Joseph M Miano

List of Publications by Citations

124 papers	9,093 citations	49 h-index	94 g-index
134 ext. papers	10,126 ext. citations	8.9 avg, IF	6.07 L-index

#	Paper	IF	Citations
124	miR-145 and miR-143 regulate smooth muscle cell fate and plasticity. *Nature*, **2009**, 460, 705-10	50.4	1198
123	Serum response factor: toggling between disparate programs of gene expression. *Journal of Molecular and Cellular Cardiology*, **2003**, 35, 577-93	5.8	472
122	Serum response factor: master regulator of the actin cytoskeleton and contractile apparatus. *American Journal of Physiology - Cell Physiology*, **2007**, 292, C70-81	5.4	345
121	Myocardin: a component of a molecular switch for smooth muscle differentiation. *Journal of Molecular and Cellular Cardiology*, **2002**, 34, 1345-56	5.8	315
120	Smooth muscle myosin heavy chain exclusively marks the smooth muscle lineage during mouse embryogenesis. *Circulation Research*, **1994**, 75, 803-12	15.7	310
119	SM22 alpha, a marker of adult smooth muscle, is expressed in multiple myogenic lineages during embryogenesis. *Circulation Research*, **1996**, 78, 188-95	15.7	300
118	Expression of the SM22alpha promoter in transgenic mice provides evidence for distinct transcriptional regulatory programs in vascular and visceral smooth muscle cells. *Journal of Cell Biology*, **1996**, 132, 849-59	7.3	284
117	Thioredoxin-2 inhibits mitochondria-located ASK1-mediated apoptosis in a JNK-independent manner. *Circulation Research*, **2004**, 94, 1483-91	15.7	211
116	Defining the mammalian CArGome. *Genome Research*, **2006**, 16, 197-207	9.7	211
115	Identification and initial functional characterization of a human vascular cell-enriched long noncoding RNA. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2014**, 34, 1249-59	9.4	202
114	SRF and myocardin regulate LRP-mediated amyloid-beta clearance in brain vascular cells. *Nature Cell Biology*, **2009**, 11, 143-53	23.4	202
113	MicroRNAs are necessary for vascular smooth muscle growth, differentiation, and function. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2010**, 30, 1118-26	9.4	201
112	Restricted inactivation of serum response factor to the cardiovascular system. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 17132-7	11.5	198
111	Cholesterol loading reprograms the microRNA-143/145-myocardin axis to convert aortic smooth muscle cells to a dysfunctional macrophage-like phenotype. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2015**, 35, 535-46	9.4	190
110	Serum response factor and myocardin mediate arterial hypercontractility and cerebral blood flow dysregulation in Alzheimer's phenotype. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 823-8	11.5	156
109	Smooth Muscle Enriched Long Noncoding RNA (SMILR) Regulates Cell Proliferation. *Circulation*, **2016**, 133, 2050-65	16.7	142
108	Myocardin enhances Smad3-mediated transforming growth factor-beta1 signaling in a CArG box-independent manner: Smad-binding element is an important cis element for SM22alpha transcription in vivo. *Circulation Research*, **2005**, 97, 983-91	15.7	120

