

Heiko Zimmermann

List of Publications by Year in descending order

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Version: 2024-02-01

90
papers

2,083
citations

201385

27
h-index

276539

41
g-index

96
all docs

96
docs citations

96
times ranked

3356
citing authors

#	ARTICLE	IF	CITATIONS
1	Scalable expansion of iPSC and their derivatives across multiple lineages. <i>Reproductive Toxicology</i> , 2022, , .	1.3	9
2	An automated and high-throughput-screening compatible pluripotent stem cell-based test platform for developmental and reproductive toxicity assessment of small molecule compounds. <i>Cell Biology and Toxicology</i> , 2021, 37, 229-243.	2.4	6
3	EBiSC best practice: How to ensure optimal generation, qualification, and distribution of iPSC lines. <i>Stem Cell Reports</i> , 2021, 16, 1853-1867.	2.3	20
4	Droplet-based vitrification of adherent human induced pluripotent stem cells on alginate microcarrier influenced by adhesion time and matrix elasticity. <i>Cryobiology</i> , 2021, 103, 57-69.	0.3	4
5	Distributed automated manufacturing of pluripotent stem cell products. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 106, 1085-1103.	1.5	7
6	The EBiSC iPSC bank for disease studies. <i>Stem Cell Research</i> , 2020, 49, 102034.	0.3	9
7	FocAn: automated 3D analysis of DNA repair foci in image stacks acquired by confocal fluorescence microscopy. <i>BMC Bioinformatics</i> , 2020, 21, 27.	1.2	15
8	Towards Harmonized Biobanking for Biomonitoring: A Comparison of Human Biomonitoring-Related and Clinical Biorepositories. <i>Biopreservation and Biobanking</i> , 2020, 18, 122-135.	0.5	13
9	Naturwissenschaftliche Grundlagen im Kontext einer klinischen Anwendung von humanen induzierten pluripotenten Stammzellen. <i>Veröffentlichungen Des Instituts Für Deutsches, Europäisches Und Internationales Medizinrecht, Gesundheitsrecht Und Bioethik Der Universitäten Heidelberg Und Mannheim</i> , 2020, , 19-127.	0.2	4
10	Diffraction-based technology for the monitoring of contraction dynamics in 3D and 2D tissue models. <i>Biomedical Optics Express</i> , 2020, 11, 517.	1.5	0
11	Quantitative analysis of F-actin alterations in adherent human mesenchymal stem cells: Influence of slow-freezing and vitrification-based cryopreservation. <i>PLoS ONE</i> , 2019, 14, e0211382.	1.1	7
12	On the assessment of the stability of vitrified cryo-media by differential scanning calorimetry: A new tool for biobanks to derive standard operating procedures for storage, access and transport. <i>Cryobiology</i> , 2019, 89, 26-34.	0.3	2
13	Differential effects of the Akt inhibitor MK-2206 on migration and radiation sensitivity of glioblastoma cells. <i>BMC Cancer</i> , 2019, 19, 299.	1.1	28
14	Zooming in on Cryopreservation of hiPSCs and Neural Derivatives: A Dual-Center Study Using Adherent Vitrification. <i>Stem Cells Translational Medicine</i> , 2019, 8, 247-259.	1.6	15
15	Tyramine-conjugated alginate hydrogels as a platform for bioactive scaffolds. <i>Journal of Biomedical Materials Research - Part A</i> , 2019, 107, 114-121.	2.1	32
16	A complete workflow for the differentiation and the dissociation of hiPSC-derived cardiospheres. <i>Stem Cell Research</i> , 2018, 32, 65-72.	0.3	37
17	Poly(amidoamine)-alginate hydrogels: directing the behavior of mesenchymal stem cells with charged hydrogel surfaces. <i>Journal of Materials Science: Materials in Medicine</i> , 2018, 29, 105.	1.7	39
18	Towards a Full Automation of the ELISpot Assay for Safe and Parallelized Immunomonitoring. <i>Methods in Molecular Biology</i> , 2018, 1808, 237-247.	0.4	2

