Michael Otmar Hengartner

List of Publications by Year
in descending order

140 papers	33,599 citations	15466 65 h-index	10424 139 g-index
147 all docs	147 docs citations	147 times ranked	39519 citing authors

#	Article	IF	Citations
1	The biochemistry of apoptosis. Nature, 2000, 407, 770-776.	13.7	6,505
2	Molecular mechanisms of cell death: recommendations of the Nomenclature Committee on Cell Death 2018. Cell Death and Differentiation, 2018, 25, 486-541.	5.0	4,036
3	Classification of cell death: recommendations of the Nomenclature Committee on Cell Death 2009. Cell Death and Differentiation, 2009, 16, 3-11.	5.0	2,572
4	Molecular definitions of cell death subroutines: recommendations of the Nomenclature Committee on Cell Death 2012. Cell Death and Differentiation, 2012, 19, 107-120.	5.0	2,144
5	C. elegans cell survival gene ced-9 encodes a functional homolog of the mammalian proto-oncogene bcl-2. Cell, 1994, 76, 665-676.	13.5	1,141
6	Caenorhabditis elegans gene ced-9 protects cells from programmed cell death. Nature, 1992, 356, 494-499.	13.7	847
7	Finding function in novel targets: C. elegans as a model organism. Nature Reviews Drug Discovery, 2006, 5, 387-399.	21.5	847
8	Essential versus accessory aspects of cell death: recommendations of the NCCD 2015. Cell Death and Differentiation, 2015, 22, 58-73.	5.0	811
9	Programmed cell death: alive and well in the new millennium. Trends in Cell Biology, 2001, 11, 526-534.	3.6	603
10	Guidelines for the use and interpretation of assays for monitoring cell death in higher eukaryotes. Cell Death and Differentiation, 2009, 16, 1093-1107.	5.0	599
11	Microtubule-associated protein 1 light chain 3 alpha (LC3)-associated phagocytosis is required for the efficient clearance of dead cells. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 17396-17401.	3.3	585
12	CED-12/ELMO, a Novel Member of the CrkII/Dock180/Rac Pathway, Is Required for Phagocytosis and Cell Migration. Cell, 2001, 107, 27-41.	13.5	520
13	mProphet: automated data processing and statistical validation for large-scale SRM experiments. Nature Methods, 2011, 8, 430-435.	9.0	481
14	A Conserved Checkpoint Pathway Mediates DNA Damageâ€“Induced Apoptosis and Cell Cycle Arrest in C. elegans. Molecular Cell, 2000, 5, 435-443.	4.5	476
15	miRNAs and apoptosis: RNAs to die for. Oncogene, 2006, 25, 6176-6187.	2.6	467
16	Mitochondria as a Target of Environmental Toxicants. Toxicological Sciences, 2013, 134, 1-17.	1.4	427
17	PaxDb, a Database of Protein Abundance Averages Across All Three Domains of Life. Molecular and Cellular Proteomics, 2012, 11, 492-500.	2.5	413
18	Programmed cell death in Caenorhabditis elegans. Current Opinion in Genetics and Development, 1994, 4, 581-586.	1.5	357

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19	Interaction between the C. elegans cell-death regulators CED-9 and CED-4. Nature, 1997, 385, 653-656.	13.7	300
20	Engulfment genes cooperate with ced-3 to promote cell death in Caenorhabditis elegans. Nature, 2001, 412, 202-206.	13.7	282
21	Protein Identification False Discovery Rates for Very Large Proteomics Data Sets Generated by Tandem Mass Spectrometry. Molecular and Cellular Proteomics, 2009, 8, 2405-2417.	2.5	282
22	Developmental apoptosis in C. elegans: a complex CEDnario. Nature Reviews Molecular Cell Biology, 2006, 7, 97-108.	16.1	269
