Martin A Schwartz

List of Publications by Year
in descending order

141 papers	30,462 citations	15880 67 h-index	11282 141 g-index
349 all docs	349 docs citations	349 times ranked	34836 citing authors

#	Article	IF	Citations
1	mTOR inhibition prevents angiotensin IIâ€"induced aortic rupture and pseudoaneurysm but promotes dissection in Apoe-deficient mice. JCI Insight, 2022, 7, .	2.3	8
2	MicroRNAs in Mechanical Homeostasis. Cold Spring Harbor Perspectives in Medicine, 2022, , a041220.	2.9	5
3	A mitochondrial contribution to anti-inflammatory shear stress signaling in vascular endothelial cells. Journal of Cell Biology, 2022, 221, .	2.3	23
4	Fibronectinâ€"Integrin Î±5 Signaling in Vascular Complications of Type 1 Diabetes. Diabetes, 2022, 71, 2020-2033.	0.3	4
5	High Fluid Shear Stress Inhibits Cytokineâ€Driven Smad2/3 Activation in Vascular Endothelial Cells. Journal of the American Heart Association, 2022, 11, .	1.6	8
6	Developmental origins of mechanical homeostasis in the aorta. Developmental Dynamics, 2021, 250, 629-639.	0.8	28
7	Early events in endothelial flow sensing. Cytoskeleton, 2021, 78, 217-231.	1.0	30
8	Mechanotransduction through Integrinâ€mediated Adhesions. FASEB Journal, 2021, 35, .	0.2	0
9	Developmental Perspectives on Arterial Fate Specification. Frontiers in Cell and Developmental Biology, 2021, 9, 691335.	1.8	6
10	Epistatic interaction of PDE4DIP and DES mutations in familial atrial fibrillation with slow conduction. Human Mutation, 2021, 42, 1279-1293.	1.1	10
11	Altered endocytosis in cellular senescence. Ageing Research Reviews, 2021, 68, 101332.	5.0	25
12	Vascular Mechanobiology: Homeostasis, Adaptation, and Disease. Annual Review of Biomedical Engineering, 2021, 23, 1-27.	5.7	75
13	Fibronectinâ€Mediated Inflammatory Signaling Through Integrin Î±5 in Vascular Remodeling. Journal of the American Heart Association, 2021, 10, e021160.	1.6	17
14	Integrin-based mechanosensing through conformational deformation. Biophysical Journal, 2021, 120, 4349-4359.	0.2	10
15	Defective Flow-Migration Coupling Causes Arteriovenous Malformations in Hereditary Hemorrhagic Telangiectasia. Circulation, 2021, 144, 805-822.	1.6	55
16	Activation of Smad2/3 signaling by low fluid shear stress mediates artery inward remodeling. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	32
17	Talin in mechanotransduction and mechanomemory at a glance. Journal of Cell Science, 2021, 134, .	1.2	43
18	Progressive Microstructural Deterioration Dictates Evolving Biomechanical Dysfunction in the Marfan Aorta. Frontiers in Cardiovascular Medicine, 2021, 8, 800730.	1.1	14

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19	MEKK3â€"TGFÎ² crosstalk regulates inward arterial remodeling. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	17
20	Actin flow-dependent and -independent force transmission through integrins. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 32413-32422.	3.3	22
21	Integrin-mediated adhesions in regulation of cellular senescence. Science Advances, 2020, 6, eaay3909.	4.7	35
22	Laser capture microdissection coupled mass spectrometry (LCM-MS) for spatially resolved analysis of formalin-fixed and stained human lung tissues. Clinical Proteomics, 2020, 17, 24.	1.1	37
23	Endothelial-to-Mesenchymal Transition, Vascular Inflammation, and Atherosclerosis. Frontiers in Cardiovascular Medicine, 2020, 7, 53.	1.1	72
24	Filamin A mediates isotropic distribution of applied force across the actin network. Journal of Cell Biology, 2019, 218, 2481-2491.	2.3	31
25	Endothelial TGF-Î² signalling drives vascular inflammation and atherosclerosis. Nature Metabolism, 2019, 1, 912-926.	5.1	172
26	Mechanosensation of cyclical force by PIEZO1 is essential for innate immunity. Nature, 2019, 573, 69-74.	13.7	329
27	Caveolin-1 Regulates Atherogenesis by Attenuating Low-Density Lipoprotein Transcytosis and Vascular Inflammation Independently of Endothelial Nitric Oxide Synthase Activation. Circulation, 2019, 140, 225-239.	1.6	100
28	Coarse-Grained Simulation of Full-Length Integrin Activation. Biophysical Journal, 2019, 116, 1000-1010.	0.2	22
29	MKL1-actin pathway restricts chromatin accessibility and prevents mature pluripotency activation. Nature Communications, 2019, 10, 1695.	5.8	31
30	MicroRNA-dependent regulation of biomechanical genes establishes tissue stiffness homeostasis. Nature Cell Biology, 2019, 21, 348-358.	4.6	44
31	Translocating transcription factors in fluid shear stress-mediated vascular remodeling and disease. Experimental Cell Research, 2019, 376, 92-97.	1.2	30
32	ARHGAP18: A Flowâ€Responsive Gene That Regulates Endothelial Cell Alignment and Protects Against Atherosclerosis. Journal of the American Heart Association, 2019, 8, e010057.	1.6	17
33	Registration of the extracellular matrix components constituting the fibroblastic focus in idiopathic pulmonary fibrosis. JCI Insight, 2019, 4, .	2.3	54
34	Integrin Î±5Î²1 regulates PP2A complex assembly through PDE4D in atherosclerosis. Journal of Clinical Investigation, 2019, 129, 4863-4874.	3.9	37
35	A unifying concept in vascular health and disease. Science, 2018, 360, 270-271.	6.0	75
36	Inhibiting Integrin Î±5 Cytoplasmic Domain Signaling Reduces Atherosclerosis and Promotes Arteriogenesis. Journal of the American Heart Association, 2018, 7, .	1.6	25

