

# Keith Burridge

## List of Publications by Year in descending order

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120  
papers

30,993  
citations

7551

77  
h-index

17546

121  
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122  
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122  
docs citations

122  
times ranked

24781  
citing authors

#	ARTICLE	IF	CITATIONS
1	Cell Migration: Integrating Signals from Front to Back. <i>Science</i> , 2003, 302, 1704-1709.	6.0	4,337
2	Focal Adhesions: Transmembrane Junctions Between the Extracellular Matrix and the Cytoskeleton. <i>Annual Review of Cell Biology</i> , 1988, 4, 487-525.	26.0	2,045
3	FOCAL ADHESIONS, CONTRACTILITY, AND SIGNALING. <i>Annual Review of Cell and Developmental Biology</i> , 1996, 12, 463-519.	4.0	1,756
4	Rho and Rac Take Center Stage. <i>Cell</i> , 2004, 116, 167-179.	13.5	1,634
5	Interaction of plasma membrane fibronectin receptor with talin—a transmembrane linkage. <i>Nature</i> , 1986, 320, 531-533.	13.7	1,188
6	Bidirectional signaling between the cytoskeleton and integrins. <i>Current Opinion in Cell Biology</i> , 1999, 11, 274-286.	2.6	715
7	Î±-Actinin: Immunofluorescent localization of a muscle structural protein in nonmuscle cells. <i>Cell</i> , 1975, 6, 289-298.	13.5	603
8	Rho-mediated Contractility Exposes a Cryptic Site in Fibronectin and Induces Fibronectin Matrix Assembly. <i>Journal of Cell Biology</i> , 1998, 141, 539-551.	2.3	575
9	P120 Catenin Regulates the Actin Cytoskeleton via Rho Family Gtpases. <i>Journal of Cell Biology</i> , 2000, 150, 567-580.	2.3	515
10	Regulation of vinculin binding to talin and actin by phosphatidyl-inositol-4-5-bisphosphate. <i>Nature</i> , 1996, 381, 531-535.	13.7	508
11	Isolated nuclei adapt to force and reveal a mechanotransduction pathway in the nucleus. <i>Nature Cell Biology</i> , 2014, 16, 376-381.	4.6	495
12	Focal Adhesions: A Nexus for Intracellular Signaling and Cytoskeletal Dynamics. <i>Experimental Cell Research</i> , 2000, 261, 25-36.	1.2	470
13	The 'invisible hand': regulation of RHO GTPases by RHOGDIs. <i>Nature Reviews Molecular Cell Biology</i> , 2011, 12, 493-504.	16.1	470
14	RhoA is required for monocyte tail retraction during transendothelial migration. <i>Journal of Cell Biology</i> , 2001, 154, 147-160.	2.3	453
15	Integrin signaling to the actin cytoskeleton. <i>Current Opinion in Cell Biology</i> , 2003, 15, 572-582.	2.6	450
16	Microtubule growth activates Rac1 to promote lamellipodial protrusion in fibroblasts. <i>Nature Cell Biology</i> , 1999, 1, 45-50.	4.6	449
17	An interaction between vinculin and talin. <i>Nature</i> , 1984, 308, 744-746.	13.7	434
18	Coupling membrane protrusion and cell adhesion. <i>Journal of Cell Science</i> , 2003, 116, 2389-2397.	1.2	421

