

Gary G Borisy

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131
papers

22,499
citations

62
h-index

137
g-index

137
ext. papers

24,689
ext. citations

10.1
avg, IF

6.84
L-index

#	Paper	IF	Citations
131	Cell migration: integrating signals from front to back. <i>Science</i> , 2003 , 302, 1704-9	33.3	3790
130	Cellular motility driven by assembly and disassembly of actin filaments. <i>Cell</i> , 2003 , 112, 453-65	56.2	3285
129	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, 1009-26	7.3	939
128	Antagonism between Ena/VASP proteins and actin filament capping regulates fibroblast motility. <i>Cell</i> , 2002 , 109, 509-21	56.2	674
127	Visualization of the intracellular behavior of HIV in living cells. <i>Journal of Cell Biology</i> , 2002 , 159, 441-52	7.3	637
126	Mechanism of filopodia initiation by reorganization of a dendritic network. <i>Journal of Cell Biology</i> , 2003 , 160, 409-21	7.3	600
125	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	7.3	572
124	Self-polarization and directional motility of cytoplasm. <i>Current Biology</i> , 1999 , 9, 11-20	6.3	423
123	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	11.5	420
122	Lamellipodial actin mechanically links myosin activity with adhesion-site formation. <i>Cell</i> , 2007 , 128, 561-75	56.2	407
121	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, 18321-6	11.5	405
120	Actin machinery: pushing the envelope. <i>Current Opinion in Cell Biology</i> , 2000 , 12, 104-12	9	401
119	Role of fascin in filopodial protrusion. <i>Journal of Cell Biology</i> , 2006 , 174, 863-75	7.3	372
118	Lamellipodial versus filopodial mode of the actin nanomachinery: pivotal role of the filament barbed end. <i>Cell</i> , 2004 , 118, 363-73	56.2	340
117	Mammalian end binding proteins control persistent microtubule growth. <i>Journal of Cell Biology</i> , 2009 , 184, 691-706	7.3	280
116	Direct observation of microtubule dynamics in living cells. <i>Nature</i> , 1988 , 332, 724-6	50.4	273
115	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	7.3	268

114	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	13.9	256
113	Kinetochore microtubule dynamics and the metaphase-anaphase transition. <i>Journal of Cell Biology</i> , 1995 , 131, 721-34	7.3	255
112	Kinetic analysis of microtubule self-assembly in vitro. <i>Journal of Molecular Biology</i> , 1977 , 117, 1-31	6.5	229
111	Structural polarity and directional growth of microtubules of <i>Chlamydomonas</i> flagella. <i>Journal of Molecular Biology</i> , 1974 , 90, 381-402	6.5	222
110	p120 catenin associates with kinesin and facilitates the transport of cadherin-catenin complexes to intercellular junctions. <i>Journal of Cell Biology</i> , 2003 , 163, 547-57	7.3	221
109	Microtubule release from the centrosome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1997 , 94, 5078-83	11.5	215
108	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, 4152-7	11.5	211
107	A rapid method for quantitative determination of microtubule protein using DEAE-cellulose filters. <i>Analytical Biochemistry</i> , 1972 , 50, 373-85	3.1	208
106	Formation of filopodia-like bundles in vitro from a dendritic network. <i>Journal of Cell Biology</i> , 2003 , 160, 951-62	7.3	206
105	Role of tubulin-associated proteins in microtubule nucleation and elongation. <i>Journal of Molecular Biology</i> , 1977 , 117, 33-52	6.5	206
104	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	11.5	200
103	Cytoplasmic linker proteins promote microtubule rescue in vivo. <i>Journal of Cell Biology</i> , 2002 , 159, 589-99.3	9.3	199
102	Identity and polymerization-stimulatory activity of the nontubulin proteins associated with microtubules. <i>Biochemistry</i> , 1977 , 16, 2598-605	3.2	173
101	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, 201-14	7.3	169
100	EB1 and EB3 control CLIP dissociation from the ends of growing microtubules. <i>Molecular Biology of the Cell</i> , 2005 , 16, 5334-45	3.5	164
99	Mode of centriole duplication and distribution. <i>Journal of Cell Biology</i> , 1990 , 110, 1599-605	7.3	161
98	Ena/VASP proteins have an anti-capping independent function in filopodia formation. <i>Molecular Biology of the Cell</i> , 2007 , 18, 2579-91	3.5	160
97	Dendritic organization of actin comet tails. <i>Current Biology</i> , 2001 , 11, 130-5	6.3	160

