

Robert D Burke

List of Publications by Year in descending order

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114
papers

5,958
citations

66343

42
h-index

76900

74
g-index

116
all docs

116
docs citations

116
times ranked

4525
citing authors

#	ARTICLE	IF	CITATIONS
1	Pigment cells: Paragons of cellular development. <i>Current Topics in Developmental Biology</i> , 2022, 146, 149-182.	2.2	1
2	Ciliary photoreceptors in sea urchin larvae indicate pan-deuterostome cell type conservation. <i>BMC Biology</i> , 2021, 19, 257.	3.8	7
3	The causes of things. <i>Methods in Cell Biology</i> , 2019, 151, 49-54.	1.1	0
4	Analysis of neural activity with fluorescent protein biosensors. <i>Methods in Cell Biology</i> , 2019, 151, 519-526.	1.1	0
5	Embryonic neurogenesis in echinoderms. <i>Wiley Interdisciplinary Reviews: Developmental Biology</i> , 2018, 7, e316.	5.9	41
6	Transforming a transcription factor. <i>ELife</i> , 2018, 7, .	6.0	1
7	The sole LSM complex in <i>Cyanidioschyzon merolae</i> associates with pre-mRNA splicing and mRNA degradation factors. <i>Rna</i> , 2017, 23, 952-967.	3.5	11
8	Notch signaling patterns neurogenic ectoderm and regulates the asymmetric division of neural progenitors in sea urchin embryos. <i>Development (Cambridge)</i> , 2017, 144, 3602-3611.	2.5	32
9	Characterization of Calflagin, a Flagellar Calcium-Binding Protein from <i>Trypanosoma congolense</i> . <i>PLoS Neglected Tropical Diseases</i> , 2016, 10, e0004510.	3.0	3
10	Eph and Ephrin function in dispersal and epithelial insertion of pigmented immunocytes in sea urchin embryos. <i>ELife</i> , 2016, 5, .	6.0	11
11	Neurogenesis in sea urchin embryos and the diversity of deuterostome neurogenic mechanisms. <i>Development (Cambridge)</i> , 2015, 143, 286-97.	2.5	63
12	Sea urchin neural development and the metazoan paradigm of neurogenesis. <i>Genesis</i> , 2014, 52, 208-221.	1.6	40
13	Editorial—sea urchin special issue. <i>Genesis</i> , 2014, 52, 157-157.	1.6	0
14	Imaging Neural Development in Embryonic and Larval Sea Urchins. <i>Methods in Molecular Biology</i> , 2014, 1128, 147-160.	0.9	6
15	Eph-Ephrin signaling and focal adhesion kinase regulate actomyosin-dependent apical constriction of ciliary band cells. <i>Development (Cambridge)</i> , 2014, 141, 1075-1084.	2.5	21
16	Eph-Ephrin signaling and focal adhesion kinase regulate actomyosin-dependent apical constriction of ciliary band cells. <i>Journal of Cell Science</i> , 2014, 127, e1-e1.	2.0	0
17	Localized, Macromolecular Transport for Thin, Adherent, Single Cells Via an Automated, Single Cell Electroporation Biomaniplator. <i>IEEE Transactions on Biomedical Engineering</i> , 2013, 60, 3113-3123.	4.2	7
18	Neural development in <i>Eucidaris tribuloides</i> and the evolutionary history of the echinoid larval nervous system. <i>Developmental Biology</i> , 2013, 377, 236-244.	2.0	17

