Edna C Hardeman

List of Publications by Year
in descending order

117 papers	7,074 citations	66343 42 h-index	62596 80 g-index
126 all docs	126 docs citations	126 times ranked	8537 citing authors

#	Article	IF	Citations
1	Dendritic Function of Tau Mediates Amyloid-Î² Toxicity in Alzheimer's Disease Mouse Models. Cell, 2010, 142, 387-397.	28.9	1,563
2	Tropomyosin-Based Regulation of the Actin Cytoskeleton in Time and Space. Physiological Reviews, 2008, 88, 1-35.	28.8	411
3	Tropomyosin isoforms: divining rods for actin cytoskeleton function. Trends in Cell Biology, 2005, 15, 333-341.	7.9	279
4	Loss of ACTN3 gene function alters mouse muscle metabolism and shows evidence of positive selection in humans. Nature Genetics, 2007, 39, 1261-1265.	21.4	278
5	An Actn3 knockout mouse provides mechanistic insights into the association between Â-actinin-3 deficiency and human athletic performance. Human Molecular Genetics, 2008, 17, 1076-1086.	2.9	266
6	Specification of Actin Filament Function and Molecular Composition by Tropomyosin Isoforms. Molecular Biology of the Cell, 2003, 14, 1002-1016.	2.1	231
7	Tropomyosin â€“ master regulator of actin filament function in the cytoskeleton. Journal of Cell Science, 2015, 128, 2965-74.	2.0	215
8	A Novel Class of Anticancer Compounds Targets the Actin Cytoskeleton in Tumor Cells. Cancer Research, 2013, 73, 5169-5182.	0.9	155
9	Nemaline Myopathy Caused by Mutations in the Muscle Î±-Skeletal-Actin Gene. American Journal of Human Genetics, 2001, 68, 1333-1343.	6.2	144
10	Multiple mechanisms regulate muscle fiber diversity. FASEB Journal, 1991, 5, 3064-3070.	0.5	113
11	Four and a Half LIM Protein 1 Binds Myosin-binding Protein C and Regulates Myosin Filament Formation and Sarcomere Assembly. Journal of Biological Chemistry, 2006, 281, 7666-7683.	3.4	113
12	Identification of FHL1 as a regulator of skeletal muscle mass: implications for human myopathy. Journal of Cell Biology, 2008, 183, 1033-1048.	5.2	111
13	Coordinate reciprocal trends in glycolytic and mitochondrial transcript accumulations during the in vitro differentiation of human myoblasts. Journal of Cellular Physiology, 1990, 142, 566-573.	4.1	106
14	Cardiac aquaporin expression in humans, rats, and mice. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H705-H713.	3.2	86
15	A mutation in alpha-tropomyosinslow affects muscle strength, maturation and hypertrophy in a mouse model for nemaline myopathy. Human Molecular Genetics, 2001, 10, 317-328.	2.9	85
16	A RhoA-FRET Biosensor Mouse for Intravital Imaging in Normal Tissue Homeostasis and Disease Contexts. Cell Reports, 2017, 21, 274-288.	6.4	83
17	The Murine Stanniocalcin 2 Gene Is a Negative Regulator of Postnatal Growth. Endocrinology, 2008, 149, 2403-2410.	2.8	82
18	Identification of a Novel Slow-Muscle-Fiber Enhancer Binding Protein, MusTRD1. Molecular and Cellular Biology, 1998, 18, 6641-6652.	2.3	78

