

# Isaac K Sundar

## List of Publications by Year in descending order

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Version: 2024-02-01

99  
papers

6,243  
citations

57758

44  
h-index

69250

77  
g-index

102  
all docs

102  
docs citations

102  
times ranked

7941  
citing authors

#	ARTICLE	IF	CITATIONS
1	Vapors Produced by Electronic Cigarettes and E-Juices with Flavorings Induce Toxicity, Oxidative Stress, and Inflammatory Response in Lung Epithelial Cells and in Mouse Lung. PLoS ONE, 2015, 10, e0116732.	2.5	492
2	Redox regulation of SIRT1 in inflammation and cellular senescence. Free Radical Biology and Medicine, 2013, 61, 95-110.	2.9	394
3	SIRT1 protects against emphysema via FOXO3-mediated reduction of premature senescence in mice. Journal of Clinical Investigation, 2012, 122, 2032-2045.	8.2	309
4	Impaired mitophagy leads to cigarette smoke stress-induced cellular senescence: implications for chronic obstructive pulmonary disease. FASEB Journal, 2015, 29, 2912-2929.	0.5	209
5	Inflammatory and Oxidative Responses Induced by Exposure to Commonly Used e-Cigarette Flavoring Chemicals and Flavored e-Liquids without Nicotine. Frontiers in Physiology, 2017, 8, 1130.	2.8	189
6	Curcumin Restores Corticosteroid Function in Monocytes Exposed to Oxidants by Maintaining HDAC2. American Journal of Respiratory Cell and Molecular Biology, 2008, 39, 312-323.	2.9	179
7	SIRT1 regulates oxidant- and cigarette smoke-induced eNOS acetylation in endothelial cells: Role of resveratrol. Biochemical and Biophysical Research Communications, 2010, 393, 66-72.	2.1	173
8	Extracellular superoxide dismutase protects against pulmonary emphysema by attenuating oxidative fragmentation of ECM. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15571-15576.	7.1	172
9	E-cigarettes and flavorings induce inflammatory and pro-senescence responses in oral epithelial cells and periodontal fibroblasts. Oncotarget, 2016, 7, 77196-77204.	1.8	172
10	Environmental health hazards of e-cigarettes and their components: Oxidants and copper in e-cigarette aerosols. Environmental Pollution, 2015, 198, 100-107.	7.5	167
11	Inflammatory Response and Barrier Dysfunction by Different e-Cigarette Flavoring Chemicals Identified by Gas Chromatography-Mass Spectrometry in e-Liquids and e-Vapors on Human Lung Epithelial Cells and Fibroblasts. Applied in Vitro Toxicology, 2017, 3, 28-40.	1.1	165
12	Oxidative Stress and Chromatin Remodeling in Chronic Obstructive Pulmonary Disease and Smoking-Related Diseases. Antioxidants and Redox Signaling, 2013, 18, 1956-1971.	5.4	153
13	Cigarette smoke-induced autophagy is regulated by SIRT1-PARP-1-dependent mechanism: Implication in pathogenesis of COPD. Archives of Biochemistry and Biophysics, 2010, 500, 203-209.	3.0	147
14	Circadian clock function is disrupted by environmental tobacco/cigarette smoke, leading to lung inflammation and injury via a SIRT1-BMAL1 pathway. FASEB Journal, 2014, 28, 176-194.	0.5	143
15	FOXO3 Deficiency Leads to Increased Susceptibility to Cigarette Smoke-Induced Inflammation, Airspace Enlargement, and Chronic Obstructive Pulmonary Disease. Journal of Immunology, 2011, 187, 987-998.	0.8	128
16	Electronic cigarette aerosols and copper nanoparticles induce mitochondrial stress and promote DNA fragmentation in lung fibroblasts. Biochemical and Biophysical Research Communications, 2016, 477, 620-625.	2.1	119
17	Small RNA-sequence analysis of plasma-derived extracellular vesicle miRNAs in smokers and patients with chronic obstructive pulmonary disease as circulating biomarkers. Journal of Extracellular Vesicles, 2019, 8, 1684816.	12.2	96
18	Circadian molecular clock in lung pathophysiology. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2015, 309, L1056-L1075.	2.9	93