23	Deficiency of FANCD2-Associated Nuclease KIAA1018/FAN1 Sensitizes Cells to Interstrand Crosslinking Agents. Cell, 2010, 142, 77-88.	13.5	256
24	Caenorhabditis elegans HUS-1 Is a DNA Damage Checkpoint Protein Required for Genome Stability and EGL-1-Mediated Apoptosis. Current Biology, 2002, 12, 1908-1918.	1.8	244
25	A pathway for phagosome maturation during engulfment of apoptotic cells. Nature Cell Biology, 2008, 10, 556-566.	4.6	243
26	Two pathways converge at CED-10 to mediate actin rearrangement and corpse removal in C. elegans. Nature, 2005, 434, 93-99.	13.7	238
27	Caenorhabditis elegans inhibitor of apoptosis protein (IAP) homologue BIR-1 plays a conserved role in cytokinesis. Current Biology, 1999, 9, 292-302.	1.8	227
28	No death without life: vital functions of apoptotic effectors. Cell Death and Differentiation, 2008, 15, 1113-1123.	5.0	221
29	Comparative Functional Analysis of the Caenorhabditis elegans and Drosophila melanogaster Proteomes. PLoS Biology, 2009, 7, e1000048.	2.6	208
30	Mutations in the alpha 1 subunit of an L-type voltage-activated Ca2+ channel cause myotonia in Caenorhabditis elegans. EMBO Journal, 1997, 16, 6066-6076.	3.5	199
31	Translational Repression of C. elegans p53 by GLD-1 Regulates DNA Damage-Induced Apoptosis. Cell, 2005, 120, 357-368.	13.5	195
32	Candidate Adaptor Protein CED-6 Promotes the Engulfment of Apoptotic Cells in C. elegans. Cell, 1998, 93, 961-972.	13.5	194
33	Dock180 and ELMO1 Proteins Cooperate to Promote Evolutionarily Conserved Rac-dependent Cell Migration. Journal of Biological Chemistry, 2004, 279, 6087-6097.	1.6	193
34	Functional Identification of Optimized RNAi Triggers Using a Massively Parallel Sensor Assay. Molecular Cell, 2011, 41, 733-746.	4.5	193
35	Phagocytosis of Apoptotic Cells Is Regulated by a UNC-73/TRIO-MIG-2/RhoG Signaling Module and Armadillo Repeats of CED-12/ELMO. Current Biology, 2004, 14, 2208-2216.	1.8	185
36	HIF-1 antagonizes p53-mediated apoptosis through a secreted neuronal tyrosinase. Nature, 2010, 465, 577-583.	13.7	179

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37	Activation of C. elegans cell death protein CED-9 by an ammo-acid substitution in a domain conserved in Bcl-2. Nature, 1994, 369, 318-320.	13.7	172
38	Comparative Analysis Reveals Conserved Protein Phosphorylation Networks Implicated in Multiple Diseases. Science Signaling, 2009, 2, ra39.	1.6	171
39	The Genetics of Programmed Cell Death in the Nematode Caenorhabditis elegans. Cold Spring Harbor Symposia on Quantitative Biology, 1994, 59, 377-385.	2.0	170
40	Advances in apoptosis research. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 12736-12737.	3.3	168
41	Apoptosis. Cell, 2001, 104, 325-328.	13.5	168
42	Transcriptional regulator of programmed cell death encoded by Caenorhabditis elegans gene ces-2. Nature, 1996, 382, 545-547.	13.7	163
43	Protection of C. elegans from Anoxia by HYL-2 Ceramide Synthase. Science, 2009, 324, 381-384.	6.0	159
44	A common set of engulfment genes mediates removal of both apoptotic and necrotic cell corpses in C. elegans. Nature Cell Biology, 2000, 2, 931-937.	4.6	157
45	C. elegans RAD-5/CLK-2 defines a new DNA damage checkpoint protein. Current Biology, 2001, 11, 1934-1944.	1.8	154
46	Death and more: DNA damage response pathways in the nematode C. elegans. Cell Death and Differentiation, 2004, 11, 21-28.	5.0	135
47	Apoptotic Cell Death Under Hypoxia. Physiology, 2014, 29, 168-176.	1.6	127
