Heli Skottman

List of Publications by Year
in descending order

106 papers	5,183 citations	93792 39 h-index	107981 68 g-index
108 all docs	108 docs citations	108 times ranked	7690 citing authors

#	Article	IF	Citations
1	Approaches for corneal endothelium regenerative medicine. Progress in Retinal and Eye Research, 2022, 87, 100987.	7.3	35
2	Cell maturation influences the ability of hESC-RPE to tolerate cellular stress. Stem Cell Research and Therapy, 2022, 13, 30.	2.4	4
3	Multiâ€parametric surface plasmon resonanceâ€based intake quantification of labelâ€free lightâ€activated nanoparticles by therapeutic limbal stem cells for corneal blindness. Nano Select, 2022, 3, 1232-1241.	1.9	2
4	Establishment of a human induced pluripotent stem cell line (TAUi008-A) derived from a multiple sclerosis patient. Stem Cell Research, 2022, 63, 102865.	0.3	1
5	Culture surface protein coatings affect the barrier properties and calcium signalling of hESC-RPE. Scientific Reports, 2021, 11, 933.	1.6	10
6	Limbal Stem Cells on Bacterial Nanocellulose Carriers for Ocular Surface Regeneration. Small, 2021, 17, e2003937.	5.2	15
7	Directed Differentiation of Human Pluripotent Stem Cells towards Corneal Endothelial-Like Cells under Defined Conditions. Cells, 2021, 10, 331.	1.8	14
8	Mutant PRPF8 Causes Widespread Splicing Changes in Spliceosome Components in Retinitis Pigmentosa Patient iPSC-Derived RPE Cells. Frontiers in Neuroscience, 2021, 15, 636969.	1.4	9
9	Differential Expression of Inflammasome-Related Genes in Induced Pluripotent Stem-Cell-Derived Retinal Pigment Epithelial Cells with or without History of Age-Related Macular Degeneration. International Journal of Molecular Sciences, 2021, 22, 6800.	1.8	9
10	Submacular integration of hESC-RPE monolayer xenografts in a surgical non-human primate model. Stem Cell Research and Therapy, 2021, 12, 423.	2.4	11
11	Corneal epithelial differentiation of human pluripotent stem cells generates ABCB5+ and âˆ†Np63Î±+ cells with limbal cell characteristics and high wound healing capacity. Stem Cell Research and Therapy, 2021, 12, 609.	2.4	8
12	Co-culture of human induced pluripotent stem cell-derived retinal pigment epithelial cells and endothelial cells on double collagen-coated honeycomb films. Acta Biomaterialia, 2020, 101, 327-343.	4.1	18
13	In vitro stem cell modelling demonstrates a proofâ€ofâ€concept for excess functional mutant TIMP3 as the cause of S orsby f undus d ystrophy. Journal of Pathology, 2020, 252, 138-150.	2.1	10
14	Avoiding the Pitfalls of siRNA Delivery to the Retinal Pigment Epithelium with Physiologically Relevant Cell Models. Pharmaceutics, 2020, 12, 667.	2.0	6
15	Drug Flux across RPE Cell Models: The Hunt for an Appropriate Outer Bloodâ€“Retinal Barrier Model for Use in Early Drug Discovery. Pharmaceutics, 2020, 12, 176.	2.0	9
16	RPE and Stem Cell Therapy. , 2020, , 249-263.		0
17	Modulation of Wnt/BMP pathways during corneal differentiation of hPSC maintains ABCG2-positive LSC population that demonstrates increased regenerative potential. Stem Cell Research and Therapy, 2019, 10, 236.	2.4	21
18	Sodium channels enable fast electrical signaling and regulate phagocytosis in the retinal pigment epithelium. BMC Biology, 2019, 17, 63.	1.7	13

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19	Compromised Barrier Function in Human Induced Pluripotent Stem-Cell-Derived Retinal Pigment Epithelial Cells from Type 2 Diabetic Patients. International Journal of Molecular Sciences, 2019, 20, 3773.	1.8	30
20	CACNB2 Is a Novel Susceptibility Gene for Diabetic Retinopathy in Type 1 Diabetes. Diabetes, 2019, 68, 2165-2174.	0.3	16