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19	Nanostructure of DNA repair foci revealed by superresolution microscopy. <i>FASEB Journal</i> , 2018, 32, 6469-6477.	0.2	15
20	Validation of an automated system for aliquoting of HIV-1 Env-pseudotyped virus stocks. <i>PLoS ONE</i> , 2018, 13, e0190669.	1.1	1
21	Bioactive surfaces from seaweed-derived alginates for the cultivation of human stem cells. <i>Journal of Applied Phycology</i> , 2017, 29, 2451-2461.	1.5	25
22	Chapter 17 Sterile Plate-Based Vitrification of Adherent Human Pluripotent Stem Cells and Their Derivatives Using the TWIST Method. <i>Methods in Molecular Biology</i> , 2017, 1568, 231-241.	0.4	2
23	Rapid establishment of the European Bank for induced Pluripotent Stem Cells (EBiSC) - the Hot Start experience. <i>Stem Cell Research</i> , 2017, 20, 105-114.	0.3	51
24	Towards standardized automated immunomonitoring: an automated ELISpot assay for safe and parallelized functionality analysis of immune cells. <i>Cytotechnology</i> , 2017, 69, 57-73.	0.7	6
25	Labbag® - a versatile bag-based cultivation system for expansion, differentiation and cryopreservation of human stem cells. <i>Current Directions in Biomedical Engineering</i> , 2017, 3, 371-374.	0.2	1
26	Migration pattern, actin cytoskeleton organization and response to PI3K-, mTOR-, and Hsp90-inhibition of glioblastoma cells with different invasive capacities. <i>Oncotarget</i> , 2017, 8, 45298-45310.	0.8	31
27	Capacitive Sensing for Non-Invasive Breathing and Heart Monitoring in Non-Restrained, Non-Sedated Laboratory Mice. <i>Sensors</i> , 2016, 16, 1052.	2.1	20
28	Study of SEM preparation artefacts with correlative microscopy: Cell shrinkage of adherent cells by HMDS-drying. <i>Scanning</i> , 2016, 38, 625-633.	0.7	38
29	3D printing of hydrogels in a temperature controlled environment with high spatial resolution. <i>Current Directions in Biomedical Engineering</i> , 2016, 2, 109-112.	0.2	5
30	Toward Optimal Cryopreservation and Storage for Achievement of High Cell Recovery and Maintenance of Cell Viability and T Cell Functionality. <i>Biopreservation and Biobanking</i> , 2016, 14, 539-547.	0.5	33
31	Dual PI3K- and mTOR-inhibitor PI-103 can either enhance or reduce the radiosensitizing effect of the Hsp90 inhibitor NVP-AUY922 in tumor cells: The role of drug-irradiation schedule. <i>Oncotarget</i> , 2016, 7, 38191-38209.	0.8	17
32	Batch screening of commercial serial flash-memory integrated circuits for low-temperature applications. <i>Cryogenics</i> , 2015, 71, 39-46.	0.9	10
33	Alterations in Human Liver Metabolome during Prolonged Cryostorage. <i>Journal of Proteome Research</i> , 2015, 14, 2758-2768.	1.8	16
34	Actin cytoskeleton organization, cell surface modification and invasion rate of 5 glioblastoma cell lines differing in PTEN and p53 status. <i>Experimental Cell Research</i> , 2015, 330, 346-357.	1.2	28
35	A new validation method for clinical grade micro-encapsulation: quantitative high speed video analysis of alginate capsule. <i>Microsystem Technologies</i> , 2015, 21, 75-84.	1.2	4
36	Efficient Cryopreservation of Human Pluripotent Stem Cells by Surface-Based Vitrification. <i>Methods in Molecular Biology</i> , 2015, 1257, 321-328.	0.4	3

