

Gary G Borisy

List of Publications by Year in descending order

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128
papers

26,220
citations

15503

65
h-index

14758

127
g-index

137
all docs

137
docs citations

137
times ranked

22236
citing authors

#	ARTICLE	IF	CITATIONS
1	Cell Migration: Integrating Signals from Front to Back. <i>Science</i> , 2003, 302, 1704-1709.	12.6	4,337
2	Cellular Motility Driven by Assembly and Disassembly of Actin Filaments. <i>Cell</i> , 2003, 112, 453-465.	28.9	3,717
3	Arp2/3 Complex and Actin Depolymerizing Factor/Cofilin in Dendritic Organization and Treadmilling of Actin Filament Array in Lamellipodia. <i>Journal of Cell Biology</i> , 1999, 145, 1009-1026.	5.2	1,035
4	Antagonism between Ena/VASP Proteins and Actin Filament Capping Regulates Fibroblast Motility. <i>Cell</i> , 2002, 109, 509-521.	28.9	759
5	Visualization of the intracellular behavior of HIV in living cells. <i>Journal of Cell Biology</i> , 2002, 159, 441-452.	5.2	705
6	Mechanism of filopodia initiation by reorganization of a dendritic network. <i>Journal of Cell Biology</i> , 2003, 160, 409-421.	5.2	692
7	Biogeography of a human oral microbiome at the micron scale. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E791-800.	7.1	673
8	Analysis of the Actin-Myosin II System in Fish Epidermal Keratocytes: Mechanism of Cell Body Translocation. <i>Journal of Cell Biology</i> , 1997, 139, 397-415.	5.2	640
9	Microbiota organization is a distinct feature of proximal colorectal cancers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 18321-18326.	7.1	572
10	Lamellipodial Actin Mechanically Links Myosin Activity with Adhesion-Site Formation. <i>Cell</i> , 2007, 128, 561-575.	28.9	472
11	Self-polarization and directional motility of cytoplasm. <i>Current Biology</i> , 1999, 9, 11-S1.	3.9	470
12	Role of fascin in filopodial protrusion. <i>Journal of Cell Biology</i> , 2006, 174, 863-875.	5.2	447
13	Actin machinery: pushing the envelope. <i>Current Opinion in Cell Biology</i> , 2000, 12, 104-112.	5.4	421
14	Lamellipodial Versus Filopodial Mode of the Actin Nanomachinery. <i>Cell</i> , 2004, 118, 363-373.	28.9	376
15	Mammalian end binding proteins control persistent microtubule growth. <i>Journal of Cell Biology</i> , 2009, 184, 691-706.	5.2	331
16	Direct observation of microtubule dynamics in living cells. <i>Nature</i> , 1988, 332, 724-726.	27.8	315
17	Critical Role of Ena/VASP Proteins for Filopodia Formation in Neurons and in Function Downstream of Netrin-1. <i>Neuron</i> , 2004, 42, 37-49.	8.1	295
18	Oligotyping analysis of the human oral microbiome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E2875-84.	7.1	295

