

Gary N Cherr

List of Publications by Year in descending order

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97
papers

6,005
citations

66343

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docs citations

97
times ranked

6545
citing authors

#	ARTICLE	IF	CITATIONS
1	Stability and Aggregation of Metal Oxide Nanoparticles in Natural Aqueous Matrices. <i>Environmental Science & Technology</i> , 2010, 44, 1962-1967.	10.0	1,162
2	Comparative environmental fate and toxicity of copper nanomaterials. <i>NanoImpact</i> , 2017, 7, 28-40.	4.5	277
3	In vitro studies of the golden hamster sperm acrosome reaction: Completion on the zona pellucida and induction by homologous soluble zonae pellucidae. <i>Developmental Biology</i> , 1986, 114, 119-131.	2.0	160
4	Phenotypic Plasticity of HSP70 and HSP70 Gene Expression in the Pacific Oyster (<i>Crassostrea gigas</i>): Implications for Thermal Limits and Induction of Thermal Tolerance. <i>Biological Bulletin</i> , 2003, 205, 160-169.	1.8	160
5	The dual functions of GPI-anchored PH-20: hyaluronidase and intracellular signaling. <i>Matrix Biology</i> , 2001, 20, 515-525.	3.6	153
6	Common Strategies and Technologies for the Ecosafety Assessment and Design of Nanomaterials Entering the Marine Environment. <i>ACS Nano</i> , 2014, 8, 9694-9709.	14.6	149
7	Estradiol and endocrine disrupting compounds adversely affect development of sea urchin embryos at environmentally relevant concentrations. <i>Aquatic Toxicology</i> , 2005, 71, 155-173.	4.0	144
8	Unexpectedly high mortality in Pacific herring embryos exposed to the 2007 <i>Cosco Busan</i> oil spill in San Francisco Bay. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, E51-8.	7.1	136
9	A Common Mutation in the Defensin <i>DEFB126</i> Causes Impaired Sperm Function and Subfertility. <i>Science Translational Medicine</i> , 2011, 3, 92ra65.	12.4	127
10	Metal oxide nanomaterials in seawater: Linking physicochemical characteristics with biological response in sea urchin development. <i>Journal of Hazardous Materials</i> , 2011, 192, 1565-1571.	12.4	126
11	Ecological Nanotoxicology: Integrating Nanomaterial Hazard Considerations Across the Subcellular, Population, Community, and Ecosystems Levels. <i>Accounts of Chemical Research</i> , 2013, 46, 813-822.	15.6	125
12	Beta-Defensin 126 on the Cell Surface Protects Sperm from Immunorecognition and Binding of Anti-Sperm Antibodies1. <i>Biology of Reproduction</i> , 2005, 73, 1243-1252.	2.7	111
13	Factors Controlling Sperm Entry into the Micropyles of Salmonid and Herring Eggs. (fish/sperm/egg/micropyle/fertilization). <i>Development Growth and Differentiation</i> , 1992, 34, 447-461.	1.5	108
14	Polybrominated diphenyl ether (PBDE)-induced alterations in vitamin A and thyroid hormone concentrations in the rat during lactation and early postnatal development. <i>Toxicology and Applied Pharmacology</i> , 2006, 215, 135-145.	2.8	101
15	The PH-20 Protein in <i>Cynomolgus</i> Macaque Spermatozoa: Identification of Two Different Forms Exhibiting Hyaluronidase Activity. <i>Developmental Biology</i> , 1996, 175, 142-153.	2.0	98
16	Macaque sperm coating protein DEFB126 facilitates sperm penetration of cervical mucus. <i>Human Reproduction</i> , 2008, 23, 2523-2534.	0.9	95
17	Sperm Attractant in the Micropyle Region of Fish and Insect Eggs1. <i>Biology of Reproduction</i> , 2013, 88, 47.	2.7	95
18	Motility initiation in herring sperm is regulated by reverse sodium-calcium exchange. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 2026-2031.	7.1	90

