Zrinka Kovarik

List of Publications by Year in Descending Order

76 papers	2,017 citations	25 h-index	41 g-index
79 ext. papers	2,234 ext. citations	4.3 avg, IF	4.6 L-index

#	Paper	IF	Citations
76	Natural deep eutectic solvents improve the solubility of acetylcholinesterase reactivator RS194B. *Sustainable Chemistry and Pharmacy*, **2022**, 27, 100654	3.9	
75	Halogen substituents enhance oxime nucleophilicity for reactivation of cholinesterases inhibited by nerve agents.. *European Journal of Medicinal Chemistry*, **2022**, 238, 114377	6.8	0
74	Assessment of four organophosphorus pesticides as inhibitors of human acetylcholinesterase and butyrylcholinesterase. *Scientific Reports*, **2021**, 11, 21486	4.9	6
73	Advice on assistance and protection provided by the Scientific Advisory Board of the Organisation for the Prohibition of Chemical Weapons: Part 3. On medical care and treatment of injuries from sulfur mustard. *Toxicology*, **2021**, 463, 152967	4.4	0
72	Ligand design for human acetylcholinesterase and nicotinic acetylcholine receptors, extending beyond the conventional and canonical. *Journal of Neurochemistry*, **2021**, 158, 1217-1222	6	1
71	Pharmacokinetic Evaluation of Brain Penetrating Morpholine-3-hydroxy-2-pyridine Oxime as an Antidote for Nerve Agent Poisoning. *ACS Chemical Neuroscience*, **2020**, 11, 1072-1084	5.7	12
70	Efficient detoxification of nerve agents by oxime-assisted reactivation of acetylcholinesterase mutants. *Neuropharmacology*, **2020**, 171, 108111	5.5	4
69	Counteracting poisoning with chemical warfare nerve agents. *Arhiv Za Higijenu Rada I Toksikologiju*, **2020**, 71, 266-284	1.7	5
68	Enantioseparation, in vitro testing, and structural characterization of triple-binding reactivators of organophosphate-inhibited cholinesterases. *Biochemical Journal*, **2020**, 477, 2771-2790	3.8	6
67	Evaluation of high-affinity phenyltetrahydroisoquinoline aldoximes, linked through anti-triazoles, as reactivators of phosphylated cholinesterases. *Toxicology Letters*, **2020**, 321, 83-89	4.4	10
66	Design, synthesis and cholinesterase inhibitory properties of new oxazole benzylamine derivatives. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2020**, 35, 460-467	5.6	5
65	Targeting organophosphorus compounds poisoning by novel quinuclidine-3 oximes: development of butyrylcholinesterase-based bioscavengers. *Archives of Toxicology*, **2020**, 94, 3157-3171	5.8	8
64	Benzobicyclo[3.2.1]octene Derivatives as a New Class of Cholinesterase Inhibitors. *Molecules*, **2020**, 25,	4.8	1
63	Assessment of ionizable, zwitterionic oximes as reactivating antidotal agents for organophosphate exposure. *Chemico-Biological Interactions*, **2019**, 308, 194-197	5	14
62	Structural aspects of 4-aminoquinolines as reversible inhibitors of human acetylcholinesterase and butyrylcholinesterase. *Chemico-Biological Interactions*, **2019**, 308, 101-109	5	15
61	Butyrylcholinesterase inhibited by nerve agents is efficiently reactivated with chlorinated pyridinium oximes. *Chemico-Biological Interactions*, **2019**, 307, 16-20	5	20
60	Counteracting tabun inhibition by reactivation by pyridinium aldoximes that interact with active center gorge mutants of acetylcholinesterase. *Toxicology and Applied Pharmacology*, **2019**, 372, 40-46	4.6	6