48	PH domain of ELMO functions in trans to regulate Rac activation via Dock180. Nature Structural and Molecular Biology, 2004, 11, 756-762.	3.6	121
49	Nonapoptotic Role for Apaf-1 in the DNA Damage Checkpoint. Molecular Cell, 2007, 28, 624-637.	4.5	116
50	Death cycle and Swiss army knives. Nature, 1998, 391, 441-442.	13.7	113
51	Syndecan regulates cell migration and axon guidance in C. elegans. Development (Cambridge), 2005, 132, 4621-4633.	1.2	106
52	The nucleotide excision repair pathway is required for UV-C-induced apoptosis in Caenorhabditis elegans. Cell Death and Differentiation, 2007, 14, 1129-1138.	5.0	97
53	A Steric-Inhibition Model for Regulation of Nucleotide Exchange via the Dock180 Family of GEFs. Current Biology, 2005, 15, 371-377.	1.8	96
54	Genome-wide RNAi identifies p53-dependent and -independent regulators of germ cell apoptosis in C. elegans. Cell Death and Differentiation, 2004, 11, 1198-1203.	5.0	95

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55	Caenorhabditis elegans N-glycan Core Î²-galactoside Confers Sensitivity towards Nematotoxic Fungal Galectin CGL2. PLoS Pathogens, 2010, 6, e1000717.	2.1	95
56	Programmed cell death in invertebrates. Current Opinion in Genetics and Development, 1996, 6, 34-38.	1.5	94
57	A lectinâ€mediated resistance of higher fungi against predators and parasites. Molecular Ecology, 2011, 20, 3056-3070.	2.0	92
58	The Wnt Pathway Controls Cell Death Engulfment, Spindle Orientation, and Migration through CED-10/Rac. PLoS Biology, 2010, 8, e1000297.	2.6	90
59	Apoptosis CED-4 is a stranger no more. Nature, 1997, 388, 714-715.	13.7	88
60	The Molecular Mechanism of Programmed Cell Death in C. elegans. Annals of the New York Academy of Sciences, 1999, 887, 92-104.	1.8	86
61	A quantitative targeted proteomics approach to validate predicted microRNA targets in C. elegans. Nature Methods, 2010, 7, 837-842.	9.0	80
62	Aminophospholipid Translocase TAT-1 Promotes Phosphatidylserine Exposure during C. elegans Apoptosis. Current Biology, 2007, 17, 994-999.	1.8	76
63	Caenorhabditis elegans ABL-1 antagonizes p53-mediated germline apoptosis after ionizing irradiation. Nature Genetics, 2004, 36, 906-912.	9.4	74
64	Methylated glycans as conserved targets of animal and fungal innate defense. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E2787-96.	3.3	74
65	Human CED-6 encodes a functional homologue of the Caenorhabditis elegans engulfment protein CED-6. Current Biology, 1999, 9, 1347-1350.	1.8	70
66	Analysis of C. elegans intestinal gene expression and polyadenylation by fluorescence-activated nuclei sorting and 3â€²-end-seq. Nucleic Acids Research, 2012, 40, 6304-6318.	6.5	69
67	Caenorhabditis elegans DNA mismatch repair gene msh-2 is required for microsatellite stability and maintenance of genome integrity. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 2158-2163.	3.3	68
68	DNA destroyers. Nature, 2001, 412, 27-29.	13.7	66
69	The future of model organisms in human disease research. Nature Reviews Genetics, 2011, 12, 575-582.	7.7	66
70	Regulation of nicotinic receptor trafficking by the transmembrane Golgi protein UNC-50. EMBO Journal, 2007, 26, 4313-4323.	3.5	65
71	Plasticity of the Î²-Trefoil Protein Fold in the Recognition and Control of Invertebrate Predators and Parasites by a Fungal Defence System. PLoS Pathogens, 2012, 8, e1002706.	2.1	65