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19	Integrin engagement suppresses RhoA activity via a c-Src-dependent mechanism. <i>Current Biology</i> , 2000, 10, 719-722.	1.8	398
20	RhoA Inactivation by p190RhoGAP Regulates Cell Spreading and Migration by Promoting Membrane Protrusion and Polarity. <i>Molecular Biology of the Cell</i> , 2001, 12, 2711-2720.	0.9	398
21	Cadherin Engagement Regulates Rho family GTPases. <i>Journal of Biological Chemistry</i> , 2001, 276, 33305-33308.	1.6	383
22	Recruitment of the Arp2/3 complex to vinculin. <i>Journal of Cell Biology</i> , 2002, 159, 881-891.	2.3	370
23	The Rho GEFs LARG and GEF-H1 regulate the mechanical response to force on integrins. <i>Nature Cell Biology</i> , 2011, 13, 722-727.	4.6	324
24	Regulation of Rho GTPase crosstalk, degradation and activity by RhoGDI1. <i>Nature Cell Biology</i> , 2010, 12, 477-483.	4.6	309
25	Focal adhesions, stress fibers and mechanical tension. <i>Experimental Cell Research</i> , 2016, 343, 14-20.	1.2	308
26	Rho protein crosstalk: another social network?. <i>Trends in Cell Biology</i> , 2011, 21, 718-726.	3.6	303
27	The 180-kD component of the neural cell adhesion molecule N-CAM is involved in cell-cell contacts and cytoskeleton-membrane interactions. <i>Cell and Tissue Research</i> , 1987, 250, 227-236.	1.5	298
28	Serine Phosphorylation Negatively Regulates RhoA in Vivo. <i>Journal of Biological Chemistry</i> , 2003, 278, 19023-19031.	1.6	277
29	ICAM-1-Mediated, Src- and Pyk2-Dependent Vascular Endothelial Cadherin Tyrosine Phosphorylation Is Required for Leukocyte Transendothelial Migration. <i>Journal of Immunology</i> , 2007, 179, 4053-4064.	0.4	277
30	RhoA is required for cortical retraction and rigidity during mitotic cell rounding. <i>Journal of Cell Biology</i> , 2003, 160, 255-265.	2.3	275
31	The tension mounts: Stress fibers as force-generating mechanotransducers. <i>Journal of Cell Biology</i> , 2013, 200, 9-19.	2.3	274
32	Colocalization of calcium-dependent protease II and one of its substrates at sites of cell adhesion. <i>Cell</i> , 1987, 51, 569-577.	13.5	271
33	Leukocyte transendothelial migration: orchestrating the underlying molecular machinery. <i>Current Opinion in Cell Biology</i> , 2001, 13, 569-577.	2.6	263
34	RhoA and ROCK Promote Migration by Limiting Membrane Protrusions. <i>Journal of Biological Chemistry</i> , 2003, 278, 13578-13584.	1.6	258
35	Non-muscle $\hat{\pm}$ -actinins are calcium-sensitive actin-binding proteins. <i>Nature</i> , 1981, 294, 565-567.	13.7	249
36	The on-off relationship of Rho and Rac during integrin-mediated adhesion and cell migration. <i>Small GTPases</i> , 2014, 5, e27958.	0.7	245

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37	Transmembrane molecular assemblies in cell-extracellular matrix interactions. <i>Current Opinion in Cell Biology</i> , 1991, 3, 849-853.	2.6	226
38	Vav2 Is an Activator of Cdc42, Rac1, and RhoA. <i>Journal of Biological Chemistry</i> , 2000, 275, 10141-10149.	1.6	226
39	Rnd Proteins Function as RhoA Antagonists by Activating p190 RhoGAP. <i>Current Biology</i> , 2003, 13, 1106-1115.	1.8	222
40	Are stress fibres contractile?. <i>Nature</i> , 1981, 294, 691-692.	13.7	213
41	Purification and structural analysis of myosins from brain and other non-muscle tissues. <i>Journal of Molecular Biology</i> , 1975, 99, 1-14.	2.0	209
42	[5] Direct identification of specific glycoproteins and antigens in sodium dodecyl sulfate gels. <i>Methods in Enzymology</i> , 1978, 50, 54-64.	0.4	195
43	From Mechanical Force to RhoA Activation. <i>Biochemistry</i> , 2012, 51, 7420-7432.	1.2	193
44	RhoG regulates endothelial apical cup assembly downstream from ICAM1 engagement and is involved in leukocyte trans-endothelial migration. <i>Journal of Cell Biology</i> , 2007, 178, 1279-1293.	2.3	192
45	Focal adhesions: a personal perspective on a half century of progress. <i>FEBS Journal</i> , 2017, 284, 3355-3361.	2.2	184
46	Microtubule Depolymerization Induces Stress Fibers, Focal Adhesions, and DNA Synthesis via the GTP-Binding Protein Rho. <i>Cell Adhesion and Communication</i> , 1998, 5, 249-255.	1.7	182
47	The Regulation of Vascular Endothelial Growth Factor-induced Microvascular Permeability Requires Rac and Reactive Oxygen Species. <i>Journal of Biological Chemistry</i> , 2009, 284, 25602-25611.	1.6	182
48	Vav2 Activates Rac1, Cdc42, and RhoA Downstream from Growth Factor Receptors but Not $\beta$ 1 Integrins. <i>Molecular and Cellular Biology</i> , 2000, 20, 7160-7169.	1.1	181
49	Focal contacts: Transmembrane links between the extracellular matrix and the cytoskeleton. <i>BioEssays</i> , 1989, 10, 104-108.	1.2	179
50	Analysis of Activated GAPs and GEFs in Cell Lysates. <i>Methods in Enzymology</i> , 2006, 406, 425-437.	0.4	179
51	Simultaneous Stretching and Contraction of Stress Fibers In Vivo. <i>Molecular Biology of the Cell</i> , 2004, 15, 3497-3508.	0.9	176
52	Direct Activation of RhoA by Reactive Oxygen Species Requires a Redox-Sensitive Motif. <i>PLoS ONE</i> , 2009, 4, e8045.	1.1	176
53	Talin: A cytoskeletal component concentrated in adhesion plaques and other sites of actin-membrane interaction. <i>Cell Motility</i> , 1983, 3, 405-417.	1.9	172
54	Rho Kinase Differentially Regulates Phosphorylation of Nonmuscle Myosin II Isoforms A and B during Cell Rounding and Migration*. <i>Journal of Biological Chemistry</i> , 2006, 281, 35873-35883.	1.6	161