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37	Vinculin and the mechanical response of adherent fibroblasts to matrix deformation. Scientific Reports, 2018, 8, 17967.	1.6	14
38	Talin as a mechanosensitive signaling hub. Journal of Cell Biology, 2018, 217, 3776-3784.	2.3	174
39	Local Tension on Talin in Focal Adhesions Correlates with F-Actin Alignment at the NanometerÂScale. Biophysical Journal, 2018, 115, 1569-1579.	0.2	28
40	hMENA isoforms impact NSCLC patient outcome through fibronectin/Î²1 integrin axis. Oncogene, 2018, 37, 5605-5617.	2.6	17
41	VE-Cadherin Phosphorylation Regulates Endothelial Fluid Shear Stress Responses through the Polarity Protein LGN. Current Biology, 2017, 27, 2219-2225.e5.	1.8	53
42	Live imaging molecular changes in junctional tension upon VE-cadherin in zebrafish. Nature Communications, 2017, 8, 1402.	5.8	73
43	Force regulated conformational change of integrin Î±VÎ²3. Matrix Biology, 2017, 60-61, 70-85.	1.5	66
44	Shear-induced Notch-Cx37-p27 axis arrests endothelial cell cycle to enable arterial specification. Nature Communications, 2017, 8, 2149.	5.8	201
45	Ion Channels in Endothelial Responses to Fluid Shear Stress. Physiology, 2016, 31, 359-369.	1.6	59
46	<scp>KLF</scp> 4 is a key determinant in the development and progression of cerebral cavernous malformations. EMBO Molecular Medicine, 2016, 8, 6-24.	3.3	141
47	Talin tension sensor reveals novel features of focal adhesion force transmission and mechanosensitivity. Journal of Cell Biology, 2016, 213, 371-383.	2.3	205
48	Interaction between integrin Î±5 and PDE4D regulates endothelial inflammatory signalling. Nature Cell Biology, 2016, 18, 1043-1053.	4.6	79
49	Defective fluid shear stress mechanotransduction mediates hereditary hemorrhagic telangiectasia. Journal of Cell Biology, 2016, 214, 807-816.	2.3	143
50	Comparative biology of decellularized lung matrix: Implications of species mismatch in regenerative medicine. Biomaterials, 2016, 102, 220-230.	5.7	68
51	An Osteopontin/CD44 Axis in RhoGDI2-Mediated Metastasis Suppression. Cancer Cell, 2016, 30, 432-443.	7.7	58
52	Syndecan-4 controls lymphatic vasculature remodeling during embryonic development. Development (Cambridge), 2016, 143, 4441-4451.	1.2	33
53	Targeting NCK-Mediated Endothelial Cell Front-Rear Polarity Inhibits Neovascularization. Circulation, 2016, 133, 409-421.	1.6	65
54	Spider Silk Peptide Is a Compact, Linear Nanospring Ideal for Intracellular Tension Sensing. Nano Letters, 2016, 16, 2096-2102.	4.5	61

