William M Miller

List of Publications by Year
in descending order

123 papers	14,369 citations	81434 41 h-index	32181 105 g-index
128 all docs	128 docs citations	128 times ranked	20406 citing authors

#	Article	IF	Citations
1	Green roof vegetation management alters potential for water quality and temperature mitigation. Ecohydrology, 2021, 14, e2321.	1.1	5
2	Soil hydrology drives ecological niche differentiation in a native prairie microbiome. FEMS Microbiology Ecology, 2020, 96, .	1.3	8
3	Knowledge, attitudes, intentions, and behavior related to green infrastructure for flood management: A systematic literature review. Science of the Total Environment, 2020, 720, 137606.	3.9	79
4	A systematic review of the human health and social well-being outcomes of green infrastructure for stormwater and flood management. Journal of Environmental Management, 2019, 246, 868-880.	3.8	99
5	Enabling Large-Scale Ex Vivo Production of Megakaryocytes from CD34+ Cells Using Gas-Permeable Surfaces. Stem Cells Translational Medicine, 2019, 8, 658-670.	1.6	10
6	Characterization of soil profiles and elemental concentrations reveals deposition of heavy metals and phosphorus in a Chicago-area nature preserve, Gensburg Markham Prairie. Journal of Soils and Sediments, 2019, 19, 3817-3831.	1.5	15
7	Essential design considerations for the resazurin reduction assay to noninvasively quantify cell expansion within perfused extracellular matrix scaffolds. Biomaterials, 2017, 129, 163-175.	5.7	62
8	A uniformâ€shear rate microfluidic bioreactor for realâ€time study of proplatelet formation and rapidlyâ€released platelets. Biotechnology Progress, 2017, 33, 1614-1629.	1.3	9
9	Hoxa10 null animals exhibit reduced platelet biogenesis. British Journal of Haematology, 2016, 173, 303-313.	1.2	4
10	SIRT1 is a critical regulator of K562 cell growth, survival, and differentiation. Experimental Cell Research, 2016, 344, 40-52.	1.2	10
11	Megakaryocyte polyploidization and proplatelet formation in low-attachment conditions. Biochemical Engineering Journal, 2016, 111, 24-33.	1.8	7
12	Using Computational Fluid Dynamics (CFD) to Enhance Ex Vivo Platelet Production Via Shear Forces within Microfluidic Bioreactors. Blood, 2016, 128, 1352-1352.	0.6	1
13	Epithelial Cell Repopulation and Preparation of Rodent Extracellular Matrix Scaffolds for Renal Tissue Development. Journal of Visualized Experiments, 2015, , e53271.	0.2	7
14	Human megakaryocyte progenitors derived from hematopoietic stem cells of normal individuals are MHC class II-expressing professional APC that enhance Th17 and Th1/Th17 responses. Immunology Letters, 2015, 163, 84-95.	1.1	35
15	Dual-Purpose Bioreactors to Monitor Noninvasive Physical and Biochemical Markers of Kidney and Liver Scaffold Recellularization. Tissue Engineering - Part C: Methods, 2015, 21, 1032-1043.	1.1	41
16	Separation of inâ€vitroâ€derived megakaryocytes and platelets using spinningâ€membrane filtration. Biotechnology and Bioengineering, 2015, 112, 788-800.	1.7	24
17	Optimization and Critical Evaluation of Decellularization Strategies to Develop Renal Extracellular Matrix Scaffolds as Biological Templates for Organ Engineering and Transplantation. American Journal of Transplantation, 2015, 15, 64-75.	2.6	182
18	Dynamic transcription factor activity profiles reveal key regulatory interactions during megakaryocytic and erythroid differentiation. Biotechnology and Bioengineering, 2014, 111, 2082-2094.	1.7	9