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19	The pattern of actin expression in human fibroblast Ã— mouse muscle heterokaryons suggests that human muscle regulatory factors are produced. Cell, 1986, 47, 123-130.	28.9	77
20	Nerve-Dependent and -Independent Patterns of mRNA Expression in Regenerating Skeletal Muscle. Developmental Biology, 1993, 159, 173-183.	2.0	75
21	Differential control of tropomyosin mRNA levels during myogenesis suggests the existence of an isoform competition-autoregulatory compensation control mechanism. Developmental Biology, 1990, 138, 443-453.	2.0	73
22	Specific Features of Neuronal Size and Shape Are Regulated by Tropomyosin Isoforms. Molecular Biology of the Cell, 2005, 16, 3425-3437.	2.1	69
23	Mechanisms underlying intranuclear rod formation. Brain, 2007, 130, 3275-3284.	7.6	63
24	Creating intracellular structural domains: spatial segregation of actin and tropomyosin isoforms in neurons. BioEssays, 1998, 20, 892-900.	2.5	62
25	An ?tropomyosin mutation alters dimer preference in nemaline myopathy. Annals of Neurology, 2005, 57, 42-49.	5.3	62
26	An Actin Filament Population Defined by the Tropomyosin Tpm3.1 Regulates Glucose Uptake. Traffic, 2015, 16, 691-711.	2.7	61
27	Developmental Regulation of Troponin I Isoform Genes in Striated Muscles of Transgenic Mice. Developmental Biology, 1995, 169, 487-503.	2.0	60
28	Hypertrophy and dietary tyrosine ameliorate the phenotypes of a mouse model of severe nemaline myopathy. Brain, 2011, 134, 3516-3529.	7.6	59
29	Mutations in tropomyosin 4 underlie a rare form of human macrothrombocytopenia. Journal of Clinical Investigation, 2017, 127, 814-829.	8.2	57
30	Sorting of a nonmuscle tropomyosin to a novel cytoskeletal compartment in skeletal muscle results in muscular dystrophy. Journal of Cell Biology, 2004, 166, 685-696.	5.2	56
31	Identification of a program of contractile protein gene expression initiated upon skeletal muscle differentiation. Developmental Dynamics, 1993, 196, 25-36.	1.8	55
32	Intravital FRAP Imaging using an E-cadherin-GFP Mouse Reveals Disease- and Drug-Dependent Dynamic Regulation of Cell-Cell Junctions in Live Tissue. Cell Reports, 2016, 14, 152-167.	6.4	54
33	Regulation of cell proliferation by ERK and signal-dependent nuclear translocation of ERK is dependent on Tm5NM1-containing actin filaments. Molecular Biology of the Cell, 2015, 26, 2475-2490.	2.1	52
34	Coordination of skeletal muscle gene expression occurs late in mammalian development. Developmental Biology, 1991, 146, 167-178.	2.0	51
35	Aged skeletal muscle retains the ability to fully regenerate functional architecture. Bioarchitecture, 2013, 3, 25-37.	1.5	51
36	Diverse roles of the actin cytoskeleton in striated muscle. Journal of Muscle Research and Cell Motility, 2009, 30, 187-197.	2.0	50

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37	Cell Elasticity Is Regulated by the Tropomyosin Isoform Composition of the Actin Cytoskeleton. PLoS ONE, 2015, 10, e0126214.	2.5	50
38	ISOFORM SORTING AND THE CREATION OF INTRACELLULAR COMPARTMENTS. Annual Review of Cell and Developmental Biology, 1998, 14, 339-372.	9.4	47
39	Muscle weakness in a mouse model of nemaline myopathy can be reversed with exercise and reveals a novel myofiber repair mechanism. Human Molecular Genetics, 2004, 13, 2633-2645.	2.9	47
40	Co-polymers of Actin and Tropomyosin Account for a Major Fraction of the Human Actin Cytoskeleton. Current Biology, 2018, 28, 2331-2337.e5.	3.9	47
41	Tropomyosins in Skeletal Muscle Diseases. Advances in Experimental Medicine and Biology, 2008, 644, 143-157.	1.6	47
42	Cytoskeletal Tropomyosin Tm5NM1 Is Required for Normal Excitationâ€“Contraction Coupling in Skeletal Muscle. Molecular Biology of the Cell, 2009, 20, 400-409.	2.1	45
43	Effects of compactin on the levels of 3-hydroxy-3-methylglutaryl coenzyme A reductase in compactin-resistant C100 and wild-type cells. Archives of Biochemistry and Biophysics, 1984, 232, 549-561.	3.0	44
44	Skeletal muscle repair in a mouse model of nemaline myopathy. Human Molecular Genetics, 2006, 15, 2603-2612.	2.9	44
45	Expression of Gtf2ird1, the Williams syndrome-associated gene, during mouse development. Gene Expression Patterns, 2007, 7, 396-404.	0.8	40
46	Mutation of Gtf2ird1 from the Williamsâ€“Beuren syndrome critical region results in facial dysplasia, motor dysfunction, and altered vocalisations. Neurobiology of Disease, 2012, 45, 913-922.	4.4	40
47	hMusTRD1Î±1 Represses MEF2 Activation of the Troponin I Slow Enhancer. Journal of Biological Chemistry, 2003, 278, 36603-36610.	3.4	39
48	Tropomyosin 4 defines novel filaments in skeletal muscle associated with muscle remodelling/regeneration in normal and diseased muscle. Cytoskeleton, 2008, 65, 73-85.	4.4	39
49	Tropomyosin Promotes Lamellipodial Persistence by Collaborating with Arp2/3 at the Leading Edge. Current Biology, 2016, 26, 1312-1318.	3.9	39
50	Tropomyosin Regulates Cell Migration during Skin Wound Healing. Journal of Investigative Dermatology, 2013, 133, 1330-1339.	0.7	38
51	Identification of Cancer-Targeted Tropomyosin Inhibitors and Their Synergy with Microtubule Drugs. Molecular Cancer Therapeutics, 2017, 16, 1555-1565.	4.1	38
52	Regulation of contractile protein gene family mRNA pool sizes during myogenesis. Developmental Biology, 1990, 142, 270-282.	2.0	37
53	Divergent Regulation of the Sarcomere and the Cytoskeleton. Journal of Biological Chemistry, 2008, 283, 275-283.	3.4	36
54	Distinct Underlying Mechanisms of Limb and Respiratory Muscle Fiber Weaknesses in Nemaline Myopathy. Journal of Neuropathology and Experimental Neurology, 2013, 72, 472-481.	1.7	30