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19	A Tale of Two Spills: Novel Science and Policy Implications of an Emerging New Oil Spill Model. <i>BioScience</i> , 2012, 62, 461-469.	4.9	89
20	Beta-Defensin 126 on the Surface of Macaque Sperm Mediates Attachment of Sperm to Oviductal Epithelia. <i>Biology of Reproduction</i> , 2008, 78, 400-412.	2.7	88
21	Activation of multidrug efflux transporter activity at fertilization in sea urchin embryos (<i>Strongylocentrotus purpuratus</i>). <i>Developmental Biology</i> , 2004, 276, 452-462.	2.0	83
22	Multifunctional glycoprotein DEF126: a curious story of defensin-clad spermatozoa. <i>Nature Reviews Urology</i> , 2012, 9, 365-375.	3.8	80
23	ESP13.2, a Member of the β -Defensin Family, Is a Macaque Sperm Surface-Coating Protein Involved in the Capacitation Process. <i>Biology of Reproduction</i> , 2003, 69, 1118-1128.	2.7	79
24	The in vivo estrogenic and in vitro anti-estrogenic activity of permethrin and bifenthrin. <i>Environmental Toxicology and Chemistry</i> , 2012, 31, 2848-2855.	4.3	74
25	Chemical and physical guidance of fish spermatozoa into the egg through the micropyle. <i>Biology of Reproduction</i> , 2017, 96, 780-799.	2.7	67
26	Copper Oxide and Zinc Oxide Nanomaterials Act as Inhibitors of Multidrug Resistance Transport in Sea Urchin Embryos: Their Role as Chemosensitizers. <i>Environmental Science & Technology</i> , 2015, 49, 5760-5770.	10.0	66
27	Polycyclic aromatic hydrocarbons disrupt axial development in sea urchin embryos through a β -catenin dependent pathway. <i>Toxicology</i> , 2003, 186, 93-108.	4.2	64
28	Macaque sperm release ESP13.2 and PSP94 during capacitation: The absence of ESP13.2 is linked to sperm-zona recognition and binding. <i>Molecular Reproduction and Development</i> , 2004, 69, 325-337.	2.0	63
29	Gamete interaction in the white sturgeon <i>Acipenser transmontanus</i> : a morphological and physiological review. <i>Environmental Biology of Fishes</i> , 1985, 14, 11-22.	1.0	61
30	Structure of the cumulus matrix and zona pellucida in the golden hamster: A new view of sperm interaction with oocyte-associated extracellular matrices. <i>Cell and Tissue Research</i> , 1988, 251, 555-564.	2.9	59
31	Hyaluronic acid enhances induction of the acrosome reaction of human sperm through interaction with the PH-20 protein. <i>Zygote</i> , 1998, 6, 103-111.	1.1	59
32	Impacts of Petroleum-Derived Pollutants on Fish Development. <i>Annual Review of Animal Biosciences</i> , 2017, 5, 185-203.	7.4	59
33	Progesterone Accelerates the Completion of Sperm Capacitation and Activates CatSper Channel in Spermatozoa from the Rhesus Macaque. <i>Biology of Reproduction</i> , 2015, 93, 130.	2.7	58
34	Comparison of Cytotoxicity and Inhibition of Membrane ABC Transporters Induced by MWCNTs with Different Length and Functional Groups. <i>Environmental Science & Technology</i> , 2016, 50, 3985-3994.	10.0	56
35	Hyaluronic acid and the cumulus extracellular matrix induce increases in intracellular calcium in macaque sperm via the plasma membrane protein PH-20. <i>Zygote</i> , 1999, 7, 211-222.	1.1	55
36	The Carbohydrate Structure of DEF126, the Major Component of the Cynomolgus Macaque Sperm Plasma Membrane Glycocalyx. <i>Journal of Membrane Biology</i> , 2005, 207, 119-129.	2.1	52

