Joel N. Meyer

List of Publications by Year
in descending order

115	13,715	53794	22166
papers	citations	45 h-index	113 g-index

127	127	127	24711
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). Autophagy, 2016, 12, 1-222.	9.1	4,701
2	Caenorhabditis elegans: An Emerging Model in Biomedical and Environmental Toxicology. Toxicological Sciences, 2008, 106, 5-28.	3.1	832
3	Mechanism of Silver Nanoparticle Toxicity Is Dependent on Dissolved Silver and Surface Coating in Caenorhabditis elegans. Environmental Science & Technology, 2012, 46, 1119-1127.	10.0	535
4	Mitochondria as a Target of Environmental Toxicants. Toxicological Sciences, 2013, 134, 1-17.	3.1	427
5	Sulfidation of Silver Nanoparticles: Natural Antidote to Their Toxicity. Environmental Science & Technology, 2013, 47, 13440-13448.	10.0	364
6	Mitochondrial fusion, fission, and mitochondrial toxicity. Toxicology, 2017, 391, 42-53.	4.2	350
7	Intracellular uptake and associated toxicity of silver nanoparticles in Caenorhabditis elegans. Aquatic Toxicology, 2010, 100, 140-150.	4.0	327
8	PCR Based Determination of Mitochondrial DNA Copy Number in Multiple Species. Methods in Molecular Biology, 2015, 1241, 23-38.	0.9	307
9	Quantitative PCR-Based Measurement of Nuclear and Mitochondrial DNA Damage and Repair in Mammalian Cells. Methods in Molecular Biology, 2006, 314, 183-199.	0.9	258
10	Mitochondria, Energetics, Epigenetics, and Cellular Responses to Stress. Environmental Health Perspectives, 2014, 122, 1271-1278.	6.0	221
11	Mitochondrial hTERT exacerbates freeâ€radicalâ€mediated mtDNA damage. Aging Cell, 2004, 3, 399-411.	6.7	214
12	Fundulus as the premier teleost model in environmental biology: Opportunities for new insights using genomics. Comparative Biochemistry and Physiology Part D: Genomics and Proteomics, 2007, 2, 257-286.	1.0	194
13	Quantitative PCR-Based Measurement of Nuclear and Mitochondrial DNA Damage and Repair in Mammalian Cells. Methods in Molecular Biology, 2014, 1105, 419-437.	0.9	179
14	Mitochondrial localization of telomerase as a determinant for hydrogen peroxide-induced mitochondrial DNA damage and apoptosis. Human Molecular Genetics, 2006, 15, 1757-1768.	2.9	175
15	Nonadditive effects of PAHs on Early Vertebrate Development: mechanisms and implications for risk assessment. Toxicological Sciences, 2008, 105, 5-23.	3.1	146
16	HERITABLE ADAPTATION AND FITNESS COSTS IN KILLIFISH (FUNDULUS HETEROCLITUS) INHABITING A POLLUTED ESTUARY. , 2003, 13, 490-503.		145
17	Cytochrome P4501A (CYP1A) in Killifish (Fundulus heteroclitus): Heritability of Altered Expression and Relationship to Survival in Contaminated Sediments. Toxicological Sciences, 2002, 68, 69-81.	3.1	137
18	The QPCR assay for analysis of mitochondrial DNA damage, repair, and relative copy number. Methods, 2010, 51, 444-451.	3.8	137

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19	UV Disinfection of Adenoviruses: Molecular Indications of DNA Damage Efficiency. Applied and Environmental Microbiology, 2009, 75, 23-28.	3.1	136
20	Silver Nanoparticle Behavior, Uptake, and Toxicity in Caenorhabditis elegans: Effects of Natural Organic Matter. Environmental Science & Technology, 2014, 48, 3486-3495.	10.0	135
21	Mitochondrial DNA damage induced autophagy cell death and disease. Frontiers in Bioscience - Landmark, 2016, 21, 42-54.	3.0	125
22	Mitochondrial Toxicity. Toxicological Sciences, 2018, 162, 15-23.	3.1	124