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55	A small molecule inhibitor of tropomyosin dissociates actin binding from tropomyosin-directed regulation of actin dynamics. Scientific Reports, 2016, 6, 19816.	3.3	28
56	Negative Autoregulation of GTF2IRD1 in Williams-Beuren Syndrome via a Novel DNA Binding Mechanism. Journal of Biological Chemistry, 2010, 285, 4715-4724.	3.4	27
57	Tropomyosins induce neuritogenesis and determine neurite branching patterns in B35 neuroblastoma cells. Molecular and Cellular Neurosciences, 2014, 58, 11-21.	2.2	27
58	Tropomyosin isoforms support actomyosin biogenesis to generate contractile tension at the epithelial zonula adherens. Cytoskeleton, 2014, 71, 663-676.	2.0	25
59	Impairments in contractility and cytoskeletal organisation cause nuclear defects in nemaline myopathy. Acta Neuropathologica, 2019, 138, 477-495.	7.7	25
60	The Human Troponin I Slow Promoter Directs Slow Fiber-Specific Expression in Transgenic Mice. DNA and Cell Biology, 1995, 14, 599-607.	1.9	24
61	Tropomyosins. Current Biology, 2017, 27, R8-R13.	3.9	24
62	Ultrastructural changes and sarcoplasmic reticulum Ca2+regulation in red vastus muscle following eccentric exercise in the rat. Experimental Physiology, 2007, 92, 437-447.	2.0	23
63	Treatment with ActRIIB-mFc Produces Myofiber Growth and Improves Lifespan in the Acta1 H40Y Murine Model of Nemaline Myopathy. American Journal of Pathology, 2016, 186, 1568-1581.	3.8	23
64	Actinâ€“tropomyosin distribution in non-muscle cells. Journal of Muscle Research and Cell Motility, 2020, 41, 11-22.	2.0	23
65	Myofiber adaptational response to exercise in a mouse model of nemaline myopathy. Muscle and Nerve, 2004, 30, 470-480.	2.2	22
66	Cardiac Â-actin over-expression therapy in dominant ACTA1 disease. Human Molecular Genetics, 2013, 22, 3987-3997.	2.9	22
67	Modulating myosin restores muscle function in a mouse model of nemaline myopathy. Annals of Neurology, 2016, 79, 717-725.	5.3	22
68	Tropomyosin Tpm3.1 Is Required to Maintain the Structure and Function of the Axon Initial Segment. IScience, 2020, 23, 101053.	4.1	21
69	Variations in the Relative mRNA Levels of Actins and Myosin Heavy Chains do not Produce Corresponding Differences in their Proteins in the Adult Human Heart. Journal of Molecular and Cellular Cardiology, 1997, 29, 895-905.	1.9	20
70	MusTRD can regulate postnatal fiber-specific expression. Developmental Biology, 2006, 293, 104-115.	2.0	20
71	On-target action of anti-tropomyosin drugs regulates glucose metabolism. Scientific Reports, 2018, 8, 4604.	3.3	20
72	Dynamic polyhedral actomyosin lattices remodel micron-scale curved membranes during exocytosis in live mice. Nature Cell Biology, 2019, 21, 933-939.	10.3	19