107	Smooth muscle cell plasticity: fact or fiction?. *Circulation Research*, **2013**, 112, 17-22	15.7	119
106	A Role for the Long Noncoding RNA SENCR in Commitment and Function of Endothelial Cells. *Molecular Therapy*, **2016**, 24, 978-90	11.7	111
105	Smooth muscle cell immediate-early gene and growth factor activation follows vascular injury. A putative in vivo mechanism for autocrine growth. *Arteriosclerosis and Thrombosis: A Journal of Vascular Biology*, **1993**, 13, 211-9		111
104	Role of phosphodiesterase 3 in NO/cGMP-mediated antiinflammatory effects in vascular smooth muscle cells. *Circulation Research*, **2003**, 93, 406-13	15.7	109
103	Expression of the smooth muscle cell calponin gene marks the early cardiac and smooth muscle cell lineages during mouse embryogenesis. *Journal of Biological Chemistry*, **1996**, 271, 7095-103	5.4	106
102	Transforming growth factor-beta1 (TGF-beta1) utilizes distinct pathways for the transcriptional activation of microRNA 143/145 in human coronary artery smooth muscle cells. *Journal of Biological Chemistry*, **2011**, 286, 30119-29	5.4	104
101	EVEC, a novel epidermal growth factor-like repeat-containing protein upregulated in embryonic and diseased adult vasculature. *Circulation Research*, **1999**, 84, 1166-76	15.7	104
100	Role of nuclear Ca2+/calmodulin-stimulated phosphodiesterase 1A in vascular smooth muscle cell growth and survival. *Circulation Research*, **2006**, 98, 777-84	15.7	103
99	Myocardin is sufficient for a smooth muscle-like contractile phenotype. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2008**, 28, 1505-10	9.4	99
98	Serum response factor-dependent regulation of the smooth muscle calponin gene. *Journal of Biological Chemistry*, **2000**, 275, 9814-22	5.4	97
97	Smooth muscle miRNAs are critical for post-natal regulation of blood pressure and vascular function. *PLoS ONE*, **2011**, 6, e18869	3.7	97
96	Physiological control of smooth muscle-specific gene expression through regulated nuclear translocation of serum response factor. *Journal of Biological Chemistry*, **2000**, 275, 30387-93	5.4	95
95	Direct activation of a GATA6 cardiac enhancer by Nkx2.5: evidence for a reinforcing regulatory network of Nkx2.5 and GATA transcription factors in the developing heart. *Developmental Biology*, **2000**, 217, 301-9	3.1	93
94	Role of serum response factor in the pathogenesis of disease. *Laboratory Investigation*, **2010**, 90, 1274-84	3.9	87
93	Neurovascular pathways and Alzheimer amyloid beta-peptide. *Brain Pathology*, **2005**, 15, 78-83	6	85
92	all-Trans-retinoic acid reduces neointimal formation and promotes favorable geometric remodeling of the rat carotid artery after balloon withdrawal injury. *Circulation*, **1998**, 98, 1219-27	16.7	84
91	Retinoid receptor expression and all-trans retinoic acid-mediated growth inhibition in vascular smooth muscle cells. *Circulation*, **1996**, 93, 1886-95	16.7	79
90	Lost in transgenesis: a user's guide for genetically manipulating the mouse in cardiac research. *Circulation Research*, **2012**, 111, 761-77	15.7	78

89	Myocyte enhancer binding factor-2 expression and activity in vascular smooth muscle cells. Association with the activated phenotype. *Circulation Research*, **1996**, 78, 196-204	15.7	77
88	Myocardin in biology and disease. *Journal of Biomedical Research*, **2015**, 29, 3-19	1.5	77
87	Myocardin regulates vascular smooth muscle cell inflammatory activation and disease. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2015**, 35, 817-28	9.4	71
86	MYOSLID Is a Novel Serum Response Factor-Dependent Long Noncoding RNA That Amplifies the Vascular Smooth Muscle Differentiation Program. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2016**, 36, 2088-99	9.4	70
85	Myocardin is a bifunctional switch for smooth versus skeletal muscle differentiation. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 16570-5	11.5	70
84	Testosterone and 17β-estradiol induce glandular prostatic growth, bladder outlet obstruction, and voiding dysfunction in male mice. *Endocrinology*, **2012**, 153, 5556-65	4.8	69
83	A comparative molecular analysis of four rat smooth muscle cell lines. *In Vitro Cellular and Developmental Biology - Animal*, **1998**, 34, 217-26	2.6	67
82	Leiomodin 1, a new serum response factor-dependent target gene expressed preferentially in differentiated smooth muscle cells. *Journal of Biological Chemistry*, **2012**, 287, 2459-67	5.4	64
81	Loss of LMOD1 impairs smooth muscle cytocontractility and causes megacystis microcolon intestinal hypoperistalsis syndrome in humans and mice. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E2739-E2747	11.5	62
80	stabilizes vascular endothelial cell adherens junctions through interaction with CKAP4. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 546-555	11.5	53
79	Smooth muscle--specific expression of CYP4A1 induces endothelial sprouting in renal arterial microvessels. *Circulation Research*, **2004**, 94, 167-74	15.7	52
78	Retinoids: versatile biological response modifiers of vascular smooth muscle phenotype. *Circulation Research*, **2000**, 87, 355-62	15.7	52
77	Retinoic acid-induced tissue transglutaminase and apoptosis in vascular smooth muscle cells. *Circulation Research*, **2000**, 87, 881-7	15.7	52
76	The smooth muscle cell-restricted KCNMB1 ion channel subunit is a direct transcriptional target of serum response factor and myocardin. *Journal of Biological Chemistry*, **2009**, 284, 33671-82	5.4	50
75	Serum response factor-dependent MicroRNAs regulate gastrointestinal smooth muscle cell phenotypes. *Gastroenterology*, **2011**, 141, 164-75	13.3	45
74	Serum response factor utilizes distinct promoter- and enhancer-based mechanisms to regulate cytoskeletal gene expression in macrophages. *Molecular and Cellular Biology*, **2011**, 31, 861-75	4.8	45
73	Platelet factor 4 mediates vascular smooth muscle cell injury responses. *Blood*, **2013**, 121, 4417-27	2.2	40
72	Reproducibility of CRISPR-Cas9 methods for generation of conditional mouse alleles: a multi-center evaluation. *Genome Biology*, **2019**, 20, 171	18.3	39