23	Mitochondrial dynamics and autophagy aid in removal of persistent mitochondrial DNA damage in Caenorhabditis elegans. Nucleic Acids Research, 2012, 40, 7916-7931.	14.5	113
24	Comparative toxicity of silver nanoparticles on oxidative stress and DNA damage in the nematode, Caenorhabditis elegans. Chemosphere, 2014, 108, 343-352.	8.2	101
25	A systematic review of evidence for silver nanoparticle-induced mitochondrial toxicity. Environmental Science: Nano, 2016, 3, 311-322.	4.3	100
26	Decline of nucleotide excision repair capacity in aging Caenorhabditis elegans. Genome Biology, 2007, 8, R70.	9.6	93
27	Altered Gene Expression and DNA Damage in Peripheral Blood Cells from Friedreich's Ataxia Patients: Cellular Model of Pathology. PLoS Genetics, 2010, 6, e1000812.	3.5	93
28	Metabolic reprogramming and dysregulated metabolism: cause, consequence and/or enabler of environmental carcinogenesis?. Carcinogenesis, 2015, 36, S203-S231.	2.8	93
29	Antioxidant defenses in killifish (Fundulus heteroclitus) exposed to contaminated sediments and model prooxidants: short-term and heritable responses. Aquatic Toxicology, 2003, 65, 377-395.	4.0	89
30	Analysis of DNA Damage and Repair in Nuclear and Mitochondrial DNA of Animal Cells Using Quantitative PCR. Methods in Molecular Biology, 2012, 920, 111-132.	0.9	86
31	Reducing Environmental Toxicity of Silver Nanoparticles through Shape Control. Environmental Science & Technology, 2015, 49, 10093-10098.	10.0	83
32	Mitochondrial Morphology and Fundamental Parameters of the Mitochondrial Respiratory Chain Are Altered in Caenorhabditis elegans Strains Deficient in Mitochondrial Dynamics and Homeostasis Processes. PLoS ONE, 2015, 10, e0130940.	2.5	79
33	Cerium Oxide Nanoparticles are More Toxic than Equimolar Bulk Cerium Oxide in Caenorhabditis elegans. Archives of Environmental Contamination and Toxicology, 2013, 65, 224-233.	4.1	78
34	Patterns of heritability of decreased EROD activity and resistance to PCB 126-induced teratogenesis in laboratory-reared offspring of killifish (Fundulus heteroclitus) from a creosote-contaminated site in the Elizabeth River, VA, USA. Marine Environmental Research, 2002, 54, 621-626.	2.5	75
35	PCRâ€Based Analysis of Mitochondrial DNA Copy Number, Mitochondrial DNA Damage, and Nuclear DNA Damage. Current Protocols in Toxicology / Editorial Board, Mahin D Maines (editor-in-chief) [et Al], 2016, 67, 20.11.1-20.11.25.	1.1	72
36	Surface acoustic waves enable rotational manipulation of Caenorhabditis elegans. Lab on A Chip, 2019, 19, 984-992.	6.0	69

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37	AHR2-Mediated Transcriptomic Responses Underlying the Synergistic Cardiac Developmental Toxicity of PAHs. Toxicological Sciences, 2015, 143, 469-481.	3.1	68
38	Exposure to Mitochondrial Genotoxins and Dopaminergic Neurodegeneration in Caenorhabditis elegans. PLoS ONE, 2014, 9, e114459.	2.5	65
39	EXPRESSION AND INDUCIBILITY OF ARYL HYDROCARBON RECEPTOR PATHWAY GENES IN WILD-CAUGHT KILLIFISH (FUNDULUS HETEROCLITUS) WITH DIFFERENT CONTAMINANT-EXPOSURE HISTORIES. Environmental Toxicology and Chemistry, 2003, 22, 2337.	4.3	63
40	Caenorhabditis elegans Generates Biologically Relevant Levels of Genotoxic Metabolites from Aflatoxin B1 but Not Benzo[a]pyrene In Vivo. Toxicological Sciences, 2010, 118, 444-453.	3.1	62