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19	Profiling Deacetylase Activities in Cell Lysates with Peptide Arrays and SAMDI Mass Spectrometry. Analytical Chemistry, 2013, 85, 10635-10642.	3.2	48
20	Three-StageEx VivoExpansion of High-Ploidy Megakaryocytic Cells: Toward Large-Scale Platelet Production. Tissue Engineering - Part A, 2013, 19, 998-1014.	1.6	55
21	Administration of nicotinamide does not increase platelet levels in mice. Blood Cells, Molecules, and Diseases, 2013, 50, 171-176.	0.6	6
22	Synergistic effect of hydrogen peroxide on polyploidization during the megakaryocytic differentiation of K562 leukemia cells by PMA. Experimental Cell Research, 2013, 319, 2205-2215.	1.2	17
23	Bioreactor design for perfusion-based, highly vascularized organ regeneration. Current Opinion in Chemical Engineering, 2013, 2, 32-40.	3.8	34
24	Separation Of In Vitro-Derived Megakaryocytes and Platelets Using Spinning Membrane Filtration. Blood, 2013, 122, 3654-3654.	0.6	0
25	Proposed megakaryocytic regulon of p53: the genes engaged to control cell cycle and apoptosis during megakaryocytic differentiation. Physiological Genomics, 2012, 44, 638-650.	1.0	26
26	Energy, Water and Fish: Biodiversity Impacts of Energy-Sector Water Demand in the United States Depend on Efficiency and Policy Measures. PLoS ONE, 2012, 7, e50219.	1.1	19
27	Role of tumor suppressor p53 in megakaryopoiesis and platelet function. Experimental Hematology, 2012, 40, 131-142.e4.	0.2	33
28	Bone marrow niche-inspired, multiphase expansion of megakaryocytic progenitors with high polyploidization potential. Cytotherapy, 2010, 12, 767-782.	0.3	12
29	Mechanistic studies on the effects of nicotinamide on megakaryocytic polyploidization and the roles of NAD+ levels and SIRT inhibition. Experimental Hematology, 2009, 37, 1340-1352.e3.	0.2	38
30	Cholesterol supplementation during production increases the infectivity of retroviral and lentiviral vectors pseudotyped with the vesicular stomatitis virus glycoprotein (VSV-G). Biochemical Engineering Journal, 2009, 44, 199-207.	1.8	21
31	Effects of Supported Lipid Monolayer Fluidity on the Adhesion of Hematopoietic Progenitor Cell Lines to Fibronectin-Derived Peptide Ligands for Î±5Î²1 and Î±4Î²1 Integrins. Langmuir, 2009, 25, 2994-3002.	1.6	19
32	Energy Sprawl or Energy Efficiency: Climate Policy Impacts on Natural Habitat for the United States of America. PLoS ONE, 2009, 4, e6802.	1.1	264
33	Mimicking stem cell niches to increase stem cell expansion. Current Opinion in Biotechnology, 2008, 19, 534-540.	3.3	205
34	Effects of NHE1 Expression Level on CHO Cell Responses to Environmental Stress. Biotechnology Progress, 2008, 21, 562-567.	1.3	1
35	Transduction Efficiency of Pantropic Retroviral Vectors Is Controlled by the Envelope Plasmid to Vector Plasmid Ratio. Biotechnology Progress, 2008, 21, 274-282.	1.3	9
36	Tumor Suppressor Protein p53 Regulates Megakaryocytic Polyploidization and Apoptosis. Journal of Biological Chemistry, 2008, 283, 15589-15600.	1.6	38

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37	Gene Ontology-driven transcriptional analysis of CD34⁺cell-initiated megakaryocytic cultures identifies new transcriptional regulators of megakaryopoiesis. Physiological Genomics, 2008, 33, 159-169.	1.0	23
38	Surface Presentation of Bioactive Ligands in a Nonadhesive Background Using DOPA-Tethered Biotinylated Poly(ethylene glycol). Langmuir, 2007, 23, 10635-10643.	1.6	41
39	Gene expression analysis illuminates the transcriptional programs underlying the functional activity of ex vivo-expanded granulocytes. Physiological Genomics, 2007, 31, 114-125.	1.0	7
40	Proteome analysis of antibody-producing CHO cell lines with different metabolic profiles. Biotechnology and Bioengineering, 2007, 98, 391-410.	1.7	69
41	Bioreactor development for stem cell expansion and controlled differentiation. Current Opinion in Chemical Biology, 2007, 11, 394-398.	2.8	219
42	A systems-biology analysis of isogenic megakaryocytic and granulocytic cultures identifies new molecular components of megakaryocytic apoptosis. BMC Genomics, 2007, 8, 384.	1.2	18
43	Comparative, genome-scale transcriptional analysis of CHRF-288-11 and primary human megakaryocytic cell cultures provides novel insights into lineage-specific differentiation. Experimental Hematology, 2007, 35, 476-489.e23.	0.2	42
44	Mussel-Inspired Surface Chemistry for Multifunctional Coatings. Science, 2007, 318, 426-430.	6.0	9,012
45	Nicotinamide (vitamin B3) increases the polyploidisation and proplatelet formation of cultured primary human megakaryocytes. British Journal of Haematology, 2006, 135, 554-566.	1.2	63
46	Nicotinamide Enhances the Polyploidization of Primary Megakaryocytes.. Blood, 2005, 106, 1366-1366.	0.6	0
47	Developmental Plasticity Revealed by Lineage Switch from Committed Megakaryocytic Cells to Granulocytic Cells.. Blood, 2005, 106, 3610-3610.	0.6	0
48	Immobilized Thrombopoietin (TPO) Lipopeptide Mimic Supports Similar Signaling and CD34+ Cell Differentiation as Soluble TPO.. Blood, 2005, 106, 3150-3150.	0.6	24
49	Actin re-distribution in response to hydrogen peroxide in airway epithelial cells. Journal of Cellular Physiology, 2004, 199, 57-66.	2.0	49
50	Lipopeptides Incorporated into Supported Phospholipid Monolayers Have High Specific Activity at Low Incorporation Levels. Journal of the American Chemical Society, 2004, 126, 15223-15230.	6.6	36
51	Small Increases in pH Enhance Retroviral Vector Transduction Efficiency of NIH-3T3 Cells. Biotechnology Progress, 2003, 19, 216-223.	1.3	4
52	Differential expression and phosphorylation of distinct STAT3 proteins during granulocytic differentiation. Blood, 2002, 99, 1627-1637.	0.6	64
53	Effects of osmoprotectant compounds on NCAM polysialylation under hyperosmotic stress and elevated pCO2. Biotechnology and Bioengineering, 2002, 77, 359-368.	1.7	27
54	Characterization of hybridoma cell responses to elevated pCO2 and osmolality: Intracellular pH, cell size, apoptosis, and metabolism. Biotechnology and Bioengineering, 2002, 77, 369-380.	1.7	113

