James L Kirkland

List of Publications by Citations

106 papers	15,675 citations	51 h-index	118 g-index
118 ext. papers	21,030 ext. citations	9.9 avg, IF	6.91 L-index

#	Paper	IF	Citations
106	Clearance of p16Ink4a-positive senescent cells delays ageing-associated disorders. *Nature*, **2011**, 479, 232-6	50.4	2098
105	The AchillesSheel of senescent cells: from transcriptome to senolytic drugs. *Aging Cell*, **2015**, 14, 644-58	9.9	987
104	Cellular senescence and the senescent secretory phenotype: therapeutic opportunities. *Journal of Clinical Investigation*, **2013**, 123, 966-72	15.9	971
103	Senolytics improve physical function and increase lifespan in old age. *Nature Medicine*, **2018**, 24, 1246-1256	36.5	776
102	Fat tissue, aging, and cellular senescence. *Aging Cell*, **2010**, 9, 667-84	9.9	645
101	Cellular senescence mediates fibrotic pulmonary disease. *Nature Communications*, **2017**, 8, 14532	17.4	616
100	Targeting cellular senescence prevents age-related bone loss in mice. *Nature Medicine*, **2017**, 23, 1072-1079	36.5	464
99	Identification of a novel senolytic agent, navitoclax, targeting the Bcl-2 family of anti-apoptotic factors. *Aging Cell*, **2016**, 15, 428-35	9.9	463
98	Cellular Senescence: A Translational Perspective. *EBioMedicine*, **2017**, 21, 21-28	8.8	453
97	Senolytics in idiopathic pulmonary fibrosis: Results from a first-in-human, open-label, pilot study. *EBioMedicine*, **2019**, 40, 554-563	8.8	425
96	Cellular senescence drives age-dependent hepatic steatosis. *Nature Communications*, **2017**, 8, 15691	17.4	408
95	Chronic senolytic treatment alleviates established vasomotor dysfunction in aged or atherosclerotic mice. *Aging Cell*, **2016**, 15, 973-7	9.9	382
94	JAK inhibition alleviates the cellular senescence-associated secretory phenotype and frailty in old age. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, E6301-10	11.5	357
93	Sarcopenia: Aging-Related Loss of Muscle Mass and Function. *Physiological Reviews*, **2019**, 99, 427-511	47.9	357
92	Senolytics decrease senescent cells in humans: Preliminary report from a clinical trial of Dasatinib plus Quercetin in individuals with diabetic kidney disease. *EBioMedicine*, **2019**, 47, 446-456	8.8	356
91	Identification of HSP90 inhibitors as a novel class of senolytics. *Nature Communications*, **2017**, 8, 422	17.4	312
90	Targeting senescent cells enhances adipogenesis and metabolic function in old age. *ELife*, **2015**, 4, e12997	8.9	299

89	Fisetin is a senotherapeutic that extends health and lifespan. *EBioMedicine*, **2018**, 36, 18-28	8.8	298
88	The Clinical Potential of Senolytic Drugs. *Journal of the American Geriatrics Society*, **2017**, 65, 2297-2301	5.6	290
87	New agents that target senescent cells: the flavone, fisetin, and the BCL-X inhibitors, A1331852 and A1155463. *Aging*, **2017**, 9, 955-963	5.6	286
86	Targeting senescent cells alleviates obesity-induced metabolic dysfunction. *Aging Cell*, **2019**, 18, e12950	9.9	218
85	Identification of Senescent Cells in the Bone Microenvironment. *Journal of Bone and Mineral Research*, **2016**, 31, 1920-1929	6.3	214
84	Cellular Senescence in Type 2 Diabetes: A Therapeutic Opportunity. *Diabetes*, **2015**, 64, 2289-98	0.9	211
83	Aging and adipose tissue: potential interventions for diabetes and regenerative medicine. *Experimental Gerontology*, **2016**, 86, 97-105	4.5	180
82	Cellular senescence and the senescent secretory phenotype in age-related chronic diseases. *Current Opinion in Clinical Nutrition and Metabolic Care*, **2014**, 17, 324-8	3.8	170
81	Obesity-Induced Cellular Senescence Drives Anxiety and Impairs Neurogenesis. *Cell Metabolism*, **2019**, 29, 1061-1077.e8	24.6	161
80	Length-independent telomere damage drives post-mitotic cardiomyocyte senescence. *EMBO Journal*, **2019**, 38,	13	159
79	Senescent cell clearance by the immune system: Emerging therapeutic opportunities. *Seminars in Immunology*, **2018**, 40, 101275	10.7	138
78	Exercise Prevents Diet-Induced Cellular Senescence in Adipose Tissue. *Diabetes*, **2016**, 65, 1606-15	0.9	137
77	The role of cellular senescence in ageing and endocrine disease. *Nature Reviews Endocrinology*, **2020**, 16, 263-275	15.2	133
76	Aging, Cell Senescence, and Chronic Disease: Emerging Therapeutic Strategies. *JAMA - Journal of the American Medical Association*, **2018**, 320, 1319-1320	27.4	123
75	Activin a plays a critical role in proliferation and differentiation of human adipose progenitors. *Diabetes*, **2010**, 59, 2513-21	0.9	113
74	Aged-senescent cells contribute to impaired heart regeneration. *Aging Cell*, **2019**, 18, e12931	9.9	112
73	Transplanted Senescent Cells Induce an Osteoarthritis-Like Condition in Mice. *Journals of Gerontology - Series A Biological Sciences and Medical Sciences*, **2017**, 72, 780-785	6.4	111
72	Clinical strategies and animal models for developing senolytic agents. *Experimental Gerontology*, **2015**, 68, 19-25	4.5	102

