David A Lomas

List of Publications by Year
in descending order

95 papers	9,387 citations	71102 41 h-index	39675 94 g-index
99 all docs	99 docs citations	99 times ranked	8269 citing authors

#	Article	IF	Citations
1	The Serpins Are an Expanding Superfamily of Structurally Similar but Functionally Diverse Proteins. Journal of Biological Chemistry, 2001, 276, 33293-33296.	3.4	1,069
2	The mechanism of Z Î±1-antitrypsin accumulation in the liver. Nature, 1992, 357, 605-607.	27.8	1,020
3	Once-Daily Single-Inhaler Triple versus Dual Therapy in Patients with COPD. New England Journal of Medicine, 2018, 378, 1671-1680.	27.0	823
4	Targeted gene correction of Î±1-antitrypsin deficiency in induced pluripotent stem cells. Nature, 2011, 478, 391-394.	27.8	635
5	Familial dementia caused by polymerization of mutant neuroserpin. Nature, 1999, 401, 376-379.	27.8	342
6	Alpha₁-Antitrypsin Deficiency. New England Journal of Medicine, 2020, 382, 1443-1455.	27.0	269
7	Conformational Pathology of the Serpins: Themes, Variations, and Therapeutic Strategies. Annual Review of Biochemistry, 2009, 78, 147-176.	11.1	239
8	Effect of the Z mutation on the physical and inhibitory properties of .alpha.1-antitrypsin. Biochemistry, 1993, 32, 500-508.	2.5	229
9	Î±1-Antitrypsin deficiency. Nature Reviews Disease Primers, 2016, 2, 16051.	30.5	215
10	Serpinopathies and the conformational dementias. Nature Reviews Genetics, 2002, 3, 759-768.	16.3	211
11	A Kinetic Mechanism for the Polymerization of Î±1-Antitrypsin. Journal of Biological Chemistry, 1999, 274, 9548-9555.	3.4	205
12	Î±1-Antitrypsin polymerization and the serpinopathies: pathobiology and prospects for therapy. Journal of Clinical Investigation, 2002, 110, 1585-1590.	8.2	199
13	Polymers of Z Î±1-Antitrypsin Co-Localize with Neutrophils in Emphysematous Alveoli and Are Chemotactic in Vivo. American Journal of Pathology, 2005, 166, 377-386.	3.8	180
14	Topography of a 2.0 Ã… structure of Î±₁â€antitrypsin reveals targets for rational drug design to prevent conformational disease. Protein Science, 2000, 9, 1274-1281.	7.6	177
15	Heteropolymerization of S, I, and Z Î±1-antitrypsin and liver cirrhosis. Journal of Clinical Investigation, 1999, 103, 999-1006.	8.2	172
16	Coronary artery calcification is increased in patients with COPD and associated with increased morbidity and mortality. Thorax, 2014, 69, 718-723.	5.6	151
17	A novel monoclonal antibody to characterize pathogenic polymers in liver disease associated with Î±₁-antitrypsin deficiency. Hepatology, 2010, 52, 1078-1088.	7.3	138
18	Defining the mechanism of polymerization in the serpinopathies. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17146-17151.	7.1	135