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55	Selected amino acids protect hybridoma and CHO cells from elevated carbon dioxide and osmolality. Biotechnology and Bioengineering, 2002, 78, 741-752.	1.7	41
56	Continuous exposure of airway epithelial cells to hydrogen peroxide: Protection by KGF. Journal of Cellular Physiology, 2002, 192, 71-80.	2.0	33
57	Hyperosmotic Stress and Elevated pCO2 Alter Monoclonal Antibody Charge Distribution and Monosaccharide Content. Biotechnology Progress, 2002, 18, 346-353.	1.3	53
58	Modeling pO2 Distributions in the Bone Marrow Hematopoietic Compartment. I. Krogh's Model. Biophysical Journal, 2001, 81, 675-684.	0.2	233
59	Modeling pO2 Distributions in the Bone Marrow Hematopoietic Compartment. II. Modified Kroghian Models. Biophysical Journal, 2001, 81, 685-696.	0.2	276
60	Model-based estimation of myeloid hematopoietic progenitor cells in ex vivo cultures for cell and gene therapies. Biotechnology and Bioengineering, 2001, 72, 144-155.	1.7	4
61	Oxygen tension modulates the expression of cytokine receptors, transcription factors, and lineage-specific markers in cultured human megakaryocytes. Experimental Hematology, 2001, 29, 873-883.	0.2	45
62	Development of novel perfusion chamber to retain nonadherent cells and its use for comparison of human â€œmobilizedâ€•peripheral blood mononuclear cell cultures with and without irradiated bone marrow stroma. , 2000, 50, 493-504.		31
63	Measurement of trans-epithelial electrical resistance in perfusion: Potential application for in vitro ocular toxicity testing. , 2000, 50, 568-579.		18
64	Considerations for osmolality measurement under elevatedpCO2: Comparison of vapor pressure and freezing point osmometry. Biotechnology and Bioengineering, 2000, 67, 189-196.	1.7	23
65	Phosphate feeding improves high-cell-concentration NS0 myeloma culture performance for monoclonal antibody production. Biotechnology and Bioengineering, 2000, 69, 566-576.	1.7	51
66	The Lactate Issue Revisited: Novel Feeding Protocols To Examine Inhibition of Cell Proliferation and Glucose Metabolism in Hematopoietic Cell Cultures. Biotechnology Progress, 2000, 16, 885-892.	1.3	55
67	Oxygen tension influences the differentiation, maturation and apoptosis of human megakaryocytes. British Journal of Haematology, 2000, 111, 879-889.	1.2	31
68	Dynamic model of ex vivo granulocytic kinetics to examine the effects of oxygen tension, pH, and interleukin-3. Experimental Hematology, 2000, 28, 1016-1028.	0.2	21
69	Physiologically significant effects of pH and oxygen tension on granulopoiesis. Experimental Hematology, 2000, 28, 267-275.	0.2	72
70	Oxygen tension influences the differentiation, maturation and apoptosis of human megakaryocytes. British Journal of Haematology, 2000, 111, 879-889.	1.2	36
71	Hematopoietic Cells for Cellular and Gene Therapy: II. Expansion Protocols. , 1999, , 229-238.		0
72	Glycosylation of CHO-Derived Recombinant tPA Produced under Elevated pCO2. Biotechnology Progress, 1999, 15, 146-146.	1.3	1