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55	Biomechanics of vascular mechanosensation and remodeling. Molecular Biology of the Cell, 2016, 27, 7-11.	0.9	111
56	Endothelial fluid shear stress sensing in vascular health and disease. Journal of Clinical Investigation, 2016, 126, 821-828.	3.9	405
57	Vascular remodeling is governed by a VEGFR3-dependent fluid shear stress set point. ELife, 2015, 4, .	2.8	177
58	ZO-1 controls endothelial adherens junctions, cellâ€"cell tension, angiogenesis, and barrier formation. Journal of Cell Biology, 2015, 208, 821-838.	2.3	411
59	Up-regulation of Thrombospondin-2 in Akt1-null Mice Contributes to Compromised Tissue Repair Due to Abnormalities in Fibroblast Function. Journal of Biological Chemistry, 2015, 290, 409-422.	1.6	14
60	Mechanotransduction of shear stress occurs through changes in VE-cadherin and PECAM-1 tension: Implications for cell migration. Cell Adhesion and Migration, 2015, 9, 335-339.	1.1	48
61	The importance of indifference in scientific research. Journal of Cell Science, 2015, 128, 2745-6.	1.2	2
62	Intramembrane binding of VE-cadherin to VEGFR2 and VEGFR3 assembles the endothelial mechanosensory complex. Journal of Cell Biology, 2015, 208, 975-986.	2.3	234
63	Role of Mechanotransduction in Vascular Biology. Circulation Research, 2015, 116, 1448-1461.	2.0	299
64	Integrin adjunct therapy for melanoma. Pigment Cell and Melanoma Research, 2015, 28, 114-116.	1.5	1
65	Endothelial-to-mesenchymal transition drives atherosclerosis progression. Journal of Clinical Investigation, 2015, 125, 4514-4528.	3.9	394
66	Spatial and temporal control of Rho GTPase functions. Cellular Logistics, 2014, 4, e943618.	0.9	20
67	Syndecan 4 is required for endothelial alignment in flow and atheroprotective signaling. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17308-17313.	3.3	133
68	Dysfunctional Mechanosensing in Aneurysms. Science, 2014, 344, 477-479.	6.0	133
69	Mechanotransduction and extracellular matrix homeostasis. Nature Reviews Molecular Cell Biology, 2014, 15, 802-812.	16.1	1,492
70	Discovery and characterization of small molecules that target the GTPase Ral. Nature, 2014, 515, 443-447.	13.7	126
71	Chemokine-coupled Î²2 integrinâ€"induced macrophage Rac2â€"Myosin IIA interaction regulates VEGF-A mRNA stability and arteriogenesis. Journal of Experimental Medicine, 2014, 211, 1957-1968.	4.2	43
72	Tension-Sensitive Actin Assembly Supports Contractility at the Epithelial Zonula Adherens. Current Biology, 2014, 24, 1689-1699.	1.8	171

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73	Towards the void. Nature Materials, 2013, 12, 783-784.	13.3	1
74	Integrins in mechanotransduction. Current Opinion in Cell Biology, 2013, 25, 613-618.	2.6	270
75	Deconstructing Dimensionality. Science, 2013, 339, 402-404.	6.0	88
76	N-cadherin regulates spatially polarized signals through distinct p120ctn and Î²-catenin-dependent signalling pathways. Nature Communications, 2013, 4, 1589.	5.8	52
77	Fluid Shear Stress on Endothelial Cells Modulates Mechanical Tension across VE-Cadherin and PECAM-1. Current Biology, 2013, 23, 1024-1030.	1.8	431
78	Endothelial Cell Sensing of Flow Direction. Arteriosclerosis, Thrombosis, and Vascular Biology, 2013, 33, 2130-2136.	1.1	230
79	Flow-dependent cellular mechanotransduction in atherosclerosis. Journal of Cell Science, 2013, 126, 5101-9.	1.2	67
80	Lymphatics thrive on stress: mechanical force in lymphatic development. EMBO Journal, 2012, 31, 781-782.	3.5	5
81	Lessons from the endothelial junctional mechanosensory complex. F1000 Biology Reports, 2012, 4, 1.	4.0	82
82	Effects of integrin-mediated cell adhesion on plasma membrane lipid raft components and signaling. Molecular Biology of the Cell, 2011, 22, 3456-3464.	0.9	42
83	Dynamic molecular processes mediate cellular mechanotransduction. Nature, 2011, 475, 316-323.	13.7	839
84	Lightâ€Triggered Myosin Activation for Probing Dynamic Cellular Processes. Angewandte Chemie - International Edition, 2011, 50, 5667-5670.	7.2	24
85	Spatiotemporal organization, regulation, and functions of tractions during neutrophil chemotaxis. Blood, 2010, 116, 3297-3310.	0.6	33
86	Measuring mechanical tension across vinculin reveals regulation of focal adhesion dynamics. Nature, 2010, 466, 263-266.	13.7	1,274
87	Cell adhesion: integrating cytoskeletal dynamics and cellular tension. Nature Reviews Molecular Cell Biology, 2010, 11, 633-643.	16.1	1,665
88	Remembrance of Dead Cells Past: Discovering That the Extracellular Matrix Is a Cell Survival Factor. Molecular Biology of the Cell, 2010, 21, 499-500.	0.9	4
89	Matrix-Specific Protein Kinase A Signaling Regulates p21-Activated Kinase Activation by Flow in Endothelial Cells. Circulation Research, 2010, 106, 1394-1403.	2.0	54
90	Atheroprone Hemodynamics Regulate Fibronectin Deposition to Create Positive Feedback That Sustains Endothelial Inflammation. Circulation Research, 2010, 106, 1703-1711.	2.0	101

