Allison Hubel

List of Publications by Year
in descending order

76 papers	2,797 citations	186265 28 h-index	182427 51 g-index
84 all docs	84 docs citations	84 times ranked	3633 citing authors

#	Article	IF	Citations
1	Cryopreservation of Human iPS Cell Aggregates in a DMSO-Free Solutionâ€"An Optimization and Comparative Study. Frontiers in Bioengineering and Biotechnology, 2020, 8, 1.	4.1	400
2	Mesenchymal stem or stromal cells: a review of clinical applications and manufacturing practices. Transfusion, 2014, 54, 1418-1437.	1.6	340
3	In Vitro Culture Characteristics of Corneal Epithelial, Endothelial, and Keratocyte Cells in a Native Collagen Matrix. Tissue Engineering, 2000, 6, 307-319.	4.6	145
4	Storage of Human Biospecimens: Selection of the Optimal Storage Temperature. Biopreservation and Biobanking, 2014, 12, 165-175.	1.0	113
5	Freezing-Induced Phase Separation and Spatial Microheterogeneity in Protein Solutions. Journal of Physical Chemistry B, 2009, 113, 10081-10087.	2.6	84
6	Biomechanical and Microstructural Characteristics of a Collagen Film-Based Corneal Stroma Equivalent. Tissue Engineering, 2006, 12, 1565-1575.	4.6	83
7	Longâ€term storage of peripheral blood stem cells frozen and stored with a conventional liquid nitrogen technique compared with cells frozen and stored in a mechanical freezer. Transfusion, 2010, 50, 808-819.	1.6	70
8	Preservation of cell-based immunotherapies for clinical trials. Cytotherapy, 2019, 21, 943-957.	0.7	70
9	A new approach to the cryopreservation of hepatocytes in a sandwich culture configuration. Cryobiology, 1990, 27, 576-584.	0.7	65
10	Biomechanical and Optical Characteristics of a Corneal Stromal Equivalent1. Journal of Biomechanical Engineering, 2003, 125, 439-444.	1.3	65
11	Cryopreservation of Hematopoietic Stem Cells: Emerging Assays, Cryoprotectant Agents, and Technology to Improve Outcomes. Transfusion Medicine and Hemotherapy, 2019, 46, 188-196.	1.6	60
12	Response of the cell membraneâ€"cytoskeleton complex to osmotic and freeze/thaw stresses. Cryobiology, 2010, 61, 335-344.	0.7	56
13	Spatial Distribution of the State of Water in Frozen Mammalian Cells. Biophysical Journal, 2010, 99, 2453-2459.	0.5	53
14	Preservation of stem cells. Organogenesis, 2009, 5, 134-137.	1.2	51
15	Mechanical and Cellular Changes During Compaction of a Collagen-Sponge-Based Corneal Stromal Equivalent. Annals of Biomedical Engineering, 2004, 32, 274-283.	2.5	50
16	Cryopreservation of isolated hepatocytes: Intracellular ice formation under various chemical and physical conditions. Cryobiology, 1991, 28, 436-444.	0.7	49
17	Clinical mesenchymal stromal cell products undergo functional changes in response to freezing. Cytotherapy, 2015, 17, 38-45.	0.7	48
18	Combinations of Osmolytes, Including Monosaccharides, Disaccharides, and Sugar Alcohols Act in Concert During Cryopreservation to Improve Mesenchymal Stromal Cell Survival. Tissue Engineering - Part C: Methods, 2016, 22, 999-1008.	2.1	45