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19	Integrins on eggs: focal adhesion kinase is activated at fertilization, forms a complex with integrins, and is necessary for cortex formation and cell cycle initiation. <i>Molecular Biology of the Cell</i> , 2013, 24, 3472-3481.	2.1	6
20	Lynne M. Angerer: An originator of RNA in situ hybridization. <i>Molecular Reproduction and Development</i> , 2013, 80, Fm i.	2.0	0
21	A Generalized Tip-Membrane Contact Detection Algorithm for Automated Single Cell Electroporation Using Statistical Process Control. <i>IEEE Transactions on Automation Science and Engineering</i> , 2012, 9, 226-236.	5.2	5
22	An Effective Polymer Cross-Linking Strategy To Obtain Stable Dispersions of Upconverting NaYF ₄ Nanoparticles in Buffers and Biological Growth Media for Biolabeling Applications. <i>Langmuir</i> , 2012, 28, 3239-3247.	3.5	134
23	Machine vision-based localization of nucleic and cytoplasmic injection sites on low-contrast adherent cells. <i>Medical and Biological Engineering and Computing</i> , 2012, 50, 11-21.	2.8	21
24	Deuterostome neuroanatomy and the body plan paradox. <i>Evolution & Development</i> , 2011, 13, 110-115.	2.0	22
25	The Conformation and Function of a Multimodular Glycogen-Degrading Pneumococcal Virulence Factor. <i>Structure</i> , 2011, 19, 640-651.	3.3	42
26	The evolution of nervous system patterning: insights from sea urchin development. <i>Development (Cambridge)</i> , 2011, 138, 3613-3623.	2.5	102
27	A Machine Vision Framework for Automated Localization of Microinjection Sites on Low-Contrast Single Adherent Cells. <i>Lecture Notes in Computer Science</i> , 2011, , 12-20.	1.3	0
28	Developmental expression of COE across the Metazoa supports a conserved role in neuronal cell-type specification and mesodermal development. <i>Development Genes and Evolution</i> , 2010, 220, 221-234.	0.9	28
29	Pl-nectin, a discoidin family member, is a ligand for β 1 integrins in the sea urchin embryo. <i>Matrix Biology</i> , 2010, 29, 341-345.	3.6	15
30	TGF β 2 signaling positions the ciliary band and patterns neurons in the sea urchin embryo. <i>Developmental Biology</i> , 2010, 347, 71-81.	2.0	75
31	Characterization of the pathogenicity island protein PdpA and its role in the virulence of <i>Francisella novicida</i> . <i>Microbiology (United Kingdom)</i> , 2009, 155, 1489-1497.	1.8	32
32	Differential Recognition and Hydrolysis of Host Carbohydrate Antigens by <i>Streptococcus pneumoniae</i> Family 98 Glycoside Hydrolases. <i>Journal of Biological Chemistry</i> , 2009, 284, 26161-26173.	3.4	41
33	Development of an Autonomous Biological Cell Manipulator With Single-Cell Electroporation and Visual Servoing Capabilities. <i>IEEE Transactions on Biomedical Engineering</i> , 2009, 56, 2064-2074.	4.2	34
34	Neural development of the brittlestar <i>Amphiura filiformis</i> . <i>Development Genes and Evolution</i> , 2009, 219, 159-166.	0.9	31
35	RoboSCell: an automated single cell arraying and analysis instrument. <i>Biomedical Microdevices</i> , 2009, 11, 1317-1330.	2.8	6
36	A novel permalloy based magnetic single cell micro array. <i>Lab on A Chip</i> , 2009, 9, 2381.	6.0	58

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37	The molecular phylogeny of eph receptors and ephrin ligands. BMC Cell Biology, 2008, 9, 27.	3.0	22
38	Divergent roles for Eph and Ephrin in Avian Cranial Neural Crest. BMC Developmental Biology, 2008, 8, 56.	2.1	39
39	Neural architecture of the brachiolaria larva of the starfish, <i>Asterina pectinifera</i> . Journal of Comparative Neurology, 2008, 509, 271-282.	1.6	20
40	Identification, characterization and deduced amino acid sequence of the dominant protease from <i>Kudoa paniformis</i> and <i>K. thyrsites</i> : A unique cytoplasmic cysteine protease. Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 2008, 149, 477-489.	1.6	31
41	<i>ARS2</i> Is a Conserved Eukaryotic Gene Essential for Early Mammalian Development. Molecular and Cellular Biology, 2008, 28, 1503-1514.	2.3	49
42	Development of a five degree-of-freedom biomanipulator for autonomous single cell electroporation. , 2007, , .		11
43	Sp-Smad2/3 mediates patterning of neurogenic ectoderm by nodal in the sea urchin embryo. Developmental Biology, 2007, 302, 494-503.	2.0	46
44	An ectromelia virus profilin homolog interacts with cellular tropomyosin and viral A-type inclusion protein. Virology Journal, 2007, 4, 76.	3.4	12
45	A global view of gene expression in lithium and zinc treated sea urchin embryos: new components of gene regulatory networks. Genome Biology, 2007, 8, R85.	9.6	84
46	Integrin signaling in early sea urchin development. Signal Transduction, 2007, 7, 207-215.	0.4	2
47	Identification and structural basis of binding to host lung glycogen by streptococcal virulence factors. Nature Structural and Molecular Biology, 2007, 14, 76-84.	8.2	72
48	Apical organs in echinoderm larvae: insights into larval evolution in the Ambulacraria. Evolution & Development, 2007, 9, 432-445.	2.0	88
49	Ontogeny of the holothurian larval nervous system: evolution of larval forms. Development Genes and Evolution, 2007, 217, 585-592.	0.9	25
50	The Genome of the Sea Urchin <i>Strongylocentrotus purpuratus</i> . Science, 2006, 314, 941-952.	12.6	1,018
51	Bioconjugation of Ln ³⁺ -Doped LaF ₃ Nanoparticles to Avidin. Langmuir, 2006, 22, 1782-1788.	3.5	105
52	The echinoderm adhesome. Developmental Biology, 2006, 300, 252-266.	2.0	158
53	A genomic view of the sea urchin nervous system. Developmental Biology, 2006, 300, 434-460.	2.0	260
54	A functional genomic and proteomic perspective of sea urchin calcium signaling and egg activation. Developmental Biology, 2006, 300, 416-433.	2.0	53