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19	Myosin II filament assemblies in the active lamella of fibroblasts: their morphogenesis and role in the formation of actin filament bundles.. <i>Journal of Cell Biology</i> , 1995, 131, 989-1002.	5.2	293
20	Kinetochores microtubule dynamics and the metaphase-anaphase transition.. <i>Journal of Cell Biology</i> , 1995, 131, 721-734.	5.2	287
21	Systems-level analysis of microbial community organization through combinatorial labeling and spectral imaging. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 4152-4157.	7.1	273
22	Kinetic analysis of microtubule self-assembly in vitro. <i>Journal of Molecular Biology</i> , 1977, 117, 1-31.	4.2	259
23	Structural polarity and directional growth of microtubules of <i>Chlamydomonas</i> flagella. <i>Journal of Molecular Biology</i> , 1974, 90, 381-402.	4.2	242
24	p120 catenin associates with kinesin and facilitates the transport of cadherin-catenin complexes to intercellular junctions. <i>Journal of Cell Biology</i> , 2003, 163, 547-557.	5.2	237
25	Microtubule release from the centrosome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1997, 94, 5078-5083.	7.1	236
26	Formation of filopodia-like bundles in vitro from a dendritic network. <i>Journal of Cell Biology</i> , 2003, 160, 951-962.	5.2	236
27	Role of tubulin-associated proteins in microtubule nucleation and elongation. <i>Journal of Molecular Biology</i> , 1977, 117, 33-52.	4.2	229
28	Cytoplasmic linker proteins promote microtubule rescue in vivo. <i>Journal of Cell Biology</i> , 2002, 159, 589-599.	5.2	224
29	A rapid method for quantitative determination of microtubule protein using DEAE-cellulose filters. <i>Analytical Biochemistry</i> , 1972, 50, 373-385.	2.4	215
30	Spatial organization of a model 15-member human gut microbiota established in gnotobiotic mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E9105-E9114.	7.1	198
31	Identity and polymerization-stimulatory activity of the nontubulin proteins associated with microtubules. <i>Biochemistry</i> , 1977, 16, 2598-2605.	2.5	190
32	Ena/VASP Proteins Have an Anti-Capping Independent Function in Filopodia Formation. <i>Molecular Biology of the Cell</i> , 2007, 18, 2579-2591.	2.1	190
33	Mode of centriole duplication and distribution.. <i>Journal of Cell Biology</i> , 1990, 110, 1599-1605.	5.2	184
34	Microtubule dynamics at the G2/M transition: abrupt breakdown of cytoplasmic microtubules at nuclear envelope breakdown and implications for spindle morphogenesis.. <i>Journal of Cell Biology</i> , 1996, 135, 201-214.	5.2	183
35	EB1 and EB3 Control CLIP Dissociation from the Ends of Growing Microtubules. <i>Molecular Biology of the Cell</i> , 2005, 16, 5334-5345.	2.1	182
36	Dendritic organization of actin comet tails. <i>Current Biology</i> , 2001, 11, 130-135.	3.9	172

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37	Life cycle of MTs: persistent growth in the cell interior, asymmetric transition frequencies and effects of the cell boundary. <i>Journal of Cell Science</i> , 2002, 115, 3527-3539.	2.0	164
38	Conformational changes in CLIP-170 regulate its binding to microtubules and dynactin localization. <i>Journal of Cell Biology</i> , 2004, 166, 1003-1014.	5.2	159
39	Microtubule Treadmilling in Vivo. <i>Science</i> , 1997, 275, 215-218.	12.6	153
40	[43] Correlative light and electron microscopy of the cytoskeleton of cultured cells. <i>Methods in Enzymology</i> , 1998, 298, 570-592.	1.0	150
41	Biogeography of the Oral Microbiome: The Site-Specialist Hypothesis. <i>Annual Review of Microbiology</i> , 2019, 73, 335-358.	7.3	147
42	Life cycle of MTs: persistent growth in the cell interior, asymmetric transition frequencies and effects of the cell boundary. <i>Journal of Cell Science</i> , 2002, 115, 3527-39.	2.0	142
43	Detyrosination of alpha tubulin does not stabilize microtubules in vivo [published erratum appears in <i>J Cell Biol</i> 1990 Sep;111(3):1325-6]. <i>Journal of Cell Biology</i> , 1990, 111, 113-122.	5.2	139
44	Improved Procedures for Electron Microscopic Visualization of the Cytoskeleton of Cultured Cells. <i>Journal of Structural Biology</i> , 1995, 115, 290-303.	2.8	137
45	A Rickettsia WASP-like protein activates the Arp2/3 complex and mediates actin-based motility. <i>Cellular Microbiology</i> , 2004, 6, 761-769.	2.1	137
46	Centrosomal control of microtubule dynamics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999, 96, 115-120.	7.1	129
47	Non-sarcomeric mode of myosin II organization in the fibroblast lamellum.. <i>Journal of Cell Biology</i> , 1993, 123, 637-652.	5.2	128
48	Cadherin-mediated regulation of microtubule dynamics. <i>Nature Cell Biology</i> , 2000, 2, 797-804.	10.3	128
49	Self-organization of a propulsive actin network as an evolutionary process. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 11324-11329.	7.1	126
50	Two Components of Actin-based Retrograde Flow in Sea Urchin Coelomocytes. <i>Molecular Biology of the Cell</i> , 1999, 10, 4075-4090.	2.1	116
51	Origin of kinetochore microtubules in Chinese hamster ovary cells. <i>Chromosoma</i> , 1980, 81, 483-505.	2.2	113
52	Self-centring activity of cytoplasm. <i>Nature</i> , 1997, 386, 170-173.	27.8	112
53	Spatial Ecology of the Human Tongue Dorsum Microbiome. <i>Cell Reports</i> , 2020, 30, 4003-4015.e3.	6.4	112
54	Cascade pathway of filopodia formation downstream of SCAR. <i>Journal of Cell Science</i> , 2004, 117, 837-848.	2.0	107

