

# Michael S Kallos

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

78  
papers

2,064  
citations

26  
h-index

44  
g-index

82  
ext. papers

2,344  
ext. citations

4.6  
avg, IF

4.84  
L-index

#	Paper	IF	Citations
78	Cell Culture Process Scale-Up Challenges for Commercial-Scale Manufacturing of Allogeneic Pluripotent Stem Cell Products.. <i>Bioengineering</i> , <b>2022</b> , 9,	5.3	1
77	Fluid shear stress promotes embryonic stem cell pluripotency via interplay between E-catenin and vinculin in bioreactor culture. <i>Stem Cells</i> , <b>2021</b> , 39, 1166-1177	5.8	3
76	Induced pluripotency in the context of stem cell expansion bioprocess development, optimization, and manufacturing: a roadmap to the clinic. <i>Npj Regenerative Medicine</i> , <b>2021</b> , 6, 72	15.8	2
75	Cell Therapy in Veterinary Medicine as a Proof-of-Concept for Human Therapies: Perspectives From the North American Veterinary Regenerative Medicine Association.. <i>Frontiers in Veterinary Science</i> , <b>2021</b> , 8, 779109	3.1	1
74	Research contributions of Leo A. Behie to chemical and biomedical engineering. <i>Canadian Journal of Chemical Engineering</i> , <b>2021</b> , 99, 2262	2.3	1
73	Overcoming bioprocess bottlenecks in the large-scale expansion of high-quality hiPSC aggregates in vertical-wheel stirred suspension bioreactors. <i>Stem Cell Research and Therapy</i> , <b>2021</b> , 12, 55	8.3	12
72	Computational fluid dynamic characterization of vertical-wheel bioreactors used for effective scale-up of human induced pluripotent stem cell aggregate culture. <i>Canadian Journal of Chemical Engineering</i> , <b>2021</b> , 99, 2536	2.3	3
71	Preface to the special issue honouring Professor Leo A. Behie. <i>Canadian Journal of Chemical Engineering</i> , <b>2021</b> , 99, 2259	2.3	0
70	Large-scale expansion of feeder-free mouse embryonic stem cells serially passaged in stirred suspension bioreactors at low inoculation densities directly from cryopreservation. <i>Biotechnology and Bioengineering</i> , <b>2020</b> , 117, 1316-1328	4.9	2
69	Challenges and Solutions for Commercial Scale Manufacturing of Allogeneic Pluripotent Stem Cell Products. <i>Bioengineering</i> , <b>2020</b> , 7,	5.3	8
68	Stirred suspension bioreactors maintain naïve pluripotency of human pluripotent stem cells. <i>Communications Biology</i> , <b>2020</b> , 3, 492	6.7	2
67	Optimized serial expansion of human induced pluripotent stem cells using low-density inoculation to generate clinically relevant quantities in vertical-wheel bioreactors. <i>Stem Cells Translational Medicine</i> , <b>2020</b> , 9, 1036-1052	6.9	16
66	Improved expansion of equine cord blood derived mesenchymal stromal cells by using microcarriers in stirred suspension bioreactors. <i>Journal of Biological Engineering</i> , <b>2019</b> , 13, 25	6.3	4
65	Using computational fluid dynamics (CFD) modeling to understand murine embryonic stem cell aggregate size and pluripotency distributions in stirred suspension bioreactors. <i>Journal of Biotechnology</i> , <b>2019</b> , 304, 16-27	3.7	13
64	Flowable Polyethylene Glycol Hydrogels Support the in Vitro Survival and Proliferation of Dermal Progenitor Cells in a Mechanically Dependent Manner. <i>ACS Biomaterials Science and Engineering</i> , <b>2019</b> , 5, 950-958	5.5	3
63	Scale-up of embryonic stem cell aggregate stirred suspension bioreactor culture enabled by computational fluid dynamics modeling. <i>Biochemical Engineering Journal</i> , <b>2018</b> , 133, 157-167	4.2	25
62	Non-Newtonian rheology in suspension cell cultures significantly impacts bioreactor shear stress quantification. <i>Biotechnology and Bioengineering</i> , <b>2018</b> , 115, 2101-2113	4.9	14