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55	Embryonic expression of engrailed in sea urchins. <i>Gene Expression Patterns</i> , 2006, 6, 566-571.	0.8	4
56	Neuron-specific expression of a synaptotagmin gene in the sea urchin <i>Strongylocentrotus purpuratus</i> . <i>Journal of Comparative Neurology</i> , 2006, 496, 244-251.	1.6	76
57	Specification of ectoderm restricts the size of the animal plate and patterns neurogenesis in sea urchin embryos. <i>Development (Cambridge)</i> , 2006, 133, 2337-2346.	2.5	87
58	Virulence of <i>Francisella</i> spp. in Chicken Embryos. <i>Infection and Immunity</i> , 2006, 74, 4809-4816.	2.2	27
59	Blood Group Antigen Recognition by a <i>Streptococcus pneumoniae</i> Virulence Factor. <i>Journal of Biological Chemistry</i> , 2006, 281, 35263-35271.	3.4	55
60	TEM and SEM Methods. <i>Methods in Cell Biology</i> , 2004, 74, 411-441.	1.1	7
61	Divergent patterns of neural development in larval echinoids and asteroids. <i>Evolution & Development</i> , 2004, 6, 95-104.	2.0	143
62	Integrins on eggs: the β 2C subunit is essential for formation of the cortical actin cytoskeleton in sea urchin eggs. <i>Developmental Biology</i> , 2004, 265, 53-60.	2.0	19
63	Expression of an NK2 homeodomain gene in the apical ectoderm defines a new territory in the early sea urchin embryo. <i>Developmental Biology</i> , 2004, 269, 152-164.	2.0	71
64	SpADAM, a sea urchin ADAM, has conserved structure and expression. <i>Mechanisms of Development</i> , 2002, 117, 275-281.	1.7	4
65	Comparative genomic sequence analysis of the Williams syndrome region (LIMK1-RFC2) of human Chromosome 7q11.23. <i>Mammalian Genome</i> , 2000, 11, 890-898.	2.2	31
66	Distribution of fibrillin I in extracellular matrix and epithelia during early development of avian embryos. <i>Anatomy and Embryology</i> , 2000, 201, 317-326.	1.5	16
67	Localized Electroporation: A Method for Targeting Expression of Genes in Avian Embryos. <i>BioTechniques</i> , 2000, 28, 94-100.	1.8	27
68	The β 2C Integrin Is Expressed on the Surface of the Sea Urchin Egg and Removed at Fertilization. <i>Developmental Biology</i> , 2000, 227, 633-647.	2.0	22
69	Ectromelia virus virulence factor p28 acts upstream of caspase-3 in response to UV light-induced apoptosis. <i>Journal of General Virology</i> , 2000, 81, 1087-1097.	2.9	37
70	Invertebrate Integrins: Structure, Function, and Evolution. <i>International Review of Cytology</i> , 1999, 191, 257-284.	6.2	87
71	Shope Fibroma Virus RING Finger Protein N1R Binds DNA and Inhibits Apoptosis. <i>Virology</i> , 1998, 249, 42-51.	2.4	42
72	The Apical Lamina and its Role in Cell Adhesion in Sea Urchin Embryos. <i>Cell Adhesion and Communication</i> , 1998, 5, 97-108.	1.7	24