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73	Bicarbonate concentration and osmolality are key determinants in the inhibition of CHO cell polysialylation under elevated pCO2 or pH. Biotechnology and Bioengineering, 1999, 65, 182-191.	1.7	74
74	Hematopoietic Cells for Cellular and Gene Therapy: I. Basic Assay Techniques. , 1999, , 211-228.		0
75	Modeling ex vivo hematopoiesis using chemical engineering metaphors. Chemical Engineering Science, 1998, 53, 1913-1925.	1.9	9
76	Effects of CO2 and osmolality on hybridoma cells: growth, metabolism and monoclonal antibody production. Cytotechnology, 1998, 28, 213-227.	0.7	63
77	Characterization of Hematopoietic Cell Expansion, Oxygen Uptake, and Glycolysis in a Controlled, Stirred-Tank Bioreactor System. Biotechnology Progress, 1998, 14, 466-472.	1.3	68
78	Transport in a Grooved Perfusion Flat-Bed Bioreactor for Cell Therapy Applications. Biotechnology Progress, 1998, 14, 689-698.	1.3	38
79	Role of Nucleotide Sugar Pools in the Inhibition of NCAM Polysialylation by Ammonia. Biotechnology Progress, 1998, 14, 834-844.	1.3	28
80	Stirred culture of peripheral and cord blood hematopoietic cells offers advantages over traditional static systems for clinically relevant applications. , 1998, 59, 534-543.		82
81	Ammonia inhibits neural cell adhesion molecule polysialylation in Chinese hamster ovary and small cell lung cancer cells. , 1998, 177, 248-263.		26
82	pH is a potent modulator of erythroid differentiation. British Journal of Haematology, 1998, 103, 317-325.	1.2	43
83	Effects of CO2 and osmolality on hybridoma cells: growth, metabolism and monoclonal antibody production. Current Applications of Cell Culture Engineering, 1998, , 213-227.	0.1	3
84	Elevated pCO2 Inhibits the Polysialylation of the Neural Cell Adhesion Molecule in CHO MT2-1-8 Cell Cultures. , 1998, , 135-140.		0
85	Glycosylation of CHO-Derived Recombinant tPA Produced under Elevated pCO2. Biotechnology Progress, 1997, 13, 311-317.	1.3	67
86	Evaluation of Cytokines for Expansion of the Megakaryocyte and Granulocyte Lineages. Stem Cells, 1997, 15, 198-206.	1.4	18
87	Inverse-signal analysis with PCA. Chemometrics and Intelligent Laboratory Systems, 1997, 36, 17-30.	1.8	2
88	Variations in culture pH affect the cloning efficiency and differentiation of progenitor cells in ex vivo haemopoiesis. British Journal of Haematology, 1997, 97, 889-895.	1.2	58
89	Culture materials affectex vivo expansion of hematopoietic progenitor cells. , 1997, 36, 347-359.		74
90	Real-time method for determining the colony-forming cell content of human hematopoietic cell cultures. , 1997, 55, 693-700.		25

