Darrell N Kotton

List of Publications by Year
in descending order

126 papers	12,559 citations	30047 54 h-index	27389 106 g-index
149 all docs	149 docs citations	149 times ranked	17154 citing authors

#	Article	IF	Citations
1	Telomere dysfunction induces metabolic and mitochondrial compromise. Nature, 2011, 470, 359-365.	13.7	1,093
2	Regeneration and orthotopic transplantation of a bioartificial lung. Nature Medicine, 2010, 16, 927-933.	15.2	980
3	Induced Pluripotent Stem Cell Generation Using a Single Lentiviral Stem Cell Cassette. Stem Cells, 2009, 27, 543-549.	1.4	609
4	Bone marrow-derived cells as progenitors of lung alveolar epithelium. Development (Cambridge), 2001, 128, 5181-5188.	1.2	466
5	Lung regeneration: mechanisms, applications and emerging stem cell populations. Nature Medicine, 2014, 20, 822-832.	15.2	416
6	Differentiation of Human Pluripotent Stem Cells into Functional Lung Alveolar Epithelial Cells. Cell Stem Cell, 2017, 21, 472-488.e10.	5.2	406
7	Generation of Transgene-Free Lung Disease-Specific Human Induced Pluripotent Stem Cells Using a Single Excisable Lentiviral Stem Cell Cassette Â. Stem Cells, 2010, 28, 1728-1740.	1.4	375
8	Efficient Derivation of Purified Lung and Thyroid Progenitors from Embryonic Stem Cells. Cell Stem Cell, 2012, 10, 398-411.	5.2	358
9	Efficient Derivation of Functional Human Airway Epithelium from Pluripotent Stem Cells via Temporal Regulation of Wnt Signaling. Cell Stem Cell, 2017, 20, 844-857.e6.	5.2	334
10	SARS-CoV-2 Infection of Pluripotent Stem Cell-Derived Human Lung Alveolar Type 2 Cells Elicits a Rapid Epithelial-Intrinsic Inflammatory Response. Cell Stem Cell, 2020, 27, 962-973.e7.	5.2	266
11	Failure of Bone Marrow to Reconstitute Lung Epithelium. American Journal of Respiratory Cell and Molecular Biology, 2005, 33, 328-334.	1.4	252
12	Side population cells and Bcrp1 expression in lung. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2003, 285, L97-L104.	1.3	247
13	Excision of Reprogramming Transgenes Improves the Differentiation Potential of iPS Cells Generated with a Single Excisable Vector Â. Stem Cells, 2010, 28, 64-74.	1.4	237
14	The Cellular and Physiological Basis for Lung Repair and Regeneration: Past, Present, and Future. Cell Stem Cell, 2020, 26, 482-502.	5.2	230
15	Self-Renewing Endodermal Progenitor Lines Generated from Human Pluripotent Stem Cells. Cell Stem Cell, 2012, 10, 371-384.	5.2	190
16	Induced pluripotent stem cells used to reveal drug actions in a long QT syndrome family with complex genetics. Journal of General Physiology, 2013, 141, 61-72.	0.9	189
17	Prospective isolation of NKX2-1â€“expressing human lung progenitors derived from pluripotent stem cells. Journal of Clinical Investigation, 2017, 127, 2277-2294.	3.9	180
18	Regeneration of Thyroid Function by Transplantation of Differentiated Pluripotent Stem Cells. Cell Stem Cell, 2015, 17, 527-542.	5.2	170