96	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	5.3	143
95	Conformational changes in CLIP-170 regulate its binding to microtubules and dynactin localization. <i>Journal of Cell Biology</i> , 2004 , 166, 1003-14	7.3	141
94	Microtubule treadmilling in vivo. <i>Science</i> , 1997 , 275, 215-8	33.3	136
93	Correlative light and electron microscopy of the cytoskeleton of cultured cells. <i>Methods in Enzymology</i> , 1998 , 298, 570-92	1.7	133
92	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	11.5	132
91	Centrosomal control of microtubule dynamics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999 , 96, 115-20	11.5	125
90	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	5.3	124
89	Improved procedures for electron microscopic visualization of the cytoskeleton of cultured cells. <i>Journal of Structural Biology</i> , 1995 , 115, 290-303	3.4	123
88	A Rickettsia WASP-like protein activates the Arp2/3 complex and mediates actin-based motility. <i>Cellular Microbiology</i> , 2004 , 6, 761-9	3.9	120
87	Detyrosination of alpha tubulin does not stabilize microtubules in vivo. <i>Journal of Cell Biology</i> , 1990 , 111, 113-22	7.3	120
86	Cadherin-mediated regulation of microtubule dynamics. <i>Nature Cell Biology</i> , 2000 , 2, 797-804	23.4	118
85	Non-sarcomeric mode of myosin II organization in the fibroblast lamellum. <i>Journal of Cell Biology</i> , 1993 , 123, 637-52	7.3	115
84	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, 11324-9	11.5	113
83	Two components of actin-based retrograde flow in sea urchin coelomocytes. <i>Molecular Biology of the Cell</i> , 1999 , 10, 4075-90	3.5	107
82	Self-centring activity of cytoplasm. <i>Nature</i> , 1997 , 386, 170-3	50.4	102
81	Cascade pathway of filopodia formation downstream of SCAR. <i>Journal of Cell Science</i> , 2004 , 117, 837-48	5.3	96
80	Origin of kinetochore microtubules in Chinese hamster ovary cells. <i>Chromosoma</i> , 1980 , 81, 483-505	2.8	95
79	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, 7086-91	11.5	88

78	Immunostructural evidence for the template mechanism of microtubule nucleation. <i>Nature Cell Biology</i> , 2000 , 2, 352-7	23.4	88
77	Intrinsic dynamic behavior of fascin in filopodia. <i>Molecular Biology of the Cell</i> , 2007 , 18, 3928-40	3.5	84
76	Conjugation of fluorophores to tubulin. <i>Nature Methods</i> , 2005 , 2, 299-303	21.6	83
75	Centrosomal and non-centrosomal microtubules. <i>Biology of the Cell</i> , 1999 , 91, 321-329	3.5	77
74	Orientalional order of the lamellipodial actin network as demonstrated in living motile cells. <i>Molecular Biology of the Cell</i> , 2003 , 14, 4667-75	3.5	76
73	Biogeography of the Oral Microbiome: The Site-Specialist Hypothesis. <i>Annual Review of Microbiology</i> , 2019 , 73, 335-358	17.5	73
72	Molecular dynamics imaging in micropatterned living cells. <i>Nature Methods</i> , 2005 , 2, 739-41	21.6	71
71	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, 355-67	7.3	71
70	Improved silencing vector co-expressing GFP and small hairpin RNA. <i>BioTechniques</i> , 2004 , 36, 74-9	2.5	62
69	Progress in protrusion: the tell-tale scar. <i>Trends in Biochemical Sciences</i> , 1999 , 24, 432-6	10.3	61
68	CLASI-FISH: principles of combinatorial labeling and spectral imaging. <i>Systematic and Applied Microbiology</i> , 2012 , 35, 496-502	4.2	60
67	Modification of the C-terminus of brain tubulin during development. <i>Biochemical and Biophysical Research Communications</i> , 1978 , 83, 579-86	3.4	60
66	Individuality, Stability, and Variability of the Plaque Microbiome. <i>Frontiers in Microbiology</i> , 2016 , 7, 564	5.7	59
65	Spatial Ecology of the Human Tongue Dorsum Microbiome. <i>Cell Reports</i> , 2020 , 30, 4003-4015.e3	10.6	55
64	The attachment of kinetochores to the pro-metaphase spindle in PtK1 cells. Recovery from low temperature treatment. <i>Chromosoma</i> , 1981 , 82, 693-716	2.8	55
63	Polarity of microtubules of the mitotic spindle. <i>Journal of Molecular Biology</i> , 1978 , 124, 565-70	6.5	55
62	Performance of a population of independent filaments in lamellipodial protrusion. <i>Biophysical Journal</i> , 2008 , 95, 1393-411	2.9	54
61	Kinetic-structural analysis of neuronal growth cone veil motility. <i>Journal of Cell Science</i> , 2007 , 120, 1113-35	3.5	54