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91	Ex vivo expansion of hematopoietic stem and progenitor cells for transplantation. Cancer Treatment and Research, 1997, 77, 159-186.	0.2	5
92	Comparison of Whole Serum-Deprived Media for Ex Vivo Expansion of Hematopoietic Progenitor Cells from Cord Blood and Mobilized Peripheral Blood Mononuclear Cells. Stem Cells and Development, 1996, 5, 461-473.	1.0	19
93	Hematopoietic cell culture therapies (Part I): cell culture considerations. Trends in Biotechnology, 1996, 14, 341-349.	4.9	52
94	Hematopoietic cell culture therapies (Part II): clinical aspects and applications. Trends in Biotechnology, 1996, 14, 388-396.	4.9	43
95	Effects of elevated pCO2 and/or osmolality on the growth and recombinant tPA production of CHO cells. , 1996, 52, 152-160.		94
96	Ex vivo culture systems for hematopoietic cells. Current Opinion in Biotechnology, 1996, 7, 223-230.	3.3	22
97	Development of novel perfusion chamber to retain nonadherent cells and its use for comparison of human â€œmobilizedâ€•peripheral blood mononuclear cell cultures with and without irradiated bone marrow stroma. , 1996, 50, 493.		32
98	Measurement of trans-epithelial electrical resistance in perfusion: Potential application for in vitro ocular toxicity testing. , 1996, 50, 568.		9
99	Ex vivo expansion of primitive hematopoietic cells for cellular therapies: An overview. Cytotechnology, 1995, 18, 133-146.	0.7	10
100	First-Order Toxicity Assays for Eye Irritation Using Cell Lines: Parameters That Affect in Vitro Evaluation. Toxicological Sciences, 1995, 25, 253-263.	1.4	0
101	First-Order Toxicity Assays for Eye Irritation Using Cell Lines: Parameters That Affect in Vitro Evaluation. Fundamental and Applied Toxicology, 1995, 25, 253-263.	1.9	15
102	Ex vivo expansion of primitive hematopoietic cells for cellular therapies: An overview. , 1995, , 1083-1098.		1
103	Diverse effects of essential (n?6 andn?3) fatty acids on cultured cells. Cytotechnology, 1994, 15, 31-50.	0.7	38
104	Discrimination of fluorinated uridine metabolites in N-417 small cell lung cancer cell extracts via19F- and31P-NMR. Magnetic Resonance in Medicine, 1994, 31, 224-228.	1.9	7
105	Serum-free media for cultures of primitive and mature hematopoietic cells. Biotechnology and Bioengineering, 1994, 43, 706-733.	1.7	38
106	Effects of Abrupt and Gradual Osmotic Stress on Antibody Production and Content in Hybridoma Cells That Differ in Production Kinetics. Biotechnology Progress, 1994, 10, 165-173.	1.3	47
107	n-3 and n-6 fatty acid processing and growth effects in neoplastic and non-cancerous human mammary epithelial cell lines. British Journal of Cancer, 1994, 70, 219-227.	2.9	143
108	Diversity in the Ability of Cultured Cells to Elongate and Desaturate Essential (nâ€6 and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 62	1.8	28

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109	Diverse effects of essential (n-6 and n-3) fatty acids on cultured cells. Current Applications of Cell Culture Engineering, 1994, , 31-50.	0.1	0
110	Production of tPA in recombinant CHO cells under oxygen-limited conditions. Biotechnology and Bioengineering, 1993, 42, 339-350.	1.7	69
111	Expansion of Primitive Human Hematopoietic Progenitors in a Perfusion Bioreactor System with IL-3, IL-6, and Stem Cell Factor. Bio/technology, 1993, 11, 358-363.	1.9	94
112	Beneficial Effects of Reduced Oxygen Tension and Perfusion in Long-Term Hematopoietic Cultures. Annals of the New York Academy of Sciences, 1992, 665, 105-116.	1.8	49
113	Modulation of Glutathione Level in CHO Cells.. Annals of the New York Academy of Sciences, 1992, 665, 117-126.	1.8	15
114	Hybridoma antibody content and production rate in continuous culture: Effect of dilution rate. Biotechnology Letters, 1992, 14, 1007-1012.	1.1	4
115	CHO cell responses to low oxygen: Regulation of oxygen consumption and sensitization to oxidative stress. Biotechnology and Bioengineering, 1992, 40, 505-516.	1.7	36
116	Determination of antibody content in live versus dead hybridoma cells: Analysis of antibody production in osmotically stressed cultures. Biotechnology and Bioengineering, 1992, 40, 947-964.	1.7	47
117	Regulation of Animal Cell Metabolism in Bioreactors. , 1991, 17, 119-161.		20
118	A rapid method for counting cell nuclei using a particle sizer/counter. Biotechnology Letters, 1991, 5, 153-156.	0.5	24
119	Transient responses of hybridoma cells to nutrient additions in continuous culture: I. Glucose pulse and step changes. Biotechnology and Bioengineering, 1989, 33, 477-486.	1.7	116
120	The transient responses of hybridoma cells to nutrient additions in continuous culture: II. Glutamine pulse and step changes. Biotechnology and Bioengineering, 1989, 33, 487-499.	1.7	97
121	Effects of dissolved oxygen concentration on hybridoma growth and metabolism in continuous culture. Journal of Cellular Physiology, 1987, 132, 524-530.	2.0	184
122	Polymer biocompatibility?effect on hybridoma growth and metabolism. Biotechnology Letters, 1986, 8, 463-468.	1.1	9
123	Donor number estimation for oxygen- and nitrogen-containing solvents via proton NMR shift of chloroform. Journal of Solution Chemistry, 1985, 14, 129-137.	0.6	33