71	Insulin-like growth factor-1 regulates the SIRT1-p53 pathway in cellular senescence. *Aging Cell*, **2014**, 13, 669-78	9.9	93
70	Growth hormone action predicts age-related white adipose tissue dysfunction and senescent cell burden in mice. *Aging*, **2014**, 6, 575-86	5.6	91
69	Cellular Senescence and the Biology of Aging, Disease, and Frailty. *Nestle Nutrition Institute Workshop Series*, **2015**, 83, 11-8	1.9	86
68	Biology of premature ageing in survivors of cancer. *ESMO Open*, **2017**, 2, e000250	6	85
67	Cellular senescence: at the nexus between ageing and diabetes. *Diabetologia*, **2019**, 62, 1835-1841	10.3	77
66	Inhibiting Cellular Senescence: A New Therapeutic Paradigm for Age-Related Osteoporosis. *Journal of Clinical Endocrinology and Metabolism*, **2018**, 103, 1282-1290	5.6	70
65	Cellular Senescence Biomarker p16INK4a+ Cell Burden in Thigh Adipose is Associated With Poor Physical Function in Older Women. *Journals of Gerontology - Series A Biological Sciences and Medical Sciences*, **2018**, 73, 939-945	6.4	70
64	Targeting senescent cholangiocytes and activated fibroblasts with B-cell lymphoma-extra large inhibitors ameliorates fibrosis in multidrug resistance 2 gene knockout (Mdr2) mice. *Hepatology*, **2018**, 67, 247-259	11.2	70
63	Aging, depot origin, and preadipocyte gene expression. *Journals of Gerontology - Series A Biological Sciences and Medical Sciences*, **2010**, 65, 242-51	6.4	68
62	Report: NIA Workshop on Measures of Physiologic Resiliencies in Human Aging. *Journals of Gerontology - Series A Biological Sciences and Medical Sciences*, **2017**, 72, 980-990	6.4	62
61	Senolytics reduce coronavirus-related mortality in old mice. *Science*, **2021**, 373,	33.3	60
60	The NADase CD38 is induced by factors secreted from senescent cells providing a potential link between senescence and age-related cellular NAD decline. *Biochemical and Biophysical Research Communications*, **2019**, 513, 486-493	3.4	59
59	TNF□senescence initiates a STAT-dependent positive feedback loop, leading to a sustained interferon signature, DNA damage, and cytokine secretion. *Aging*, **2017**, 9, 2411-2435	5.6	55
58	Senolytics prevent mt-DNA-induced inflammation and promote the survival of aged organs following transplantation. *Nature Communications*, **2020**, 11, 4289	17.4	55
57	CD38 ecto-enzyme in immune cells is induced during aging and regulates NAD and NMN levels. *Nature Metabolism*, **2020**, 2, 1284-1304	14.6	52
56	Senolytic Drugs: Reducing Senescent Cell Viability to Extend Health Span. *Annual Review of Pharmacology and Toxicology*, **2021**, 61, 779-803	17.9	52
55	Premature Physiologic Aging as a Paradigm for Understanding Increased Risk of Adverse Health Across the Lifespan of Survivors of Childhood Cancer. *Journal of Clinical Oncology*, **2018**, 36, 2206-2215	2.2	51
54	Discovery, development, and future application of senolytics: theories and predictions. *FEBS Journal*, **2020**, 287, 2418-2427	5.7	49