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37	Laser Scanning Microscopy in Cryobiology. <i>Methods in Molecular Biology</i> , 2015, 1257, 229-241.	0.4	1
38	A New Approach to Standardize Multicenter Studies: Mobile Lab Technology for the German Environmental Specimen Bank. <i>PLoS ONE</i> , 2014, 9, e105401.	1.1	32
39	Towards ready-to-use 3-D scaffolds for regenerative medicine: adhesion-based cryopreservation of human mesenchymal stem cells attached and spread within alginate-gelatin cryogel scaffolds. <i>Journal of Materials Science: Materials in Medicine</i> , 2014, 25, 857-871.	1.7	63
40	Hydrohalite spatial distribution in frozen cell cultures measured using confocal Raman microscopy. <i>Cryobiology</i> , 2014, 69, 41-47.	0.3	21
41	Frozen Cells and Bits: Cryoelectronics Advances Biopreservation. <i>IEEE Pulse</i> , 2013, 4, 35-43.	0.1	3
42	Temperature fluctuations during deep temperature cryopreservation reduce PBMC recovery, viability and T-cell function. <i>Cryobiology</i> , 2013, 67, 193-200.	0.3	68
43	Hsp90 inhibition by NVP-AUY922 and NVP-BEP800 decreases migration and invasion of irradiated normoxic and hypoxic tumor cell lines. <i>Cancer Letters</i> , 2013, 331, 200-210.	3.2	23
44	Identification of two-pore domain potassium channels as potent modulators of osmotic volume regulation in human T lymphocytes. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2013, 1828, 699-707.	1.4	23
45	Nanoparticle-Mediated Gene Transfer From Electrophoretically Coated Metal Surfaces. <i>Journal of Physical Chemistry B</i> , 2013, 117, 1550-1555.	1.2	14
46	Magnetic separation of encapsulated islet cells labeled with superparamagnetic iron oxide nanoparticles. <i>Xenotransplantation</i> , 2013, 20, 219-226.	1.6	21
47	UHV-Alginate as Matrix for Neurotrophic Factor Producing Cells—A Novel Biomaterial for Cochlear Implant Optimization to Preserve Inner Ear Neurons From Degeneration. <i>Otology and Neurotology</i> , 2013, 34, 1127-1133.	0.7	13
48	Biocompatible Coating of Encapsulated Cells Using Ionotropic Gelation. <i>PLoS ONE</i> , 2013, 8, e73498.	1.1	14
49	First steps towards the successful surface-based cultivation of human embryonic stem cells in hanging drop systems. <i>Engineering in Life Sciences</i> , 2012, 12, 584-587.	2.0	6
50	Noninvasive Quality Control of Cryopreserved Samples. <i>Biopreservation and Biobanking</i> , 2012, 10, 529-531.	0.5	8
51	Changes in the dielectric properties of medaka fish embryos during development, studied by electrorotation. <i>Biochemical and Biophysical Research Communications</i> , 2012, 428, 127-131.	1.0	9
52	An Automated HIV-1 Env-Pseudotyped Virus Production for Global HIV Vaccine Trials. <i>PLoS ONE</i> , 2012, 7, e51715.	1.1	15
53	Surface-based cryopreservation strategies for human embryonic stem cells: A comparative study. <i>Biotechnology Progress</i> , 2012, 28, 1079-1087.	1.3	16
54	Towards a xeno-free and fully chemically defined cryopreservation medium for maintaining viability, recovery, and antigen-specific functionality of PBMC during long-term storage. <i>Journal of Immunological Methods</i> , 2012, 382, 24-31.	0.6	25

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55	Standardized Serum-Free Cryomedia Maintain Peripheral Blood Mononuclear Cell Viability, Recovery, and Antigen-Specific T-Cell Response Compared to Fetal Calf Serum-Based Medium. <i>Biopreservation and Biobanking</i> , 2011, 9, 229-236.	0.5	34
56	Effective surface-based cryopreservation of human embryonic stem cells by vitrification. <i>Cryobiology</i> , 2011, 63, 175-185.	0.3	32
57	Volume regulation of murine T lymphocytes relies on voltage-dependent and two-pore domain potassium channels. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2011, 1808, 2036-2044.	1.4	39
58	Biological and Physicochemical Characterization of a Serum-and Xeno-Free Chemically Defined Cryopreservation Procedure for Adult Human Progenitor Cells. <i>Cell Transplantation</i> , 2011, 20, 1241-1257.	1.2	36
59	Encapsulation of Langerhans' islets: Microtechnological developments for transplantation. <i>Engineering in Life Sciences</i> , 2011, 11, 165-173.	2.0	12
60	RFID for anonymous biological samples and pseudonyms. , 2011, , .		2
61	Evaluation of cryo-preserved skin tissues using two-photon microscopy. , 2010, , .		1
62	Viscoelastic properties of ultra-high viscosity alginates. <i>Rheologica Acta</i> , 2010, 49, 155-167.	1.1	37
63	The individual-cell-based cryo-chip for the cryopreservation, manipulation and observation of spatially identifiable cells. I: Methodology. <i>BMC Cell Biology</i> , 2010, 11, 54.	3.0	12
64	The individual-cell-based cryo-chip for the cryopreservation, manipulation and observation of spatially identifiable cells. II: Functional activity of cryopreserved cells. <i>BMC Cell Biology</i> , 2010, 11, 83.	3.0	9
65	Alginate Encapsulation as a Novel Strategy for the Cryopreservation of Neurospheres. <i>Tissue Engineering - Part C: Methods</i> , 2010, 16, 965-977.	1.1	50
66	RFID system for the identification of biological samples. , 2010, , .		1
67	Dispensing of very low volumes of ultra high viscosity alginate gels: a new tool for encapsulation of adherent cells and rapid prototyping of scaffolds and implants. <i>BioTechniques</i> , 2009, 46, 31-43.	0.8	17
68	A Novel Approach for Automated Analysis of Cell Attachment and Spreading Based on Backscattered Electron Imaging by Scanning Electron Microscopy. <i>Materials</i> , 2009, 2, 1402-1416.	1.3	7
69	Kinetic masks: a new approach and device for dispersing biologically relevant fluids. <i>Microsystem Technologies</i> , 2009, 15, 1407-1416.	1.2	1
70	A large-scale cryoelectronic system for biological sample banking. <i>Cryogenics</i> , 2009, 49, 638-642.	0.9	7
71	Physicochemical features of ultra-high viscosity alginates. <i>Carbohydrate Research</i> , 2009, 344, 985-995.	1.1	46
72	The technology of the Global HIV Vaccine Research Cryorepository. <i>Engineering in Life Sciences</i> , 2009, 9, 376-383.	2.0	7

