapy. <i>Journal of Therapeutic Ultrasound</i> , 2014, 2, 20.	2.2	5
98	Maturation of Lesions Induced by Myocardial Cavitation-Enabled Therapy. <i>Ultrasound in Medicine and Biology</i> , 2016, 42, 1541-1550.	1.5	5
99	Does Intravenous Infusion Influence Diagnostic Ultrasound-Induced Pulmonary Capillary Hemorrhage?. <i>Journal of Ultrasound in Medicine</i> , 2018, 37, 2021-2028.	1.7	5
100	Pulmonary Capillary Hemorrhage Induced by Super Sonic Shear Wave Elastography in Rats. <i>Ultrasound in Medicine and Biology</i> , 2019, 45, 2993-3004.	1.5	5
101	Acoustic Fountains and Atomization at Liquid Surfaces Excited by Diagnostic Ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2019, 45, 2162-2173.	1.5	5
102	Variation of Diagnostic Ultrasound-Induced Pulmonary Capillary Hemorrhage with Fraction of Inspired Oxygen. <i>Ultrasound in Medicine and Biology</i> , 2020, 46, 1978-1985.	1.5	4
103	The influence of octyl $\beta$ -D-glucopyranoside on cell lysis induced by ultrasonic cavitation. <i>Journal of the Acoustical Society of America</i> , 2011, 130, 3482-3488.	1.1	3
104	Multiple ultrasound cavitation-enabled treatments for myocardial reduction. <i>Journal of Therapeutic Ultrasound</i> , 2017, 5, 29.	2.2	3
105	Hepatocyte Injury Induced by Contrast-Enhanced Diagnostic Ultrasound. <i>Journal of Ultrasound in Medicine</i> , 2019, 38, 1855-1864.	1.7	3
106	A System for Investigation of Biological Effects of Diagnostic Ultrasound on Development of Zebrafish Embryos. <i>Zebrafish</i> , 2013, 10, 459-465.	1.1	2
107	Comparison of Thresholds for Pulmonary Capillary Hemorrhage Induced by Pulsed-wave and B-mode Ultrasound. <i>Physics Procedia</i> , 2015, 70, 1087-1090.	1.2	2
108	The Impact of Hemorrhagic Shock on Lung Ultrasound-Induced Pulmonary Capillary Hemorrhage. <i>Journal of Ultrasound in Medicine</i> , 2021, 40, 787-794.	1.7	2

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109	ULTRASOUND-MEDIATED GENE THERAPY. , 2006, , 69-130.		2
110	Passive microlesion detection and mapping for treatment of hypertrophic cardiomyopathy. AIP Conference Proceedings, 2017, 1816, .	0.4	1
111	The Influence of Xylazine and Clonidine on Lung Ultrasoundâ€œInduced Pulmonary Capillary Hemorrhage in Spontaneously Hypertensive Rats. Ultrasound in Medicine and Biology, 2021, 47, 2331-2338.	1.5	1
112	Characterization of macrolesions induced by myocardial contrast enabled therapy (MCET). AIP Conference Proceedings, 2017, , .	0.4	0