

# Elias J Lolis

## List of Publications by Year in descending order

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94  
papers

7,503  
citations

71102

41  
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53230

85  
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95  
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95  
docs citations

95  
times ranked

7320  
citing authors

#	ARTICLE	IF	CITATIONS
1	K <sup>+</sup> Channel Mutations in Adrenal Aldosterone-Producing Adenomas and Hereditary Hypertension. <i>Science</i> , 2011, 331, 768-772.	12.6	866
2	STRUCTURE, FUNCTION, AND INHIBITION OF CHEMOKINES. <i>Annual Review of Pharmacology and Toxicology</i> , 2002, 42, 469-499.	9.4	544
3	CD44 Is the Signaling Component of the Macrophage Migration Inhibitory Factor-CD74 Receptor Complex. <i>Immunity</i> , 2006, 25, 595-606.	14.3	539
4	Crystal structure at 2.6-Å resolution of human macrophage migration inhibitory factor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1996, 93, 5191-5196.	7.1	311
5	Development of chronic colitis is dependent on the cytokine MIF. <i>Nature Immunology</i> , 2001, 2, 1061-1066.	14.5	288
6	Structure of yeast triosephosphate isomerase at 1.9-Å resolution. <i>Biochemistry</i> , 1990, 29, 6609-6618.	2.5	276
7	The Tautomerase Active Site of Macrophage Migration Inhibitory Factor Is a Potential Target for Discovery of Novel Anti-inflammatory Agents. <i>Journal of Biological Chemistry</i> , 2002, 277, 24976-24982.	3.4	250
8	Crystallographic analysis of the complex between triosephosphate isomerase and 2-phosphoglycolate at 2.5-Å resolution: implications for catalysis. <i>Biochemistry</i> , 1990, 29, 6619-6625.	2.5	245
9	The <i>D</i> -dopachrome tautomerase ( <i>DDT</i> ) gene product is a cytokine and functional homolog of macrophage migration inhibitory factor (MIF). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, E577-85.	7.1	185
10	Direct link between cytokine activity and a catalytic site for macrophage migration inhibitory factor. <i>EMBO Journal</i> , 1998, 17, 3534-3541.	7.8	182
11	Allosteric inhibition of macrophage migration inhibitory factor revealed by ibudilast. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 11313-11318.	7.1	164
12	Crystal structure of chemically synthesized [N33A] stromal cell-derived factor 1, a potent ligand for the HIV-1 "fusin" coreceptor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1998, 95, 6941-6946.	7.1	153
13	Structural and Functional Basis of CXCL12 (Stromal Cell-derived Factor-1) Binding to Heparin. <i>Journal of Biological Chemistry</i> , 2007, 282, 10018-10027.	3.4	150
14	Pro-1 of Macrophage Migration Inhibitory Factor Functions as a Catalytic Base in the Phenylpyruvate Tautomerase Activity. <i>Biochemistry</i> , 1999, 38, 7346-7354.	2.5	146
15	Macrophage Migration Inhibitory Factor Promotes Intestinal Tumorigenesis. <i>Gastroenterology</i> , 2005, 129, 1485-1503.	1.3	140
16	Electrophilic catalysis in triosephosphate isomerase: the role of histidine-95. <i>Biochemistry</i> , 1991, 30, 3011-3019.	2.5	137
17	A Novel, Macrophage Migration Inhibitory Factor Suicide Substrate Inhibits Motility and Growth of Lung Cancer Cells. <i>Cancer Research</i> , 2008, 68, 7253-7257.	0.9	135
18	Chiral discrimination in the covalent binding of bis(phenanthroline)dichlororuthenium(II) to B-DNA. <i>Journal of the American Chemical Society</i> , 1985, 107, 708-709.	13.7	129