#	Article	IF	Citations
19	The Prolonged Life-Span of Alveolar Macrophages. American Journal of Respiratory Cell and Molecular Biology, 2008, 38, 380-385.	1.4	168
20	Targeted Correction and Restored Function of the CFTR Gene in Cystic Fibrosis Induced Pluripotent Stem Cells. Stem Cell Reports, 2015, 4, 569-577.	2.3	168
21	miR-129 regulates cell proliferation by downregulating Cdk6 expression. Cell Cycle, 2010, 9, 1809-1818.	1.3	163
22	SARS-CoV-2 induces double-stranded RNA-mediated innate immune responses in respiratory epithelial-derived cells and cardiomyocytes. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	159
23	Derivation of self-renewing lung alveolar epithelial type II cells from human pluripotent stem cells. Nature Protocols, 2019, 14, 3303-3332.	5.5	144
24	SARS-CoV-2 drives JAK1/2-dependent local complement hyperactivation. Science Immunology, 2021, 6, .	5.6	144
25	Efficiency of transduction of highly purified murine hematopoietic stem cells by lentiviral and oncoretroviral vectors under conditions of minimal in vitro manipulation. Molecular Therapy, 2005, 11, 932-940.	3.7	131
26	Human distal airways contain a multipotent secretory cell that can regenerate alveoli. Nature, 2022, 604, 120-126.	13.7	128
27	Morphological cell profiling of SARS-CoV-2 infection identifies drug repurposing candidates for COVID-19. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	124
28	The aryl hydrocarbon receptor directs hematopoietic progenitor cell expansion and differentiation. Blood, 2013, 122, 376-385.	0.6	119
29	Derivation of Airway Basal Stem Cells from Human Pluripotent Stem Cells. Cell Stem Cell, 2021, 28, 79-95.e8.	5.2	119
30	Reconstructed Single-Cell Fate Trajectories Define Lineage Plasticity Windows during Differentiation of Human PSC-Derived Distal Lung Progenitors. Cell Stem Cell, 2020, 26, 593-608.e8.	5.2	114
31	Human alveolar type 2 epithelium transdifferentiates into metaplastic KRT5+ basal cells. Nature Cell Biology, 2022, 24, 10-23.	4.6	108
32	Modeling Supravalvular Aortic Stenosis Syndrome With Human Induced Pluripotent Stem Cells. Circulation, 2012, 126, 1695-1704.	1.6	106
33	Intracellular Bacillary Burden Reflects a Burst Size for Mycobacterium tuberculosis In Vivo. PLoS Pathogens, 2013, 9, e1003190.	2.1	104
34	Transcriptional Analysis of Fracture Healing and the Induction of Embryonic Stem Cellâ€“Related Genes. PLoS ONE, 2009, 4, e5393.	1.1	96
35	Actionable Cytopathogenic Host Responses of Human Alveolar Type 2 Cells to SARS-CoV-2. Molecular Cell, 2020, 80, 1104-1122.e9.	4.5	94
36	Unstable neurons underlie a stable learned behavior. Nature Neuroscience, 2016, 19, 1665-1671.	7.1	88

#	Article	IF	Citations
37	Organoids Model Transcriptional Hallmarks of Oncogenic KRAS Activation in Lung Epithelial Progenitor Cells. Cell Stem Cell, 2020, 27, 663-678.e8.	5.2	86
38	The Transcription Factors Grainyhead-like 2 and NK2-Homeobox 1 Form a Regulatory Loop That Coordinates Lung Epithelial Cell Morphogenesis and Differentiation*. Journal of Biological Chemistry, 2012, 287, 37282-37295.	1.6	82
39	Generation of mesenchyme free intestinal organoids from human induced pluripotent stem cells. Nature Communications, 2020, 11, 215.	5.8	81
40	Lung stem cells. Cell and Tissue Research, 2008, 331, 145-156.	1.5	78
41	Single-Cell Transcriptomic Profiling of Pluripotent Stem Cell-Derived SCGB3A2+ Airway Epithelium. Stem Cell Reports, 2018, 10, 1579-1595.	2.3	78
42	Enhanced Reprogramming and Cardiac Differentiation of Human Keratinocytes Derived from Plucked Hair Follicles, Using a Single Excisable Lentivirus. Cellular Reprogramming, 2010, 12, 665-678.	0.5	77
43	Induced pluripotent stem cells model personalized variations in liver disease resulting from Î±1â€antitrypsin deficiency. Hepatology, 2015, 62, 147-157.	3.6	77
44	Emergence of a Stage-Dependent Human Liver Disease Signature with Directed Differentiation of Alpha-1 Antitrypsin-Deficient iPS Cells. Stem Cell Reports, 2015, 4, 873-885.	2.3	77
45	Clonal genetic and hematopoietic heterogeneity among human-induced pluripotent stem cell lines. Blood, 2013, 122, 2047-2051.	0.6	75
46	Amelioration of emphysema in mice through lentiviral transduction of long-lived pulmonary alveolar macrophages. Journal of Clinical Investigation, 2010, 120, 379-389.	3.9	74
47	Pluripotent stem cell differentiation reveals distinct developmental pathways regulating lung versus thyroid lineage specification. Development (Cambridge), 2017, 144, 3879-3893.	1.2	73
48	FOXO1 modulates osteoblast differentiation. Bone, 2011, 48, 1043-1051.	1.4	71
49	Lentiviral Delivery of RNAi for In Vivo Lineage-Specific Modulation of Gene Expression in Mouse Lung Macrophages. Molecular Therapy, 2013, 21, 825-833.	3.7	69
50	Origin and phenotype of lung side population cells. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2004, 287, L477-L483.	1.3	67
51	Lectin-Dependent Enhancement of Ebola Virus Infection via Soluble and Transmembrane C-type Lectin Receptors. PLoS ONE, 2013, 8, e60838.	1.1	67
52	Identification of a common Wnt-associated genetic signature across multiple cell types in pulmonary arterial hypertension. American Journal of Physiology - Cell Physiology, 2014, 307, C415-C430.	2.1	64
53	Next-Generation Regeneration. American Journal of Respiratory and Critical Care Medicine, 2012, 185, 1255-1260.	2.5	63
54	Sustained Expression of Î±₁-Antitrypsin after Transplantation of Manipulated Hematopoietic Stem Cells. American Journal of Respiratory Cell and Molecular Biology, 2008, 39, 133-141.	1.4	59