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19	Î±1-Antitrypsin polymerization and the serpinopathies: pathobiology and prospects for therapy. Journal of Clinical Investigation, 2002, 110, 1585-1590.	8.2	134
20	Î±1-Antitrypsin Mmalton (Phe52-deleted) Forms Loop-Sheet Polymers in Vivo.. Journal of Biological Chemistry, 1995, 270, 16864-16870.	3.4	133
21	Lung Polymers in Z Î±₁-Antitrypsin Deficiency-related Emphysema. American Journal of Respiratory Cell and Molecular Biology, 1998, 18, 670-674.	2.9	132
22	Lessons from ECLIPSE: a review of COPD biomarkers. Thorax, 2014, 69, 666-672.	5.6	125
23	A 2.6 Ã¥ structure of a serpin polymer and implications for conformational disease 1 1Edited by R. Huber. Journal of Molecular Biology, 1999, 293, 449-455.	4.2	116
24	Endoplasmic reticulum polymers impair luminal protein mobility and sensitize to cellular stress in alpha₁â€antitrypsin deficiency. Hepatology, 2013, 57, 2049-2060.	7.3	108
25	Mutants of Neuroserpin That Cause Dementia Accumulate as Polymers within the Endoplasmic Reticulum. Journal of Biological Chemistry, 2004, 279, 28283-28291.	3.4	102
26	An Oral Inhibitor of p38 MAP Kinase Reduces Plasma Fibrinogen in Patients With Chronic Obstructive Pulmonary Disease. Journal of Clinical Pharmacology, 2012, 52, 416-424.	2.0	99
27	The molecular and cellular pathology of Î±1-antitrypsin deficiency. Trends in Molecular Medicine, 2014, 20, 116-127.	6.7	98
28	The intracellular accumulation of polymeric neuroserpin explains the severity of the dementia FENIB. Human Molecular Genetics, 2008, 17, 1527-1539.	2.9	95
29	Sex Differences in Emphysema and Airway Disease in Smokers. Chest, 2009, 136, 1480-1488.	0.8	88
30	Structural explanation for the deficiency of S Î±1-antitrypsin. Nature Structural Biology, 1996, 3, 910-911.	9.7	87
31	Circulating Soluble Receptor for Advanced Glycation End Products (sRAGE) as a Biomarker of Emphysema and the RAGE Axis in the Lung. American Journal of Respiratory and Critical Care Medicine, 2015, 192, 785-792.	5.6	82
32	The Selective Advantage of Î±₁-Antitrypsin Deficiency. American Journal of Respiratory and Critical Care Medicine, 2006, 173, 1072-1077.	5.6	79
33	An automated high-throughput system for phenotypic screening of chemical libraries on C. elegans and parasitic nematodes. International Journal for Parasitology: Drugs and Drug Resistance, 2018, 8, 8-21.	3.4	71
34	Circulating polymers in Â1-antitrypsin deficiency. European Respiratory Journal, 2014, 43, 1501-1504.	6.7	69
35	Update on alpha-1 antitrypsin deficiency: New therapies. Journal of Hepatology, 2016, 65, 413-424.	3.7	66
36	Circulating desmosine levels do not predict emphysema progression but are associated with cardiovascular risk and mortality in COPD. European Respiratory Journal, 2016, 47, 1365-1373.	6.7	64

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37	Î±1-Antitrypsin Deficiency. Chest, 1996, 110, 243S-247S.	0.8	52
38	Polymerization of Plasminogen Activator Inhibitor-1. Journal of Biological Chemistry, 2001, 276, 9115-9122.	3.4	52
39	Latent S49P Neuroserpin Forms Polymers in the Dementia Familial Encephalopathy with Neuroserpin Inclusion Bodies. Journal of Biological Chemistry, 2005, 280, 13735-13741.	3.4	51
40	Molecular mousetraps, Î±₁-antitrypsin deficiency and the serpinopathies. Clinical Medicine, 2005, 5, 249-257.	1.9	45
41	A singleâ€chain variable fragment intrabody prevents intracellular polymerization of Z Î± ₁ â€antitrypsin while allowing its antiproteinase activity. FASEB Journal, 2015, 29, 2667-2678.	0.5	44
42	Polymers of Z Î±₁-antitrypsin are secreted in cell models of disease. European Respiratory Journal, 2016, 47, 1005-1009.	6.7	41
43	Therapeutic target-site variability in Î±₁-antitrypsin characterized at high resolution. Acta Crystallographica Section F: Structural Biology Communications, 2011, 67, 1492-1497.	0.7	39
44	An integrative approach combining ion mobility mass spectrometry, Xâ€ray crystallography, and nuclear magnetic resonance spectroscopy to study the conformational dynamics of Î±₁â€antitrypsin upon ligand binding. Protein Science, 2015, 24, 1301-1312.	7.6	37
45	The Serpinopathies. Methods in Enzymology, 2011, 501, 421-466.	1.0	35
46	p53 and Translation Attenuation Regulate Distinct Cell Cycle Checkpoints during Endoplasmic Reticulum (ER) Stress. Journal of Biological Chemistry, 2013, 288, 7606-7617.	3.4	35
47	Crystallographic and Cellular Characterisation of Two Mechanisms Stabilising the Native Fold of Î±1-Antitrypsin: Implications for Disease and Drug Design. Journal of Molecular Biology, 2009, 387, 857-868.	4.2	34
48	The TRiC/CCT Chaperone Is Implicated in Alzheimer's Disease Based on Patient GWAS and an RNAi Screen in AÎ²-Expressing Caenorhabditis elegans. PLoS ONE, 2014, 9, e102985.	2.5	34
49	Structural Dynamics Associated with Intermediate Formation in an Archetypal Conformational Disease. Structure, 2012, 20, 504-512.	3.3	33
50	Development of a small molecule that corrects misfolding and increases secretion of Z Î± ₁ â€antitrypsin. EMBO Molecular Medicine, 2021, 13, e13167.	6.9	33
51	Characterisation of serpin polymers in vitro and in vivo. Methods, 2011, 53, 255-266.	3.8	31
52	Deficiency Mutations of Alpha-1 Antitrypsin. Effects on Folding, Function, and Polymerization. American Journal of Respiratory Cell and Molecular Biology, 2016, 54, 71-80.	2.9	31
53	Sex-Based Genetic Association Study Identifies CELSR1 as a Possible Chronic Obstructive Pulmonary Disease Risk Locus among Women. American Journal of Respiratory Cell and Molecular Biology, 2017, 56, 332-341.	2.9	28
54	Hepatobiliary phenotypes of adults with alpha-1 antitrypsin deficiency. Gut, 2022, 71, 415-423.	12.1	28