61	Bioreactor Protocols for the Expansion and Differentiation of Human Neural Precursor Cells in Targeting the Treatment of Neurodegenerative Disorders <b>2018</b> , 97-134		
60	An Integrated Approach toward the Biomanufacturing of Engineered Cell Therapy Products in a Stirred-Suspension Bioreactor. <i>Molecular Therapy - Methods and Clinical Development</i> , <b>2018</b> , 9, 376-389	6.4	4
59	Serum-free bioprocessing of adult human and rodent skin-derived Schwann cells: implications for cell therapy in nervous system injury. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , <b>2017</b> , 11, 3385-3397	4.4	7
58	Biocomposite nanofiber matrices to support ECM remodeling by human dermal progenitors and enhanced wound closure. <i>Scientific Reports</i> , <b>2017</b> , 7, 10291	4.9	45
57	Enhanced Expansion and Sustained Inductive Function of Skin-Derived Precursor Cells in Computer-Controlled Stirred Suspension Bioreactors. <i>Stem Cells Translational Medicine</i> , <b>2017</b> , 6, 434-443	6.9	11
56	Inter-microcarrier transfer and phenotypic stability of stem cell-derived Schwann cells in stirred suspension bioreactor culture. <i>Biotechnology and Bioengineering</i> , <b>2016</b> , 113, 393-402	4.9	4
55	Enzyme responsive GAG-based natural-synthetic hybrid hydrogel for tunable growth factor delivery and stem cell differentiation. <i>Biomaterials</i> , <b>2016</b> , 87, 104-117	15.6	93
54	Bioreactor Expansion of Skin-Derived Precursor Schwann Cells. <i>Methods in Molecular Biology</i> , <b>2016</b> , 1502, 103-10	1.4	3
53	Large-scale expansion of human skin-derived precursor cells (hSKPs) in stirred suspension bioreactors. <i>Biotechnology and Bioengineering</i> , <b>2016</b> , 113, 2725-2738	4.9	13
52	A review of pyrolysis, aquathermolysis, and oxidation of Athabasca bitumen. <i>Fuel Processing Technology</i> , <b>2015</b> , 131, 270-289	7.2	76
51	Towards the Development of Bitumen Carbonates: An Integrated Analysis of Grosmont Steam Pilots. <i>Oil and Gas Science and Technology</i> , <b>2015</b> , 70, 983-1005	1.9	3
50	Factorial experimental design for the culture of human embryonic stem cells as aggregates in stirred suspension bioreactors reveals the potential for interaction effects between bioprocess parameters. <i>Tissue Engineering - Part C: Methods</i> , <b>2014</b> , 20, 76-89	2.9	45
49	Improved expansion of human bone marrow-derived mesenchymal stem cells in microcarrier-based suspension culture. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , <b>2014</b> , 8, 210-25	4.4	66
48	Shear stress influences the pluripotency of murine embryonic stem cells in stirred suspension bioreactors. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , <b>2014</b> , 8, 268-78	4.4	45
47	A new reaction model for aquathermolysis of Athabasca bitumen. <i>Canadian Journal of Chemical Engineering</i> , <b>2013</b> , 91, 475-482	2.3	25
46	Fluid Flow Modulation of Murine Embryonic Stem Cell Pluripotency Gene Expression in the Absence of LIF. <i>Cellular and Molecular Bioengineering</i> , <b>2013</b> , 6, 335-345	3.9	6
45	Practical process design for in situ gasification of bitumen. <i>Applied Energy</i> , <b>2013</b> , 107, 281-296	10.7	23
44	Image Analysis Method for Evaluating Heterogeneous Growth and Differentiation of Embryonic Stem Cell Cultures. <i>ACS Symposium Series</i> , <b>2013</b> , 165-181	0.4	

