Galina I Lepesheva

List of Publications by Year
in descending order

65	3,963	87888	118850
papers	citations	38 h-index	62 g-index

67	67	67	3517
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Sterol 14Î±-demethylase cytochrome P450 (CYP51), a P450 in all biological kingdoms. Biochimica Et Biophysica Acta - General Subjects, 2007, 1770, 467-477.	2.4	379
2	Structural analyses of Candida albicans sterol 14Î±-demethylase complexed with azole drugs address the molecular basis of azole-mediated inhibition of fungal sterol biosynthesis. Journal of Biological Chemistry, 2017, 292, 6728-6743.	3.4	255
3	Rational Modification of a Candidate Cancer Drug for Use Against Chagas Disease. Journal of Medicinal Chemistry, 2009, 52, 1639-1647.	6.4	150
4	The First Virally Encoded Cytochrome P450. Journal of Virology, 2009, 83, 8266-8269.	3.4	128
5	Structural Insights into Inhibition of Sterol 14Î±-Demethylase in the Human Pathogen Trypanosoma cruzi. Journal of Biological Chemistry, 2010, 285, 25582-25590.	3.4	126
6	Sterol 14Î±-Demethylase as a Potential Target for Antitrypanosomal Therapy: Enzyme Inhibition and Parasite Cell Growth. Chemistry and Biology, 2007, 14, 1283-1293.	6.0	121
7	Structure-Functional Characterization of Cytochrome P450 Sterol 14Î±-Demethylase (CYP51B) from Aspergillus fumigatus and Molecular Basis for the Development of Antifungal Drugs. Journal of Biological Chemistry, 2015, 290, 23916-23934.	3.4	121
8	CYP51 from Trypanosoma cruzi. Journal of Biological Chemistry, 2006, 281, 3577-3585.	3.4	114
9	Crystal Structures of Trypanosoma brucei Sterol 14Î±-Demethylase and Implications for Selective Treatment of Human Infections. Journal of Biological Chemistry, 2010, 285, 1773-1780.	3.4	111
10	Structural basis for conservation in the CYP51 family. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2011, 1814, 88-93.	2.3	108
11	CYP51â€"the omnipotent P450. Molecular and Cellular Endocrinology, 2004, 215, 165-170.	3.2	101
12	Targeting Trypanosoma cruzi Sterol 14Î±-Demethylase (CYP51). Advances in Parasitology, 2011, 75, 65-87.	3.2	99
13	CYP51: A Major Drug Target in the Cytochrome P450 Superfamily. Lipids, 2008, 43, 1117-1125.	1.7	97
14	Substrate Preferences and Catalytic Parameters Determined by Structural Characteristics of Sterol 14Î±-Demethylase (CYP51) from Leishmania infantum. Journal of Biological Chemistry, 2011, 286, 26838-26848.	3.4	92
15	VNI Cures Acute and Chronic Experimental Chagas Disease. Journal of Infectious Diseases, 2013, 208, 504-511.	4.0	91
16	Sterol 14alpha-Demethylase (CYP51) as a Therapeutic Target for Human Trypanosomiasis and Leishmaniasis. Current Topics in Medicinal Chemistry, 2011, 11, 2060-2071.	2.1	87
17	CYP51 as drug targets for fungi and protozoan parasites: past, present and future. Parasitology, 2018, 145, 1820-1836.	1.5	81
18	Estriol Bound and Ligand-free Structures of Sterol 14Î±-Demethylase. Structure, 2004, 12, 1937-1945.	3.3	78