41	Reactive Oxygen Species and Oxidative Stress. , 2008, , 273-324.		60
42	QPCR: a tool for analysis of mitochondrial and nuclear DNA damage in ecotoxicology. Ecotoxicology, 2010, 19, 804-811.	2.4	57
43	Xenobiotic metabolism and transport in Caenorhabditis elegans. Journal of Toxicology and Environmental Health - Part B: Critical Reviews, 2021, 24, 51-94.	6.5	51
44	Nucleotide excision repair genes are expressed at low levels and are not detectably inducible in Caenorhabditis elegans somatic tissues, but their function is required for normal adult life after UVC exposure. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2010, 683, 57-67.	1.0	50
45	Cellular Toxicity Associated with Exposure to Perfluorinated Carboxylates (PFCAs) and Their Metabolic Precursors. Chemical Research in Toxicology, 2014, 27, 42-50.	3.3	49
46	Deficiencies in mitochondrial dynamics sensitize Caenorhabditis elegans to arsenite and other mitochondrial toxicants by reducing mitochondrial adaptability. Toxicology, 2017, 387, 81-94.	4.2	49
47	Mitochondrial toxicity in hearts of CD-1 mice following perinatal exposure to AZT, 3TC, or AZT/3TC in combination. Environmental and Molecular Mutagenesis, 2007, 48, 190-200.	2.2	48
48	Intracellular trafficking pathways in silver nanoparticle uptake and toxicity in Caenorhabditis elegans. Nanotoxicology, 2016, 10, 831-835.	3.0	48
49	Biogas Stoves Reduce Firewood Use, Household Air Pollution, and Hospital Visits in Odisha, India. Environmental Science & Technology, 2017, 51, 560-569.	10.0	48
50	Distinctive adaptive response to repeated exposure to hydrogen peroxide associated with upregulation of DNA repair genes and cell cycle arrest. Redox Biology, 2016, 9, 124-133.	9.0	47
51	Dynamic Zebrafish Interactome Reveals Transcriptional Mechanisms of Dioxin Toxicity. PLoS ONE, 2010, 5, e10465.	2.5	47
52	The high-production volume fungicide pyraclostrobin induces triglyceride accumulation associated with mitochondrial dysfunction, and promotes adipocyte differentiation independent of PPARÎ³ activation, in 3T3-L1 cells. Toxicology, 2018, 393, 150-159.	4.2	45
53	Seahorse Xf^e24 Extracellular Flux Analyzerâ€Based Analysis of Cellular Respiration in Caenorhabditis elegans. Current Protocols in Toxicology / Editorial Board, Mahin D Maines (editor-in-chief) [et Al], 2015, 66, 25.7.1-15.	1.1	44
54	Effects of early life exposure to ultraviolet C radiation on mitochondrial DNA content, transcription, ATP production, and oxygen consumption in developing Caenorhabditis elegans. BMC Pharmacology & Toxicology, 2013, 14, 9.	2.4	42

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55	Exposure to polycyclic aromatic hydrocarbons and volatile organic compounds among recently pregnant rural Guatemalan women cooking and heating with solid fuels. International Journal of Hygiene and Environmental Health, 2017, 220, 726-735.	4.3	42
56	Linking Mitochondrial Dysfunction to Organismal and Population Health in the Context of Environmental Pollutants: Progress and Considerations for Mitochondrial Adverse Outcome Pathways. Environmental Toxicology and Chemistry, 2019, 38, 1625-1634.	4.3	42
57	Human Mitochondrial DNA Polymerase Î³ Exhibits Potential for Bypass and Mutagenesis at UV-induced Cyclobutane Thymine Dimers. Journal of Biological Chemistry, 2012, 287, 9222-9229.	3.4	40
58	DEPDC1/LET-99 participates in an evolutionarily conserved pathway for anti-tubulin drug-induced apoptosis. Nature Cell Biology, 2014, 16, 812-820.	10.3	39