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55	Self-organization of actin filament orientation in the dendritic-nucleation/array-treadmilling model. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 7086-7091.	7.1	107
56	Oral Microbiome Geography: Micron-Scale Habitat and Niche. <i>Cell Host and Microbe</i> , 2020, 28, 160-168.	11.0	104
57	Immunostructural evidence for the template mechanism of microtubule nucleation. <i>Nature Cell Biology</i> , 2000, 2, 352-357.	10.3	102
58	Conjugation of fluorophores to tubulin. <i>Nature Methods</i> , 2005, 2, 299-303.	19.0	100
59	Intrinsic Dynamic Behavior of Fascin in Filopodia. <i>Molecular Biology of the Cell</i> , 2007, 18, 3928-3940.	2.1	97
60	CLASI-FISH: Principles of combinatorial labeling and spectral imaging. <i>Systematic and Applied Microbiology</i> , 2012, 35, 496-502.	2.8	92
61	Orientational Order of the Lamellipodial Actin Network as Demonstrated in Living Motile Cells. <i>Molecular Biology of the Cell</i> , 2003, 14, 4667-4675.	2.1	91
62	Centrosomal and non-centrosomal microtubules. <i>Biology of the Cell</i> , 1999, 91, 321-329.	2.0	85
63	COLCEMID INHIBITION OF CELL GROWTH AND THE CHARACTERIZATION OF A COLCEMID-BINDING ACTIVITY IN <i>SACCHAROMYCES CEREVISIAE</i> . <i>Journal of Cell Biology</i> , 1972, 55, 355-367.	5.2	79
64	Individuality, Stability, and Variability of the Plaque Microbiome. <i>Frontiers in Microbiology</i> , 2016, 7, 564.	3.5	75
65	Molecular dynamics imaging in micropatterned living cells. <i>Nature Methods</i> , 2005, 2, 739-741.	19.0	74
66	Multiplexed Spectral Imaging of 120 Different Fluorescent Labels. <i>PLoS ONE</i> , 2016, 11, e0158495.	2.5	74
67	Ã©vy-like movement patterns of metastatic cancer cells revealed in microfabricated systems and implicated in vivo. <i>Nature Communications</i> , 2018, 9, 4539.	12.8	73
68	Improved silencing vector co-expressing GFP and small hairpin RNA. <i>BioTechniques</i> , 2004, 36, 74-79.	1.8	69
69	Head-to-tail polymerization of microtubules in vitro. <i>Journal of Molecular Biology</i> , 1981, 150, 577-599.	4.2	63
70	Progress in protrusion: the tell-tale scar. <i>Trends in Biochemical Sciences</i> , 1999, 24, 432-436.	7.5	63
71	Quantitative initiation of microtubule assembly by chromosomes from Chinese hamster ovary cells. <i>Experimental Cell Research</i> , 1978, 113, 369-374.	2.6	62
72	Systematic evasion of the restriction-modification barrier in bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 11454-11459.	7.1	62