53	Increased renal cellular senescence in murine high-fat diet: effect of the senolytic drug quercetin. *Translational Research*, **2019**, 213, 112-123	11	48
52	Reducing Senescent Cell Burden in Aging and Disease. *Trends in Molecular Medicine*, **2020**, 26, 630-638	11.5	47
51	Whole-body senescent cell clearance alleviates age-related brain inflammation and cognitive impairment in mice. *Aging Cell*, **2021**, 20, e13296	9.9	47
50	Senescence and Cancer: A Review of Clinical Implications of Senescence and Senotherapies. *Cancers* , **2020**, 12,	6.6	46
49	Resilience in Aging Mice. *Journals of Gerontology - Series A Biological Sciences and Medical Sciences*, **2016**, 71, 1407-1414	6.4	43
48	Targeted Reduction of Senescent Cell Burden Alleviates Focal Radiotherapy-Related Bone Loss. *Journal of Bone and Mineral Research*, **2020**, 35, 1119-1131	6.3	40
47	Translating the Science of Aging into Therapeutic Interventions. *Cold Spring Harbor Perspectives in Medicine*, **2016**, 6, a025908	5.4	37
46	Perspective: Targeting the JAK/STAT pathway to fight age-related dysfunction. *Pharmacological Research*, **2016**, 111, 152-154	10.2	37
45	Hyperoxia-induced Cellular Senescence in Fetal Airway Smooth Muscle Cells. *American Journal of Respiratory Cell and Molecular Biology*, **2019**, 61, 51-60	5.7	37
44	Human Obesity Induces Dysfunction and Early Senescence in Adipose Tissue-Derived Mesenchymal Stromal/Stem Cells. *Frontiers in Cell and Developmental Biology*, **2020**, 8, 197	5.7	36
43	Independent Roles of Estrogen Deficiency and Cellular Senescence in the Pathogenesis of Osteoporosis: Evidence in Young Adult Mice and Older Humans. *Journal of Bone and Mineral Research*, **2019**, 34, 1407-1418	6.3	35
42	Therapy-Induced Senescence: Opportunities to Improve Anticancer Therapy. *Journal of the National Cancer Institute*, **2021**, 113, 1285-1298	9.7	35
41	Evaluating Health Span in Preclinical Models of Aging and Disease: Guidelines, Challenges, and Opportunities for Geroscience. *Journals of Gerontology - Series A Biological Sciences and Medical Sciences*, **2016**, 71, 1395-1406	6.4	32
40	Targeting senescence improves angiogenic potential of adipose-derived mesenchymal stem cells in patients with preeclampsia. *Biology of Sex Differences*, **2019**, 10, 49	9.3	28
39	Transplanting cells from old but not young donors causes physical dysfunction in older recipients. *Aging Cell*, **2020**, 19, e13106	9.9	24
38	Senescence marker activin A is increased in human diabetic kidney disease: association with kidney function and potential implications for therapy. *BMJ Open Diabetes Research and Care*, **2019**, 7, e000720	4.5	23
37	Markers of cellular senescence are elevated in murine blastocysts cultured in vitro: molecular consequences of culture in atmospheric oxygen. *Journal of Assisted Reproduction and Genetics*, **2014**, 31, 1259-67	3.4	21
36	New Horizons: Novel Approaches to Enhance Healthspan Through Targeting Cellular Senescence and Related Aging Mechanisms. *Journal of Clinical Endocrinology and Metabolism*, **2021**, 106, e1481-e1487	5.6	21