43	Reactive Reservoir Simulation of Biogenic Shallow Shale Gas Systems Enabled by Experimentally Determined Methane Generation Rates. <i>Energy &amp; Fuels</i> , <b>2013</b> , 27, 2413-2421	4.1	6
42	New gas material balance to quantify biogenic gas generation rates from shallow organic-matter-rich shales. <i>Fuel</i> , <b>2013</b> , 104, 443-451	7.1	15
41	A new kinetic model for pyrolysis of Athabasca bitumen. <i>Canadian Journal of Chemical Engineering</i> , <b>2013</b> , 91, 889-901	2.3	19
40	New thermal-reactive reservoir engineering model predicts hydrogen sulfide generation in Steam Assisted Gravity Drainage. <i>Journal of Petroleum Science and Engineering</i> , <b>2012</b> , 94-95, 100-111	4.4	21
39	Mass transfer limitations in embryoid bodies during human embryonic stem cell differentiation. <i>Cells Tissues Organs</i> , <b>2012</b> , 196, 34-47	2.1	111
38	Expansion and long-term maintenance of induced pluripotent stem cells in stirred suspension bioreactors. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , <b>2012</b> , 6, 462-72	4.4	53
37	Reservoir Simulation of Steam Fracturing in Early-Cycle Cyclic Steam Stimulation. <i>SPE Reservoir Evaluation and Engineering</i> , <b>2012</b> , 15, 676-687	2.3	16
36	Non-viral engineering of skin precursor-derived Schwann cells for enhanced NT-3 production in adherent and microcarrier culture. <i>Current Medicinal Chemistry</i> , <b>2012</b> , 19, 5572-9	4.3	22
35	Optimizing gelling parameters of gellan gum for fibrocartilage tissue engineering. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2011</b> , 98, 238-45	3.5	45
34	Efficient suspension bioreactor expansion of murine embryonic stem cells on microcarriers in serum-free medium. <i>Biotechnology Progress</i> , <b>2011</b> , 27, 811-23	2.8	33
33	Large-scale production of murine embryonic stem cell-derived osteoblasts and chondrocytes on microcarriers in serum-free media. <i>Biomaterials</i> , <b>2011</b> , 32, 6006-16	15.6	35
32	Potential for hydrogen generation from in situ combustion of Athabasca bitumen. <i>Fuel</i> , <b>2011</b> , 90, 2254-2265	2.6	26
31	Reactive Thermal Reservoir Simulation: Hydrogen Sulphide Production in SAGD <b>2011</b> ,		6
30	A Comprehensive Kinetic Theory to Model Thermolysis, Aquathermolysis, Gasification, Combustion, and Oxidation of Athabasca Bitumen <b>2010</b> ,		8
29	Reduced differentiation efficiency of murine embryonic stem cells in stirred suspension bioreactors. <i>Stem Cells and Development</i> , <b>2010</b> , 19, 989-98	4.4	48
28	Large-scale expansion of pluripotent human embryonic stem cells in stirred-suspension bioreactors. <i>Tissue Engineering - Part C: Methods</i> , <b>2010</b> , 16, 573-82	2.9	130
27	Bioreactor expansion of human neural precursor cells in serum-free media retains neurogenic potential. <i>Biotechnology and Bioengineering</i> , <b>2010</b> , 105, 823-33	4.9	27
26	Reservoir Simulation of Steam Fracturing in Early Cycle Cyclic Steam Stimulation <b>2010</b> ,		1