71	CRISPR-Cas9 genome editing of a single regulatory element nearly abolishes target gene expression in mice--brief report. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2015**, 35, 312-5	9.4	39
70	Smad3-mediated myocardin silencing: a novel mechanism governing the initiation of smooth muscle differentiation. *Journal of Biological Chemistry*, **2011**, 286, 15050-7	5.4	39
69	Multiple promoters direct expression of three AKAP12 isoforms with distinct subcellular and tissue distribution profiles. *Journal of Biological Chemistry*, **2004**, 279, 56014-23	5.4	39
68	Functional significance of protein kinase A activation by endothelin-1 and ATP: negative regulation of SRF-dependent gene expression by PKA. *Cellular Signalling*, **2003**, 15, 597-604	4.9	39
67	Identifying functional single nucleotide polymorphisms in the human CArGome. *Physiological Genomics*, **2011**, 43, 1038-48	3.6	38
66	Dual role of PKA in phenotypic modulation of vascular smooth muscle cells by extracellular ATP. *American Journal of Physiology - Cell Physiology*, **2004**, 287, C449-56	5.4	35
65	Smooth Muscle Cell Genome Browser: Enabling the Identification of Novel Serum Response Factor Target Genes. *PLoS ONE*, **2015**, 10, e0133751	3.7	35
64	Challenges and Opportunities in Linking Long Noncoding RNAs to Cardiovascular, Lung, and Blood Diseases. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2017**, 37, 21-25	9.4	34
63	A CRISPR Path to Engineering New Genetic Mouse Models for Cardiovascular Research. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2016**, 36, 1058-75	9.4	33
62	Serum response factor regulates bone formation via IGF-1 and Runx2 signals. *Journal of Bone and Mineral Research*, **2012**, 27, 1659-68	6.3	30
61	Myocardin-dependent activation of the CArG box-rich smooth muscle gamma-actin gene: preferential utilization of a single CArG element through functional association with the NKX3.1 homeodomain protein. *Journal of Biological Chemistry*, **2009**, 284, 32582-90	5.4	30
60	Expression and functional activity of four myocardin isoforms. *Gene*, **2010**, 464, 1-10	3.8	29
59	Contribution of serum response factor and myocardin to transcriptional regulation of smoothelins. *Cardiovascular Research*, **2006**, 70, 136-45	9.9	29
58	Myocardin Family Members Drive Formation of Caveolae. *PLoS ONE*, **2015**, 10, e0133931	3.7	28
57	Cloning of a novel retinoid-inducible serine carboxypeptidase from vascular smooth muscle cells. *Journal of Biological Chemistry*, **2001**, 276, 34175-81	5.4	28
56	Remote control of gene expression. *Journal of Biological Chemistry*, **2007**, 282, 15941-5	5.4	27
55	Coronary Disease-Associated Gene Inhibits Smooth Muscle Cell Differentiation by Blocking the Myocardin-Serum Response Factor Pathway. *Circulation Research*, **2020**, 126, 517-529	15.7	27
54	The short and long of noncoding sequences in the control of vascular cell phenotypes. *Cellular and Molecular Life Sciences*, **2015**, 72, 3457-88	10.3	25