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19	A Small-Molecule Macrophage Migration Inhibitory Factor Antagonist Protects against Glomerulonephritis in Lupus-Prone NZB/NZW F1 and MRL/lpr Mice. <i>Journal of Immunology</i> , 2011, 186, 527-538.	0.8	128
20	Protein crystallization facilitated by molecularly imprinted polymers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 11081-11086.	7.1	120
21	Inhibition of MIF Bioactivity by Rational Design of Pharmacological Inhibitors of MIF Tautomerase Activity. <i>Journal of Medicinal Chemistry</i> , 2002, 45, 2410-2416.	6.4	115
22	CD74 is a novel transcription regulator. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 562-567.	7.1	113
23	Identification of Allosteric Peptide Agonists of CXCR4. <i>Journal of Biological Chemistry</i> , 2003, 278, 896-907.	3.4	112
24	A <i>Leishmania</i> Ortholog of Macrophage Migration Inhibitory Factor Modulates Host Macrophage Responses. <i>Journal of Immunology</i> , 2008, 180, 8250-8261.	0.8	92
25	Structural and Functional Characterization of a Secreted Hookworm Macrophage Migration Inhibitory Factor (MIF) That Interacts with the Human MIF Receptor CD74. <i>Journal of Biological Chemistry</i> , 2007, 282, 23447-23456.	3.4	87
26	Orthologs of macrophage migration inhibitory factor from parasitic nematodes. <i>Trends in Parasitology</i> , 2008, 24, 355-363.	3.3	86
27	Macrophage migration inhibitory factor. <i>Expert Opinion on Therapeutic Targets</i> , 2003, 7, 153-164.	3.4	82
28	Structural and Single-Channel Results Indicate That the Rates of Ligand Binding Domain Closing and Opening Directly Impact AMPA Receptor Gating. <i>Journal of Neuroscience</i> , 2008, 28, 932-943.	3.6	82
29	An Analysis of MIF Structural Features that Control Functional Activation of CD74. <i>Chemistry and Biology</i> , 2015, 22, 1197-1205.	6.0	73
30	A <i>Plasmodium</i> -encoded cytokine suppresses T-cell immunity during malaria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, E2117-26.	7.1	71
31	Macrophage Migration Inhibitory Factor-CXCR4 Receptor Interactions. <i>Journal of Biological Chemistry</i> , 2016, 291, 15881-15895.	3.4	65
32	Therapeutic approaches to innate immunity: severe sepsis and septic shock. <i>Nature Reviews Drug Discovery</i> , 2003, 2, 635-645.	46.4	63
33	Targeting distinct tautomerase sites of D $\alpha$ DT and MIF with a single molecule for inhibition of neutrophil lung recruitment. <i>FASEB Journal</i> , 2014, 28, 4961-4971.	0.5	62
34	Interaction of MIF Family Proteins in Myocardial Ischemia/Reperfusion Damage and Their Influence on Clinical Outcome of Cardiac Surgery Patients. <i>Antioxidants and Redox Signaling</i> , 2015, 23, 865-879.	5.4	58
35	Dimerization of FIR upon FUSE DNA binding suggests a mechanism of c-myc inhibition. <i>EMBO Journal</i> , 2008, 27, 277-289.	7.8	54
36	The subunit structure of human macrophage migration inhibitory factor: evidence for a trimer. <i>Protein Engineering, Design and Selection</i> , 1996, 9, 631-635.	2.1	51

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37	Glucocorticoid counter regulation: macrophage migration inhibitory factor as a target for drug discovery. <i>Current Opinion in Pharmacology</i> , 2001, 1, 662-668.	3.5	48
38	PAK1 Kinase Is Required for CXCL1-Induced Chemotaxis. <i>Biochemistry</i> , 2002, 41, 7100-7107.	2.5	48
39	Crystallographic Studies of Phosphonate-Based $\ddagger$ -Reaction Transition-State Analogues Complexed to Tryptophan Synthase. <i>Biochemistry</i> , 1999, 38, 12665-12674.	2.5	47
40	Alternative Chemical Modifications Reverse the Binding Orientation of a Pharmacophore Scaffold in the Active Site of Macrophage Migration Inhibitory Factor. <i>Journal of Biological Chemistry</i> , 2007, 282, 23089-23095.	3.4	47
41	Crystal Structure of the K12M/G15A Triosephosphate Isomerase Double Mutant and Electrostatic Analysis of the Active Site. <i>Biochemistry</i> , 1994, 33, 2815-2823.	2.5	42
42	Structural and Kinetic Analyses of Macrophage Migration Inhibitory Factor Active Site Interactions. <i>Biochemistry</i> , 2009, 48, 132-139.	2.5	42
43	Identification of an Arg-Leu-Arg tripeptide that contributes to the binding interface between the cytokine MIF and the chemokine receptor CXCR4. <i>Scientific Reports</i> , 2018, 8, 5171.	3.3	42
44	Heterologous quaternary structure of CXCL12 and its relationship to the CC chemokine family. <i>Proteins: Structure, Function and Bioinformatics</i> , 2010, 78, 1331-1337.	2.6	40
45	MIF intersubunit disulfide mutant antagonist supports activation of CD74 by endogenous MIF trimer at physiologic concentrations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 10994-10999.	7.1	39
46	Crystallography and Site-directed Mutagenesis of Yeast Triosephosphate Isomerase: What Can We Learn about Catalysis from a "Simple" Enzyme?. <i>Cold Spring Harbor Symposia on Quantitative Biology</i> , 1987, 52, 603-613.	1.1	39
47	Comparison of the Structure of $\nu$ MIP-II with Eotaxin-1, RANTES, and MCP-3 Suggests a Unique Mechanism for CCR3 Activation. <i>Biochemistry</i> , 2000, 39, 12837-12844.	2.5	35
48	Drug Repositioning and Pharmacophore Identification in the Discovery of Hookworm MIF Inhibitors. <i>Chemistry and Biology</i> , 2011, 18, 1089-1101.	6.0	35
49	Solution Structure of Murine Macrophage Inflammatory Protein-2. <i>Biochemistry</i> , 1998, 37, 8303-8313.	2.5	34
50	Nanosecond Dynamics Regulate the MIF-Induced Activity of CD74. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 7116-7119.	13.8	32
51	Inhibition of Paclitaxel-induced Decreases in Calcium Signaling. <i>Journal of Biological Chemistry</i> , 2012, 287, 37907-37916.	3.4	31
52	Macrophage migration inhibitory factor: A critical component of autoimmune inflammatory diseases. <i>Drug News and Perspectives</i> , 2005, 18, 417.	1.5	30
53	Functional and receptor binding characterization of recombinant murine macrophage inflammatory protein 2: Sequence analysis and mutagenesis identify receptor binding epitopes. <i>Protein Science</i> , 1997, 6, 1643-1652.	7.6	29
54	Tertiary Structure of Thiopurine Methyltransferase from <i>Pseudomonas syringae</i> , a Bacterial Orthologue of a Polymorphic, Drug-metabolizing Enzyme. <i>Journal of Molecular Biology</i> , 2003, 333, 573-585.	4.2	29