#	Article	IF	Citations
19	Detection and downregulation of type I IGF receptor expression by antibody-conjugated quantum dots in breast cancer cells. Breast Cancer Research and Treatment, 2009, 114, 277-285.	2.5	41
20	Water transport and IIF parameters for a connective tissue equivalent. Cryobiology, 2006, 52, 62-73.	0.7	40
21	Improved Post-Thaw Function and Epigenetic Changes in Mesenchymal Stromal Cells Cryopreserved Using Multicomponent Osmolyte Solutions. Stem Cells and Development, 2017, 26, 828-842.	2.1	38
22	Freezing Responses in DMSO-Based Cryopreservation of Human iPS Cells: Aggregates Versus Single Cells. Tissue Engineering - Part C: Methods, 2018, 24, 289-299.	2.1	38
23	Optimization of a microfluidic device for diffusion-based extraction of DMSO from a cell suspension. International Journal of Heat and Mass Transfer, 2008, 51, 5749-5757.	4.8	37
24	State of the Art in Preservation of Fluid Biospecimens. Biopreservation and Biobanking, 2011, 9, 237-244.	1.0	37
25	Liquid storage, shipment, and cryopreservation of cord blood. Transfusion, 2004, 44, 518-525.	1.6	36
26	Interfacial Interactions of Sucrose during Cryopreservation Detected by Raman Spectroscopy. Langmuir, 2019, 35, 7388-7395.	3.5	36
27	Algorithm-driven optimization of cryopreservation protocols for transfusion model cell types including Jurkat cells and mesenchymal stem cells. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 2806-2815.	2.7	31
28	Inducing cells to disperse nickel nanowires via integrin-mediated responses. Nanotechnology, 2015, 26, 135102.	2.6	30
29	Microstructural Characteristics of Extracellular Matrix Produced by Stromal Fibroblasts. Annals of Biomedical Engineering, 2006, 34, 1615-1627.	2.5	29
30	Characterizing Intracellular Ice Formation ofÂLymphoblasts Using Low-Temperature RamanÂSpectroscopy. Biophysical Journal, 2017, 112, 2653-2663.	0.5	29
31	Magnetic Barcode Nanowires for Osteosarcoma Cell Control, Detection and Separation. IEEE Transactions on Magnetics, 2013, 49, 453-456.	2.1	28
32	Short-term liquid storage of umbilical cord blood. Transfusion, 2003, 43, 626-632.	1.6	27
33	Experimental study of diffusion-based extraction from a cell suspension. Microfluidics and Nanofluidics, 2008, 5, 529-540.	2.2	27
34	Modeling the interaction of biological cells with a solidifying interface. Journal of Computational Physics, 2007, 226, 1808-1829.	3.8	25
35	Diffusionâ€based extraction of DMSO from a cell suspension in a three stream, vertical microchannel. Biotechnology and Bioengineering, 2012, 109, 2316-2324.	3.3	23
36	Retroviral transduction and expansion of peripheral blood lymphocytes for the treatment of mucopolysaccharidosis type II, Hunter's syndrome. Transfusion, 1999, 39, 343-350.	1.6	22

#	Article	IF	Citations
37	Influence of Matrix Processing on the Optical and Biomechanical Properties of a Corneal Stroma Equivalent. Tissue Engineering - Part A, 2008, 14, 173-182.	3.1	22
38	Characterizing modes of action and interaction for multicomponent osmolyte solutions on Jurkat cells. Biotechnology and Bioengineering, 2019, 116, 631-643.	3.3	22
39	Natural deep eutectic systems for <scp>natureâ€inspired</scp> cryopreservation of cells. AIChE Journal, 2021, 67, e17085.	3.6	22
40	In vitro collagen fibril alignment via incorporation of nanocrystalline cellulose. Acta Biomaterialia, 2015, 12, 122-128.	8.3	21
41	Characterizing the â€œsweet spotâ€for the preservation of a T-cell line using osmolytes. Scientific Reports, 2018, 8, 16223.	3.3	21
42	Cryopreservation of Hematopoietic Stem Cells: Emerging Science, Technology and Issues. Transfusion Medicine and Hemotherapy, 2007, 34, 268-275.	1.6	19
43	What Are the Biggest Challenges and Opportunities for Biorepositories in the Next Three to Five Years?. Biopreservation and Biobanking, 2010, 8, 81-88.	1.0	19
44	Understanding the freezing responses of T cells and other subsets of human peripheral blood mononuclear cells using DSMO-free cryoprotectants. Cytotherapy, 2020, 22, 291-300.	0.7	19
45	Cell motion and recovery in a two-stream microfluidic device. Microfluidics and Nanofluidics, 2010, 8, 457-465.	2.2	18
46	Advancing the preservation of cellular therapy products. Transfusion, 2011, 51, 82S-86S.	1.6	18
47	Alignment of collagen matrices using magnetic nanowires and magnetic barcode readout using first order reversal curves (FORC) (invited). Journal of Magnetism and Magnetic Materials, 2018, 459, 176-181.	2.3	17
48	The characterization of arachnoid cell transport II: Paracellular transport and bloodâ€“cerebrospinal fluid barrier formation. Neuroscience, 2012, 222, 228-238.	2.3	16
49	Isolation of fibroblasts and epithelial cells in Bronchoalveolar Lavage (BAL). Experimental Lung Research, 2013, 39, 146-154.	1.2	14
50	Arachnoid Cells on Culture Plates and Collagen Scaffolds: Phenotype and Transport Properties. Tissue Engineering - Part A, 2011, 17, 1759-1766.	3.1	12
51	Postthaw characterization of umbilical cord blood: markers of storage lesion. Transfusion, 2015, 55, 1033-1039.	1.6	12
52	Stabilization of Tissue Specimens for Pathological Examination and Biomedical Research. Biopreservation and Biobanking, 2012, 10, 493-500.	1.0	10
53	A Model Of Low-Temperature Water Transport For Hepatocyte Spheroidsa. Annals of the New York Academy of Sciences, 1998, 858, 183-190.	3.8	8
54	Silica Hybrid for Corneal Replacement: Optical, Biomechanical, and Ex Vivo Biocompatibility Studies. , 2012, 53, 8192.		7