35	The murine dialysis fistula model exhibits a senescence phenotype: pathobiological mechanisms and therapeutic potential. *American Journal of Physiology - Renal Physiology*, **2018**, 315, F1493-F1499	4.3	19
34	Strategies for Targeting Senescent Cells in Human Disease. *Nature Aging*, **2021**, 1, 870-879		19
33	Targeting Senescent Cells for a Healthier Aging: Challenges and Opportunities. *Advanced Science*, **2020**, 7, 2002611	13.6	19
32	Deleted in Breast Cancer 1 regulates cellular senescence during obesity. *Aging Cell*, **2014**, 13, 951-3	9.9	18
31	Strategies to Prevent or Remediate Cancer and Treatment-Related Aging. *Journal of the National Cancer Institute*, **2021**, 113, 112-122	9.7	18
30	Transplanted senescent renal scattered tubular-like cells induce injury in the mouse kidney. *American Journal of Physiology - Renal Physiology*, **2020**, 318, F1167-F1176	4.3	15
29	The flavonoid procyanidin C1 has senotherapeutic activity and increases lifespan in mice. *Nature Metabolism*, **2021**,	14.6	14
28	Partial inhibition of mitochondrial complex I ameliorates Alzheimer's disease pathology and cognition in APP/PS1 female mice. *Communications Biology*, **2021**, 4, 61	6.7	11
27	An inducible -Cre mouse model to monitor and manipulate -highly-expressing senescent cells .. *Nature Aging*, **2021**, 1, 962-973		9
26	Senolytics: Potential for Alleviating Diabetes and Its Complications. *Endocrinology*, **2021**, 162,	4.8	9
25	Fisetin for COVID-19 in skilled nursing facilities: Senolytic trials in the COVID era. *Journal of the American Geriatrics Society*, **2021**, 69, 3023-3033	5.6	9
24	Creating the Next Generation of Translational Geroscientists. *Journal of the American Geriatrics Society*, **2019**, 67, 1934-1939	5.6	7
23	Targeting p21 highly expressing cells in adipose tissue alleviates insulin resistance in obesity. *Cell Metabolism*, **2021**,	24.6	6
22	Diabetic Kidney Disease Alters the Transcriptome and Function of Human Adipose-Derived Mesenchymal Stromal Cells but Maintains Immunomodulatory and Paracrine Activities Important for Renal Repair. *Diabetes*, **2021**, 70, 1561-1574	0.9	5
21	Senescent cells in human adipose tissue: A cross-sectional study. *Obesity*, **2021**, 29, 1320-1327	8	5
20	Epigenetic and senescence markers indicate an accelerated ageing-like state in women with preeclamptic pregnancies. *EBioMedicine*, **2021**, 70, 103536	8.8	5
19	Impact of Senescent Cell Subtypes on Tissue Dysfunction and Repair: Importance and Research Questions. *Mechanisms of Ageing and Development*, **2021**, 198, 111548	5.6	5
18	Frailty in CKD and Transplantation. *Kidney International Reports*, **2021**, 6, 2270-2280	4.1	5

17	Therapeutic Approaches to Aging-Reply. *JAMA - Journal of the American Medical Association*, **2019**, 321, 901-902	27.4	4
16	KDM4 Orchestrates Epigenomic Remodeling of Senescent Cells and Potentiates the Senescence-Associated Secretory Phenotype. *Nature Aging*, **2021**, 1, 454-472		4
15	SARS-CoV-2 causes senescence in human cells and exacerbates the senescence-associated secretory phenotype through TLR-3. *Aging*, **2021**, 13, 21838-21854	5.6	4
14	Selective Vulnerability of Senescent Glioblastoma Cells to Bcl-XL Inhibition.. *Molecular Cancer Research*, **2022**,	6.6	4
13	Role of senescence in the chronic health consequences of COVID-19. *Translational Research*, **2021**,	11	3
12	Strategies for late phase preclinical and early clinical trials of senolytics. *Mechanisms of Ageing and Development*, **2021**, 200, 111591	5.6	3
11	Mechanisms of vascular dysfunction in the interleukin-10-deficient murine model of preeclampsia indicate nitric oxide dysregulation. *Kidney International*, **2021**, 99, 646-656	9.9	3
10	Targeted clearance of p21- but not p16-positive senescent cells prevents radiation-induced osteoporosis and increased marrow adiposity.. *Aging Cell*, **2022**, e13602	9.9	3
9	KDM4 Orchestrates Epigenomic Remodeling of Senescent Cells and Potentiates the Senescence-Associated Secretory Phenotype		2
8	Obesity, Senescence, and Senolytics. *Handbook of Experimental Pharmacology*, **2021**, 1	3.2	1
7	Antidiabetic Effects of the Senolytic Agent Dasatinib. *Mayo Clinic Proceedings*, **2021**, 96, 3021-3029	6.4	1
6	Chronic HIV Infection and Aging: Application of a Geroscience-Guided Approach.. *Journal of Acquired Immune Deficiency Syndromes (1999)*, **2022**, 89, S34-S46	3.1	1
5	Procyanidin C1 is a natural agent with senolytic activity against aging and age-related diseases		1
4	Orally-active, clinically-translatable senolytics restore Klotho in mice and humans.. *EBioMedicine*, **2022**, 103912	8.8	1
3	Palmitate induces DNA damage and senescence in human adipocytes in vitro that can be alleviated by oleic acid but not inorganic nitrate.. *Experimental Gerontology*, **2022**, 163, 111798	4.5	1
2	Senescence in obesity: causes and consequences **2022**, 289-308		0
1	Bridging the geroscience chasm between bench and bedside. *Gerontology and Geriatrics Education*, **2020**, 1-7	1.2	