59	A micro-sized model for the in vivo study of nanoparticle toxicity: what has Caenorhabditis elegans taught us?. Environmental Chemistry, 2014, 11, 227.	1.5	39
60	Effects of 5â€²-fluoro-2-deoxyuridine on mitochondrial biology in Caenorhabditis elegans. Experimental Gerontology, 2014, 56, 69-76.	2.8	39
61	Caenorhabditis elegans as an emerging model system in environmental epigenetics. Environmental and Molecular Mutagenesis, 2018, 59, 560-575.	2.2	39
62	Mitochondria as a target of organophosphate and carbamate pesticides: Revisiting common mechanisms of action with new approach methodologies. Reproductive Toxicology, 2019, 89, 83-92.	2.9	39
63	Swimming Exercise and Transient Food Deprivation in Caenorhabditis elegans Promote Mitochondrial Maintenance and Protect Against Chemical-Induced Mitotoxicity. Scientific Reports, 2018, 8, 8359.	3.3	38
64	Role of mitochondrial DNA damage and dysfunction in veterans with Gulf War Illness. PLoS ONE, 2017, 12, e0184832.	2.5	38
65	Differential display of hepatic mRNA from killifish (Fundulus heteroclitus) inhabiting a Superfund estuary. Aquatic Toxicology, 2005, 73, 327-341.	4.0	37
66	From the Cover: Arsenite Uncouples Mitochondrial Respiration and Induces a Warburg-like Effect inCaenorhabditis elegans. Toxicological Sciences, 2016, 152, 349-362.	3.1	37
67	UVCâ€Induced Mitochondrial Degradation via Autophagy Correlates with mtDNA Damage Removal in Primary Human Fibroblasts. Journal of Biochemical and Molecular Toxicology, 2013, 27, 28-41.	3.0	34
68	Mitochondrial DNA-depleted A549 cells are resistant to bleomycin. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2012, 303, L413-L424.	2.9	31
69	Effects of methyl and inorganic mercury exposure on genome homeostasis and mitochondrial function in Caenorhabditis elegans. DNA Repair, 2017, 52, 31-48.	2.8	31
70	The long amplicon quantitative PCR for DNA damage assay as a sensitive method of assessing DNA damage in the environmental model, Atlantic killifish (Fundulus heteroclitus). Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2009, 149, 182-186.	2.6	30
71	Caveats to the use of MTT, neutral red, Hoechst and Resazurin to measure silver nanoparticle cytotoxicity. Chemico-Biological Interactions, 2020, 315, 108868.	4.0	30
72	Silver nanoparticle toxicity to Atlantic killifish (Fundulus heteroclitus) and Caenorhabditis elegans: A comparison of mesocosm, microcosm, and conventional laboratory studies. Environmental Toxicology and Chemistry, 2015, 34, 275-282.	4.3	29

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73	Open source acoustofluidics. Lab on A Chip, 2019, 19, 2404-2414.	6.0	28
74	Fluorescence-based sorting of Caenorhabditis elegans via acoustofluidics. Lab on A Chip, 2020, 20, 1729-1739.	6.0	27
75	In Vivo Determination of Mitochondrial Function Using Luciferaseâ€Expressing Caenorhabditis elegans: Contribution of Oxidative Phosphorylation, Glycolysis, and Fatty Acid Oxidation to Toxicantâ€Induced Dysfunction. Current Protocols in Toxicology / Editorial Board, Mahin D Maines (editor-in-chief) [et Al], 2016, 69, 25.8.1-25.8.22.	1.1	25
76	Sources, mechanisms, and consequences of chemical-induced mitochondrial toxicity. Toxicology, 2017, 391, 2-4.	4.2	25
77	Phototoxicity in Human Retinal Pigment Epithelial Cells Promoted by Hypericin, a Component of St. Johnâ€™s Wortâ€. Photochemistry and Photobiology, 2007, 83, 706-713.	2.5	23