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55	Localized Tensional Forces on PECAM-1 Elicit a Global Mechanotransduction Response via the Integrin-RhoA Pathway. <i>Current Biology</i> , 2012, 22, 2087-2094.	1.8	153
56	Rap1 GTPase Inhibits Leukocyte Transmigration by Promoting Endothelial Barrier Function. <i>Journal of Biological Chemistry</i> , 2005, 280, 11675-11682.	1.6	152
57	Characterization of the intermediate (10 nm) filaments of cultured cells using an autoimmune rabbit antiserum. <i>Cell</i> , 1978, 13, 249-261.	13.5	150
58	Cadherin Engagement Inhibits RhoA via p190RhoGAP. <i>Journal of Biological Chemistry</i> , 2003, 278, 13615-13618.	1.6	149
59	Catching a GEF by its tail. <i>Trends in Cell Biology</i> , 2007, 17, 36-43.	3.6	149
60	VEGF-induced Rac1 activation in endothelial cells is regulated by the guanine nucleotide exchange factor Vav2. <i>Experimental Cell Research</i> , 2007, 313, 3285-3297.	1.2	145
61	Vinculin phosphorylation differentially regulates mechanotransduction at cell-cell and cell-matrix adhesions. <i>Journal of Cell Biology</i> , 2014, 205, 251-263.	2.3	135
62	A novel role for Lsc/p115 RhoGEF and LARG in regulating RhoA activity downstream of adhesion to fibronectin. <i>Journal of Cell Science</i> , 2007, 120, 3989-3998.	1.2	132
63	Regulation of Rho Family GTPases by Cell-Cell and Cell-Matrix Adhesion. <i>Biological Research</i> , 2002, 35, 239-46.	1.5	131
64	The protein tyrosine phosphatase Shp-2 regulates RhoA activity. <i>Current Biology</i> , 2000, 10, 1523-1526.	1.8	130
65	Muscle $\beta$ 1D Integrin Reinforces the Cytoskeleton-Matrix Link: Modulation of Integrin Adhesive Function by Alternative Splicing. <i>Journal of Cell Biology</i> , 1997, 139, 1583-1595.	2.3	126
66	Actin-membrane interaction in focal adhesions. <i>Cell Differentiation and Development</i> , 1990, 32, 337-342.	0.4	125
67	Cell Mechanosensitivity to Extremely Low-Magnitude Signals Is Enabled by a LINCed Nucleus. <i>Stem Cells</i> , 2015, 33, 2063-2076.	1.4	122
68	XPLN, a Guanine Nucleotide Exchange Factor for RhoA and RhoB, But Not RhoC. <i>Journal of Biological Chemistry</i> , 2002, 277, 42964-42972.	1.6	121
69	Identification of talin as a major cytoplasmic protein implicated in platelet activation. <i>Nature</i> , 1985, 317, 449-451.	13.7	117
70	Proline-rich Tyrosine Kinase 2 (Pyk2) Mediates Vascular Endothelial-Cadherin-based Cell-Cell Adhesion by Regulating $\beta$ -Catenin Tyrosine Phosphorylation*. <i>Journal of Biological Chemistry</i> , 2005, 280, 21129-21136.	1.6	106
71	SGEF, a RhoG Guanine Nucleotide Exchange Factor that Stimulates Macropinocytosis. <i>Molecular Biology of the Cell</i> , 2004, 15, 3309-3319.	0.9	97
72	Haemodynamic and extracellular matrix cues regulate the mechanical phenotype and stiffness of aortic endothelial cells. <i>Nature Communications</i> , 2014, 5, 3984.	5.8	95