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91	Myosin II directly binds and inhibits Dbl family guanine nucleotide exchange factors: a possible link to Rho family GTPases. Journal of Cell Biology, 2010, 190, 663-674.	2.3	58
92	The Subendothelial Extracellular Matrix Modulates JNK Activation by Flow. Circulation Research, 2009, 104, 995-1003.	2.0	86
93	Mechanotransduction in vascular physiology and atherogenesis. Nature Reviews Molecular Cell Biology, 2009, 10, 53-62.	16.1	976
94	Cadherin Adhesion, Tissue Tension, and Noncanonical Wnt Signaling Regulate Fibronectin Matrix Organization. Developmental Cell, 2009, 16, 421-432.	3.1	164
95	The Force Is with Us. Science, 2009, 323, 588-589.	6.0	55
96	The importance of stupidity in scientific research. Journal of Cell Science, 2008, 121, 1771-1771.	1.2	79
97	Cell adhesion receptors in mechanotransduction. Current Opinion in Cell Biology, 2008, 20, 551-556.	2.6	365
98	p21-Activated Kinase Signaling Regulates Oxidant-Dependent NF-Î°B Activation by Flow. Circulation Research, 2008, 103, 671-679.	2.0	85
99	Integrin Agonists as Adjuvants in Chemotherapy for Melanoma. Clinical Cancer Research, 2008, 14, 6193-6197.	3.2	25
100	The Role of Cellular Adaptation to Mechanical Forces in Atherosclerosis. Arteriosclerosis, Thrombosis, and Vascular Biology, 2008, 28, 2101-2107.	1.1	82
101	Matrix-specific p21-activated kinase activation regulates vascular permeability in atherogenesis. Journal of Cell Biology, 2007, 176, 719-727.	2.3	125
102	Rac, membrane heterogeneity, caveolin and regulation of growth by integrins. Trends in Cell Biology, 2007, 17, 246-250.	3.6	104
103	Mechanisms of Mechanotransduction. Developmental Cell, 2006, 10, 11-20.	3.1	698
104	Integrin-mediated adhesion regulates membrane order. Journal of Cell Biology, 2006, 174, 725-734.	2.3	246
105	In Vivo Dynamics of Rac-Membrane Interactions. Molecular Biology of the Cell, 2006, 17, 2770-2779.	0.9	83
106	Matrix-specific Suppression of Integrin Activation in Shear Stress Signaling. Molecular Biology of the Cell, 2006, 17, 4686-4697.	0.9	139
107	Phospho-caveolin-1 mediates integrin-regulated membrane domain internalization. Nature Cell Biology, 2005, 7, 901-908.	4.6	373
108	A mechanosensory complex that mediates the endothelial cell response to fluid shear stress. Nature, 2005, 437, 426-431.	13.7	1,457