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37	Low extracellular zinc increases neuronal oxidant production through nadph oxidase and nitric oxide synthase activation. <i>Free Radical Biology and Medicine</i> , 2010, 48, 1577-1587.	2.9	51
38	Fine Structure of the Envelope and Micropyles in the Eggs of the White Sturgeon, <i>Acipenser transmontanus</i> Richardson. (micropyle/chorion/egg envelopes/sturgeon/egg jelly). <i>Development Growth and Differentiation</i> , 1982, 24, 341-352.	1.5	48
39	Tolerance to biodegraded crude oil in marine invertebrate embryos and larvae is associated with expression of a multixenobiotic resistance transporter. <i>Aquatic Toxicology</i> , 2002, 61, 127-140.	4.0	48
40	Potent Phototoxicity of Marine Bunker Oil to Translucent Herring Embryos after Prolonged Weathering. <i>PLoS ONE</i> , 2012, 7, e30116.	2.5	48
41	The effects of diffusible creosote-derived compounds on development in Pacific herring (<i>Clupea</i>) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 3	4.0	45
42	A polar high molecular mass constituent of bleached kraft mill effluent is toxic to marine organisms. <i>Environmental Science & Technology</i> , 1992, 26, 2413-2420.	10.0	44
43	Real-Time Observations of Individual Macaque Sperm Undergoing Tight Binding and the Acrosome Reaction on the Zona Pellucida1. <i>Biology of Reproduction</i> , 2003, 68, 664-672.	2.7	43
44	The evolution of hamster sperm motility during capacitation and interaction with the ovum vestments in vitro. <i>Gamete Research</i> , 1986, 14, 333-346.	1.7	42
45	Using an integrated approach to link biomarker responses and physiological stress to growth impairment of cadmium-exposed larval topsmelt. <i>Aquatic Toxicology</i> , 2006, 80, 298-308.	4.0	42
46	Developmental effects of two different copper oxide nanomaterials in sea urchin (<i>Lytechinus</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	3.0	42
47	Impact of UV Radiation on the Early Development of the Giant Kelp (<i>Macrocystis pyrifera</i>) Gametophytes. <i>Photochemistry and Photobiology</i> , 2000, 72, 308.	2.5	41
48	Two egg-derived molecules in sperm motility initiation and fertilization in the Pacific herring (<i>Clupea</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3	3.6	40
49	Low levels of graphene and graphene oxide inhibit cellular xenobiotic defense system mediated by efflux transporters. <i>Nanotoxicology</i> , 2016, 10, 597-606.	3.0	39
50	Î²-Defensin 22 is a major component of the mouse sperm glycocalyx. <i>Reproduction</i> , 2008, 136, 753-765.	2.6	38
51	From Omics to Otoliths: Responses of an Estuarine Fish to Endocrine Disrupting Compounds across Biological Scales. <i>PLoS ONE</i> , 2013, 8, e74251.	2.5	36
52	Polycyclic aromatic hydrocarbons and dibutyl phthalate disrupt dorsal-ventral axis determination via the Wnt/Î²-catenin signaling pathway in zebrafish embryos. <i>Aquatic Toxicology</i> , 2012, 124-125, 188-196.	4.0	34
53	Toxic effects of selected bleached kraft mill effluent constituents on the sea urchin sperm cell. <i>Environmental Toxicology and Chemistry</i> , 1987, 6, 561-569.	4.3	33
54	Sperm motility initiation factor is a minor component of the Pacific herring egg chorion. <i>Development Growth and Differentiation</i> , 1996, 38, 193-202.	1.5	33