72	Differential regulation of DNA damage response activation between somatic and germline cells in Caenorhabditis elegans. Cell Death and Differentiation, 2012, 19, 1847-1855.	5.0	65

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73	jkk-1 and mek-1 regulate body movement coordination and response to heavy metals through jnk-1 in Caenorhabditis elegans. EMBO Journal, 2001, 20, 5114-5128.	3.5	59
74	Loss of the RhoGAP SRGP-1 promotes the clearance of dead and injured cells in Caenorhabditis elegans. Nature Cell Biology, 2011, 13, 79-86.	4.6	59
75	How the worm removes corpses: the nematode C. elegans as a model system to study engulfment. Cell Death and Differentiation, 2001, 8, 564-568.	5.0	58
76	Shotgun proteomics data from multiple organisms reveals remarkable quantitative conservation of the eukaryotic core proteome. Proteomics, 2010, 10, 1297-1306.	1.3	58
77	URI-1 is required for DNA stability in C. elegans. Development (Cambridge), 2006, 133, 621-629.	1.2	56
78	C. elegans GLA-3 is a novel component of the MAP kinase MPK-1 signaling pathway required for germ cell survival. Genes and Development, 2006, 20, 2279-2292.	2.7	53
79	Identification of two signaling submodules within the CrkII/ELMO/Dock180 pathway regulating engulfment of apoptotic cells. Cell Death and Differentiation, 2007, 14, 963-972.	5.0	49
80	Identification and Characterization of a Dimerization Domain in CED-6, an Adapter Protein Involved in Engulfment of Apoptotic Cells. Journal of Biological Chemistry, 2000, 275, 9542-9549.	1.6	48
81	Molecular Basis for Galactosylation of Core Fucose Residues in Invertebrates. Journal of Biological Chemistry, 2009, 284, 36223-36233.	1.6	48
82	Calcium dynamics during fertilization in C. elegans. BMC Developmental Biology, 2001, 1, 8.	2.1	46
83	A novel mouse model for inhibition of DOHH mediated hypusine modification reveals crucial function for embryonic development, proliferation and oncogenic transformation. DMM Disease Models and Mechanisms, 2014, 7, 963-76.	1.2	46
84	Dynamic expression of a glutamate decarboxylase gene in multiple non-neural tissues during mouse development. , 2001, 1, 1.		45
85	NER and HR pathways act sequentially to promote UV-C-induced germ cell apoptosis in Caenorhabditis elegans. Cell Death and Differentiation, 2011, 18, 897-906.	5.0	45
86	The phosphoinositide phosphatase MTM-1 regulates apoptotic cell corpse clearance through CED-5â€“CED-12 in C. elegans. Development (Cambridge), 2011, 138, 2003-2014.	1.2	44
87	LEM-3 â€“ A LEM Domain Containing Nuclease Involved in the DNA Damage Response in C. elegans. PLoS ONE, 2012, 7, e24555.	1.1	43
88	Alteration of the nuclear pore complex in Ca2+-mediated cell death. Cell Death and Differentiation, 2010, 17, 119-133.	5.0	42
89	Nematotoxicity of Marasmius oreades Agglutinin (MOA) Depends on Glycolipid Binding and Cysteine Protease Activity. Journal of Biological Chemistry, 2011, 286, 30337-30343.	1.6	42
90	DEPDC1/LET-99 participates in an evolutionarily conserved pathway for anti-tubulin drug-induced apoptosis. Nature Cell Biology, 2014, 16, 812-820.	4.6	39

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91	Small GTPase CDC-42 promotes apoptotic cell corpse clearance in response to PAT-2 and CED-1 in C. elegans. Cell Death and Differentiation, 2014, 21, 845-853.	5.0	37