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19	Deletion of vitamin D receptor leads to premature emphysema/COPD by increased matrix metalloproteinases and lymphoid aggregates formation. <i>Biochemical and Biophysical Research Communications</i> , 2011, 406, 127-133.	2.1	92
20	Cigarette Smoke Induces Distinct Histone Modifications in Lung Cells: Implications for the Pathogenesis of COPD and Lung Cancer. <i>Journal of Proteome Research</i> , 2014, 13, 982-996.	3.7	91
21	Association of smoking and electronic cigarette use with wheezing and related respiratory symptoms in adults: cross-sectional results from the Population Assessment of Tobacco and Health (PATH) study, wave 2. <i>Tobacco Control</i> , 2020, 29, tobaccocontrol-2018-054694.	3.2	91
22	Cloning and overexpression of antifungal barley chitinase gene in <i>Escherichia coli</i> . <i>Protein Expression and Purification</i> , 2007, 52, 159-166.	1.3	89
23	Recent updates on electronic cigarette aerosol and inhaled nicotine effects on periodontal and pulmonary tissues. <i>Oral Diseases</i> , 2017, 23, 1052-1057.	3.0	89
24	DNA methylation profiling in peripheral lung tissues of smokers and patients with COPD. <i>Clinical Epigenetics</i> , 2017, 9, 38.	4.1	80
25	SIRT1 protects against cigarette smoke-induced lung oxidative stress via a FOXO3-dependent mechanism. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2014, 306, L816-L828.	2.9	79
26	Vitamin D and Susceptibility of Chronic Lung Diseases: Role of Epigenetics. <i>Frontiers in Pharmacology</i> , 2011, 2, 50.	3.5	75
27	Hyperoxia Impairs Alveolar Formation and Induces Senescence Through Decreased Histone Deacetylase Activity and Up-Regulation of p21 in Neonatal Mouse Lung. <i>Pediatric Research</i> , 2011, 69, 371-377.	2.3	75
28	Advances in selectable marker genes for plant transformation. <i>Journal of Plant Physiology</i> , 2008, 165, 1698-1716.	3.5	73
29	Protective role of mesenchymal stem cells and mesenchymal stem cell-derived exosomes in cigarette smoke-induced mitochondrial dysfunction in mice. <i>Toxicology and Applied Pharmacology</i> , 2019, 385, 114788.	2.8	71
30	Mitochondrial redox system, dynamics, and dysfunction in lung inflammaging and COPD. <i>International Journal of Biochemistry and Cell Biology</i> , 2016, 81, 294-306.	2.8	69
31	Disruption of Sirtuin 1-Mediated Control of Circadian Molecular Clock and Inflammation in Chronic Obstructive Pulmonary Disease. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2015, 53, 782-792.	2.9	68
32	E-cigarette-induced pulmonary inflammation and dysregulated repair are mediated by nAChR $\alpha 7$ receptor: role of nAChR $\alpha 7$ in SARS-CoV-2 Covid-19 ACE2 receptor regulation. <i>Respiratory Research</i> , 2020, 21, 154.	3.6	68
33	Short-term cigarette smoke exposure induces reversible changes in energy metabolism and cellular redox status independent of inflammatory responses in mouse lungs. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2012, 303, L889-L898.	2.9	67
34	Peroxiredoxin 6 differentially regulates acute and chronic cigarette smoke-mediated lung inflammatory response and injury. <i>Experimental Lung Research</i> , 2010, 36, 451-462.	1.2	65
35	SIRT1 redresses the imbalance of tissue inhibitor of matrix metalloproteinase-1 and matrix metalloproteinase-9 in the development of mouse emphysema and human COPD. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2013, 305, L615-L624.	2.9	63
36	Influenza A virus-dependent remodeling of pulmonary clock function in a mouse model of COPD. <i>Scientific Reports</i> , 2015, 5, 9927.	3.3	63