78	Materials and toxicological approaches to study metal and metal-oxide nanoparticles in the model organism Caenorhabditis elegans. Materials Horizons, 2017, 4, 719-746.	12.2	23
79	Nonselective autophagy reduces mitochondrial content during starvation in Caenorhabditis elegans. American Journal of Physiology - Cell Physiology, 2018, 315, C781-C792.	4.6	22
80	In vivo repair of alkylating and oxidative DNA damage in the mitochondrial and nuclear genomes of wild-type and glycosylase-deficient Caenorhabditis elegans. DNA Repair, 2012, 11, 857-863.	2.8	21
81	Effects of mutations in mitochondrial dynamics-related genes on the mitochondrial response to ultraviolet C radiation in developingCaenorhabditis elegans. Worm, 2013, 2, e23763.	1.0	21
82	Assessing Different Mechanisms of Toxicity in Mountaintop Removal/Valley Fill Coal Mining-Affected Watershed Samples Using Caenorhabditis elegans. PLoS ONE, 2013, 8, e75329.	2.5	21
83	Caenorhabditis elegans as a Model for Toxic Effects of Nanoparticles: Lethality, Growth, and Reproduction. Current Protocols in Toxicology / Editorial Board, Mahin D Maines (editor-in-chief) [et Al], 2015, 66, 20.10.1-20.10.25.	1.1	21
84	Antagonistic Growth Effects of Mercury and Selenium in Caenorhabditis elegans Are Chemical-Species-Dependent and Do Not Depend on Internal Hg/Se Ratios. Environmental Science & Technology, 2016, 50, 3256-3264.	10.0	21
85	Toxicological implications of mitochondrial localization of CYP2E1. Toxicology Research, 2017, 6, 273-289.	2.1	21
86	Involvement of autophagy and mitochondrial dynamics in determining the fate and effects of irreparable mitochondrial DNA damage. Autophagy, 2012, 8, 1822-1823.	9.1	20
87	DNA Adducts of Decarbamoyl Mitomycin C Efficiently Kill Cells without Wild-Type p53 Resulting from Proteasome-Mediated Degradation of Checkpoint Protein 1. Chemical Research in Toxicology, 2010, 23, 1151-1162.	3.3	19
88	Genetic Defects in Mitochondrial Dynamics in Caenorhabditis elegans Impact Ultraviolet C Radiation- and 6-hydroxydopamine-Induced Neurodegeneration. International Journal of Molecular Sciences, 2019, 20, 3202.	4.1	19
89	The tobaccoâ€specific nitrosamine 4â€(methylnitrosamino)â€1â€(3â€pyridyl)â€1â€butanone (NNK) induces mitochondrial and nuclear DNA damage in Caenorhabditis elegans. Environmental and Molecular Mutagenesis, 2014, 55, 43-50.	2.2	18
90	Analysis of CpG methylation in the killifish CYP1A promoter. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2005, 141, 406-411.	2.6	17

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91	Blinded Visual Scoring of Images Using the Freely-available Software Blinder. Bio-protocol, 2018, 8, .	0.4	17
92	Strengths and limitations of morphological and behavioral analyses in detecting dopaminergic deficiency in Caenorhabditis elegans. NeuroToxicology, 2019, 74, 209-220.	3.0	16
93	PCR-Based Determination of Mitochondrial DNA Copy Number in Multiple Species. Methods in Molecular Biology, 2021, 2310, 91-111.	0.9	16
94	Mitochondrial bioenergetic changes during development as an indicator of C. elegans health-span. Aging, 2019, 11, 6535-6554.	3.1	16
95	Early-life mitochondrial DNA damage results in lifelong deficits in energy production mediated by redox signaling in Caenorhabditis elegans. Redox Biology, 2021, 43, 102000.	9.0	15