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73	Î±-Actinin: a direct link between actin and integrins. <i>Biochemical Society Transactions</i> , 1991, 19, 1065-1069.	1.6	94
74	Enucleated cells reveal differential roles of the nucleus in cell migration, polarity, and mechanotransduction. <i>Journal of Cell Biology</i> , 2018, 217, 895-914.	2.3	93
75	RhoG Signals in Parallel with Rac1 and Cdc42. <i>Journal of Biological Chemistry</i> , 2002, 277, 47810-47817.	1.6	91
76	PTP-PEST controls motility through regulation of Rac1. <i>Journal of Cell Science</i> , 2002, 115, 4305-4316.	1.2	89
77	The Small GTPase RhoA Localizes to the Nucleus and Is Activated by Net1 and DNA Damage Signals. <i>PLoS ONE</i> , 2011, 6, e17380.	1.1	89
78	Mechanotransduction and nuclear function. <i>Current Opinion in Cell Biology</i> , 2016, 40, 98-105.	2.6	86
79	Molecular shape and self-association of vinculin and metavinculin. <i>Journal of Cellular Biochemistry</i> , 1985, 29, 31-36.	1.2	84
80	Regulation of Cell Adhesion by Protein-tyrosine Phosphatases. <i>Journal of Biological Chemistry</i> , 2006, 281, 16189-16192.	1.6	81
81	Mechanotransduction: from the cell surface to the nucleus via RhoA. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2019, 374, 20180229.	1.8	73
82	Mechanically Induced Focal Adhesion Assembly Amplifies Anti-Adipogenic Pathways in Mesenchymal Stem Cells. <i>Stem Cells</i> , 2011, 29, 1829-1836.	1.4	71
83	Trading spaces: Rap, Rac, and Rho as architects of transendothelial migration. <i>Current Opinion in Hematology</i> , 2005, 12, 14-21.	1.2	69
84	Demonstration of a relationship between talin and P235, a major substrate of the calcium-dependent protease in platelets. <i>Journal of Cellular Biochemistry</i> , 1986, 30, 259-270.	1.2	66
85	Aggregation of Integrins and RhoA Activation Are Required for Thy-1-induced Morphological Changes in Astrocytes. <i>Journal of Biological Chemistry</i> , 2004, 279, 39139-39145.	1.6	66
86	Mechanically activated fyn utilizes mTORC2 to regulate RhoA and adipogenesis in mesenchymal stem cells. <i>Stem Cells</i> , 2013, 31, 2528-2537.	1.4	64
87	An Examination of Focal Adhesion Formation and Tyrosine Phosphorylation in Fibroblasts Isolated from src <sup>-/-</sup> , fyn <sup>-/-</sup> , and yes <sup>-/-</sup> Mice. <i>Cell Adhesion and Communication</i> , 1995, 3, 91-100.	1.7	60
88	Rho GTPase Transcriptome Analysis Reveals Oncogenic Roles for Rho GTPase-Activating Proteins in Basal-like Breast Cancers. <i>Cancer Research</i> , 2016, 76, 3826-3837.	0.4	60
89	Tumor Endothelial Cells with Distinct Patterns of TGFÎ²-Driven Endothelial-to-Mesenchymal Transition. <i>Cancer Research</i> , 2015, 75, 1244-1254.	0.4	59
90	PTP-PEST Couples Membrane Protrusion and Tail Retraction via VAV2 and p190RhoGAP. <i>Journal of Biological Chemistry</i> , 2006, 281, 11627-11636.	1.6	56