53	Tumor suppressor MDA-7/IL-24 selectively inhibits vascular smooth muscle cell growth and migration. *Molecular Therapy*, **2003**, 8, 220-9	11.7	25
52	Mammalian smooth muscle differentiation: origins, markers and transcriptional control. *Results and Problems in Cell Differentiation*, **2002**, 38, 39-59	1.4	25
51	Smooth muscle calponin: an unconventional CArG-dependent gene that antagonizes neointimal formation. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2011**, 31, 2172-80	9.4	24
50	Prime editing in mice reveals the essentiality of a single base in driving tissue-specific gene expression. *Genome Biology*, **2021**, 22, 83	18.3	24
49	Myocardin and microRNA-1 modulate bladder activity through connexin 43 expression during post-natal development. *Journal of Cellular Physiology*, **2013**, 228, 1819-26	7	22
48	Retinoids: pleiotropic agents of therapy for vascular diseases?. *Current Drug Targets Cardiovascular & Haematological Disorders*, **2003**, 3, 31-57		22
47	AKAP12alpha, an atypical serum response factor-dependent target gene. *Journal of Biological Chemistry*, **2005**, 280, 4125-34	5.4	21
46	A novel retinoid-response gene set in vascular smooth muscle cells. *Biochemical and Biophysical Research Communications*, **2001**, 281, 475-82	3.4	21
45	Cross-species sequence analysis reveals multiple charged residue-rich domains that regulate nuclear/cytoplasmic partitioning and membrane localization of a kinase anchoring protein 12 (SSeCKS/Gravin). *Journal of Biological Chemistry*, **2005**, 280, 28007-14	5.4	20
44	Fate and State of Vascular Smooth Muscle Cells in Atherosclerosis. *Circulation*, **2021**, 143, 2110-2116	16.7	20
43	Novel Thrombotic Function of a Human SNP in STXBP5 Revealed by CRISPR/Cas9 Gene Editing in Mice. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2017**, 37, 264-270	9.4	19
42	Expression and promoter analysis of a highly restricted integrin alpha gene in vascular smooth muscle. *Gene*, **2013**, 513, 82-9	3.8	19
41	Mitogen-activated protein kinase 14 is a novel negative regulatory switch for the vascular smooth muscle cell contractile gene program. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2013**, 33, 378-86	9.4	19
40	Expression, genomic structure and high resolution mapping to 19p13.2 of the human smooth muscle cell calponin gene. *Gene*, **1997**, 197, 215-24	3.8	19
39	Fibronectin matrix polymerization regulates smooth muscle cell phenotype through a Rac1 dependent mechanism. *PLoS ONE*, **2014**, 9, e94988	3.7	18
38	CRISPR-Cas9-Mediated Epitope Tagging Provides Accurate and Versatile Assessment of Myocardin-Brief Report. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2018**, 38, 2184-2190	9.4	16
37	Vascular smooth muscle cell differentiation-2010. *Journal of Biomedical Research*, **2010**, 24, 169-80	1.5	16
36	Ultrastructure of zebrafish dorsal aortic cells. *Zebrafish*, **2006**, 3, 455-63	2	15