96	Effects of reduced mitochondrial DNA content on secondary mitochondrial toxicant exposure in Caenorhabditis elegans. Mitochondrion, 2016, 30, 255-264.	3.4	14
97	Effects of Immunosuppressive Medications on Mitochondrial Function. Journal of Surgical Research, 2020, 249, 50-57.	1.6	14
98	Multiple metabolic changes mediate the response of Caenorhabditis elegans to the complex I inhibitor rotenone. Toxicology, 2021, 447, 152630.	4.2	14
99	In Vivo Effects of Silver Nanoparticles on Development, Behavior, and Mitochondrial Function are Altered by Genetic Defects in Mitochondrial Dynamics. Environmental Science & Technology, 2022, 56, 1113-1124.	10.0	14
100	Predictors of mitochondrial DNA copy number and damage in a mercuryâ€exposed rural Peruvian population near artisanal and smallâ€scale gold mining: An exploratory study. Environmental and Molecular Mutagenesis, 2019, 60, 197-210.	2.2	13
101	Newly Revised Quantitative PCRâ€Based Assay for Mitochondrial and Nuclear DNA Damage. Current Protocols in Toxicology / Editorial Board, Mahin D Maines (editor-in-chief) [et Al], 2018, 76, e50.	1.1	11
102	Lack of Detectable Direct Effects of Silver and Silver Nanoparticles on Mitochondria in Mouse Hepatocytes. Environmental Science & Technology, 2021, 55, 11166-11175.	10.0	11
103	Rotenone Modulates Caenorhabditis elegans Immunometabolism and Pathogen Susceptibility. Frontiers in Immunology, 2022, 13, 840272.	4.8	11
104	Neuroligin-mediated neurodevelopmental defects are induced by mitochondrial dysfunction and prevented by lutein in C. elegans. Nature Communications, 2022, 13, 2620.	12.8	11
105	Quantifying Levels of Dopaminergic Neuron Morphological Alteration and Degeneration in Caenorhabditis elegans. Journal of Visualized Experiments, 2021, , .	0.3	10
106	Zebrafish CYP1A expression in transgenic Caenorhabditis elegans protects from exposures to benzo[a]pyrene and a complex polycyclic aromatic hydrocarbon mixture. Toxicology, 2020, 440, 152473.	4.2	9
107	Mitochondrial DNA Mutagenesis: Feature of and Biomarker for Environmental Exposures and Aging. Current Environmental Health Reports, 2021, 8, 294-308.	6.7	9
108	Developmental toxicity and DNA damage from exposure to parking lot runoff retention pond samples in the Japanese medaka (Oryzias latipes). Marine Environmental Research, 2014, 99, 117-124.	2.5	8

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109	Response to Comment on â€œSulfidation of Silver Nanoparticles: Natural Antidote to Their Toxicityâ€: Environmental Science & Technology, 2014, 48, 6051-6052.	10.0	5
110	Evaluation of Peruvian Government Interventions to Reduce Childhood Anemia. Annals of Global Health, 2020, 86, 98.	2.0	5
111	A call for fuller reporting of toxicity test data. Integrated Environmental Assessment and Management, 2013, 9, 347-348.	2.9	3
112	Zebrafish have an ethanol-inducible hepatic 4-nitrophenol hydroxylase that is not CYP2E1-like. Environmental Toxicology and Pharmacology, 2017, 54, 142-145.	4.0	3
113	Sex-specific DNA methylation and associations with in utero tobacco smoke exposure at nuclear-encoded mitochondrial genes. Epigenetics, 2022, 17, 1573-1589.	2.7	3
114	Developmental nicotine exposure and masculinization of the rat preoptic area. NeuroToxicology, 2022, 89, 41-54.	3.0	2
115	strain sensitivity to sodium arsenite exposure is varied based on age and outcome measured. MicroPublication Biology, 2019, 2019, .	0.1	1