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37	Nrf2 deficiency influences susceptibility to steroid resistance via HDAC2 reduction. <i>Biochemical and Biophysical Research Communications</i> , 2010, 403, 452-456.	2.1	62
38	Emphysema is associated with increased inflammation in lungs of atherosclerosis-prone mice by cigarette smoke: implications in comorbidities of COPD. <i>Journal of Inflammation</i> , 2010, 7, 34.	3.4	57
39	Blockade of RAGE ameliorates elastase-induced emphysema development and progression via RAGE-DAMP signaling. <i>FASEB Journal</i> , 2017, 31, 2076-2089.	0.5	54
40	Gene expression profiling of epigenetic chromatin modification enzymes and histone marks by cigarette smoke: implications for COPD and lung cancer. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2016, 311, L1245-L1258.	2.9	53
41	Mitogen- and Stress-Activated Kinase 1 (MSK1) Regulates Cigarette Smoke-Induced Histone Modifications on NF- $\kappa$ B-dependent Genes. <i>PLoS ONE</i> , 2012, 7, e31378.	2.5	51
42	Lung cellular senescence is independent of aging in a mouse model of COPD/emphysema. <i>Scientific Reports</i> , 2018, 8, 9023.	3.3	50
43	Shelterin Telomere Protection Protein 1 Reduction Causes Telomere Attrition and Cellular Senescence via Sirtuin 1 Deacetylase in Chronic Obstructive Pulmonary Disease. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2017, 56, 38-49.	2.9	49
44	Dysregulated repair and inflammatory responses by e-cigarette-derived inhaled nicotine and humectant propylene glycol in a sex-dependent manner in mouse lung. <i>FASEB BioAdvances</i> , 2019, 1, 609-623.	2.4	49
45	Circadian Clock-Coupled Lung Cellular and Molecular Functions in Chronic Airway Diseases. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2015, 53, 285-290.	2.9	48
46	Age-Dependent Assessment of Genes Involved in Cellular Senescence, Telomere, and Mitochondrial Pathways in Human Lung Tissue of Smokers, COPD, and IPF: Associations With SARS-CoV-2 COVID-19 ACE2-TMPRSS2-Furin-DPP4 Axis. <i>Frontiers in Pharmacology</i> , 2020, 11, 584637.	3.5	48
47	Targeted disruption of NF- $\kappa$ B1 (p50) augments cigarette smoke-induced lung inflammation and emphysema in mice: a critical role of p50 in chromatin remodeling. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2010, 298, L197-L209.	2.9	47
48	Lung cancer and its association with chronic obstructive pulmonary disease: update on nexus of epigenetics. <i>Current Opinion in Pulmonary Medicine</i> , 2011, 17, 279-285.	2.6	46
49	NF- $\kappa$ B Inducing Kinase, NIK Mediates Cigarette Smoke/TNF-Induced Histone Acetylation and Inflammation through Differential Activation of IKKs. <i>PLoS ONE</i> , 2011, 6, e23488.	2.5	44
50	Glutaredoxin 1 regulates cigarette smoke-mediated lung inflammation through differential modulation of I $\kappa$ B kinases in mice: impact on histone acetylation. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2010, 299, L192-L203.	2.9	42
51	Genetic Ablation of p16 <sup>INK4a</sup> Does Not Protect against Cellular Senescence in Mouse Models of Chronic Obstructive Pulmonary Disease/Emphysema. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2018, 59, 189-199.	2.9	41
52	Cellular stress responses and dysfunctional Mitochondrial cellular senescence, and therapeutics in chronic respiratory diseases. <i>Redox Biology</i> , 2020, 33, 101443.	9.0	41
53	Mitochondrial dysfunction is associated with Miro1 reduction in lung epithelial cells by cigarette smoke. <i>Toxicology Letters</i> , 2019, 317, 92-101.	0.8	38
54	PARP-1 inhibition does not restore oxidant-mediated reduction in SIRT1 activity. <i>Biochemical and Biophysical Research Communications</i> , 2010, 392, 264-270.	2.1	37