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91	Regulation of Cell Adhesion by Protein-tyrosine Phosphatases. <i>Journal of Biological Chemistry</i> , 2006, 281, 15593-15596.	1.6	54
92	The RhoA Guanine Nucleotide Exchange Factor, LARG, Mediates ICAM-1-Dependent Mechanotransduction in Endothelial Cells To Stimulate Transendothelial Migration. <i>Journal of Immunology</i> , 2014, 192, 3390-3398.	0.4	54
93	MLK3 Limits Activated G12q Signaling to Rho by Binding to p38RhoGEF. <i>Molecular Cell</i> , 2008, 32, 43-56.	4.5	50
94	Identification of an Actin Binding Surface on Vinculin that Mediates Mechanical Cell and Focal Adhesion Properties. <i>Structure</i> , 2014, 22, 697-706.	1.6	49
95	Thy-1-mediated cell-cell contact induces astrocyte migration through the engagement of $\alpha_3$ integrin and syndecan-4. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2013, 1833, 1409-1420.	1.9	48
96	The Role of Vascular Endothelial Growth Factor-Induced Activation of NADPH Oxidase in Choroidal Endothelial Cells and Choroidal Neovascularization. <i>American Journal of Pathology</i> , 2010, 177, 2091-2102.	1.9	45
97	The Nuclear RhoA Exchange Factor Net1 Interacts with Proteins of the Dlg Family, Affects Their Localization, and Influences Their Tumor Suppressor Activity. <i>Molecular and Cellular Biology</i> , 2007, 27, 8683-8697.	1.1	43
98	Latent KSHV infection increases the vascular permeability of human endothelial cells. <i>Blood</i> , 2011, 118, 5344-5354.	0.6	38
99	Tension on JAM-A activates RhoA via GEF-H1 and p115 RhoGEF. <i>Molecular Biology of the Cell</i> , 2016, 27, 1420-1430.	0.9	38
100	E-Cadherin Engagement Stimulates Tyrosine Phosphorylation. <i>Cell Adhesion and Communication</i> , 1997, 4, 425-437.	1.7	37
101	Heterotypic RPE-choroidal endothelial cell contact increases choroidal endothelial cell transmigration via PI 3-kinase and Rac1. <i>Experimental Eye Research</i> , 2007, 84, 737-744.	1.2	36
102	Endogenous RhoG Is Rapidly Activated after Epidermal Growth Factor Stimulation through Multiple Guanine-Nucleotide Exchange Factors. <i>Molecular Biology of the Cell</i> , 2010, 21, 1629-1642.	0.9	36
103	Software for lattice light-sheet imaging of FRET biosensors, illustrated with a new Rap1 biosensor. <i>Journal of Cell Biology</i> , 2019, 218, 3153-3160.	2.3	32
104	LARG GEF and ARHGAP18 orchestrate RhoA activity to control mesenchymal stem cell lineage. <i>Bone</i> , 2018, 107, 172-180.	1.4	31
105	The Guanine-Nucleotide Exchange Factor SGEF Plays a Crucial Role in the Formation of Atherosclerosis. <i>PLoS ONE</i> , 2013, 8, e55202.	1.1	28
106	N-glycosylation controls the function of junctional adhesion molecule-A. <i>Molecular Biology of the Cell</i> , 2015, 26, 3205-3214.	0.9	26
107	Small GTPase Rap1A/B Is Required for Lymphatic Development and Adrenomedullin-Induced Stabilization of Lymphatic Endothelial Junctions. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2018, 38, 2410-2422.	1.1	23
108	What the papers say. Rho, rac and the actin cytoskeleton. <i>BioEssays</i> , 1992, 14, 777-778.	1.2	22

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109	Cryptic sites in vinculin. <i>Nature</i> , 1995, 373, 197-197.	13.7	22
110	Cellâ€Cycleâ€Dependent Regulation of Cell Adhesions: Adhering to the Schedule. <i>BioEssays</i> , 2019, 41, e1800165.	1.2	22
111	A Rnd3/p190RhoGAP pathway regulates RhoA activity in idiopathic pulmonary fibrosis fibroblasts. <i>Molecular Biology of the Cell</i> , 2018, 29, 2165-2175.	0.9	20
112	Binding of hela spectrin to a specific hela membrane fraction. <i>Cell Motility</i> , 1983, 3, 657-669.	1.9	19
113	Vinculin and metavinculin exhibit distinct effects on focal adhesion properties, cell migration, and mechanotransduction. <i>PLoS ONE</i> , 2019, 14, e0221962.	1.1	19
114	Microinjection of Protein Tyrosine Phosphatases into Fibroblasts Disrupts Focal Adhesions and Stress Fibers. <i>Cell Adhesion and Communication</i> , 1998, 5, 207-219.	1.7	16
115	Syndecan-4/PAR-3 signaling regulates focal adhesion dynamics in mesenchymal cells. <i>Cell Communication and Signaling</i> , 2020, 18, 129.	2.7	16
116	Chapter 14 Analysis of Low Molecular Weight GTPase Activity in Endothelial Cell Cultures. <i>Methods in Enzymology</i> , 2008, 443, 285-298.	0.4	15
117	The role of endothelial MERTK during the inflammatory response in lungs. <i>PLoS ONE</i> , 2019, 14, e0225051.	1.1	13
118	Talin: a protein designed for mechanotransduction. <i>Emerging Topics in Life Sciences</i> , 2018, 2, 673-675.	1.1	4
119	Stress Fibers Get a Makeover. <i>Biophysical Journal</i> , 2012, 103, 2045-2046.	0.2	2
120	CB2 receptorâ€mediated Regulation of Prostate Cancer Cell Migration: Involvement of RhoA and Stress fiber formation. <i>FASEB Journal</i> , 2012, 26, 782.11.	0.2	2