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55	Two Independent Histidines, One in Human Prolactin and One in Its Receptor, Are Critical for pH-dependent Receptor Recognition and Activation*. <i>Journal of Biological Chemistry</i> , 2010, 285, 38524-38533.	3.4	29
56	MIF but not MIF-2 recruits inflammatory macrophages in an experimental polymicrobial sepsis model. <i>Journal of Clinical Investigation</i> , 2021, 131, .	8.2	29
57	Structural Interactions Dictate the Kinetics of Macrophage Migration Inhibitory Factor Inhibition by Different Cancer-Preventive Isothiocyanates. <i>Biochemistry</i> , 2012, 51, 7506-7514.	2.5	28
58	Aggregation of Human Wild-Type and H27A-Prolactin in Cells and in Solution: Roles of Zn <sup>2+</sup> , Cu <sup>2+</sup> , and pH. <i>Endocrinology</i> , 2002, 143, 1302-1309.	2.8	27
59	ISO-66, a novel inhibitor of macrophage migration inhibitory factor, shows efficacy in melanoma and colon cancer models. <i>International Journal of Oncology</i> , 2014, 45, 1457-1468.	3.3	25
60	A Model of GAG/MIP-2/CXCR2 Interfaces and Its Functional Effects. <i>Biochemistry</i> , 2012, 51, 5642-5654.	2.5	24
61	Macrophage Migration Inhibitory Factor Interactions with Glutathione and S -Hexylglutathione. <i>Journal of Biological Chemistry</i> , 1998, 273, 14877-14884.	3.4	23
62	A selective small-molecule inhibitor of macrophage migration inhibitory factor-2 (MIF-2), a MIF cytokine superfamily member, inhibits MIF-2 biological activity. <i>Journal of Biological Chemistry</i> , 2019, 294, 18522-18531.	3.4	20
63	Characterization, Dynamics, and Mechanism of CXCR4 Antagonists on a Constitutively Active Mutant. <i>Cell Chemical Biology</i> , 2019, 26, 662-673.e7.	5.2	20
64	Regulation of MIF Enzymatic Activity by an Allosteric Site at the Central Solvent Channel. <i>Cell Chemical Biology</i> , 2020, 27, 740-750.e5.	5.2	20
65	Allosteric peptide regulators of chemokine receptors CXCR4 and CXCR7. <i>Biochemical Pharmacology</i> , 2013, 86, 1263-1271.	4.4	19
66	Crystallographic and Receptor Binding Characterization of <i>Plasmodium falciparum</i> Macrophage Migration Inhibitory Factor Complexed to Two Potent Inhibitors. <i>Journal of Medicinal Chemistry</i> , 2014, 57, 8652-8656.	6.4	18
67	Modeling of both shared and distinct interactions between MIF and its homologue D-DT with their common receptor CD74. <i>Cytokine</i> , 2016, 88, 62-70.	3.2	18
68	Structural Plasticity in the C-Terminal Region of Macrophage Migration Inhibitory Factor-2 Is Associated with an Induced Fit Mechanism for a Selective Inhibitor. <i>Biochemistry</i> , 2018, 57, 3599-3605.	2.5	17
69	Accessibility of selenomethionine proteins by total chemical synthesis: structural studies of human herpesvirus-8 MIP-II. <i>FEBS Letters</i> , 1998, 441, 77-82.	2.8	14
70	Oligomerization of the Polycystin-2 C-terminal Tail and Effects on Its Ca <sup>2+</sup> -binding Properties. <i>Journal of Biological Chemistry</i> , 2015, 290, 10544-10554.	3.4	14
71	An allosteric site on MKP5 reveals a strategy for small-molecule inhibition. <i>Science Signaling</i> , 2020, 13, eaba3043.	3.6	12
72	Mechanism of Inhibition of the Reproduction of SARS-CoV-2 and <i>Ebola</i> Viruses by Remdesivir. <i>Biochemistry</i> , 2021, 60, 1869-1875.	2.5	12