21	Tissue adhesive hyaluronic acid hydrogels for sutureless stem cell delivery and regeneration of corneal epithelium and stroma. Biomaterials, 2019, 225, 119516.	5.7	127
22	Porous polybutylene succinate films enabling adhesion of human embryonic stem cell-derived retinal pigment epithelial cells (hESC-RPE). European Polymer Journal, 2019, 118, 78-87.	2.6	9
23	In Vitro Cultivation of Limbal Epithelial Stem Cells on Surface-Modified Crosslinked Collagen Scaffolds. Stem Cells International, 2019, 2019, 1-17.	1.2	26
24	Human Embryonic Stem Cell-Derived Retinal Pigment Epithelium-Role in Dead Cell Clearance and Inflammation. International Journal of Molecular Sciences, 2019, 20, 926.	1.8	15
25	Functional Voltage-Gated Calcium Channels Are Present in Human Embryonic Stem Cell-Derived Retinal Pigment Epithelium. Stem Cells Translational Medicine, 2019, 8, 179-193.	1.6	19
26	Survival and functionality of xenoâ€free human embryonic stem cellâ€“derived retinal pigment epithelial cells on polyester substrate after transplantation in rabbits. Acta Ophthalmologica, 2019, 97, e688-e699.	0.6	16
27	Loss of NRF-2 and PGC-1Î± genes leads to retinal pigment epithelium damage resembling dry age-related macular degeneration. Redox Biology, 2019, 20, 1-12.	3.9	117
28	Human stem cell based corneal tissue mimicking structures using laser-assisted 3D bioprinting and functional bioinks. Biomaterials, 2018, 171, 57-71.	5.7	242
29	Hydrazone crosslinked hyaluronan-based hydrogels for therapeutic delivery of adipose stem cells to treat corneal defects. Materials Science and Engineering C, 2018, 85, 68-78.	3.8	48
30	Hsp90 inhibition as a means to inhibit activation of the NLRP3 inflammasome. Scientific Reports, 2018, 8, 6720.	1.6	67
31	Breath figures in tissue engineering and drug delivery: State-of-the-art and future perspectives. Acta Biomaterialia, 2018, 66, 44-66.	4.1	49
32	Efficient and Scalable Directed Differentiation of Clinically Compatible Corneal Limbal Epithelial Stem Cells from Human Pluripotent Stem Cells. Journal of Visualized Experiments, 2018, , .	0.2	16
33	Small non-coding RNA landscape of extracellular vesicles from human stem cells. Scientific Reports, 2018, 8, 15503.	1.6	54
34	Wound healing of human embryonic stem cell-derived retinal pigment epithelial cells is affected by maturation stage. BioMedical Engineering OnLine, 2018, 17, 102.	1.3	4
35	Characterization of Chloride Channels in Human Embryonic Stem Cell Derived Retinal Pigment Epithelium. IFMBE Proceedings, 2018, , 454-457.	0.2	1
36	Quantitative pigment extraction analysis for human pluripotent stem cell derived retinal pigment epithelial cells. IFMBE Proceedings, 2018, , 61-64.	0.2	1

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37	Langmuir-Schaefer film deposition onto honeycomb porous films for retinal tissue engineering. Acta Biomaterialia, 2017, 54, 138-149.	4.1	32
38	Collagen-immobilized polyimide membranes for retinal pigment epithelial cell adherence and proliferation. Cogent Chemistry, 2017, 3, 1292593.	2.5	4
39	RNA Polymerase III Subunit POLR3G Regulates Specific Subsets of PolyA+ and SmallRNA Transcriptomes and Splicing in Human Pluripotent Stem Cells. Stem Cell Reports, 2017, 8, 1442-1454.	2.3	16
40	Poly(trimethylene carbonate) as an elastic biodegradable film for human embryonic stem cell-derived retinal pigment epithelial cells. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 3134-3144.	1.3	13
41	Comparative proteomic analysis of human embryonic stem cell-derived and primary human retinal pigment epithelium. Scientific Reports, 2017, 7, 6016.	1.6	26
42	Xeno- and feeder-free differentiation of human pluripotent stem cells to two distinct ocular epithelial cell types using simple modifications of one method. Stem Cell Research and Therapy, 2017, 8, 291.	2.4	80