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73	The \hat{I}^2 L Integrin Subunit Is Necessary for Gastrulation in Sea Urchin Embryos. <i>Developmental Biology</i> , 1998, 203, 134-148.	2.0	34
74	Cloning and Characterization of Novel \hat{I}^2 Integrin Subunits from a Sea Urchin. <i>Developmental Biology</i> , 1997, 181, 234-245.	2.0	43
75	The Initial Phase of Gastrulation in Sea Urchins Is Accompanied by the Formation of Bottle Cells. <i>Developmental Biology</i> , 1996, 179, 436-446.	2.0	64
76	Ontogeny of vessel wall components in the outflow tract of the chick. <i>Anatomy and Embryology</i> , 1994, 189, 447-56.	1.5	14
77	Endo16, a Large Multidomain Protein Found on the Surface and ECM of Endodermal Cells during Sea Urchin Gastrulation, Binds Calcium. <i>Developmental Biology</i> , 1994, 165, 73-85.	2.0	41
78	Immunocytochemical localization of the neuropeptide S1 and serotonin in larvae of the starfish <i>Pisaster ochraceus</i> and <i>Asterias rubens</i> . <i>Journal of the Marine Biological Association of the United Kingdom</i> , 1994, 74, 61-71.	0.8	51
79	The Structure and Development of the Apical Ganglion in the Sea Urchin <i>Pluteus</i> Larvae of <i>Strongylocentrotus droebachiensis</i> and <i>Mespilia globulus</i> . (apical ganglion/anti-serotonin/sea urchin) <i>Tj ETQq1 1 0.784314 rgBT /Over</i> 531-538.	1.5	41
80	Localization of a SALMFamide Neuropeptide in the Larval Nervous System of the Sand Dollar <i>Dendraster excentricus</i> . <i>Acta Zoologica</i> , 1992, 73, 207-212.	0.8	37
81	Secondary mesenchyme of the sea urchin embryo: Ontogeny of blastocoelar cells. <i>The Journal of Experimental Zoology</i> , 1992, 262, 51-60.	1.4	65
82	Stimulation of starfish coelomocytes by interleukin-1. <i>Biochemical and Biophysical Research Communications</i> , 1991, 180, 579-584.	2.1	26
83	Cell movements during the initial phase of gastrulation in the sea urchin embryo. <i>Developmental Biology</i> , 1991, 146, 542-557.	2.0	100
84	Isolation of the neuropeptide SALMFamide-1 from starfish using a new antiserum. <i>Peptides</i> , 1991, 12, 455-459.	2.4	59
85	Growth of <i>Francisella</i> spp. in rodent macrophages. <i>Infection and Immunity</i> , 1991, 59, 3291-3296.	2.2	206
86	Ontogeny of an Extracellular Matrix Component of Sea Urchins and its Role in Morphogenesis. (blastocoel/extracellular matrix/mesenchyme/sea urchin/morphogenesis). <i>Development Growth and Differentiation</i> , 1990, 32, 461-471.	1.5	10
87	Collagen diversity in the sea urchin, <i>strongylocentrotus purpuratus</i> . <i>Comparative Biochemistry and Physiology Part B: Comparative Biochemistry</i> , 1989, 94, 41-44.	0.2	7
88	Mechanisms of arm-tip regeneration in the sea star, <i>Leptasterias hexactis</i> . <i>Roux's Archives of Developmental Biology</i> , 1989, 198, 19-28.	1.2	56
89	Pigmented Follicle Cells and the Maturation of Oocytes in the Sand Dollar, <i>Dendraster excentricus</i> . (echinoid/follicle cells/oogenesis/maturation). <i>Development Growth and Differentiation</i> , 1989, 31, 431-437.	1.5	8
90	Ontogeny and characterization of mesenchyme antigens of the sea urchin embryo. <i>Developmental Biology</i> , 1989, 136, 75-86.	2.0	18