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55	The nuclear receptor and clock gene REV-ERB $\beta$ regulates cigarette smoke-induced lung inflammation. <i>Biochemical and Biophysical Research Communications</i> , 2017, 493, 1390-1395.	2.1	37
56	Molecular clock REV-ERB $\beta$ regulates cigarette smoke-induced pulmonary inflammation and epithelial-mesenchymal transition. <i>JCI Insight</i> , 2021, 6, .	5.0	36
57	P21-PARP-1 Pathway Is Involved in Cigarette Smoke-Induced Lung DNA Damage and Cellular Senescence. <i>PLoS ONE</i> , 2013, 8, e80007.	2.5	36
58	&lt;p&gt;Conventional and Nanotechnology Based Approaches to Combat Chronic Obstructive Pulmonary Disease: Implications for Chronic Airway Diseases&lt;/p&gt;. <i>International Journal of Nanomedicine</i> , 2020, Volume 15, 3803-3826.	6.7	34
59	Role of inner mitochondrial protein OPA1 in mitochondrial dysfunction by tobacco smoking and in the pathogenesis of COPD. <i>Redox Biology</i> , 2021, 45, 102055.	9.0	33
60	Myofibroblast differentiation and its functional properties are inhibited by nicotine and e-cigarette via mitochondrial OXPHOS complex III. <i>Scientific Reports</i> , 2017, 7, 43213.	3.3	31
61	Serotonin and Corticosterone Rhythms in Mice Exposed to Cigarette Smoke and in Patients with COPD: Implication for COPD-Associated Neuropathogenesis. <i>PLoS ONE</i> , 2014, 9, e87999.	2.5	29
62	Oxidative Stress, Thiol Redox Signaling Methods in Epigenetics. <i>Methods in Enzymology</i> , 2010, 474, 213-244.	1.0	28
63	Genetic ablation of histone deacetylase 2 leads to lung cellular senescence and lymphoid follicle formation in COPD/emphysema. <i>FASEB Journal</i> , 2018, 32, 4955-4971.	0.5	28
64	Circadian molecular clock disruption in chronic pulmonary diseases. <i>Trends in Molecular Medicine</i> , 2022, 28, 513-527.	6.7	27
65	Redox regulation of circadian molecular clock in chronic airway diseases. <i>Free Radical Biology and Medicine</i> , 2018, 119, 121-128.	2.9	23
66	Prenatal Exposure to Electronic-Cigarette Aerosols Leads to Sex-Dependent Pulmonary Extracellular-Matrix Remodeling and Myogenesis in Offspring Mice. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2020, 63, 794-805.	2.9	22
67	Genetic Ablation of CXCR2 Protects against Cigarette Smoke-Induced Lung Inflammation and Injury. <i>Frontiers in Pharmacology</i> , 2016, 7, 391.	3.5	21
68	Waterpipe smoke and e-cigarette vapor differentially affect circadian molecular clock gene expression in mouse lungs. <i>PLoS ONE</i> , 2019, 14, e0211645.	2.5	19
69	Proteomic Analysis of Plasma-Derived Extracellular Vesicles in Smokers and Patients with Chronic Obstructive Pulmonary Disease. <i>ACS Omega</i> , 2019, 4, 10649-10661.	3.5	18
70	Vulnerability and Genetic Susceptibility to Cigarette Smoke-Induced Emphysema in Mice. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2017, 57, 270-271.	2.9	16
71	Strain- and sex-dependent pulmonary toxicity of waterpipe smoke in mouse. <i>Physiological Reports</i> , 2018, 6, e13579.	1.7	15
72	Recent updates on biomarkers of exposure and systemic toxicity in e-cigarette users and EVALI. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2021, 320, L661-L679.	2.9	14