#	Article	IF	Citations
55	Pulmonary Alveolar Proteinosis. Chest, 2009, 136, 571-577.	0.4	57
56	Stem cell antigen-1 expression in the pulmonary vascular endothelium. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2003, 284, L990-L996.	1.3	56
57	Generation of Human Induced Pluripotent Stem Cells from Peripheral Blood Using the STEMCCA Lentiviral Vector. Journal of Visualized Experiments, 2012, , .	0.2	55
58	A novel stem-cell population in adult liver with potent hematopoietic-reconstitution activity. Blood, 2005, 106, 1574-1580.	0.6	54
59	Exogenous control of mammalian gene expression via modulation of translational termination. Nature Medicine, 2006, 12, 1093-1099.	15.2	53
60	KDR Identifies a Conserved Human and Murine Hepatic Progenitor and Instructs Early Liver Development. Cell Stem Cell, 2013, 12, 748-760.	5.2	53
61	Embryonic Lung Side Population Cells Are Hematopoietic and Vascular Precursors. American Journal of Respiratory Cell and Molecular Biology, 2005, 33, 32-40.	1.4	52
62	Mouse ES and iPS cells can form similar definitive endoderm despite differences in imprinted genes. Journal of Clinical Investigation, 2011, 121, 2313-2325.	3.9	50
63	Lung stem cells: New paradigms. Experimental Hematology, 2004, 32, 340-343.	0.2	48
64	Derivation of Epithelialâ€Only Airway Organoids from Human Pluripotent Stem Cells. Current Protocols in Stem Cell Biology, 2018, 45, e51.	3.0	48
65	Patient-specific iPSCs carrying an SFTPC mutation reveal the intrinsic alveolar epithelial dysfunction at the inception of interstitial lung disease. Cell Reports, 2021, 36, 109636.	2.9	48
66	Embryonic and Induced Pluripotent Stem Cells for Lung Regeneration. Annals of the American Thoracic Society, 2015, 12, S50-S53.	1.5	47
67	The in vivo genetic program of murine primordial lung epithelial progenitors. Nature Communications, 2020, 11, 635.	5.8	46
68	Epithelial Stem and Progenitor Cells in Lung Repair and Regeneration. Annual Review of Physiology, 2021, 83, 529-550.	5.6	46
69	Thyroid Progenitors Are Robustly Derived from Embryonic Stem Cells through Transient, Developmental Stage-Specific Overexpression of Nkx2-1. Stem Cell Reports, 2017, 8, 216-225.	2.3	44
70	Residual Expression of Reprogramming Factors Affects the Transcriptional Program and Epigenetic Signatures of Induced Pluripotent Stem Cells. PLoS ONE, 2012, 7, e51711.	1.1	43
71	CoSpar identifies early cell fate biases from single-cell transcriptomic and lineage information. Nature Biotechnology, 2022, 40, 1066-1074.	9.4	43
72	Induced Pluripotent Stem Cell Modeling of Multisystemic, Hereditary Transthyretin Amyloidosis. Stem Cell Reports, 2013, 1, 451-463.	2.3	42