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73	Modification of the C-terminus of brain tubulin during development. <i>Biochemical and Biophysical Research Communications</i> , 1978, 83, 579-586.	2.1	61
74	Comparison of the sedimentation properties of microtubule protein oligomers prepared by two different procedures. <i>Biochemical and Biophysical Research Communications</i> , 1976, 70, 1-7.	2.1	59
75	Kinetic-structural analysis of neuronal growth cone veil motility. <i>Journal of Cell Science</i> , 2007, 120, 1113-1125.	2.0	59
76	Polarity of microtubules of the mitotic spindle. <i>Journal of Molecular Biology</i> , 1978, 124, 565-570.	4.2	58
77	Structure of kinetochore fibers: Microtubule continuity and inter-microtubule bridges. <i>Chromosoma</i> , 1981, 83, 523-540.	2.2	58
78	The attachment of kinetochores to the pro-metaphase spindle in PtK1 cells. <i>Chromosoma</i> , 1981, 82, 693-716.	2.2	58
79	Control of the structural fidelity of microtubules by initiation sites. <i>Journal of Molecular Biology</i> , 1982, 154, 485-500.	4.2	58
80	Speckle microscopic evaluation of microtubule transport in growing nerve processes. <i>Nature Cell Biology</i> , 1999, 1, 399-403.	10.3	58
81	Performance of a Population of Independent Filaments in Lamellipodial Protrusion. <i>Biophysical Journal</i> , 2008, 95, 1393-1411.	0.5	57
82	The Role of Xgrip210 in $\hat{\text{T}}^3$ -Tubulin Ring Complex Assembly and Centrosome Recruitment. <i>Journal of Cell Biology</i> , 2000, 151, 1525-1536.	5.2	53
83	Analysis of Na ⁺ ,K ⁺ -ATPase Motion and Incorporation into the Plasma Membrane in Response to G Protein-coupled Receptor Signals in Living Cells. <i>Molecular Biology of the Cell</i> , 2003, 14, 1149-1157.	2.1	53
84	Report of the National Heart, Lung, and Blood Institute Working Group on the Role of Microbiota in Blood Pressure Regulation. <i>Hypertension</i> , 2017, 70, 479-485.	2.7	53
85	Evolution of the multi-tubulin hypothesis. <i>BioEssays</i> , 1997, 19, 451-454.	2.5	52
86	Transport and Turnover of Microtubules in Frog Neurons Depend on the Pattern of Axonal Growth. <i>Journal of Neuroscience</i> , 1998, 18, 821-829.	3.6	52
87	Microtubule-targeting-dependent reorganization of filopodia. <i>Journal of Cell Science</i> , 2007, 120, 1235-1244.	2.0	52
88	Self-assembly of glutamic dehydrogenase into ordered superstructures: Multichain tubes formed by association of single molecules. <i>Journal of Molecular Biology</i> , 1972, 65, 127-155.	4.2	49
89	Detection of single fluorescent microtubules and methods for determining their dynamics in living cells. <i>Cytoskeleton</i> , 1988, 10, 237-245.	4.4	46
90	Metapangenomics of the oral microbiome provides insights into habitat adaptation and cultivar diversity. <i>Genome Biology</i> , 2020, 21, 293.	8.8	46

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91	Maternally Expressed $\hat{3}$ Tub37CD in Drosophila Differentially Required for Female Meiosis and Embryonic Mitosis. <i>Developmental Biology</i> , 1998, 199, 273-290.	2.0	44
92	Thermodynamic analysis of microtubule self-assembly in vitro. <i>Journal of Molecular Biology</i> , 1979, 133, 199-216.	4.2	42
93	Cellular Motility Driven by Assembly and Disassembly of Actin Filaments. <i>Cell</i> , 2003, 113, 549.	28.9	42
94	Migration and actin protrusion in melanoma cells are regulated by EB1 protein. <i>Cancer Letters</i> , 2009, 284, 30-36.	7.2	40
95	Phosphorylation Controls Autoinhibition of Cytoplasmic Linker Protein-170. <i>Molecular Biology of the Cell</i> , 2010, 21, 2661-2673.	2.1	40
96	Dynamics of tongue microbial communities with single-nucleotide resolution using oligotyping. <i>Frontiers in Microbiology</i> , 2014, 5, 568.	3.5	38
97	FRAP analysis of the stability of the microtubule population along the neurites of chick sensory neurons. <i>Cytoskeleton</i> , 1993, 25, 59-72.	4.4	37
98	Tyrosination state of free tubulin subunits and tubulin disassembled from microtubules of rat brain tissue. <i>Biochemical and Biophysical Research Communications</i> , 1979, 89, 893-899.	2.1	36
99	The 300-kDa Intermediate Filament-Associated Protein (IFAP300) Is a Hamster Plectin Ortholog. <i>Biochemical and Biophysical Research Communications</i> , 2000, 273, 183-187.	2.1	34
100	Visualization of Individual Reovirus Particles by Low-Temperature, High-Resolution Scanning Electron Microscopy. <i>Journal of Structural Biology</i> , 1995, 115, 215-225.	2.8	30
101	Self-organization of treadmilling microtubules into a polar array. <i>Trends in Cell Biology</i> , 2002, 12, 462-465.	7.9	29
102	In Vitro Assembly of Filopodia-Like Bundles. <i>Methods in Enzymology</i> , 2006, 406, 727-739.	1.0	29
103	Regulation of microtubule dynamics in 3T3 fibroblasts by Rho family GTPases. <i>Cytoskeleton</i> , 2006, 63, 29-40.	4.4	28
104	Independence of centriole formation and initiation of DNA synthesis in Chinese hamster ovary cells. <i>Cytoskeleton</i> , 1986, 6, 355-362.	4.4	24
105	Centrosomal and non-centrosomal microtubules. <i>Biology of the Cell</i> , 1999, 91, 321-329.	2.0	23
106	Signaling function of α -catenin in microtubule regulation. <i>Cell Cycle</i> , 2008, 7, 2377-2383.	2.6	22
107	Preservation of three-dimensional spatial structure in the gut microbiome. <i>PLoS ONE</i> , 2017, 12, e0188257.	2.5	22
108	Microtubule guidance tested through controlled cell geometry. <i>Journal of Cell Science</i> , 2012, 125, 5790-5799.	2.0	21