43	Autophagy Regulates Proteasome Inhibitor-Induced Pigmentation in Human Embryonic Stem Cell-Derived Retinal Pigment Epithelial Cells. International Journal of Molecular Sciences, 2017, 18, 1089.	1.8	10
44	Texture Descriptors Ensembles Enable Image-Based Classification of Maturation of Human Stem Cell-Derived Retinal Pigmented Epithelium. PLoS ONE, 2016, 11, e0149399.	1.1	16
45	Honeycomb porous films as permeable scaffold materials for human embryonic stem cellâ€derived retinal pigment epithelium. Journal of Biomedical Materials Research - Part A, 2016, 104, 1646-1656.	2.1	31
46	Semi-automatic Method for Ca2+ Imaging Data Analysis of Maturing Human Embryonic Stem Cells-Derived Retinal Pigment Epithelium. Annals of Biomedical Engineering, 2016, 44, 3408-3420.	1.3	7
47	Human pluripotent stem cell-derived limbal epithelial stem cells on bioengineered matrices for corneal reconstruction. Experimental Eye Research, 2016, 146, 26-34.	1.2	34
48	Comparative proteomics reveals human pluripotent stem cell-derived limbal epithelial stem cells are similar to native ocular surface epithelial cells. Scientific Reports, 2015, 5, 14684.	1.6	19
49	Human iPSC derived disease model of MERTK-associated retinitis pigmentosa. Scientific Reports, 2015, 5, 12910.	1.6	47
50	Ultrathin Polyimide Membrane as Cell Carrier for Subretinal Transplantation of Human Embryonic Stem Cell Derived Retinal Pigment Epithelium. PLoS ONE, 2015, 10, e0143669.	1.1	49
51	Computational Model of Ca2+ Wave Propagation in Human Retinal Pigment Epithelial ARPE-19 Cells. PLoS ONE, 2015, 10, e0128434.	1.1	10
52	Effects of Cytokine Activation and Oxidative Stress on the Function of the Human Embryonic Stem Cellâ€“Derived Retinal Pigment Epithelial Cells. , 2015, 56, 6265.		22
53	Biomimetic collagen I and IV double layer Langmuirâ€“Schaefer films asÂmicroenvironment for human pluripotent stem cell derived retinal pigment epithelial cells. Biomaterials, 2015, 51, 257-269.	5.7	60
54	Surface Modified Biodegradable Electrospun Membranes as a Carrier for Human Embryonic Stem Cell-Derived Retinal Pigment Epithelial Cells. Tissue Engineering - Part A, 2015, 21, 2301-2314.	1.6	39

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55	Patient-Specific Induced Pluripotent Stem Cellâ€“Derived RPE Cells: Understanding the Pathogenesis of Retinopathy in Long-Chain 3-Hydroxyacyl-CoA Dehydrogenase Deficiency. , 2015, 56, 3371.		29
56	Structure and Barrier Properties of Human Embryonic Stem Cellâ€“Derived Retinal Pigment Epithelial Cells Are Affected by Extracellular Matrix Protein Coating. Tissue Engineering - Part A, 2014, 20, 140120073644000.	1.6	39
57	Ormocomp-Modified Glass Increases Collagen Binding and Promotes the Adherence and Maturation of Human Embryonic Stem Cell-Derived Retinal Pigment Epithelial Cells. Langmuir, 2014, 30, 14555-14565.	1.6	23
58	Three-dimensional growth matrix for human embryonic stem cell-derived neuronal cells. Journal of Tissue Engineering and Regenerative Medicine, 2014, 8, 186-194.	1.3	39
59	Small-Molecule Induction Promotes Corneal Epithelial Cell Differentiation from Human Induced Pluripotent Stem Cells. Stem Cell Reports, 2014, 2, 219-231.	2.3	88
60	Effects of different serum conditions on osteogenic differentiation of human adipose stem cells in vitro. Stem Cell Research and Therapy, 2013, 4, 17.	2.4	102
61	Towards a defined, serum- and feeder-free culture of stratified human oral mucosal epithelium for ocular surface reconstruction. Acta Ophthalmologica, 2013, 91, 744-750.	0.6	27
62	Healthy human CSF promotes glial differentiation of hESC-derived neural cells while retaining spontaneous activity in existing neuronal networks. Biology Open, 2013, 2, 605-612.	0.6	11
