Michael W Klymkowsky

List of Publications by Year
in descending order

96 papers	5,602 citations	76326 40 h-index	79698 73 g-index
163 all docs	163 docs citations	163 times ranked	4844 citing authors

#	Article	IF	Citations
1	Epithelial-Mesenchymal Transition. American Journal of Pathology, 2009, 174, 1588-1593.	3.8	461
2	Regulation of Wnt Signaling by Sox Proteins. Molecular Cell, 1999, 4, 487-498.	9.7	334
3	Structure and function of an acetylcholine receptor. Biophysical Journal, 1982, 37, 371-383.	0.5	290
4	Chapter 22 Whole-Mount Staining of Xenopus and Other Vertebrates. Methods in Cell Biology, 1991, 36, 419-441.	1.1	195
5	Structural studies of a membrane-bound acetylcholine receptor from Torpedo californica. Journal of Molecular Biology, 1977, 116, 635-659.	4.2	181
6	Functions of intermediate filaments. Cytoskeleton, 1989, 14, 309-331.	4.4	175
7	Intermediate filaments in 3T3 cells collapse after intracellular injection of a monoclonal anti-intermediate filament antibody. Nature, 1981, 291, 249-251.	27.8	173
8	Understanding Randomness and its Impact on Student Learning: Lessons Learned from Building the Biology Concept Inventory (BCI). CBE Life Sciences Education, 2008, 7, 227-233.	2.3	159
9	Chemistry, Life, the Universe, and Everything: A New Approach to General Chemistry, and a Model for Curriculum Reform. Journal of Chemical Education, 2013, 90, 1116-1122.	2.3	159
10	Immunospecific identification and three-dimensional structure of a membrane-bound acetylcholine receptor from Torpedo californica. Journal of Molecular Biology, 1979, 128, 319-334.	4.2	151
11	Lost in Lewis Structures: An Investigation of Student Difficulties in Developing Representational Competence. Journal of Chemical Education, 2010, 87, 869-874.	2.3	149
12	Regulation of TCF3 by Wnt-Dependent Phosphorylation during Vertebrate Axis Specification. Developmental Cell, 2010, 19, 521-532.	7.0	147
13	The appearance of acetylated Î±-tubulin during early development and cellular differentiation in Xenopus. Developmental Biology, 1989, 136, 104-117.	2.0	145
14	Inhibition of Neural Crest Migration in Xenopus Using Antisense Slug RNA. Developmental Biology, 1999, 213, 101-115.	2.0	136
15	The body language of cells: The intimate connection between cell adhesion and behavior. Cell, 1995, 83, 5-8.	28.9	112
16	Development and Assessment of a Molecular Structure and Properties Learning Progression. Journal of Chemical Education, 2012, 89, 1351-1357.	2.3	107
17	Cranial ontogeny in the direct-developing frog,Eleutherodactylus coqui (anura: Leptodactylidae), analyzed using whole-mount immunohistochemistry. Journal of Morphology, 1992, 211, 95-118.	1.2	104
18	Eya1 and Six1 promote neurogenesis in the cranial placodes in a SoxB1-dependent fashion. Developmental Biology, 2008, 320, 199-214.	2.0	100