60	Quantitative initiation of microtubule assembly by chromosomes from Chinese hamster ovary cells. <i>Experimental Cell Research</i> , 1978 , 113, 369-74	4.2	54
59	Speckle microscopic evaluation of microtubule transport in growing nerve processes. <i>Nature Cell Biology</i> , 1999 , 1, 399-403	23.4	53
58	Structure of kinetochore fibers: microtubule continuity and inter-microtubule bridges. <i>Chromosoma</i> , 1981 , 83, 523-40	2.8	53
57	Control of the structural fidelity of microtubules by initiation sites. <i>Journal of Molecular Biology</i> , 1982 , 154, 485-500	6.5	53
56	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	3.4	52
55	Multiplexed Spectral Imaging of 120 Different Fluorescent Labels. <i>PLoS ONE</i> , 2016 , 11, e0158495	3.7	52
54	The role of Xgrip210 in gamma-tubulin ring complex assembly and centrosome recruitment. <i>Journal of Cell Biology</i> , 2000 , 151, 1525-36	7.3	51
53	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, 1149-57	3.5	50
52	Transport and turnover of microtubules in frog neurons depend on the pattern of axonal growth. <i>Journal of Neuroscience</i> , 1998 , 18, 821-9	6.6	49
51	Head-to-tail polymerization of microtubules in vitro. <i>Journal of Molecular Biology</i> , 1981 , 150, 577-99	6.5	48
50	Evolution of the multi-tubulin hypothesis. <i>BioEssays</i> , 1997 , 19, 451-4	4.1	47
49	Microtubule-targeting-dependent reorganization of filopodia. <i>Journal of Cell Science</i> , 2007 , 120, 1235-44	5.3	45
48	Maternally expressed gamma Tub37CD in Drosophila is differentially required for female meiosis and embryonic mitosis. <i>Developmental Biology</i> , 1998 , 199, 273-90	3.1	42
47	Detection of single fluorescent microtubules and methods for determining their dynamics in living cells. <i>Cytoskeleton</i> , 1988 , 10, 237-45		42
46	Self-assembly of glutamic dehydrogenase into ordered superstructures: multichain tubes formed by association of single molecules. <i>Journal of Molecular Biology</i> , 1972 , 65, 127-55	6.5	42
45	Wy-like movement patterns of metastatic cancer cells revealed in microfabricated systems and implicated in vivo. <i>Nature Communications</i> , 2018 , 9, 4539	17.4	41
44	Thermodynamic analysis of microtubule self-assembly in vitro. <i>Journal of Molecular Biology</i> , 1979 , 133, 199-216	6.5	39
43	Phosphorylation controls autoinhibition of cytoplasmic linker protein-170. <i>Molecular Biology of the Cell</i> , 2010 , 21, 2661-73	3.5	35

42	Migration and actin protrusion in melanoma cells are regulated by EB1 protein. <i>Cancer Letters</i> , 2009 , 284, 30-6	9.9	35
41	Cellular Motility Driven by Assembly and Disassembly of Actin Filaments. <i>Cell</i> , 2003 , 113, 549	56.2	35
40	Tyrosination state of free tubulin subunits and tubulin disassembled from microtubules of rat brain tissue. <i>Biochemical and Biophysical Research Communications</i> , 1979 , 89, 893-9	3.4	35
39	Oral Microbiome Geography: Micron-Scale Habitat and Niche. <i>Cell Host and Microbe</i> , 2020 , 28, 160-168	23.4	34
38	Report of the National Heart, Lung, and Blood Institute Working Group on the Role of Microbiota in Blood Pressure Regulation: Current Status and Future Directions. <i>Hypertension</i> , 2017 ,	8.5	33
37	FRAP analysis of the stability of the microtubule population along the neurites of chick sensory neurons. <i>Cytoskeleton</i> , 1993 , 25, 59-72		32
36	The 300-kDa intermediate filament-associated protein (IFAP300) is a hamster plectin ortholog. <i>Biochemical and Biophysical Research Communications</i> , 2000 , 273, 183-7	3.4	30
35	Dynamics of tongue microbial communities with single-nucleotide resolution using oligotyping. <i>Frontiers in Microbiology</i> , 2014 , 5, 568	5.7	26
34	Regulation of microtubule dynamics in 3T3 fibroblasts by Rho family GTPases. <i>Cytoskeleton</i> , 2006 , 63, 29-40		25
33	Self-organization of treadmilling microtubules into a polar array. <i>Trends in Cell Biology</i> , 2002 , 12, 462-5	18.3	25
32	Visualization of individual reovirus particles by low-temperature, high-resolution scanning electron microscopy. <i>Journal of Structural Biology</i> , 1995 , 115, 215-25	3.4	24
31	Signaling function of alpha-catenin in microtubule regulation. <i>Cell Cycle</i> , 2008 , 7, 2377-83	4.7	22
30	Independence of centriole formation and initiation of DNA synthesis in Chinese hamster ovary cells. <i>Cytoskeleton</i> , 1986 , 6, 355-62		22
29	In vitro assembly of filopodia-like bundles. <i>Methods in Enzymology</i> , 2006 , 406, 727-39	1.7	21
28	Centrosomal and non-centrosomal microtubules 1999 , 91, 321		20
27	Microtubule guidance tested through controlled cell geometry. <i>Journal of Cell Science</i> , 2012 , 125, 5790-9	5.3	17
26	MECHANICS OF ANAPHASE B MOVEMENT 1982 , 233-245		16
25	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	11.5	14