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73	Correlative cryo-ET identifies actin/tropomyosin filaments that mediate cellâ€“substrate adhesion in cancer cells and mechanosensitivity of cell proliferation. Nature Materials, 2022, 21, 120-128.	27.5	19
74	Combined MRI and 31P-MRS Investigations of the ACTA1(H40Y) Mouse Model of Nemaline Myopathy Show Impaired Muscle Function and Altered Energy Metabolism. PLoS ONE, 2013, 8, e61517.	2.5	17
75	Epidermal YAP2-5SA-Î”C Drives Î²-Catenin Activation to Promote Keratinocyte Proliferation in Mouse Skin InÂVivo. Journal of Investigative Dermatology, 2017, 137, 716-726.	0.7	17
76	A robust method for particulate detection of a genetic tag for 3D electron microscopy. ELife, 2021, 10, .	6.0	16
77	Regulation of alternative splicing of Gtf2ird1 and its impact on slow muscle promoter activity. Biochemical Journal, 2003, 374, 359-367.	3.7	15
78	Parallel assembly of actin and tropomyosin but not myosin II during de novo actin filament formation in live mice. Journal of Cell Science, 2018, 131, .	2.0	15
79	Molecular integration of the anti-tropomyosin compound ATM-3507 into the coiled coil overlap region of the cancer-associated Tpm3.1. Scientific Reports, 2019, 9, 11262.	3.3	15
80	Colocation of Tpm3.1 and myosin IIa heads defines a discrete subdomain in stress fibres. Journal of Cell Science, 2019, 132, .	2.0	15
81	Impact of the actin cytoskeleton on cell development and function mediated via tropomyosin isoforms. Seminars in Cell and Developmental Biology, 2020, 102, 122-131.	5.0	15
82	Drug Targeting the Actin Cytoskeleton Potentiates the Cytotoxicity of Low Dose Vincristine by Abrogating Actin-Mediated Repair of Spindle Defects. Molecular Cancer Research, 2020, 18, 1074-1087.	3.4	15
83	Mouse Models for Thin Filament Disease. Advances in Experimental Medicine and Biology, 2008, 642, 66-77.	1.6	15
84	Isolation of full-length cDNAs encoding abundant adult human skeletal muscle mRNAs. Gene, 1985, 38, 177-188.	2.2	14
85	The nuclear localization pattern and interaction partners of GTF2IRD1 demonstrate a role in chromatin regulation. Human Genetics, 2015, 134, 1099-1115.	3.8	14
86	Developmental Profiling of Tropomyosin Expression in Mouse Brain Reveals Tpm4.2 as the Major Post-synaptic Tropomyosin in the Mature Brain. Frontiers in Cellular Neuroscience, 2017, 11, 421.	3.7	14
87	High-Content Imaging of Unbiased Chemical Perturbations Reveals that the Phenotypic Plasticity of the Actin Cytoskeleton Is Constrained. Cell Systems, 2019, 9, 496-507.e5.	6.2	14
88	GTF2IRD2from the Williams-Beuren critical region encodes a mobile element-derived fusion protein that antagonizes the action of its related family members. Journal of Cell Science, 2012, 125, 5040-50.	2.0	13
89	RNA-Seq analysis of Gtf2ird1 knockout epidermal tissue provides potential insights into molecular mechanisms underpinning Williams-Beuren syndrome. BMC Genomics, 2016, 17, 450.	2.8	13
90	Chemical biology approaches targeting the actin cytoskeleton through phenotypic screening. Current Opinion in Chemical Biology, 2019, 51, 40-47.	6.1	13

