Susan M Lessner

List of Publications by Citations

50 papers	1,397 citations	18 h-index	37 g-index
58 ext. papers	1,580 ext. citations	4.7 avg, IF	4.09 L-index

#	Paper	IF	Citations
50	Vascular oxidant stress enhances progression and angiogenesis of experimental atheroma. *Circulation*, **2004**, 109, 520-5	16.7	190
49	Novel role of antioxidant-1 (Atox1) as a copper-dependent transcription factor involved in cell proliferation. *Journal of Biological Chemistry*, **2008**, 283, 9157-67	5.4	167
48	Matrix metalloproteinase-9 is required for adequate angiogenic revascularization of ischemic tissues: potential role in capillary branching. *Circulation Research*, **2004**, 94, 262-8	15.7	157
47	Atherosclerotic lesions grow through recruitment and proliferation of circulating monocytes in a murine model. *American Journal of Pathology*, **2002**, 160, 2145-55	5.8	139
46	Cyclophilin A as a novel biphasic mediator of endothelial activation and dysfunction. *American Journal of Pathology*, **2004**, 164, 1567-74	5.8	118
45	Expansive arterial remodeling is associated with increased neointimal macrophage foam cell content: the murine model of macrophage-rich carotid artery lesions. *Circulation*, **2002**, 105, 2686-91	16.7	89
44	Compensatory vascular remodeling during atherosclerotic lesion growth depends on matrix metalloproteinase-9 activity. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2004**, 24, 2123-9	9.4	36
43	Matrix metalloproteinase 9 facilitates collagen remodeling and angiogenesis for vascular constructs. *Tissue Engineering*, **2005**, 11, 267-76		36
42	Nanoparticle targeting to diseased vasculature for imaging and therapy. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2014**, 10, 1003-12	6	35
41	Mechanical identification of layer-specific properties of mouse carotid arteries using 3D-DIC and a hyperelastic anisotropic constitutive model. *Computer Methods in Biomechanics and Biomedical Engineering*, **2012**, 15, 37-48	2.1	33
40	On the Uniaxial Ring Test of Tissue Engineered Constructs. *Experimental Mechanics*, **2015**, 55, 41-51	2.6	30
39	Numerical simulation of arterial dissection during balloon angioplasty of atherosclerotic coronary arteries. *Journal of Biomechanics*, **2014**, 47, 878-89	2.9	23
38	Deformation measurements and material property estimation of mouse carotid artery using a microstructure-based constitutive model. *Journal of Biomechanical Engineering*, **2010**, 132, 121010	2.1	23
37	Sparstolonin B inhibits pro-angiogenic functions and blocks cell cycle progression in endothelial cells. *PLoS ONE*, **2013**, 8, e70500	3.7	23
36	Development of a quantitative mechanical test of atherosclerotic plaque stability. *Journal of Biomechanics*, **2011**, 44, 2439-45	2.9	21
35	Speckle patterning of soft tissues for strain field measurement using digital image correlation: preliminary quality assessment of patterns. *Microscopy and Microanalysis*, **2011**, 17, 81-90	0.5	21
34	Biomechanics of porcine renal arteries and role of axial stretch. *Journal of Biomechanical Engineering*, **2013**, 135, 81007	2.1	20