24	Comparison of methods for tubulin quantitation in HeLa cell and brain tissue extracts. <i>Analytical Biochemistry</i> , 1980 , 104, 432-9	3.1	14
23	Immunocytochemical evidence for centrosomal phosphoproteins in mitotic sea urchin eggs. <i>Cell Structure and Function</i> , 1990 , 15, 13-20	2.2	14
22	Preservation of three-dimensional spatial structure in the gut microbiome. <i>PLoS ONE</i> , 2017 , 12, e0188257	3.7	11
21	Thomas Hunt Morgan at the marine biological laboratory: naturalist and experimentalist. <i>Genetics</i> , 2009 , 181, 841-6	4	10
20	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, 11-8	4.7	10
19	A direct method for analyzing the polymerization kinetics at the two ends of a microtubule. <i>Methods in Cell Biology</i> , 1982 , 24, 171-87	1.8	10
18	Metapangenomics of the oral microbiome provides insights into habitat adaptation and cultivar diversity. <i>Genome Biology</i> , 2020 , 21, 293	18.3	9
17	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, 570-9		9
16	Microtubule dynamics in living cells: direct analysis in the internal cytoplasm. <i>Cell Biology International</i> , 2003 , 27, 293-4	4.5	8
15	Centrosome nucleates numerous ephemeral microtubules and only few of them participate in the radial array. <i>Cell Biology International</i> , 2015 , 39, 1203-16	4.5	7
14	Kinesin processivity. <i>Journal of Cell Biology</i> , 2000 , 151, F27-9	7.3	7
13	Self-centering in cytoplasmic fragments of melanophores. <i>Molecular Biology of the Cell</i> , 1998 , 9, 1613-5	3.5	7
12	Imaging Marine Bacteria with Unique 16S rRNA V6 Sequences by Fluorescence in situ Hybridization and Spectral Analysis. <i>Geomicrobiology Journal</i> , 2010 , 27, 251-260	2.5	5
11	Speckle microscopy: when less is more. <i>Current Biology</i> , 2000 , 10, R22-4	6.3	5
10	Spatial scale in analysis of the dental plaque microbiome. <i>Periodontology 2000</i> , 2021 , 86, 97-112	12.9	5
9	Semi-blind sparse affine spectral unmixing of autofluorescence-contaminated micrographs. <i>Bioinformatics</i> , 2020 , 36, 910-917	7.2	5
8	Components of a microinjection system. <i>Cold Spring Harbor Protocols</i> , 2011 , 2011, 935-9	1.2	4
7	The Essential Roles of Calcium During Mitosis. <i>Advances in Molecular and Cell Biology</i> , 1995 , 13, 69-87		3

- 6 Formulation of the general rate equation for subunit flux at steady-state. *Journal of Molecular Biology*, **1981**, 150, 599-602 6.5 2
- 5 SyngenicDNA: stealth-based evasion of restriction-modification barriers during bacterial genetic engineering 2
- 4 Preservation of three-dimensional spatial structure in the gut microbiome 2
- 3 No man's land: Species-specific formation of exclusion zones bordering *Actinomyces graevenitzi* microcolonies in nanoliter cultures. *MicrobiologyOpen*, **2021**, 10, e1137 3.4 2
- 2 Metapangenomics of the oral microbiome provides insights into habitat adaptation and cultivar diversity 1
- 1 Chair's Introduction. *Novartis Foundation Symposium*, **2008**, 1-2