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19	Intermediate filaments: new proteins, some answers, more questions. Current Opinion in Cell Biology, 1995, 7, 46-54.	5.4	98
20	Sox3 expression identifies neural progenitors in persistent neonatal and adult mouse forebrain germinative zones. Journal of Comparative Neurology, 2006, 497, 88-100.	1.6	98
21	SOX7 and SOX18 are essential for cardiogenesis inXenopus. Developmental Dynamics, 2005, 234, 878-891.	1.8	78
22	Recognizing Student Misconceptions through Ed's Tools and the Biology Concept Inventory. PLoS Biology, 2008, 6, e3.	5.6	76
23	Organic Chemistry, Life, the Universe and Everything (OCLUE): A Transformed Organic Chemistry Curriculum. Journal of Chemical Education, 2019, 96, 1858-1872.	2.3	76
24	NEXUS/Physics: An interdisciplinary repurposing of physics for biologists. American Journal of Physics, 2014, 82, 368-377.	0.7	71
25	Cytoplasmically Anchored Plakoglobin Induces a WNT-like Phenotype inXenopus. Developmental Biology, 1997, 185, 67-81.	2.0	70
26	Bioliteracy and Teaching Efficacy: What Biologists Can Learn from Physicists. CBE: Life Sciences Education, 2003, 2, 155-161.	0.7	68
27	The Trouble with Chemical Energy: Why Understanding Bond Energies Requires an Interdisciplinary Systems Approach. CBE Life Sciences Education, 2013, 12, 306-312.	2.3	66
28	Building, Using, and Maximizing the Impact of Concept Inventories in the Biological Sciences: Report on a National Science Foundationâ€"sponsored Conference on the Construction of Concept Inventories in the Biological Sciences. CBE Life Sciences Education, 2007, 6, 277-282.	2.3	64
29	A comparative evaluation of Î²-catenin and plakoglobin signaling activity. Oncogene, 2000, 19, 5720-5728.	5.9	63
30	CRISPR/Cas9-mediated mutagenesis in the sea lamprey, <i>Petromyzon marinus</i>: a powerful tool for understanding ancestral gene functions in vertebrates. Development (Cambridge), 2015, 142, 4180-7.	2.5	61
31	TSPAN12 Is a Norrin Co-receptor that Amplifies Frizzled4 Ligand Selectivity and Signaling. Cell Reports, 2017, 19, 2809-2822.	6.4	61
32	Are Noncovalent Interactions an Achilles Heel in Chemistry Education? A Comparison of Instructional Approaches. Journal of Chemical Education, 2015, 92, 1979-1987.	2.3	60
33	Repression of nodal expression by maternal B1-type SOXs regulates germ layer formation in Xenopus and zebrafish. Developmental Biology, 2004, 273, 23-37.	2.0	56
34	Membrane-anchored Plakoglobins Have Multiple Mechanisms of Action in Wnt Signaling. Molecular Biology of the Cell, 1999, 10, 3151-3169.	2.1	50
35	Localizing the adhesive and signaling functions of plakoglobin. , 1997, 20, 91-102.		48
36	An NF-Î°B and Slug Regulatory Loop Active in Early Vertebrate Mesoderm. PLoS ONE, 2006, 1, e106.	2.5	47