#	Article	IF	Citations
19	Conservation in the CYP51 Family. Role of the Bâ€˜ Helix/BC Loop and Helices F and G in Enzymatic Functionâ€. Biochemistry, 2003, 42, 9091-9101.	2.5	75
20	CYP51 from Trypanosoma brucei Is Obtusifoliol-Specific. Biochemistry, 2004, 43, 10789-10799.	2.5	74
21	Complexes of Trypanosoma cruzi Sterol 14Î±-Demethylase (CYP51) with Two Pyridine-based Drug Candidates for Chagas Disease. Journal of Biological Chemistry, 2013, 288, 31602-31615.	3.4	69
22	In VitroandIn VivoStudies of the Antiparasitic Activity of Sterol 14Î±-Demethylase (CYP51) Inhibitor VNI against Drug-Resistant Strains of Trypanosoma cruzi. Antimicrobial Agents and Chemotherapy, 2013, 57, 4151-4163.	3.2	68
23	Sterol 14Î±-demethylase, an abundant and essential mixed-function oxidase. Biochemical and Biophysical Research Communications, 2005, 338, 418-422.	2.1	65
24	Probing the Interaction of Bovine Cytochrome P450scc (CYP11A1) with Adrenodoxin:â€‰ Evaluating Site-Directed Mutations by Molecular Modeling. Biochemistry, 2002, 41, 8310-8320.	2.5	64
25	Antitrypanosomal Lead Discovery: Identification of a Ligand-Efficient Inhibitor of Trypanosoma cruzi CYP51 and Parasite Growth. Journal of Medicinal Chemistry, 2013, 56, 2556-2567.	6.4	60
26	Structural complex of sterol 14Î±-demethylase (CYP51) with 14Î±-methylenecyclopropyl-Î”7-24, 25-dihydrolanosterol. Journal of Lipid Research, 2012, 53, 311-320.	4.2	59
27	A Second FMN Binding Site in Yeast NADPH-Cytochrome P450 Reductase Suggests a Mechanism of Electron Transfer by Diflavin Reductases. Structure, 2006, 14, 51-61.	3.3	57
28	Crystal Structure of the New Investigational Drug Candidate VT-1598 in Complex with Aspergillus fumigatus Sterol 14Î±-Demethylase Provides Insights into Its Broad-Spectrum Antifungal Activity. Antimicrobial Agents and Chemotherapy, 2017, 61, .	3.2	52
29	Fluconazole binding and sterol demethylation in three CYP51 isoforms indicate differences in active site topology. Journal of Lipid Research, 2004, 45, 2000-2007.	4.2	51
30	VFV as a New Effective CYP51 Structure-Derived Drug Candidate for Chagas Disease and Visceral Leishmaniasis. Journal of Infectious Diseases, 2015, 212, 1439-1448.	4.0	51
31	Pharmacological Characterization, Structural Studies, andIn VivoActivities of Anti-Chagas Disease Lead Compounds Derived from Tipifarnib. Antimicrobial Agents and Chemotherapy, 2012, 56, 4914-4921.	3.2	50
32	Mechanistic Analysis of a Multiple Product Sterol Methyltransferase Implicated in Ergosterol Biosynthesis in Trypanosoma brucei. Journal of Biological Chemistry, 2006, 281, 6290-6296.	3.4	48
33	Human sterol 14Î±-demethylase as a target for anticancer chemotherapy: towards structure-aided drug design. Journal of Lipid Research, 2016, 57, 1552-1563.	4.2	47
34	Novel 3-Nitrotriazole-Based Amides and Carbinols as Bifunctional Antichagasic Agents. Journal of Medicinal Chemistry, 2015, 58, 1307-1319.	6.4	46
35	Folding Requirements Are Different between Sterol 14Î±-Demethylase (CYP51) from Mycobacterium tuberculosis and Human or Fungal Orthologs. Journal of Biological Chemistry, 2001, 276, 28413-28420.	3.4	44
36	Sterol 14Î±-demethylase mutation leads to amphotericin B resistance in Leishmania mexicana. PLoS Neglected Tropical Diseases, 2017, 11, e0005649.	3.0	43