25	Biogenic Gas Generation From Shallow Organic-Matter-Rich Shales <b>2010</b> ,		2
24	Serum-free scaled up expansion and differentiation of murine embryonic stem cells to osteoblasts in suspension bioreactors. <i>Biotechnology and Bioengineering</i> , <b>2010</b> , 106, 829-40	4.9	17
23	Potential for Hydrogen Generation during In Situ Combustion of Bitumen <b>2009</b> ,		5
22	Bioengineering Protocols for Neural Precursor Cell Expansion. <i>Springer Protocols</i> , <b>2009</b> , 105-123	0.3	1
21	Properties of murine embryonic stem cells maintained on human foreskin fibroblasts without LIF. <i>Molecular Reproduction and Development</i> , <b>2008</b> , 75, 614-22	2.6	17
20	Embryonic stem cells remain highly pluripotent following long term expansion as aggregates in suspension bioreactors. <i>Journal of Biotechnology</i> , <b>2007</b> , 129, 421-32	3.7	114
19	Dynamic behavior of cells within neurospheres in expanding populations of neural precursors. <i>Brain Research</i> , <b>2006</b> , 1107, 82-96	3.7	16
18	Characterization of human islet-like structures generated from pancreatic precursor cells in culture. <i>Biotechnology and Bioengineering</i> , <b>2006</b> , 93, 980-8	4.9	18
17	Scaled-up production of mammalian neural precursor cell aggregates in computer-controlled suspension bioreactors. <i>Biotechnology and Bioengineering</i> , <b>2006</b> , 94, 783-92	4.9	57
16	Expansion of undifferentiated murine embryonic stem cells as aggregates in suspension culture bioreactors. <i>Tissue Engineering</i> , <b>2006</b> , 12, 3233-45		136
15	Production of islet-like structures from neonatal porcine pancreatic tissue in suspension bioreactors. <i>Biotechnology Progress</i> , <b>2006</b> , 22, 561-7	2.8	19
14	Expansion of Undifferentiated Murine Embryonic Stem Cells as Aggregates in Suspension Culture Bioreactors. <i>Tissue Engineering</i> , <b>2006</b> , 061017080728002		1
13	Large-scale expansion of mammary epithelial stem cell aggregates in suspension bioreactors. <i>Biotechnology Progress</i> , <b>2005</b> , 21, 984-93	2.8	31
12	Cell cycle kinetics of expanding populations of neural stem and progenitor cells in vitro. <i>Biotechnology and Bioengineering</i> , <b>2004</b> , 88, 332-47	4.9	26
11	New tissue dissociation protocol for scaled-up production of neural stem cells in suspension bioreactors. <i>Tissue Engineering</i> , <b>2004</b> , 10, 904-13		35
10	Large-scale expansion of mammalian neural stem cells: a review. <i>Medical and Biological Engineering and Computing</i> , <b>2003</b> , 41, 271-82	3.1	50
9	Expansion of mammalian neural stem cells in bioreactors: effect of power input and medium viscosity. <i>Developmental Brain Research</i> , <b>2002</b> , 134, 103-13		63
8	Measurement of intrinsic rates for homogeneous gas-phase reactions at high temperatures. <i>Canadian Journal of Chemical Engineering</i> , <b>2002</b> , 80, 513-517	2.3	1

7	Passaging protocols for mammalian neural stem cells in suspension bioreactors. <i>Biotechnology Progress</i> , <b>2002</b> , 18, 337-45	2.8	36
6	Effects of Hydrodynamics on Cultures of Mammalian Neural Stem Cell Aggregates in Suspension Bioreactors. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2001</b> , 40, 5350-5357	3.9	68
5	Inoculation and growth conditions for high-cell-density expansion of mammalian neural stem cells in suspension bioreactors. <i>Biotechnology and Bioengineering</i> , <b>1999</b> , 63, 473-83	4.9	96
4	Extended serial passaging of mammalian neural stem cells in suspension bioreactors. <i>Biotechnology and Bioengineering</i> , <b>1999</b> , 65, 589-99	4.9	51
3	Inoculation and growth conditions for high-cell-density expansion of mammalian neural stem cells in suspension bioreactors <b>1999</b> , 63, 473		3
2	Neural Stem Cells: Bioprocess Engineering1		
1	Control of dissolved oxygen significantly increases the yield of skin-derived Schwann cells during expansion in stirred suspension bioreactors. <i>Engineering Reports</i> , e12421	1.2	0