35	Channeling to myocardin. *Circulation Research*, **2004**, 95, 340-2	15.7	15
34	Retinoids: new insight into smooth muscle cell growth inhibition. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2001**, 21, 724-6	9.4	14
33	NAB2: a transcriptional brake for activated gene expression in the vessel wall?. *American Journal of Pathology*, **1999**, 155, 1009-12	5.8	14
32	Vascular smooth muscle cell contractile protein expression is increased through protein kinase G-dependent and -independent pathways by glucose-6-phosphate dehydrogenase inhibition and deficiency. *American Journal of Physiology - Heart and Circulatory Physiology*, **2016**, 311, H904-H912	5.2	14
31	Functional characterization of a putative serine carboxypeptidase in vascular smooth muscle cells. *Circulation Research*, **2009**, 105, 271-8	15.7	13
30	G-protein-coupled-receptor activation of the smooth muscle calponin gene. *Biochemical Journal*, **2001**, 357, 587-592	3.8	13
29	Serum Response Factor Is Essential for Maintenance of Podocyte Structure and Function. *Journal of the American Society of Nephrology: JASN*, **2018**, 29, 416-422	12.7	12
28	Tissue expression of the novel serine carboxypeptidase Scpep1. *Journal of Histochemistry and Cytochemistry*, **2006**, 54, 701-11	3.4	11
27	Expression of human smooth muscle calponin in transgenic mice revealed with a bacterial artificial chromosome. *American Journal of Physiology - Heart and Circulatory Physiology*, **2002**, 282, H1793-803	5.2	11
26	Maternal deprivation alters expression of neural maturation gene tbr1 in the amygdala paralaminar nucleus in infant female macaques. *Developmental Psychobiology*, **2017**, 59, 235-249	3	9
25	CRISPR-Mediated Single Nucleotide Polymorphism Modeling in Rats Reveals Insight Into Reduced Cardiovascular Risk Associated With Mediterranean Variant. *Hypertension*, **2020**, 76, 523-532	8.5	9
24	Serum Response Factor Is Essential for Prenatal Gastrointestinal Smooth Muscle Development and Maintenance of Differentiated Phenotype. *Journal of Neurogastroenterology and Motility*, **2015**, 21, 589-602	4.4	9
23	Mapping of the rat SM22 gene to chromosome 8q24: a candidate for high blood pressure and cardiac hypertrophy. *Mammalian Genome*, **1998**, 9, 76-7	3.2	9
22	Retinoid-induced expression and activity of an immediate early tumor suppressor gene in vascular smooth muscle cells. *PLoS ONE*, **2011**, 6, e18538	3.7	9
21	Serum response factor regulates smooth muscle contractility via myotonic dystrophy protein kinases and L-type calcium channels. *PLoS ONE*, **2017**, 12, e0171262	3.7	8
20	Testosterone Rescues the De-Differentiation of Smooth Muscle Cells Through Serum Response Factor/Myocardin. *Journal of Cellular Physiology*, **2017**, 232, 2806-2817	7	8
19	G-protein-coupled-receptor activation of the smooth muscle calponin gene. *Biochemical Journal*, **2001**, 357, 587-92	3.8	8
18	CRISPR links to long noncoding RNA function in mice: A practical approach. *Vascular Pharmacology*, **2019**, 114, 1-12	5.9	7

17	Expression and chromosomal mapping of the mouse smooth muscle calponin gene. *Mammalian Genome*, **2001**, 12, 187-91	3.2	7
16	Deck of CArGs. *Circulation Research*, **2008**, 103, 13-5	15.7	6
15	Expression and comparative genomics of two serum response factor genes in zebrafish. *International Journal of Developmental Biology*, **2008**, 52, 389-96	1.9	6
14	Localized Adenovirus-Mediated Gene Transfer Into Vascular Smooth Muscle in the Hamster Cheek Pouch. *Microcirculation*, **2001**, 8, 403-413	2.9	4
13	Gene structure and chromosomal mapping of the rat smooth muscle calponin gene. *Mammalian Genome*, **2000**, 11, 115-9	3.2	4
12	MKL1 cooperates with p38MAPK to promote vascular senescence, inflammation, and abdominal aortic aneurysm. *Redox Biology*, **2021**, 41, 101903	11.3	4
11	Angiotensin II: a devious activator of mineralocorticoid receptor-dependent gene expression. *Circulation Research*, **2005**, 96, 610-1	15.7	3
10	SRFing the actin cytoskeleton with no destrin. *Physiological Genomics*, **2008**, 34, 6-8	3.6	2
9	Response to correspondence on "Reproducibility of CRISPR-Cas9 methods for generation of conditional mouse alleles: a multi-center evaluation". *Genome Biology*, **2021**, 22, 99	18.3	2
8	Dicing up microRNA gene expression profiles in normal and neoplastic smooth muscle cells. *American Journal of Pathology*, **2010**, 177, 541-3	5.8	1
7	Radiation Hybrid (RH) Mapping of Human Smooth Muscle-Restricted Genes. *Methods in Molecular Medicine*, **1999**, 30, 25-35		1
6	Retinoids and Interferons as Antiangiogenic Cancer Drugs **1999**, 355-370		1
5	Prime Editing in Mice Reveals the Essentiality of a Single Base in Driving Tissue-Specific Gene Expression		1
4	Vascular Smooth Muscle Cell Phenotypic Adaptation **2012**, 1269-1278		0
3	Of mice and human-specific long noncoding RNAs.. *Mammalian Genome*, **2022**, 1	3.2	0
2	Mediterranean G6PD variant rats are protected from Angiotensin II-induced hypertension and kidney damage, but not from inflammation and arterial stiffness. *Vascular Pharmacology*, **2022**, 107002	5.9	0
1	Generating a CRISPR knockout mouse through a strong premature termination codon: a cautionary tale. *Journal of Biomedical Research*, **2020**, 35, 174-178	1.5	