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73	Multiphoton microscopy for the <i>in situ</i> investigation of cellular processes and integrity in cryopreservation. <i>Biotechnology Journal</i> , 2009, 4, 1215-1220.	1.8	12
74	A comparative study of freezing single cells and spheroids: Towards a new model system for optimizing freezing protocols for cryobanking of human tumours. <i>Cryobiology</i> , 2009, 58, 119-127.	0.3	26
75	Pore size of swelling-activated channels for organic osmolytes in Jurkat lymphocytes, probed by differential polymer exclusion. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2009, 1788, 1841-1850.	1.4	19
76	Global HIV Vaccine Research Cryorepository-GHRC. <i>Procedia in Vaccinology</i> , 2009, 1, 49-62.	0.4	2
77	Cryopreservation of Adherent Cells: Strategies to Improve Cell Viability and Function After Thawing. <i>Tissue Engineering - Part C: Methods</i> , 2009, 15, 373-386.	1.1	39
78	Entrapment of Embryonic Stem Cells-Derived Cardiomyocytes in Macroporous Biodegradable Microspheres: Preparation and Characterization. <i>Cellular Physiology and Biochemistry</i> , 2008, 22, 665-672.	1.1	23
79	Cryopreservation in micro-volumes: Impact upon caco-2 colon adenocarcinoma cell proliferation and differentiation. <i>Biotechnology and Bioengineering</i> , 2007, 98, 155-166.	1.7	5
80	Physical and biological properties of barium cross-linked alginate membranes. <i>Biomaterials</i> , 2007, 28, 1327-1345.	5.7	64
81	Hydrogel-based encapsulation of biological, functional tissue: fundamentals, technologies and applications. <i>Applied Physics A: Materials Science and Processing</i> , 2007, 89, 909-922.	1.1	58
82	Alginate-based encapsulation of cells: Past, present, and future. <i>Current Diabetes Reports</i> , 2007, 7, 314-320.	1.7	179
83	A biophysical approach to the optimisation of dendritic-tumour cell electrofusion. <i>Biochemical and Biophysical Research Communications</i> , 2006, 346, 829-839.	1.0	46
84	Cryogenic electronic memory infrastructure for physically related "continuity of care records" of frozen cells. <i>Cryogenics</i> , 2006, 46, 312-320.	0.9	10
85	Long-Term Graft Function of Adult Rat and Human Islets Encapsulated in Novel Alginate-Based Microcapsules After Transplantation in Immunocompetent Diabetic Mice. <i>Diabetes</i> , 2005, 54, 687-693.	0.3	134
86	Trehalose conserves expression of bullous pemphigoid antigen 180 during desiccation and freezing. <i>Journal of Immunological Methods</i> , 2003, 275, 179-190.	0.6	3
87	A Novel Class of Amitogenic Alginate Microcapsules for Long-Term Immunoisolated Transplantation. <i>Annals of the New York Academy of Sciences</i> , 2001, 944, 199-215.	1.8	78
88	Trace formation during locomotion of L929 mouse fibroblasts continuously recorded by interference reflection microscopy (IRM). <i>Cytoskeleton</i> , 2000, 47, 38-47.	4.4	12
89	Topography of cell traces studied by atomic force microscopy. <i>European Biophysics Journal</i> , 1999, 28, 516-525.	1.2	16
90	Cell Traces "Footprints of Individual Cells during Locomotion and Adhesion. <i>Biological Chemistry</i> , 1998, 379, 1161-1174.	1.2	28