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55	Impacts of Suspended Sediments on Fertilization, Embryonic Development, and Early Larval Life Stages of the Pacific Herring, <i>Clupea pallasii</i> . <i>Biological Bulletin</i> , 2009, 216, 175-187.	1.8	33
56	Photosynthetic efficiency predicts toxic effects of metal nanomaterials in phytoplankton. <i>Aquatic Toxicology</i> , 2017, 183, 85-93.	4.0	33
57	Hyaluronidase activity of macaque sperm assessed by an in vitro cumulus penetration assay. <i>Molecular Reproduction and Development</i> , 1997, 46, 392-400.	2.0	31
58	Scaling Up Endocrine Disruption Effects from Individuals to Populations: Outcomes Depend on How Many Males a Population Needs. <i>Environmental Science & Technology</i> , 2017, 51, 1802-1810.	10.0	30
59	Organization of the Hamster Cumulus Extracellular Matrix: A Hyaluronate-Glycoprotein Gel which Modulates Sperm Access to the Oocyte. <i>Extracellular matrix/Hyaluronate/Oocyte-cumulus complex/Extracellular matrix glycoproteins/Sperm enzymes. Development Growth and Differentiation</i> , 1990, 32, 353-365.	1.5	28
60	Inhibition of cellular events during early algal gametophyte development: effects of select metals and an aqueous petroleum waste. <i>Aquatic Toxicology</i> , 1994, 28, 127-144.	4.0	28
61	Biochemical characterization of the PH-20 protein on the plasma membrane and inner acrosomal membrane of cynomolgus macaque spermatozoa. <i>Molecular Reproduction and Development</i> , 1997, 48, 356-366.	2.0	28
62	Soybean trypsin inhibitor as a probe for the acrosome reaction in motile cynomolgus macaque sperm. <i>Zygote</i> , 2000, 8, 127-137.	1.1	27
63	Implementing a Restoration Program for the Endangered White Abalone (<i>Haliotis sorenseni</i>) in California. <i>Journal of Shellfish Research</i> , 2016, 35, 611-618.	0.9	27
64	Increase in multidrug transport activity is associated with oocyte maturation in sea stars. <i>Development Growth and Differentiation</i> , 2006, 48, 559-573.	1.5	26
65	An approach to detecting estrogenic endocrine disruption via choriogenin expression in an estuarine model fish species. <i>Ecotoxicology</i> , 2012, 21, 1272-1280.	2.4	25
66	Identification of the Origin and Localization of Chorion (Egg Envelope) Proteins in an Ancient Fish, the White Sturgeon, <i>Acipenser transmontanus</i> . <i>Biology of Reproduction</i> , 2014, 90, 132.	2.7	24
67	Rapid and complete dehalogenation of halonitromethanes in simulated gastrointestinal tract and its influence on toxicity. <i>Chemosphere</i> , 2018, 211, 1147-1155.	8.2	20
68	Rearrangement of the PH-20 protein on the surface of macaque spermatozoa following exposure to anti-PH-20 antibodies or binding to zona pellucida. <i>Molecular Reproduction and Development</i> , 1998, 50, 207-220.	2.0	19
69	Preservation and visualization of the sea urchin embryo blastocoelic extracellular matrix. <i>Microscopy Research and Technique</i> , 1992, 22, 11-22.	2.2	18
70	Redistribution of Transcription Factor AP-2 in Differentiating Cultured Human Epidermal Cells. <i>Journal of Investigative Dermatology</i> , 2001, 117, 864-870.	0.7	17
71	Maternal exposure to estradiol and endocrine disrupting compounds alters the sensitivity of sea urchin embryos and the expression of an orphan steroid receptor. <i>Journal of Experimental Zoology Part A, Comparative Experimental Biology</i> , 2006, 305A, 830-841.	1.3	17
72	Effects of three zinc-containing sunscreens on development of purple sea urchin (<i>Strongylocentrotus purpuratus</i>) embryos. <i>Aquatic Toxicology</i> , 2020, 218, 105355.	4.0	17