#	Article	IF	Citations
55	Twenty Years of Polymers: A Personal Perspective on Alpha-1 Antitrypsin Deficiency. COPD: Journal of Chronic Obstructive Pulmonary Disease, 2013, 10, 17-25.	1.6	27
56	Characterising the association of latency with Î±1-antitrypsin polymerisation using a novel monoclonal antibody. International Journal of Biochemistry and Cell Biology, 2015, 58, 81-91.	2.8	26
57	The structural basis for Z Î± ₁ -antitrypsin polymerization in the liver. Science Advances, 2020, 6, .	10.3	26
58	Altered native stability is the dominant basis for susceptibility of Î±1-antitrypsin mutants to polymerization. Biochemical Journal, 2014, 460, 103-119.	3.7	25
59	Susceptibility to Chronic Mucus Hypersecretion, a Genome Wide Association Study. PLoS ONE, 2014, 9, e91621.	2.5	25
60	Does Protease-Antiprotease Imbalance Explain Chronic Obstructive Pulmonary Disease?. Annals of the American Thoracic Society, 2016, 13 Suppl 2, S130-7.	3.2	25
61	Reactive centre loop mutants of Î±-1-antitrypsin reveal position-specific effects on intermediate formation along the polymerization pathway. Bioscience Reports, 2013, 33, .	2.4	24
62	Heteropolymerization of Î±-1-antitrypsin mutants in cell models mimicking heterozygosity. Human Molecular Genetics, 2018, 27, 1785-1793.	2.9	24
63	The pathological Trento variant of alphaâ€1â€antitrypsin (E75V) shows nonclassical behaviour during polymerization. FEBS Journal, 2017, 284, 2110-2126.	4.7	23
64	The p38 mitogen activated protein kinase inhibitor losmapimod in chronic obstructive pulmonary disease patients with systemic inflammation, stratified by fibrinogen: A randomised double-blind placebo-controlled trial. PLoS ONE, 2018, 13, e0194197.	2.5	23
65	An antibody raised against a pathogenic serpin variant induces mutant-like behaviour in the wild-type protein. Biochemical Journal, 2015, 468, 99-108.	3.7	22
66	The endoplasmic reticulum remains functionally connected by vesicular transport after its fragmentation in cells expressing Zâ€Î±₁â€antitrypsin. FASEB Journal, 2016, 30, 4083-4097.	0.5	22
67	Î±1-Antitrypsin Polymerizes in Alveolar Macrophages of Smokers With and Without Î±1-Antitrypsin Deficiency. Chest, 2018, 154, 607-616.	0.8	22
68	Alpha-1 Antitrypsin MZ Heterozygosity Is an Endotype of Chronic Obstructive Pulmonary Disease. American Journal of Respiratory and Critical Care Medicine, 2022, 205, 313-323.	5.6	21
69	New Therapeutic Targets for Alpha-1 Antitrypsin Deficiency. Chronic Obstructive Pulmonary Diseases (Miami, Fla), 2018, 5, 233-243.	0.7	18
70	Intrahepatic heteropolymerization of M and Z alpha-1-antitrypsin. JCI Insight, 2020, 5, .	5.0	16
71	An antibody that prevents serpin polymerisation acts by inducing a novel allosteric behaviour. Biochemical Journal, 2016, 473, 3269-3290.	3.7	15
72	High-resolution ex vivo NMR spectroscopy of human Z Î±1-antitrypsin. Nature Communications, 2020, 11, 6371.	12.8	15