#	Article	IF	Citations
37	Novel sterol metabolic network of Trypanosoma brucei procyclic and bloodstream forms. Biochemical Journal, 2012, 443, 267-277.	3.7	42
38	CYP51 structures and structure-based development of novel, pathogen-specific inhibitory scaffolds. International Journal for Parasitology: Drugs and Drug Resistance, 2012, 2, 178-186.	3.4	42
39	Indomethacin Amides as a Novel Molecular Scaffold for Targeting Trypanosoma cruzi Sterol 14Î±-Demethylase. Journal of Medicinal Chemistry, 2009, 52, 2846-2853.	6.4	40
40	Organocatalytic, Enantioselective Synthesis of VNI: A Robust Therapeutic Development Platform for Chagas, a Neglected Tropical Disease. Organic Letters, 2012, 14, 6322-6325.	4.6	35
41	Structural Basis for Rational Design of Inhibitors Targeting Trypanosoma cruzi Sterol 14Î±-Demethylase: Two Regions of the Enzyme Molecule Potentiate Its Inhibition. Journal of Medicinal Chemistry, 2014, 57, 6704-6717.	6.4	35
42	Sterol 14Î±-Demethylase Structure-Based Design of VNI Derivatives To Target Fungal Infections: Synthesis, Biological Evaluation, and Crystallographic Analysis. Journal of Medicinal Chemistry, 2018, 61, 5679-5691.	6.4	35
43	Clinical Candidate VT-1161's Antiparasitic Effect In Vitro , Activity in a Murine Model of Chagas Disease, and Structural Characterization in Complex with the Target Enzyme CYP51 from Trypanosoma cruzi. Antimicrobial Agents and Chemotherapy, 2016, 60, 1058-1066.	3.2	34
44	Conformational dynamics and molecular interaction reactions of recombinant cytochrome P450scc (CYP11A1) detected by fluorescence energy transfer. BBA - Proteins and Proteomics, 1999, 1434, 31-43.	2.1	29
45	Dynamics of CYP51: implications for function and inhibitor design. Journal of Molecular Recognition, 2015, 28, 59-73.	2.1	28
46	Design or screening of drugs for the treatment of Chagas disease: what shows the most promise?. Expert Opinion on Drug Discovery, 2013, 8, 1479-1489.	5.0	25
47	Biodiversity of CYP51 in trypanosomes. Biochemical Society Transactions, 2006, 34, 1161-1164.	3.4	21
48	Ligand tunnels in T. brucei and human CYP51: Insights for parasite-specific drug design. Biochimica Et Biophysica Acta - General Subjects, 2016, 1860, 67-78.	2.4	21
49	Validation of Human Sterol 14Î±-Demethylase (CYP51) Druggability: Structure-Guided Design, Synthesis, and Evaluation of Stoichiometric, Functionally Irreversible Inhibitors. Journal of Medicinal Chemistry, 2019, 62, 10391-10401.	6.4	21
50	A requirement for an active proton delivery network supports a compound I-mediated Câ€“C bond cleavage in CYP51 catalysis. Journal of Biological Chemistry, 2020, 295, 9998-10007.	3.4	21
51	Antitrypanosomal and antileishmanial activity of prenyl-1,2,3-triazoles. MedChemComm, 2017, 8, 1015-1021.	3.4	20
52	The Clinically Approved Antifungal Drug Posaconazole Inhibits Human Cytomegalovirus Replication. Antimicrobial Agents and Chemotherapy, 2020, 64, .	3.2	20
53	Sequence variation in CYP51A from the Y strain of Trypanosoma cruzi alters its sensitivity to inhibition. FEBS Letters, 2014, 588, 3878-3885.	2.8	19
54	Concerning P450 Evolution: Structural Analyses Support Bacterial Origin of Sterol 14Î±-Demethylases. Molecular Biology and Evolution, 2021, 38, 952-967.	8.9	19

#	Article	IF	Citations
55	Sterol 14Î±-Demethylase Structure-Based Optimization of Drug Candidates for Human Infections with the Protozoan Trypanosomatidae. Journal of Medicinal Chemistry, 2018, 61, 10910-10921.	6.4	18
56	Binding of a physiological substrate causes large-scale conformational reorganization in cytochrome P450 51. Journal of Biological Chemistry, 2018, 293, 19344-19353.	3.4	16
57	Successful Aspects of the Coadministration of Sterol 14Î±-Demethylase Inhibitor VFV and Benznidazole in Experimental Mouse Models of Chagas Disease Caused by the Drug-Resistant Strain of Trypanosoma cruzi. ACS Infectious Diseases, 2019, 5, 365-371.	3.8	14
58	Conformational dynamics in the F/G segment of CYP51 from Mycobacterium tuberculosis monitored by FRET. Archives of Biochemistry and Biophysics, 2007, 464, 221-227.	3.0	11
59	Dialkylimidazole inhibitors of Trypanosoma cruzi sterol 14Î±-demethylase as anti-Chagas disease agents. Bioorganic and Medicinal Chemistry Letters, 2013, 23, 6492-6499.	2.2	11
60	Direct antigen detection in Langmuirâ€"Blodgett films of immunoglobulin G modified with coproporphyrin-I. Analytica Chimica Acta, 1992, 265, 21-26.	5.4	10
61	A convergent, scalable and stereoselective synthesis of azole CYP51 inhibitors. Tetrahedron Letters, 2017, 58, 4248-4250.	1.4	5
62	The antifungal drug isavuconazole inhibits the replication of human cytomegalovirus (HCMV) and acts synergistically with anti-HCMV drugs. Antiviral Research, 2021, 189, 105062.	4.1	5
63	Relaxed Substrate Requirements of Sterol 14Î±-Demethylase from Naegleria fowleri Are Accompanied by Resistance to Inhibition. Journal of Medicinal Chemistry, 2021, 64, 17511-17522.	6.4	2
64	A new chemotype with promise against Trypanosoma cruzi. Bioorganic and Medicinal Chemistry Letters, 2020, 30, 126778.	2.2	1
65	Role of C-terminal sequence of cytochrome P450scc in folding and functional activity. Biochemistry (Moscow), 2006, 71, 1027-1034.	1.5	0