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73	Chronic cigarette smoke exposure drives spiral ganglion neuron loss in mice. <i>Scientific Reports</i> , 2018, 8, 5746.	3.3	9
74	COVID-19: Sleep, Circadian Rhythms and Immunity – Repurposing Drugs and Chronotherapeutics for SARS-CoV-2. <i>Frontiers in Neuroscience</i> , 2021, 15, 674204.	2.8	8
75	Recent updates on the role of extracellular vesicles in the pathogenesis of allergic asthma. , 2021, 2, 127-147.		6
76	p16-3MR: A Novel Model to Study Cellular Senescence in Cigarette Smoke-Induced Lung Injuries. <i>International Journal of Molecular Sciences</i> , 2021, 22, 4834.	4.1	6
77	Evaluation of stable reference genes for qPCR normalization in circadian studies related to lung inflammation and injury in mouse model. <i>Scientific Reports</i> , 2022, 12, 1764.	3.3	6
78	Lung miRNA profiles show a time-of-day response in house dust mite-induced allergic asthma in mice. <i>Clinical and Translational Allergy</i> , 2021, 11, e12057.	3.2	2
79	SIRT1 and Inflammaging in Chronic Obstructive Pulmonary Disease. , 2014, , 183-191.		1
80	Deficiency Of SIRT1 Enhances Elastase-induced Emphysema In Mice. , 2010, , .		0
81	Glutaredoxin1 Regulates Cigarette Smoke-mediated Lung Inflammation Through Differential Modulation Of IKKs In Mice. , 2010, , .		0
82	Sirtuin 1 Attenuates Pulmonary Neutrophilic Inflammation In Mice Exposed To Cigarette Smoke. , 2011, , .		0
83	Profiling Of Epigenetic Chromatin Modification Genes And Susceptibility To Chronic Lung Disease By Cigarette Smoke. , 2012, , .		0
84	Cigarette Smoke Disrupts Circadian Rhythm Of Peripheral Clock In Mice And Patients With COPD. , 2012, , .		0
85	Cigarette Smoke Causes A Residue-Specific Histone Methylation And Its Cross-Talk With Histone Acetylation In Human Lung Epithelial Cells. , 2012, , .		0
86	Reactive Oxygen Species, Kinase Signaling, and Redox Regulation of Epigenetics. , 2013, , 309-342.		0
87	E-Cigarette Vapor Containing Nicotine Induces Inflammatory Response and Dysregulated Repair Via Alpha 7 Nicotinic Acetylcholine Receptor in Mice Lung. , 2019, , .		0
88	Mitochondrial Dysfunction, Mitostress and Mitochondria Transfer In Cigarette Smoke-induced Lung Epithelial Senescence. , 2019, , .		0
89	RNA-Sequencing Analysis of Human Plasma-Derived Extracellular Vesicles as Potential Circulating Biomarkers in Chronic Obstructive Pulmonary Disease. , 2019, , .		0
90	Propylene Glycol/Vegetable Glycerin and Menthol-Flavored E-cigarette Aerosol Induced Strain and Sex Dependent Immune-Toxicity in Mice. , 2020, , .		0

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91	Telomere Protection Protein 1 (TPP1) Deletion in Lung Epithelial Cells Augments Cigarette Smoke-Induced Lung Inflammation. , 2020, , .		0
92	Age-Dependent Gene Expression Profiling of Lung Mitochondrial, Cellular Senescence and Telomere Target Genes in Smokers and Patients with COPD. , 2020, , .		0
93	Prenatal E-cig Aerosol Exposure Leads to Extracellular Matrix Remodeling and Dysregulated Myogenesis in Offspring Mice with Sex-Dependent Manner. , 2020, , .		0
94	Sex Differences and Circadian Rhythms Control House Dust Mite-Induced Lung Immune Inflammatory Response in Mice. , 2021, , .		0
95	Genetic Ablation of Miro1 Leads to Mitochondrial Dysfunction and Lung Inflammation by Cigarette Smoke. , 2021, , .		0
96	Proteomics Analysis of Lung Tissue-Derived Extracellular Vesicles in Mouse Model of Allergic Asthma. , 2021, , .		0
97	p16-3MR Reporter Mouse Model: Role of Cellular Senescence in Cigarette Smoke-Induced Lung Pathologies. , 2021, , .		0
98	Sex Differences in Circadian Biology: Influences on Lung Health and Disease. Physiology in Health and Disease, 2021, , 429-469.	0.3	0
99	Smoking, Oxidative/Carbonyl Stress, and Regulation of Redox Signaling in Lung Inflammation. , 2014, , 817-848.		0