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73	C. elegans expressing D76N Î²2-microglobulin: a model for in vivo screening of drug candidates targeting amyloidosis. Scientific Reports, 2019, 9, 19960.	3.3	14
74	Body mass index change in gastrointestinal cancer and chronic obstructive pulmonary disease is associated with Dedicator of Cytokinesis 1. Journal of Cachexia, Sarcopenia and Muscle, 2017, 8, 428-436.	7.3	13
75	Characterisation of a type II functionally-deficient variant of alpha-1-antitrypsin discovered in the general population. PLoS ONE, 2019, 14, e0206955.	2.5	13
76	Parker B. Francis Lectureship. Antitrypsin Deficiency, the Serpinopathies, and Chronic Obstructive Pulmonary Disease. Proceedings of the American Thoracic Society, 2006, 3, 499-501.	3.5	11
77	An ECLIPSE View of Alpha-1 Antitrypsin Deficiency. Annals of the American Thoracic Society, 2016, 13, S326-S331.	3.2	11
78	Fibrinogen does not relate to cardiovascular or muscle manifestations in COPD: cross-sectional data from the ERICA study. Thorax, 2018, 73, 1182-1185.	5.6	9
79	InforMing the PAthway of COPD Treatment (IMPACT) trial: fibrinogen levels predict risk of moderate or severe exacerbations. Respiratory Research, 2021, 22, 130.	3.6	9
80	The development of highly potent and selective small molecule correctors of Z Î±1-antitrypsin misfolding. Bioorganic and Medicinal Chemistry Letters, 2021, 41, 127973.	2.2	9
81	The molecular species responsible for Î± 1 â€antitrypsin deficiency are suppressed by a small molecule chaperone. FEBS Journal, 2021, 288, 2222-2237.	4.7	8
82	Conversion of the death inhibitor ARC to a killer activates pancreatic Î² cell death in diabetes. Developmental Cell, 2021, 56, 747-760.e6.	7.0	8
83	Characterization of a new variant of ?1-antitrypsin EJohannesburg (H15N) in association with asthma. Human Mutation, 2001, 17, 156-156.	2.5	7
84	Genetic predisposition to chronic obstructive pulmonary disease: advances in Î±₁-antitrypsin deficiency and the serpinopathies. Clinical Medicine, 2007, 7, 446-447.	1.9	7
85	A novel polymorphism (471C?T) in alpha-1-antitrypsin in a patient with asthma. Human Mutation, 2001, 17, 155-156.	2.5	5
86	The Importance of N186 in the Alpha-1-Antitrypsin Shutter Region Is Revealed by the Novel Bologna Deficiency Variant. International Journal of Molecular Sciences, 2021, 22, 5668.	4.1	5
87	Heme metabolism genes Downregulated in COPD Cachexia. Respiratory Research, 2020, 21, 100.	3.6	4
88	Scaling Concepts in Serpin Polymer Physics. Materials, 2021, 14, 2577.	2.9	4
89	Calcium signalling in mammalian cell lines expressing wild type and mutant human Î±1-Antitrypsin. Scientific Reports, 2019, 9, 17293.	3.3	3
90	Quantitative ¹⁸F-fluorodeoxyglucose positron emission tomography/computed tomography to assess pulmonary inflammation in COPD. ERJ Open Research, 2021, 7, 00699-2020.	2.6	2

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91	25th Anniversary Transatlantic Airway Conference: Protein Misfolding and Obstructive Lung Disease. Proceedings of the American Thoracic Society, 2010, 7, 343-345.	3.5	1
92	S51 Circulating Desmosine Relates To Cardiovascular Comorbidity, Coronary Artery Calcification Score (cacs), Systemic Inflammation And Mortality In Patients With Copd. Thorax, 2014, 69, A28-A29.	5.6	1
93	Taking out the JuNK to treat Î±1-antitrypsin deficiency. Nature Reviews Gastroenterology and Hepatology, 2017, 14, 201-202.	17.8	1
94	Targeting a Surface Cavity of Î±1-Antitrypsin to Prevent Conformational Disease. Clinical Science, 2003, 104, 57P-57P.	0.0	0
95	In Vitro Approaches for the Assessment of Serpin Polymerization. Methods in Molecular Biology, 2018, 1826, 87-107.	0.9	0