#	Article	IF	Citations
55	Differentiation of Human iPS Cells Into Sensory Neurons Exhibits Developmental Stage-Specific Cryopreservation Challenges. Frontiers in Cell and Developmental Biology, 2021, 9, 796960.	3.7	7
56	Water Content in an Engineered Dermal Replacement during Permeation of Me2SO Solutions Using Rapid MR Imaging. Biotechnology Progress, 2001, 17, 530-536.	2.6	6
57	Influence of buoyancy-driven flow on mass transfer in a two-stream microfluidic channel: Introduction of cryoprotective agents into cell suspensions. Biomicrofluidics, 2012, 6, 44110.	2.4	6
58	Frontiers in Biotransport: Water Transport and Hydration. Journal of Biomechanical Engineering, 2009, 131, 074004.	1.3	5
59	Comparative analysis of cell therapy infusion workflows at clinical sites. Cytotherapy, 2021, 23, 285-292.	0.7	5
60	Principles of Cryopreservation. , 2017, , 1-21.		5
61	Differential Evolution for the Optimization of DMSO-Free Cryoprotectants: Influence of Control Parameters. Journal of Biomechanical Engineering, 2020, 142, .	1.3	5
62	Long-term storage of gametes and gonadal tissues at room temperatures: the end of the ice age?. Journal of Assisted Reproduction and Genetics, 2022, 39, 321-325.	2.5	5
63	Influence of Matrix Processing on the Optical and Biomechanical Properties of a Corneal Stroma Equivalent. Tissue Engineering, 2008, 14, 173-182.	4.6	4
64	Raman Cryomicroscopic Imaging and Sample Holder for Spectroscopic Subzero Temperature Measurements. Methods in Molecular Biology, 2021, 2180, 351-361.	0.9	4
65	Post-Thaw Function and Caspase Activity of Cryopreserved Hepatocyte Aggregates. Cell Preservation Technology, 2004, 2, 164-171.	0.6	3
66	The influence of fibroblast on the arachnoid leptomeningeal cells in vitro. Brain Research, 2017, 1657, 109-119.	2.2	3
67	Preservation of Cellular Therapies. , 2006, , 143-156.		3
68	High-Throughput Processing to Preserve Viable Cells: A Precision Medicine Initiative Cohort Program Workshop. Biopreservation and Biobanking, 2017, 15, 341-343.	1.0	2
69	Impact of Freezeâ€"Thaw Processes on the Quality of Cells. Cell & Gene Therapy Insights, 2017, 3, 807-813.	0.1	2
70	Cell motion and recovery in a two-stream microfluidic device. Microfluidics and Nanofluidics, 2010, 8, 457-465.	2.2	2
71	Mobilization and Transduction of Peripheral Blood Progenitor Cells in Patients with Mucopolysaccharidosis I. Stem Cells and Development, 1998, 7, 505-514.	1.0	1
72	The Role of Preservation in the Variability of Regenerative Medicine Products. Regenerative Engineering and Translational Medicine, 2019, 5, 323-331.	2.9	1

#	Article	IF	Citations
73	Biomechanical and Microstructural Characteristics of a Collagen Film-Based Corneal Stroma Equivalent. Tissue Engineering, 2006, .	4.6	1
74	Natural deep eutectic systems for nature-inspired cryopreservation of cells. AICHE Journal, 2021, 67, .	3.6	1
75	In the Days of Beginning Global Warming: Cool Is Beautiful. Transfusion Medicine and Hemotherapy, 2007, 34, 223-224.	1.6	0
76	From the Editor's Desk. Biopreservation and Biobanking, 2011, 9, 211-211.	1.0	0