63	Comparative Analysis of Targeted Differentiation of Human Induced Pluripotent Stem Cells (hiPSCs) and Human Embryonic Stem Cells Reveals Variability Associated With Incomplete Transgene Silencing in Retrovirally Derived hiPSC Lines. Stem Cells Translational Medicine, 2013, 2, 83-93.	1.6	64
64	Aquaporin Expression and Function in Human Pluripotent Stem Cellâ€“Derived Retinal Pigmented Epithelial Cells. , 2013, 54, 3510.		38
65	The Effect of Human and Mouse Fibroblast Feeder Cells on Cardiac Differentiation of Human Pluripotent Stem Cells. Stem Cells International, 2012, 2012, 1-10.	1.2	18
66	Generation of hESC-derived retinal pigment epithelium on biopolymer coated polyimide membranes. Biomaterials, 2012, 33, 8047-8054.	5.7	71
67	Efflux Protein Expression in Human Stem Cell-Derived Retinal Pigment Epithelial Cells. PLoS ONE, 2012, 7, e30089.	1.1	39
68	Structured PDMS Chambers for Enhanced Human Neuronal Cell Activity on MEA Platforms. Journal of Bionic Engineering, 2012, 9, 1-10.	2.7	29
69	Laminin-511 expression is associated with the functionality of feeder cells in human embryonic stem cell culture. Stem Cell Research, 2012, 8, 97-108.	0.3	54
70	Electric impedance of human embryonic stem cell-derived retinal pigment epithelium. Medical and Biological Engineering and Computing, 2012, 50, 107-116.	1.6	17
71	Differentiation of Human Embryonic Stem Cells and Human Induced Pluripotent Stem Cells into Retinal Pigment Epithelium. Stem Cells and Cancer Stem Cells, 2012, , 187-194.	0.1	1
72	Screening ethnically diverse human embryonic stem cells identifies a chromosome 20 minimal amplicon conferring growth advantage. Nature Biotechnology, 2011, 29, 1132-1144.	9.4	509

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73	A xeno-free culturing protocol for pluripotent stem cell-derived oligodendrocyte precursor cell production. Regenerative Medicine, 2011, 6, 449-460.	0.8	30
74	Effects of the physiochemical culture environment on the stemness and pluripotency of human embryonic stem cells. Stem Cell Studies, 2011, 1, 3.	0.2	10
75	An automated continuous monitoring system: a useful tool for monitoring neuronal differentiation of human embryonic stem cells. Stem Cell Studies, 2011, 1, 10.	0.2	3
76	Toward the defined and xeno-free differentiation of functional human pluripotent stem cell-derived retinal pigment epithelial cells. Molecular Vision, 2011, 17, 558-75.	1.1	119
77	Spatial and temporal expression pattern of germ layer markers during human embryonic stem cell differentiation in embryoid bodies. Histochemistry and Cell Biology, 2010, 133, 595-606.	0.8	46
78	Derivation and characterization of three new human embryonic stem cell lines in Finland. In Vitro Cellular and Developmental Biology - Animal, 2010, 46, 206-209.	0.7	81
79	Production and isolation of NG2+ oligodendrocyte precursors from human embryonic stem cells in defined serum-free medium. Stem Cell Research, 2010, 5, 91-103.	0.3	62
80	An antibody surface for selective neuronal cell attachment. Journal of Neuroscience Methods, 2010, 186, 72-76.	1.3	8
81	Human cell-based micro electrode array platform for studying neurotoxicity. Frontiers in Neuroengineering, 2010, 3, .	4.8	74
82	Human embryonic stem cell-derived cardiomyocytes: demonstration of a portion of cardiac cells with fairly mature electrical phenotype. Experimental Biology and Medicine, 2010, 235, 522-530.	1.1	60
83	Similarly derived and cultured hESC lines show variation in their developmental potential towards neuronal cells in long-term culture. Regenerative Medicine, 2010, 5, 749-762.	0.8	66
84	A Defined and Xeno-Free Culture Method Enabling the Establishment of Clinical-Grade Human Embryonic, Induced Pluripotent and Adipose Stem Cells. PLoS ONE, 2010, 5, e10246.	1.1	138