33	Cellularized microcarriers as adhesive building blocks for fabrication of tubular tissue constructs. *Annals of Biomedical Engineering*, **2014**, 42, 1470-81	4.7	18
32	Adhesive strength of atherosclerotic plaque in a mouse model depends on local collagen content and elastin fragmentation. *Journal of Biomechanics*, **2013**, 46, 716-22	2.9	17
31	Quantitative Measurement of Dissection Resistance in Intimal and Medial Layers of Human Coronary Arteries. *Experimental Mechanics*, **2014**, 54, 677-683	2.6	16
30	Matrix metalloproteinases and vascular endothelium-mononuclear cell close encounters. *Trends in Cardiovascular Medicine*, **2004**, 14, 105-11	6.9	16
29	Gold nanoparticles that target degraded elastin improve imaging and rupture prediction in an AngII mediated mouse model of abdominal aortic aneurysm. *Theranostics*, **2019**, 9, 4156-4167	12.1	14
28	Comparison of Aortic Collagen Fiber Angle Distribution in Mouse Models of Atherosclerosis Using Second-Harmonic Generation (SHG) Microscopy. *Microscopy and Microanalysis*, **2016**, 22, 55-62	0.5	14
27	Comparative mechanics of diverse mammalian carotid arteries. *PLoS ONE*, **2018**, 13, e0202123	3.7	13
26	Adiporedoxin suppresses endothelial activation via inhibiting MAPK and NF-Β signaling. *Scientific Reports*, **2016**, 6, 38975	4.9	12
25	Modeling of Experimental Atherosclerotic Plaque Delamination. *Annals of Biomedical Engineering*, **2015**, 43, 2838-51	4.7	11
24	Will the real plaque vasculature please stand up? Why we need to distinguish the vasa plaquorum from the vasa vasorum. *Trends in Cardiovascular Medicine*, **2009**, 19, 87-94	6.9	11
23	Experimental and numerical studies of two arterial wall delamination modes. *Journal of the Mechanical Behavior of Biomedical Materials*, **2018**, 77, 321-330	4.1	10
22	Characterization of fracture behavior of human atherosclerotic fibrous caps using a miniature single edge notched tensile test. *Acta Biomaterialia*, **2016**, 43, 101-111	10.8	10
21	Geometric determinants of local hemodynamics in severe carotid artery stenosis. *Computers in Biology and Medicine*, **2019**, 114, 103436	7	10
20	Bone marrow deficiency of mRNA decaying protein Tristetraprolin increases inflammation and mitochondrial ROS but reduces hepatic lipoprotein production in LDLR knockout mice. *Redox Biology*, **2020**, 37, 101609	11.3	8
19	Focused in vivo genetic analysis of implanted engineered myofascial constructs. *Journal of Investigative Surgery*, **2009**, 22, 35-45	1.2	8
18	Standard duplex criteria overestimate the degree of stenosis after eversion carotid endarterectomy. *Journal of Vascular Surgery*, **2015**, 61, 1457-63	3.5	7
17	(Second) Harmonic Disharmony: Nonlinear Microscopy Shines New Light on the Pathology of Atherosclerosis. *Microscopy and Microanalysis*, **2016**, 22, 589-98	0.5	7
16	Targeted Gold Nanoparticles as an Indicator of Mechanical Damage in an Elastase Model of Aortic Aneurysm. *Annals of Biomedical Engineering*, **2020**, 48, 2268-2278	4.7	6

15	Numerical modeling of experimental human fibrous cap delamination. *Journal of the Mechanical Behavior of Biomedical Materials*, **2016**, 59, 322-336	4.1	5
14	Atherosclerotic plaque delamination: Experiments and 2D finite element model to simulate plaque peeling in two strains of transgenic mice. *Journal of the Mechanical Behavior of Biomedical Materials* , **2017**, 67, 19-30	4.1	4
13	Null strain analysis of submerged aneurysm analogues using a novel 3D stereomicroscopy device. *Computer Methods in Biomechanics and Biomedical Engineering*, **2020**, 23, 332-344	2.1	4
12	Systemic delivery of targeted nanotherapeutic reverses angiotensin II-induced abdominal aortic aneurysms in mice. *Scientific Reports*, **2021**, 11, 8584	4.9	4
11	MiR155 modulates vascular calcification by regulating Akt-FOXO3a signalling and apoptosis in vascular smooth muscle cells. *Journal of Cellular and Molecular Medicine*, **2021**, 25, 535-548	5.6	4
10	Determination of Viscoelastic Properties of human Carotid Atherosclerotic Plaque by Inverse Boundary Value Analysis. *IOP Conference Series: Materials Science and Engineering*, **2018**, 381,	0.4	2
9	Diet alters age-related remodeling of aortic collagen in mice susceptible to atherosclerosis. *American Journal of Physiology - Heart and Circulatory Physiology*, **2021**, 320, H52-H65	5.2	2
8	Development of a Quantitative Mechanical Test of Atherosclerotic Plaque Stability **2010**,		1
7	Age and sex dependency of thoracic aortopathy in a mouse model of Marfan syndrome. *American Journal of Physiology - Heart and Circulatory Physiology*, **2022**, 322, H44-H56	5.2	1
6	Beyond the Airbrush: Applications of Digital Image Correlation in Vascular Biomechanics. *Conference Proceedings of the Society for Experimental Mechanics*, **2019**, 1-4	0.3	1
5	Simulation of Atherosclerotic Plaque Delamination Using the Cohesive Zone Model. *Conference Proceedings of the Society for Experimental Mechanics*, **2015**, 81-88	0.3	
4	Diet-induced Vascular Remodeling Produces a Shift in Collagen Fiber Angle Distribution in a Mouse Model of Atherosclerosis. *FASEB Journal*, **2015**, 29, 719.9	0.9	
3	Diet Alters Age-related Remodeling of Aortic Extracellular Matrix in Mice Susceptible to Atherosclerosis. *FASEB Journal*, **2016**, 30, 1082.10	0.9	
2	Comparing the Passive Biomechanics of Tension-Pressure Loading of Porcine Renal Artery and Its First Branch. *Conference Proceedings of the Society for Experimental Mechanics*, **2014**, 35-40	0.3	
1	Inflammation and Matrix Metalloproteinases140-161		