92	Disruption of the C. elegans Intestinal Brush Border by the Fungal Lectin CCL2 Phenocopies Dietary Lectin Toxicity in Mammals. PLoS ONE, 2015, 10, e0129381.	1.1	37
93	Caenorhabditis elegansContains Two Distinct Acid Sphingomyelinases. Journal of Biological Chemistry, 1998, 273, 14374-14379.	1.6	36
94	Tales of Cannibalism, Suicide, and Murder: Programmed Cell Death in C. elegans. Current Topics in Developmental Biology, 2004, 65, 1-45.	1.0	36
95	WormQTLâ€"public archive and analysis web portal for natural variation data in Caenorhabditis spp. Nucleic Acids Research, 2012, 41, D738-D743.	6.5	33
96	Establishing a Blueprint for CED-3-dependent Killing through Identification of Multiple Substrates for This Protease. Journal of Biological Chemistry, 2007, 282, 15011-15021.	1.6	32
97	ccz-1mediates the digestion of apoptotic corpses inC. elegans. Journal of Cell Science, 2010, 123, 2001-2007.	1.2	30
98	Long-termC. elegansimmobilization enables high resolution developmental studiesin vivo. Lab on A Chip, 2018, 18, 1359-1368.	3.1	30
99	Genetic control of programmed cell death and aging in the nematode Caenorhabditis elegans. Experimental Gerontology, 1997, 32, 363-374.	1.2	28
100	The short coiled-coil domain-containing protein UNC-69 cooperates with UNC-76 to regulate axonal outgrowth and normal presynaptic organization in Caenorhabditis elegans. Journal of Biology, 2006, 5, 9.	2.7	28
101	Natural Genetic Variation Influences Protein Abundances in C. elegans Developmental Signalling Pathways. PLoS ONE, 2016, 11, e0149418.	1.1	28
102	The genes pme-1 and pme-2 encode two poly(ADP-ribose) polymerases in Caenorhabditis elegans. Biochemical Journal, 2002, 368, 263-271.	1.7	27
103	Ribosome Synthesis and MAPK Activity Modulate Ionizing Radiation-Induced Germ Cell Apoptosis in Caenorhabditis elegans. PLoS Genetics, 2013, 9, e1003943.	1.5	27
104	eor-1 and eor-2 are required for cell-specific apoptotic death in C. elegans. Developmental Biology, 2004, 274, 125-138.	0.9	26
105	A Conserved Role for SNX9-Family Members in the Regulation of Phagosome Maturation during Engulfment of Apoptotic Cells. PLoS ONE, 2011, 6, e18325.	1.1	25
106	A Network of HSPG Core Proteins and HS Modifying Enzymes Regulates Netrin-Dependent Guidance of D-Type Motor Neurons in Caenorhabditis elegans. PLoS ONE, 2013, 8, e74908.	1.1	25
107	The C. elegans LAR-like receptor tyrosine phosphatase PTP-3 and the VAB-1 Eph receptor tyrosine kinase have partly redundant functions in morphogenesis. Development (Cambridge), 2002, 129, 2141-53.	1.2	25
108	Natural Genetic Variation Differentially Affects the Proteome and Transcriptome in Caenorhabditis elegans. Molecular and Cellular Proteomics, 2016, 15, 1670-1680.	2.5	23

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109	Selected Elements of Herpes Simplex Virus Accessory Factor HCF Are Highly Conserved in Caenorhabditis elegans. Molecular and Cellular Biology, 1999, 19, 909-915.	1.1	21
110	Sugar Antennae for Guidance Signals: Syndecans and Glypicans Integrate Directional Cues for Navigating Neurons. Scientific World Journal, The, 2006, 6, 1024-1036.	0.8	21
111	Epigenetic Regulation of Histone H3 Serine 10 Phosphorylation Status by HCF-1 Proteins in C. elegans and Mammalian Cells. PLoS ONE, 2007, 2, e1213.	1.1	21
112	Biotoxicity Assays for Fruiting Body Lectins and Other Cytoplasmic Proteins. Methods in Enzymology, 2010, 480, 141-150.	0.4	21