85	Electrospun Poly(L,D-lactide) Scaffolds Support the Growth of Human Embryonic Stem Cell-derived Neuronal Cells~!2009-08-26~!2009-11-30~!2010-02-12~!. The Open Tissue Engineering and Regenerative Medicine Journal, 2010, 3, 1-9.	2.6	6
86	Transcriptome Profiling of Human Pre-Implantation Development. PLoS ONE, 2009, 4, e7844.	1.1	103
87	CD marker expression profiles of human embryonic stem cells and their neural derivatives, determined using flow-cytometric analysis, reveal a novel CD marker for exclusion of pluripotent stem cells. Stem Cell Research, 2009, 2, 113-124.	0.3	95
88	Comparison of Biomaterials and Extracellular Matrices as a Culture Platform for Multiple, Independently Derived Human Embryonic Stem Cell Lines. Tissue Engineering - Part A, 2009, 15, 1775-1785.	1.6	80
89	Human embryonic stem cell-derived neuronal cells form spontaneously active neuronal networks in vitro. Experimental Neurology, 2009, 218, 109-116.	2.0	113
90	Substantial variation in the cardiac differentiation of human embryonic stem cell lines derived and propagated under the same conditionsâ€"a comparison of multiple cell lines. Annals of Medicine, 2009, 41, 360-370.	1.5	60

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91	Good manufacturing practice and clinical-grade human embryonic stem cell lines. Human Molecular Genetics, 2008, 17, R48-R53.	1.4	226
92	Microcutting of living tissue slices and stem cell colonies by using mechanical tool and liquid jet. , 2008, , .		2
93	Testing of nine different xeno-free culture media for human embryonic stem cell cultures. Human Reproduction, 2007, 22, 1231-1238.	0.4	129
94	Exclusion of coding-region mutations in luteinizing hormone and follicle-stimulating hormone receptor genes as the cause of ovarian hyperstimulation syndrome. Fertility and Sterility, 2007, 87, 603-606.	0.5	34
95	Distinct sets of developmentally regulated genes that are expressed by human oocytes and human embryonic stem cells. Fertility and Sterility, 2007, 87, 677-690.	0.5	39
96	Monitoring and analysis of dynamic growth of human embryonic stem cells: comparison of automated instrumentation and conventional culturing methods. BioMedical Engineering OnLine, 2007, 6, 11.	1.3	36
97	Challenges and approaches to the culture of pluripotent human embryonic stem cells. Regenerative Medicine, 2007, 2, 265-273.	0.8	39
98	Human embryonic stem cells are immunogenic in allogeneic and xenogeneic settings. Reproductive BioMedicine Online, 2006, 13, 712-724.	1.1	96
99	The derivation of clinical-grade human embryonic stem cell lines. FEBS Letters, 2006, 580, 2875-2878.	1.3	52
100	Expression of leukemia inhibitory factor and its receptors is increased during differentiation of human embryonic stem cells. Fertility and Sterility, 2006, 86, 1193-1209.	0.5	11
101	Unique Gene Expression Signature by Human Embryonic Stem Cells Cultured Under Serum-Free Conditions Correlates with Their Enhanced and Prolonged Growth in an Undifferentiated Stage. Stem Cells, 2006, 24, 151-167.	1.4	66
102	Culture conditions for human embryonic stem cells. Reproduction, 2006, 132, 691-698.	1.1	82
103	Derivation of Human Embryonic Stem Cell Lines in Serum Replacement Medium Using Postnatal Human Fibroblasts as Feeder Cells. Stem Cells, 2005, 23, 544-549.	1.4	235
104	Gene Expression Signatures of Seven Individual Human Embryonic Stem Cell Lines. Stem Cells, 2005, 23, 1343-1356.	1.4	151
105	Integrating probe-level expression changes across generations of Affymetrix arrays. Nucleic Acids Research, 2005, 33, e193-e193.	6.5	51
106	Feeder-free derivation of human embryonic stem-cell lines. Lancet, The, 2005, 365, 1601-1603.	6.3	12