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109	The subendothelial extracellular matrix modulates NF-Î°B activation by flow. Journal of Cell Biology, 2005, 169, 191-202.	2.3	248
110	Integrin-dependent actomyosin contraction regulates epithelial cell scattering. Journal of Cell Biology, 2005, 171, 153-164.	2.3	285
111	Integrin Activation and Matrix Binding Mediate Cellular Responses to Mechanical Stretch. Journal of Biological Chemistry, 2005, 280, 16546-16549.	1.6	194
112	Putting the Squeeze on Mechanotransduction. Developmental Cell, 2004, 6, 745-746.	3.1	5
113	Integrins Regulate Rac Targeting by Internalization of Membrane Domains. Science, 2004, 303, 839-842.	6.0	496
114	Cell Migration: Integrating Signals from Front to Back. Science, 2003, 302, 1704-1709.	6.0	4,337
115	Electrochemically Derived Gradients of the Extracellular Matrix Protein Fibronectin on Gold. Langmuir, 2003, 19, 7528-7536.	1.6	110
116	Localized Cdc42 Activation, Detected Using a Novel Assay, Mediates Microtubule Organizing Center Positioning in Endothelial Cells in Response to Fluid Shear Stress. Journal of Biological Chemistry, 2003, 278, 31020-31023.	1.6	165
117	Guanine Exchange-Dependent and -Independent Effects of Vav1 on Integrin-Induced T Cell Spreading. Journal of Immunology, 2003, 170, 41-47.	0.4	43
118	A Fragment of Paxillin Binds the Î±4Integrin Cytoplasmic Domain (Tail) and Selectively Inhibits Î±4-Mediated Cell Migration. Journal of Biological Chemistry, 2002, 277, 20887-20894.	1.6	51
119	Matrix and meaning. Methods in Cell Biology, 2002, 69, 13-16.	0.5	0
120	Networks and crosstalk: integrin signalling spreads. Nature Cell Biology, 2002, 4, E65-E68.	4.6	708
121	Activation of Rac1 by shear stress in endothelial cells mediates both cytoskeletal reorganization and effects on gene expression. EMBO Journal, 2002, 21, 6791-6800.	3.5	297
122	Coordinate signaling by integrins and receptor tyrosine kinases in the regulation of G1 phase cell-cycle progression. Current Opinion in Genetics and Development, 2001, 11, 48-53.	1.5	295
123	Timing of cyclin D1 expression within G1 phase is controlled by Rho. Nature Cell Biology, 2001, 3, 950-957.	4.6	298
124	Increased filamin binding to Î²-integrin cytoplasmic domains inhibits cell migration. Nature Cell Biology, 2001, 3, 1060-1068.	4.6	215
125	Signaling networks linking integrins and Rho family GTPases. Trends in Biochemical Sciences, 2000, 25, 388-391.	3.7	286
126	Death Effector Domain Protein PEA-15 Potentiates Ras Activation of Extracellular Signal Receptor-activated Kinase by an Adhesion-independent Mechanism. Molecular Biology of the Cell, 2000, 11, 2863-2872.	0.9	66

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127	Determination of GTP loading on Rho. Methods in Enzymology, 2000, 325, 264-272.	0.4	308
128	Antibody-Induced Activation of Î²1 Integrin Receptors Stimulates cAMP-Dependent Migration of Breast Cells on Laminin-5. Molecular Cell Biology Research Communications: MCBRC: Part B of Biochemical and Biophysical Research Communications, 2000, 4, 129-135.	1.7	15
129	Localized Rac Activation Dynamics Visualized in Living Cells. Science, 2000, 290, 333-337.	6.0	653
130	Integrin-dependent Tyrosine Phosphorylation and Growth Regulation by Vav. Cell Adhesion and Communication, 1999, 7, 1-11.	1.7	29
131	Activation of Rac and Cdc42 by Integrins Mediates Cell Spreading. Molecular Biology of the Cell, 1998, 9, 1863-1871.	0.9	592
132	Affinity Modulation of Platelet Integrin Î±IIbÎ²3 by Î²3-Endonexin, a Selective Binding Partner of the Î²3 Integrin Cytoplasmic Tail. Journal of Cell Biology, 1997, 137, 1433-1443.	2.3	132
133	Integrins, Oncogenes, and Anchorage Independence. Journal of Cell Biology, 1997, 139, 575-578.	2.3	327
134	Suppression of Integrin Activation: A Novel Function of a Ras/Raf-Initiated MAP Kinase Pathway. Cell, 1997, 88, 521-530.	13.5	480
135	Integrins, adhesion and apoptosis. Trends in Cell Biology, 1997, 7, 146-150.	3.6	257
136	The Regulation of Growth and Intracellular Signaling by Integrins. Endocrine Reviews, 1996, 17, 207-220.	8.9	147
137	Integrins: Emerging Paradigms of Signal Transduction. Annual Review of Cell and Developmental Biology, 1995, 11, 549-599.	4.0	1,554
138	Studying the Cytoskeleton by Label Transfer Crosslinking: Uses and Limitations. , 1989, , 157-168.		3
139	Hydrogen atom exchange between nitroxides and hydroxylamines. Journal of the American Chemical Society, 1979, 101, 3592-3595.	6.6	37
140	Kinetics of antibody association with spin-label haptens on membrane surfaces. The Journal of Physical Chemistry, 1979, 83, 3414-3417.	2.9	8
141	A circular dichroism study of the effects of a hemolytic toxin from gymnodinium breve, the Florida red tide organism, on human erythrocyte membranes. Journal of Environmental Science and Health Part A, Environmental Science and Engineering, 1976, 11, 573-581.	0.1	0