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73	Importance of glycosylation and disulfide bonds in hyaluronidase activity of macaque sperm surface PH-20. <i>Journal of Andrology</i> , 2002, 23, 211-9.	2.0	17
74	Developmental abnormalities and DNA-protein crosslinks in sea urchin embryos exposed to three metals. <i>Aquatic Toxicology</i> , 1997, 39, 247-265.	4.0	14
75	Acrosome reaction in spermatozoa from hagfish (<i>Agnatha</i>) <i>Eptatretus burgeri</i> and <i>Eptatretus stouti</i> : Acrosomal exocytosis and identification of filamentous actin. <i>Development Growth and Differentiation</i> , 2002, 44, 337-344.	1.5	14
76	Unusual variation of blocking temperature in bi-magnetic nanoparticles. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 441, 417-423.	2.3	14
77	Interactive effects of pesticide exposure and habitat structure on behavior and predation of a marine larval fish. <i>Ecotoxicology</i> , 2015, 24, 391-400.	2.4	13
78	Facilitation of trace metal uptake in cells by inulin coating of metallic nanoparticles. <i>Royal Society Open Science</i> , 2017, 4, 170480.	2.4	13
79	Sperm motilityâ€initiating substance in newt eggâ€jelly induces differential initiation of sperm motility based on sperm intracellular calcium levels. <i>Development Growth and Differentiation</i> , 2011, 53, 9-17.	1.5	12
80	Induced thermotolerance and tissue Hsc70 in juvenile coho salmon, <i>Oncorhynchus kisutch</i> . <i>Acta Zoologica</i> , 2008, 89, 331-338.	0.8	9
81	Release of DEF126 from macaque sperm and completion of capacitation are triggered by conditions that simulate periovulatory oviductal fluid. <i>Molecular Reproduction and Development</i> , 2009, 76, 431-443.	2.0	9
82	Stage specific effects of soluble copper and copper oxide nanoparticles during sea urchin embryo development and their relation to intracellular copper uptake. <i>Aquatic Toxicology</i> , 2017, 189, 134-141.	4.0	9
83	Effects of soluble copper and copper oxide nanoparticle exposure on the immune system of mussels, <i>Mytilus galloprovincialis</i> . <i>Environmental Toxicology</i> , 2019, 34, 294-302.	4.0	9
84	Pilot study of the Olympia oyster <i>Ostrea conchaphila</i> in the San Francisco Bay estuary: description and distribution of diseases. <i>Diseases of Aquatic Organisms</i> , 2005, 65, 1-8.	1.0	9
85	Induction of the Acrosomal Reaction in Sperm from the White Sturgeon, <i>Acipenser Transmontanus</i> . , 1986, 207, 235-249.		8
86	Fabrication of a multifunctional magnetic-fluorescent material for medical applications. <i>Dalton Transactions</i> , 2020, 49, 4376-4389.	3.3	6
87	METHODS FOR ASSESSING FERTILIZATION AND EMBRYONIC/LARVAL DEVELOPMENT IN TOXICITY TESTS USING THE CALIFORNIA MUSSEL (<i>MYTILUS CALIFORNIANUS</i>). <i>Environmental Toxicology and Chemistry</i> , 1990, 9, 1137.	4.3	6
88	Toxicity of zinc and bleached kraft mill effluent to larval english sole (<i>Parophrys vetulus</i>) and topsmelt (<i>Atherinops affinis</i>). <i>Archives of Environmental Contamination and Toxicology</i> , 1990, 19, 680-685.	4.1	4
89	Two different unique cardiac isoforms of protein 4.1R in zebrafish, <i>Danio rerio</i> , and insights into their cardiac functions as related to their unique structures. <i>Development Growth and Differentiation</i> , 2010, 52, 591-602.	1.5	4
90	Review of and Recommendations for Monitoring Contaminants and their Effects in the San Francisco Bayâ”Delta. <i>San Francisco Estuary and Watershed Science</i> , 2019, 17, .	0.4	3

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91	Lignosulfonic acid blocks in vitro fertilization of macaque oocytes when sperm are treated either before or after capacitation. <i>Journal of Andrology</i> , 2002, 23, 889-98.	2.0	3
92	Larval Pacific Herring (<i>Clupea pallasii</i>) Survival in Suspended Sediment. <i>Estuaries and Coasts</i> , 2012, 35, 1229-1236.	2.2	2
93	The fish egg's micropyle and sperm attraction. <i>Molecular Reproduction and Development</i> , 2014, 81, 1063-1063.	2.0	1
94	Methods for toxicology studies in echinoderm embryos and larvae. <i>Methods in Cell Biology</i> , 2019, 150, 411-426.	1.1	1
95	Shu-Pei Cheng: A life-long pursuit for Environmental Science and Pollution Control. <i>Ecotoxicology</i> , 2021, 30, 1284-1286.	2.4	1
96	Survival of Drowning Sperm: Do Spermatozoa from External Fertilizers Adapt to Differing Osmotic Environments Through the Use of Aquaporins?. <i>Biology of Reproduction</i> , 2013, 89, 36.	2.7	0
97	Preface. <i>Ecotoxicology</i> , 2021, 30, 1279-1280.	2.4	0