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109	Spatial scale in analysis of the dental plaque microbiome. <i>Periodontology</i> 2000, 2021, 86, 97-112.	13.4	21
110	MECHANICS OF ANAPHASE B MOVEMENT. , 1982, , 233-245.		18
111	Immunocytochemical evidence for centrosomal phosphoproteins in mitotic sea urchin eggs.. <i>Cell Structure and Function</i> , 1990, 15, 13-20.	1.1	17
112	Comparison of methods for tubulin quantitation in HeLa cell and brain tissue extracts. <i>Analytical Biochemistry</i> , 1980, 104, 432-439.	2.4	15
113	Thomas Hunt Morgan at the Marine Biological Laboratory: Naturalist and Experimentalist. <i>Genetics</i> , 2009, 181, 841-846.	2.9	13
114	Tubulin-colchicine complex (TC) inhibits microtubule depolymerization by a capping reaction exerted preferentially at the minus end. <i>Journal of Cellular Biochemistry</i> , 1986, 30, 11-18.	2.6	11
115	Centrosome nucleates numerous ephemeral microtubules and only few of them participate in the radial array. <i>Cell Biology International</i> , 2015, 39, 1203-1216.	3.0	11
116	Chapter 11 A Direct Method for Analyzing the Polymerization Kinetics at the Two Ends of a Microtubule. <i>Methods in Cell Biology</i> , 1982, 24, 171-187.	1.1	10
117	Semi-blind sparse affine spectral unmixing of autofluorescence-contaminated micrographs. <i>Bioinformatics</i> , 2020, 36, 910-917.	4.1	10
118	Decoration of microtubules by fluorescently labeled microtubule-associated protein 2 (MAP2) does not interfere with their spatial organization and progress through mitosis in living fibroblasts. <i>Cytoskeleton</i> , 1986, 6, 570-579.	4.4	9
119	Microtubule dynamics in living cells: direct analysis in the internal cytoplasm. <i>Cell Biology International</i> , 2003, 27, 293-294.	3.0	9
120	No man's land: Species-specific formation of exclusion zones bordering <i>Actinomyces graevenitzi</i> microcolonies in nanoliter cultures. <i>MicrobiologyOpen</i> , 2021, 10, e1137.	3.0	9
121	Self-Centering in Cytoplasmic Fragments of Melanophores. <i>Molecular Biology of the Cell</i> , 1998, 9, 1613-1615.	2.1	8
122	Kinesin Processivity. <i>Journal of Cell Biology</i> , 2000, 151, F27-F30.	5.2	8
123	Imaging Marine Bacteria with Unique 16S rRNA V6 Sequences by Fluorescence <i>in situ</i> Hybridization and Spectral Analysis. <i>Geomicrobiology Journal</i> , 2010, 27, 251-260.	2.0	7
124	Speckle microscopy: When less is more. <i>Current Biology</i> , 2000, 10, R22-R24.	3.9	6
125	Components of a Microinjection System. <i>Cold Spring Harbor Protocols</i> , 2011, 2011, pdb.ip27-pdb.ip27.	0.3	5
126	The Essential Roles of Calcium During Mitosis. <i>Advances in Molecular and Cell Biology</i> , 1995, 13, 69-87.	0.1	4

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127	Formulation of the general rate equation for subunit flux at steady-state. Journal of Molecular Biology, 1981, 150, 599-602.	4.2	2
128	Chair's Introduction. Novartis Foundation Symposium, 2008, , 1-2.	1.1	0