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91	Localization and Characterization of an Integral Membrane Protein Antigen Expressed by Pigment Cells in Embryos of the Sea Urchin <i>Strongylocentrotus purpuratus</i> . (sea urchin/monoclonal) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T		
92	Development of the esophageal muscles in embryos of the sea urchin <i>Strongylocentrotus purpuratus</i> . <i>Cell and Tissue Research</i> , 1988, 252, 411-7.	2.9	60
93	Polyamines and cell proliferation in the sea star <i>Pycnopodia helianthoides</i> . <i>Comparative Biochemistry and Physiology Part B: Comparative Biochemistry</i> , 1988, 90, 885-890.	0.2	4
94	Migratory and invasive behavior of pigment cells in normal and animalized sea urchin embryos. <i>Experimental Cell Research</i> , 1987, 173, 546-557.	2.6	39
95	Improved method for benzoyl chloride derivatization of polyamines for high-performance liquid chromatography. <i>Journal of Chromatography A</i> , 1987, 408, 227-233.	3.7	32
96	Development of the nervous system of the pluteus larva of <i>Strongylocentrotus droebachiensis</i> . <i>Cell and Tissue Research</i> , 1987, 248, 335.	2.9	114
97	Chapter 16 Cytological Techniques for the Study of Larval Echinoids with Notes on Methods for Inducing Metamorphosis. <i>Methods in Cell Biology</i> , 1986, 27, 295-308.	1.1	7
98	STRUCTURE OF THE NERVOUS SYSTEM OF THE AURICULARIA LARVA OF <i>PARASTICOPUS CALIFORNICUS</i> . <i>Biological Bulletin</i> , 1986, 170, 450-460.	1.8	60
99	Fine structure of the doliolaria larva of the feather star <i>Florometra serratissima</i> (Echinodermata: Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	1.2	27
100	Development of Serotonergic Neurons in Embryos of the Sea Urchin, <i>Strongylocentrotus purpuratus</i> . (serotonergic/neural development/embryo/echinoid). <i>Development Growth and Differentiation</i> , 1986, 28, 569-574.	1.5	90
101	Actin-mediated retraction of the larval epidermis during metamorphosis of the sand dollar, <i>Dendraster excentricus</i> . <i>Cell and Tissue Research</i> , 1985, 239, 589-97.	2.9	4
102	The origin of pigment cells in embryos of the sea urchin <i>Strongylocentrotus purpuratus</i> . <i>Developmental Biology</i> , 1985, 107, 414-419.	2.0	124
103	Pheromonal Control of Metamorphosis in the Pacific Sand Dollar, <i>Dendraster excentricus</i> . <i>Science</i> , 1984, 225, 442-443.	12.6	96
104	Development of the larval nervous system of the sand dollar, <i>Dendraster excentricus</i> . <i>Cell and Tissue Research</i> , 1983, 229, 145-54.	2.9	56
105	The structure of the larval nervous system of <i>Pisaster ochraceus</i> (Echinodermata: Asteroidea). <i>Journal of Morphology</i> , 1983, 178, 23-35.	1.2	52
106	Uptake of dissolved amino acids by embryos and larvae of <i>Dendraster excentricus</i> (Eschscholtz) (Echinodermata: Echinoidea). <i>Canadian Journal of Zoology</i> , 1983, 61, 349-354.	1.0	21
107	NEURAL CONTROL OF METAMORPHOSIS IN <i>DENDRASTER EXCENTRICUS</i> . <i>Biological Bulletin</i> , 1983, 164, 176-188.	1.8	67
108	The induction of metamorphosis of marine invertebrate larvae: stimulus and response. <i>Canadian Journal of Zoology</i> , 1983, 61, 1701-1719.	1.0	177

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109	Structure of the digestive tract of the pluteus larva of <i>Dendraster excentricus</i> (Echinodermata: Tj ETQq1 1 0.784314.rgBT / Overlock 10	0.8	64
110	Morphogenesis of the digestive tract of the pluteus larva of <i>Strongylocentrotus purpuratus</i> : sphincter formation. <i>International Journal of Invertebrate Reproduction</i> , 1980, 2, 1-12.	0.6	5
111	Morphogenesis of the digestive tract of the pluteus larva of <i>Strongylocentrotus purpuratus</i> : shaping and bending. <i>International Journal of Invertebrate Reproduction</i> , 1980, 2, 13-21.	0.6	13
112	Development of pedicellariae in the pluteus larva of <i>Lytechinus pictus</i> (Echinodermata: Echinoidea). <i>Canadian Journal of Zoology</i> , 1980, 58, 1674-1682.	1.0	26
113	Podial sensory receptors and the induction of metamorphosis in echinoids. <i>Journal of Experimental Marine Biology and Ecology</i> , 1980, 47, 223-234.	1.5	59
114	The structure of the nervous system of the pluteus larva of <i>Strongylocentrotus purpuratus</i> . <i>Cell and Tissue Research</i> , 1978, 191, 233-47.	2.9	89