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37	Differential organization of desmin and vimentin in muscle is due to differences in their head domains.. Journal of Cell Biology, 1994, 126, 445-456.	5.2	46
38	Jaw muscle development as evidence for embryonic repatterning in directâ€“developing frogs. Proceedings of the Royal Society B: Biological Sciences, 1997, 264, 1349-1354.	2.6	45
39	Limb development in a ?nonmodel? vertebrate, the direct-developing frogEleutherodactylus coqui. The Journal of Experimental Zoology, 2001, 291, 375-388.	1.4	44
40	SOX7 is an immediate-early target of VegT and regulates Nodal-related gene expression in Xenopus. Developmental Biology, 2005, 278, 526-541.	2.0	44
41	Metabolic inhibitors and intermediate filament organization in human fibroblasts. Experimental Cell Research, 1988, 174, 282-290.	2.6	41
42	Unexpected functional redundancy between Twist and Slug (Snail2) and their feedback regulation of NF-ÎºB via Nodal and Cerberus. Developmental Biology, 2009, 331, 340-349.	2.0	40
43	Snail2 controls mesodermal BMP/Wnt induction of neural crest. Development (Cambridge), 2011, 138, 3135-3145.	2.5	40
44	Weaving a tangled web: the interconnected cytoskeleton. Nature Cell Biology, 1999, 1, E121-E123.	10.3	39
45	Î²-catenin and its regulatory network. Human Pathology, 2005, 36, 225-227.	2.0	37
46	MPF-induced breakdown of cytokeratin filament organization in the maturing Xenopus oocyte depends upon the translation of maternal mRNAs. Developmental Biology, 1989, 134, 479-485.	2.0	36
47	Morphogenesis and the Cytoskeleton: Studies of the Xenopus Embryo. Developmental Biology, 1994, 165, 372-384.	2.0	35
48	The Sox axis, Nodal signaling, and germ layer specification. Differentiation, 2007, 75, 536-545.	1.9	34
49	Mechanisms driving neural crest induction and migration in the zebrafish and<i>Xenopus laevis</i>. Cell Adhesion and Migration, 2010, 4, 595-608.	2.7	34
50	Whole-Mount Analyses of Cytoskeletal Reorganization and Function during Oogenesis and Early Embryogenesis in Xenopus. , 1989, , 63-103.		33
51	Diagnostic of students' misconceptions using the Biological Concepts Instrument (BCI): A method for conducting an educational needs assessment. PLoS ONE, 2017, 12, e0176906.	2.5	33
52	Plakophilin, armadillo repeats, and nuclear localization. Microscopy Research and Technique, 1999, 45, 43-54.	2.2	31
53	Type II collagen distribution during cranial development in Xenopus laevis. Anatomy and Embryology, 1994, 189, 81-9.	1.5	30
54	Embryonic expression of Xenopus laevis SOX7. Gene Expression Patterns, 2004, 4, 29-33.	0.8	27

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55	Points of View: Content versus Process: Is This a Fair Choice?. CBE: Life Sciences Education, 2005, 4, 196-198.	0.7	27
56	A Short History of the Use of Technology To Model and Analyze Student Data for Teaching and Research. ACS Symposium Series, 2014, , 219-239.	0.5	25
57	Metabolic inhibitors and mitosis: I. Effects of dinitrophenol/deoxyglucose and nocodazole on the live spindle. Protoplasma, 1986, 131, 47-59.	2.1	24
58	Rohon-Beard sensory neurons are induced by BMP4 expressing non-neural ectoderm in Xenopus laevis. Developmental Biology, 2008, 314, 351-361.	2.0	24
59	Metabolic inhibitors and mitosis: II. Effects of dinitrophenol/deoxyglucose and nocodazole on the microtubule cytoskeleton. Protoplasma, 1986, 131, 60-74.	2.1	23
60	Chibby functions in Xenopus ciliary assembly, embryonic development, and the regulation of gene expression. Developmental Biology, 2014, 395, 287-298.	2.0	22
61	Desmin organization during the differentiation of the dorsal myotome in Xenopus laevis. Differentiation, 1994, 56, 31-38.	1.9	20
62	14 Intermediate Filament Organization, Reorganization, and Function in the Clawed Frog Xenopus. Current Topics in Developmental Biology, 1996, 31, 455-486.	2.2	19
63	Nuclear roles for cilia-associated proteins. Cilia, 2017, 6, 8.	1.8	19
64	Cadherins and catenins, Wnts and SOXs: Embryonic patterning in Xenopus. International Review of Cytology, 2001, 203, 291-355.	6.2	18
65	Acute effects of desmin mutations on cytoskeletal and cellular integrity in cardiac myocytes. Cytoskeleton, 2003, 54, 105-121.	4.4	16
66	Identifying domains of EFHC1 involved in ciliary localization, ciliogenesis, and the regulation of Wnt signaling. Developmental Biology, 2016, 411, 257-265.	2.0	16
67	Minireviews, minidogmas and mythinformation. BioEssays, 1997, 19, 537-539.	2.5	15
68	A maternally established <i><scp>S</scp>ox<scp>B</scp>1/<scp>S</scp>ox<scp>F</scp></i> axis is a conserved feature of chordate germ layer patterning. Evolution & Development, 2012, 14, 104-115.	2.0	14
69	Centrin-2 (Cetn2) mediated regulation of FGF/FGFR gene expression in Xenopus. Scientific Reports, 2015, 5, 10283.	3.3	14
70	Cellular and Secreted Forms of Acetylcholinesterase in Mouse Muscle Cultures. Journal of Neurochemistry, 1985, 45, 1932-1940.	3.9	13
71	Getting under the skin. Nature, 1991, 354, 264-265.	27.8	11
72	Using graphâ€based assessments within socratic tutorials to reveal and refine students' analytical thinking about molecular networks. Biochemistry and Molecular Biology Education, 2012, 40, 100-107.	1.2	10