#	Article	IF	Citations
73	Biophysical properties of slow potassium channels in human embryonic stem cell derived cardiomyocytes implicate subunit stoichiometry. Journal of Physiology, 2011, 589, 6093-6104.	1.3	41
74	Dual-promoter lentiviral system allows inducible expression of noxious proteins in macrophages. Journal of Immunological Methods, 2008, 329, 31-44.	0.6	39
75	Common Genetic Variation in Humans Impacts InÂVitro Susceptibility to SARS-CoV-2 Infection. Stem Cell Reports, 2021, 16, 505-518.	2.3	39
76	Vascular smooth muscle cells derived from inbred swine induced pluripotent stem cells for vascular tissue engineering. Biomaterials, 2017, 147, 116-132.	5.7	38
77	A Shift From Cell Cultures to Creatures: In Vivo Imaging of Small Animals in Experimental Regenerative Medicine. Molecular Therapy, 2011, 19, 1933-1941.	3.7	36
78	Cell Plasticity in Lung Injury and Repair: Report from an NHLBI Workshop, April 19-20, 2010. Proceedings of the American Thoracic Society, 2011, 8, 215-222.	3.5	36
79	The Role of Skin-Derived Dendritic Cells in CD8+ T Cell Priming Following Immunization with Lentivectors. Journal of Immunology, 2010, 184, 4889-4897.	0.4	33
80	TASIC: determining branching models from time series single cell data. Bioinformatics, 2017, 33, 2504-2512.	1.8	33
81	Hidden neural states underlie canary song syntax. Nature, 2020, 582, 539-544.	13.7	33
82	Epigenetic Mechanisms Modulate Thyroid Transcription Factor 1-mediated Transcription of the Surfactant Protein B Gene. Journal of Biological Chemistry, 2010, 285, 2152-2164.	1.6	31
83	Sequence logic at enhancers governs a dual mechanism of endodermal organ fate induction by FOXA pioneer factors. Nature Communications, 2021, 12, 6636.	5.8	31
84	Maintenance and Repair of the Lung Endothelium Does Not Involve Contributions from Marrow-Derived Endothelial Precursor Cells. American Journal of Respiratory Cell and Molecular Biology, 2012, 47, 11-19.	1.4	30
85	Derivation of lung epithelium from bone marrow cells. Cytotherapy, 2003, 5, 169-173.	0.3	25
86	Derivation of Endodermal Progenitors From Pluripotent Stem Cells. Journal of Cellular Physiology, 2015, 230, 246-258.	2.0	25
87	Role of Nanog in the maintenance of marrow stromal stem cells during post natal bone regeneration. Biochemical and Biophysical Research Communications, 2012, 417, 211-216.	1.0	23
88	Regenerative therapy for hypothyroidism: Mechanisms and possibilities. Molecular and Cellular Endocrinology, 2017, 445, 35-41.	1.6	22
89	Recapitulating human cardio-pulmonary co-development using simultaneous multilineage differentiation of pluripotent stem cells. ELife, 2022, 11, .	2.8	22
90	Circulating Truncated Alpha-1 Antitrypsin Glycoprotein in Patient Plasma Retains Anti-Inflammatory Capacity. Journal of Immunology, 2019, 202, 2240-2253.	0.4	20

#	Article	IF	Citations
91	Heterogeneity in Human Induced Pluripotent Stem Cellâ€“derived Alveolar Epithelial Type II Cells Revealed with ABCA3/SFTPC Reporters. American Journal of Respiratory Cell and Molecular Biology, 2021, 65, 442-460.	1.4	19
92	Generation of a Purified iPSC-Derived Smooth Muscle-like Population forÂCell Sheet Engineering. Stem Cell Reports, 2019, 13, 499-514.	2.3	17
93	A Highly Phenotyped Open Access Repository of Alpha-1 Antitrypsin Deficiency Pluripotent Stem Cells. Stem Cell Reports, 2020, 15, 242-255.	2.3	17
94	Human airway lineages derived from pluripotent stem cells reveal the epithelial responses to SARS-CoV-2 infection. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2022, 322, L462-L478.	1.3	17
95	Air-liquid interface culture promotes maturation and allows environmental exposure of pluripotent stem cellâ€“derived alveolar epithelium. JCI Insight, 2022, 7, .	2.3	17
96	Diffuse lung disease in children: Summary of a scientific conference. Pediatric Pulmonology, 2014, 49, 400-409.	1.0	16
97	Capacity of Pneumococci to Activate Macrophage Nuclear Factor ÎºB: Influence on Necroptosis and Pneumonia Severity. Journal of Infectious Diseases, 2017, 216, 425-435.	1.9	16
98	Claudin-18: unexpected regulator of lung alveolar epithelial cell proliferation. Journal of Clinical Investigation, 2018, 128, 903-905.	3.9	16
99	Differentiation of human airway-organoids from induced pluripotent stem cells (iPSCs). Methods in Cell Biology, 2020, 159, 95-114.	0.5	13
100	Expression of Amyloidogenic Transthyretin Drives Hepatic Proteostasis Remodeling in an Induced Pluripotent Stem Cell Model of Systemic AmyloidÂDisease. Stem Cell Reports, 2020, 15, 515-528.	2.3	12
101	Case 2-2012. New England Journal of Medicine, 2012, 366, 259-269.	13.9	11
102	Recombinant Lloviu virus as a tool to study viral replication and host responses. PLoS Pathogens, 2022, 18, e1010268.	2.1	11
103	Another notch in stem cell biology: Drosophila intestinal stem cells and the specification of cell fates. BioEssays, 2008, 30, 107-109.	1.2	10
104	Derivation of Thyroid Follicular Cells From Pluripotent Stem Cells: Insights From Development and Implications for Regenerative Medicine. Frontiers in Endocrinology, 2021, 12, 666565.	1.5	10
105	Ataluren, a New Therapeutic for Alpha-1 Antitrypsinâ€“Deficient Individuals with Nonsense Mutations. American Journal of Respiratory and Critical Care Medicine, 2018, 198, 1099-1102.	2.5	8
106	Specific mesoderm subset derived from human pluripotent stem cells ameliorates microvascular pathology in type 2 diabetic mice. Science Advances, 2022, 8, eabm5559.	4.7	8
107	Pulmonary Ionocytes Challenge the Paradigm in Cystic Fibrosis. Trends in Pharmacological Sciences, 2018, 39, 852-854.	4.0	7
108	Differentiation of human pluripotent stem cells into functional airway basal stem cells. STAR Protocols, 2021, 2, 100683.	0.5	7