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73	Computational insights into the membrane fusion mechanism of SARS-CoV-2 at the cellular level. <i>Computational and Structural Biotechnology Journal</i> , 2021, 19, 5019-5028.	4.1	10
74	Insights into Binding of Single-Stranded Viral RNA Template to the Replication-Transcription Complex of SARS-CoV-2 for the Priming Reaction from Molecular Dynamics Simulations. <i>Biochemistry</i> , 2022, 61, 424-432.	2.5	10
75	Model studies of the maillard reaction of Arg-Lys with D-ribose. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1995, 5, 2929-2930.	2.2	9
76	A structurally preserved allosteric site in the MIF superfamily affects enzymatic activity and CD74 activation in D-dopachrome tautomerase. <i>Journal of Biological Chemistry</i> , 2021, 297, 101061.	3.4	7
77	Conformational dynamics of Ca <sup>2+</sup> -dependent responses in the polycystin-2 C-terminal tail. <i>Biochemical Journal</i> , 2016, 473, 285-296.	3.7	6
78	Aggregation of Human Wild-Type and H27A-Prolactin in Cells and in Solution: Roles of Zn <sup>2+</sup> , Cu <sup>2+</sup> , and pH. <i>Endocrinology</i> , 2002, 143, 1302-1309.	2.8	6
79	Suppression of <i>Plasmodium</i> MIF-CD74 signaling protects against severe malaria. <i>FASEB Journal</i> , 2021, 35, e21997.	0.5	6
80	CCR2 and CCR5 receptor-binding properties of herpesvirus-8 vMIP-II based on sequence analysis and its solution structure. <i>FEBS Journal</i> , 2001, 268, 2948-2959.	0.2	5
81	Structural insight into the evolution of a new chemokine family from zebrafish. <i>Proteins: Structure, Function and Bioinformatics</i> , 2014, 82, 708-716.	2.6	5
82	A cryocooling technique for protein crystals grown by dialysis from volatile solvents. <i>Journal of Applied Crystallography</i> , 2000, 33, 168-171.	4.5	4
83	The Structural Biology of Chemokines. , 2007, , 9-30.		4
84	Unraveling the mechanism of recognition of the 3' splice site of the adenovirus major late promoter intron by the alternative splicing factor PUF60. <i>PLoS ONE</i> , 2020, 15, e0242725.	2.5	4
85	Preliminary crystallographic analysis of murine macrophage inflammatory protein 2. <i>Journal of Molecular Biology</i> , 1992, 225, 913-915.	4.2	3
86	A Cysteine Variant at an Allosteric Site Alters MIF Dynamics and Biological Function in Homo- and Heterotrimeric Assemblies. <i>Frontiers in Molecular Biosciences</i> , 2022, 9, 783669.	3.5	3
87	Nanosecond Dynamics Regulate the MIF-Induced Activity of CD74. <i>Angewandte Chemie</i> , 2018, 130, 7234-7237.	2.0	2
88	Expression, purification and crystallization of the novel <i>Xenopus tropicalis</i> ALDH16B1, a homologue of human ALDH16A1. <i>Chemico-Biological Interactions</i> , 2019, 304, 168-172.	4.0	2
89	High-Throughput Screening of a Functional Human CXCL12-CXCR4 Signaling Axis in a Genetically Modified <i>S. cerevisiae</i> : Discovery of a Novel Up-Regulator of CXCR4 Activity. <i>Frontiers in Molecular Biosciences</i> , 2020, 7, 164.	3.5	2
90	The N-terminal length and side-chain composition of CXCL13 affect crystallization, structure and functional activity. <i>Acta Crystallographica Section D: Structural Biology</i> , 2020, 76, 1033-1049.	2.3	2

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91	Structural Studies of Small Molecule Inhibitors of MIF. , 2012, , 101-118.		1
92	Structural Studies of MIF. , 2007, , 51-63.		0
93	When anti-CCR2 treatment for arthritis strikes out. Arthritis and Rheumatism, 2011, 63, 23-25.	6.7	0
94	Characterization of PC2 Cterm Calcium-Binding Interaction and its Structural Implications. Biophysical Journal, 2015, 108, 215a.	0.5	0