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73	Intermediate filaments as dynamic structures. Cancer and Metastasis Reviews, 1996, 15, 417-428.	5.9	9
74	Now for the hard part: The path to coherent curricular design. Biochemistry and Molecular Biology Education, 2012, 40, 271-272.	1.2	8
75	Energy in Chemical Systems: An Integrated Approach. , 2014, , 301-316.		8
76	Classroom Uses for BeSocratic. Human-computer Interaction Series, 2015, , 127-136.	0.6	8
77	Mitochondrial activity, embryogenesis, and the dialogue between the big and little brains of the cell. Mitochondrion, 2011, 11, 814-819.	3.4	7
78	Turning randomness into meaning at the molecular level using Muller's morphs. Biology Open, 2012, 1, 405-410.	1.2	7
79	Teaching data structures with beSocratic. , 2013, , .		7
80	The Design and Transformation of Biofundamentals: A Nonsurvey Introductory Evolutionary and Molecular Biology Course. CBE Life Sciences Education, 2016, 15, ar70.	2.3	7
81	Whole-Mount Immunocytochemistry in <i>Xenopus</i>. Cold Spring Harbor Protocols, 2018, 2018, pdb.prot097295.	0.3	7
82	Filaments and phenotypes: cellular roles and orphan effects associated with mutations in cytoplasmic intermediate filament proteins. F1000Research, 2019, 8, 1703.	1.6	7
83	Make Room for Computing. Science, 2009, 326, 227-227.	12.6	6
84	Making educational games that work in the classroom: A new approach for integrating STEM simulations. , 2013, , .		6
85	Analyzing and visualizing student work with <i>BeSocratic</i>. , 2012, , .		4
86	Concept Inventories: Design, Application, Uses, Limitations, and Next Steps. , 2020, , 775-790.		4
87	Comment on â€œShould Organic Chemistry Be Taught as Science?â€• Journal of Chemical Education, 2020, 97, 1213-1214.	2.3	3
88	Making mechanistic sense: are we teaching students what they need to know?. Developmental Biology, 2021, 476, 308-313.	2.0	2
89	Debunking Key and Lock Biology: Exploring the prevalence and persistence of studentsâ€™ misconceptions on the nature and flexibility of molecular interactions . Matters Select, 0, , .	3.0	2
90	Chapter 7 Intermediate filaments: A medical overview. Principles of Medical Biology, 1995, 2, 147-188.	0.1	1

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91	Avoiding Reflex Responses: Strategies for Revealing Studentsâ€™ Conceptual Understanding in Biology. AIP Conference Proceedings, 2007, , .	0.4	0
92	A guide to the productive poking, prodding and injection of cells. Development (Cambridge), 2009, 136, 4070-4072.	2.5	0
93	<i>sizzled</i> function and secreted factor network dynamics. Biology Open, 2012, 1, 286-294.	1.2	0
94	Foundational Physiochemical Concepts in the Biological Sciences. FASEB Journal, 2009, 23, 464.3.	0.5	0
95	Teaching data structures with BeSocratic (abstract only). , 2013, , .		0
96	Xenopus as a Model Organism for Functional Genomics: Rich History, Promising Future. , 2006, , 2019-2025.		0