#	Article	IF	Citations
109	Programmatic change: lung disease research in the era of induced pluripotency. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2011, 301, L830-L835.	1.3	6
110	CRISPR interference interrogation of COPD GWAS genes reveals the functional significance of desmoplakin in iPSC-derived alveolar epithelial cells. Science Advances, 2022, 8, .	4.7	6
111	Gaining Insight into Mitochondrial Genetic Variation and Downstream Pathophysiology: What Can i(PSCs) Do?. Genes, 2021, 12, 1668.	1.0	5
112	Epithelial LIF signaling limits apoptosis and lung injury during bacterial pneumonia. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2022, 322, L550-L563.	1.3	5
113	Are embryonic stem and induced pluripotent stem cells the same or different? Implications for their potential therapeutic use. Cell Cycle, 2012, 11, 5-6.	1.3	4
114	Mouse ESC Differentiation to Nkx2.1+ Lung and Thyroid Progenitors. Bio-protocol, 2012, 2, .	0.2	4
115	The Genetic Programs Regulating Embryonic Lung Development and Induced Pluripotent Stem Cell Differentiation. , 0, , 1-21.		3
116	The 2012 Nobel Prize in Physiology or Medicine. American Journal of Respiratory and Critical Care Medicine, 2012, 186, 1080-1081.	2.5	2
117	Induced pluripotent stem cells for generating lung alveolar epithelial cells and modelling respiratory disease. , 2021, , 205-221.		2
118	Diminished Memory T-Cell Expansion Due to Delayed Kinetics of Antigen Expression by Lentivectors. PLoS ONE, 2013, 8, e66488.	1.1	1
119	Induced pluripotent stem cells used to reveal drug actions in a long QT syndrome family with complex genetics. Journal of Cell Biology, 2013, 200, i3-i3.	2.3	1
120	Generating 3D Spheres and 2D Air-Liquid Interface Cultures of Human Induced Pluripotent Stem Cell-Derived Type 2 Alveolar Epithelial Cells. Journal of Visualized Experiments, 2022, , .	0.2	1
121	Modeling Pulmonary Alveolar Proteinosis with Induced Pluripotent Stem Cells. American Journal of Respiratory and Critical Care Medicine, 2014, 189, 124-126.	2.5	1
122	Patient-Specific Inducible Pluripotent Stem Cells Reveal Mechanism of Personalized Therapy for an Inherited Cardiac Arrhythmia. Biophysical Journal, 2012, 102, 539a.	0.2	0
123	Interview with Darrell Kotton. Regenerative Medicine, 2017, 12, 337-338.	0.8	0
124	Pluripotent Stem Cell Modeling of Normal and Abnormal Megakaryocyte Development and Platelet Production. Blood, 2011, 118, 1276-1276.	0.6	0
125	Deriving type II alveolar cells from pluripotent stem cells to produce a novel model of alpha-1 antitrypsin deficiency pathogenesis. , 2016, , .		0
126	Editorial: Progenitors and Stem Cells in Thyroid Development, Disease, and Regeneration. Frontiers in Endocrinology, 2022, 13, 848559.	1.5	0