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91	Recruitment Kinetics of Tropomyosin Tpm3.1 to Actin Filament Bundles in the Cytoskeleton Is Independent of Actin Filament Kinetics. PLoS ONE, 2016, 11, e0168203.	2.5	12
92	ER/Golgi trafficking is facilitated by unbranched actin filaments containing Tpm4.2. Cytoskeleton, 2017, 74, 379-389.	2.0	11
93	Tropomyosin concentration but not formin nucleators mDia1 and mDia3 determines the level of tropomyosin incorporation into actin filaments. Scientific Reports, 2019, 9, 6504.	3.3	11
94	A cytoskeletal tropomyosin can compromise the structural integrity of skeletal muscle. Cytoskeleton, 2009, 66, 710-720.	4.4	10
95	Different electrophoretic techniques produce conflicting data in the analysis of myocardial samples from dilated cardiomyopathy patients: Protein levels do not necessarily reflect mRNA levels. Electrophoresis, 1996, 17, 235-238.	2.4	9
96	Reappearance of the minor Î±-sarcomeric actins in postnatal muscle. American Journal of Physiology - Cell Physiology, 1997, 273, C1801-C1810.	4.6	9
97	Nerve-responsive troponin I slow promoter does not respond to unloading. Journal of Applied Physiology, 1998, 84, 1083-1087.	2.5	9
98	SUMOylation of GTF2IRD1 Regulates Protein Partner Interactions and Ubiquitin-Mediated Degradation. PLoS ONE, 2012, 7, e49283.	2.5	8
99	Irradiation impairs mitochondrial function and skeletal muscle oxidative capacity: significance for metabolic complications in cancer survivors. Metabolism: Clinical and Experimental, 2020, 103, 154025.	3.4	8
100	Methylguanine DNA Methyltransferase-Mediated Drug Resistance-Based Selective Enrichment and Engraftment of Transplanted Stem Cells in Skeletal Muscle. Stem Cells, 2009, 27, 1098-1108.	3.2	7
101	The role of GTF2IRD1 in the auditory pathology of Williamsâ€“Beuren Syndrome. European Journal of Human Genetics, 2015, 23, 774-780.	2.8	7
102	Fundamental differences. ELife, 2018, 7, .	6.0	7
103	Targeting the actin/tropomyosin cytoskeleton in epithelial ovarian cancer reveals multiple mechanisms of synergy with anti-microtubule agents. British Journal of Cancer, 2021, 125, 265-276.	6.4	7
104	Impact of .ALPHA.-Skeletal Actin but not .ALPHA.-Cardiac Actin on Myoblast Morphology.. Cell Structure and Function, 1997, 22, 173-179.	1.1	6
105	Alterations at the Cross-Bridge Level Are Associated with a Paradoxical Gain of Muscle Function In Vivo in a Mouse Model of Nemaline Myopathy. PLoS ONE, 2014, 9, e109066.	2.5	6
106	Cloning and Characterization of a Novel Gene,striamin, That Interacts with the Tumor Suppressor Protein p53. Journal of Biological Chemistry, 1999, 274, 14948-14955.	3.4	5
107	Visualizing the in vitro assembly of tropomyosin/actin filaments using TIRF microscopy. Biophysical Reviews, 2020, 12, 879-885.	3.2	5
108	What makes a model system great?. Intravital, 2013, 2, e26287.	2.0	3

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109	Induction of muscle-regenerative multipotent stem cells from human adipocytes by PDGF-AB and 5-azacytidine. Science Advances, 2021, 7, .	10.3	3
110	Sexually dimorphic myofilament function in a mouse model of nemaline myopathy. Archives of Biochemistry and Biophysics, 2014, 564, 37-42.	3.0	2
111	Life and death agendas of actin filaments. Nature Materials, 2020, 19, 135-136.	27.5	2
112	Creating intracellular structural domains: spatial segregation of actin and tropomyosin isoforms in neurons. BioEssays, 1998, 20, 892-900.	2.5	1
113	Lighting up microtubule cytoskeleton dynamics in skeletal muscle. Intravital, 2014, 3, e29293.	2.0	0
114	Cover Image, Volume 74, Issue 10. Cytoskeleton, 2017, 74, C4.	2.0	0
115	Thin Filament Diseases of Striated Muscle. , 2012, , 123-140.		0
116	The Limits of Phenotypic Plasticity in the Actin Cytoskeleton Revealed by Unbiased Chemical Perturbation. SSRN Electronic Journal, 0, , .	0.4	0
117	Tropomyosin Tpm3.1 is Required to Maintain the Structure and Function of the Axon InitialÂSegment. SSRN Electronic Journal, 0, , .	0.4	0