113	Modeling the binding specificity of the RNA-binding protein GLD-1 suggests a function of coding regionâ€“located sites in translational repression. Rna, 2013, 19, 1317-1326.	1.6	21
114	Cleaning up the mess: cell corpse clearance in Caenorhabditis elegans. Current Opinion in Cell Biology, 2012, 24, 881-888.	2.6	20
115	Generic Comparison of Protein Inference Engines. Molecular and Cellular Proteomics, 2012, 11, O110.007088.	2.5	20
116	Deleted in cancer 1 (DICE1) is an essential protein controlling the topology of the inner mitochondrial membrane in C. elegans. Development (Cambridge), 2006, 133, 3597-3606.	1.2	18
117	RIP-chip-SRMâ€”a new combinatorial large-scale approach identifies a set of translationally regulated bantam/miR-58 targets in C. elegans. Genome Research, 2012, 22, 1360-1371.	2.4	18
118	Cooperative target mRNA destabilization and translation inhibition by miR-58 microRNA family in C. elegans. Genome Research, 2015, 25, 1680-1691.	2.4	17
119	Dimerization of the fungal defense lectin CCL2 is essential for its toxicity against nematodes. Glycobiology, 2016, 27, 486-500.	1.3	17
120	Programmed Cell Death: A rich harvest. Current Biology, 1994, 4, 950-952.	1.8	16
121	Apoptosis and the shape of death. , 1997, 21, 245-248.		15
122	Post-transcriptional control of executioner caspases by RNA-binding proteins. Genes and Development, 2016, 30, 2213-2225.	2.7	15
123	CELL BIOLOGY: Tickling Macrophages, a Serious Business. Science, 2004, 304, 1123-1124.	6.0	14
124	A worm rich in protein: Quantitative, differential, and global proteomics in Caenorhabditis elegans. Journal of Proteomics, 2010, 73, 2186-2197.	1.2	14
125	The HUPO initiative on Model Organism Proteomes, iMOP. Proteomics, 2012, 12, 340-345.	1.3	9
126	Genetics of Apoptosis. Advances in Pharmacology, 1997, 41, 35-56.	1.2	7

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127	Divide and conquer. Nature, 2005, 433, 692-693.	13.7	7
128	Dying to hold you. Nature, 2008, 451, 530-531.	13.7	7
129	MINA-1 and WAGO-4 are part of regulatory network coordinating germ cell death and RNAi in C. elegans. Cell Death and Differentiation, 2019, 26, 2157-2178.	5.0	6
130	A Dynamic Physical Model of Cell Migration, Differentiation and Apoptosis in Caenorhabditis elegans. Advances in Experimental Medicine and Biology, 2012, 736, 211-233.	0.8	5
131	Differential regulation of germ line apoptosis and germ cell differentiation by CPEB family members in C. elegans. PLoS ONE, 2017, 12, e0182270.	1.1	5
132	Out-of body experiences: Cell-free cell death. BioEssays, 1995, 17, 549-552.	1.2	4
133	Nuclear pore complex during neuronal degeneration. Nucleus, 2010, 1, 136-138.	0.6	4
134	Model Organisms Proteomics-From Holobionts to Human Nutrition. Proteomics, 2013, 13, 2537-2541.	1.3	4
135	Predictive Modelling of Stem Cell Differentiation and Apoptosis in C. elegans. Lecture Notes in Computer Science, 2012, , 99-104.	1.0	2
136	Loss of Acetylcholine Signaling Reduces Cell Clearance Deficiencies in Caenorhabditis elegans. PLoS ONE, 2016, 11, e0149274.	1.1	1
137	C. elegans as a Model system for Germ Cell Death. , 1997, , 8-18.		1
138	Celebrating life (and death). Trends in Genetics, 1996, 12, 487.	2.9	0
139	Nonapoptotic Role for Apaf-1 in the DNA Damage Checkpoint. Molecular Cell, 2012, 48, 322-324.	4.5	0
140	The ins and outs of programmed cell death during C. elegans development. , 1995, , 7-10.		0