59	Reversal of Tabun Toxicity Enabled by a Triazole-Annulated Oxime Library-Reactivators of Acetylcholinesterase. *Chemistry - A European Journal*, **2019**, 25, 4100-4114	4.8	18
58	Advice on assistance and protection provided by the Scientific Advisory Board of the Organisation for the Prohibition of Chemical Weapons: Part 1. On medical care and treatment of injuries from nerve agents. *Toxicology*, **2019**, 415, 56-69	4.4	17
57	Advice on assistance and protection from the Scientific Advisory Board of the Organisation for the Prohibition of Chemical Weapons: Part 2. On preventing and treating health effects from acute, prolonged, and repeated nerve agent exposure, and the identification of medical countermeasures able to reduce or eliminate the longer term health effects of nerve agents. *Toxicology*, **2019**, 413, 13-23	4.4	17
56	Potent 3-Hydroxy-2-Pyridine Aldoxime Reactivators of Organophosphate-Inhibited Cholinesterases with Predicted Blood-Brain Barrier Penetration. *Chemistry - A European Journal*, **2018**, 24, 9675-9691	4.8	37
55	The estimation of oxime efficiency is affected by the experimental design of phosphylated acetylcholinesterase reactivation. *Toxicology Letters*, **2018**, 293, 222-228	4.4	19
54	Oxime-assisted reactivation of tabun-inhibited acetylcholinesterase analysed by active site mutations. *Toxicology*, **2018**, 406-407, 104-113	4.4	21
53	Advice from the Scientific Advisory Board of the Organisation for the Prohibition of Chemical Weapons on isotopically labelled chemicals and stereoisomers in relation to the Chemical Weapons Convention. *Pure and Applied Chemistry*, **2018**, 90, 1647-1670	2.1	11
52	Design and evaluation of selective butyrylcholinesterase inhibitors based on Cinchona alkaloid scaffold. *PLoS ONE*, **2018**, 13, e0205193	3.7	14
51	Pyridinium Oximes with Ortho-Positioned Chlorine Moiety Exhibit Improved Physicochemical Properties and Efficient Reactivation of Human Acetylcholinesterase Inhibited by Several Nerve Agents. *Journal of Medicinal Chemistry*, **2018**, 61, 10753-10766	8.3	34
50	Pharmacology, Pharmacokinetics, and Tissue Disposition of Zwitterionic Hydroxyiminoacetamido Alkylamines as Reactivating Antidotes for Organophosphate Exposure. *Journal of Pharmacology and Experimental Therapeutics*, **2018**, 367, 363-372	4.7	26
49	Resorcinol-, catechol- and saligenin-based bronchodilating 2-agonists as inhibitors of human cholinesterase activity. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2017**, 32, 789-797	5.6	9
48	New Cinchona Oximes Evaluated as Reactivators of Acetylcholinesterase and Butyrylcholinesterase Inhibited by Organophosphorus Compounds. *Molecules*, **2017**, 22,	4.8	22
47	Design and synthesis of N-substituted-2-hydroxyiminoacetamides and interactions with cholinesterases. *Chemico-Biological Interactions*, **2016**, 259, 122-132	5	24
46	HI-6 assisted catalytic scavenging of VX by acetylcholinesterase choline binding site mutants. *Chemico-Biological Interactions*, **2016**, 259, 148-153	5	18
45	A comprehensive evaluation of novel oximes in creation of butyrylcholinesterase-based nerve agent bioscavengers. *Toxicology and Applied Pharmacology*, **2016**, 310, 195-204	4.6	36
44	Pyridoxal oxime derivative potency to reactivate cholinesterases inhibited by organophosphorus compounds. *Toxicology Letters*, **2016**, 262, 114-122	4.4	8
43	Catalytic Soman Scavenging by the Y337A/F338A Acetylcholinesterase Mutant Assisted with Novel Site-Directed Aldoximes. *Chemical Research in Toxicology*, **2015**, 28, 1036-44	4	35
42	Translation of in vitro to in vivo pyridinium oxime potential in tabun poisoning. *Arhiv Za Higijenu Rada I Toksikologiju*, **2015**, 66, 291-8	1.7	19

41	Centrally acting oximes in reactivation of tabun-phosphoramidated AChE. *Chemico-Biological Interactions*, **2013**, 203, 77-80	5	58
40	Mechanism of interaction of novel uncharged, centrally active reactivators with OP-hAChE conjugates. *Chemico-Biological Interactions*, **2013**, 203, 67-71	5	22
39	Catalytic detoxification of nerve agent and pesticide organophosphates by butyrylcholinesterase assisted with non-pyridinium oximes. *Biochemical Journal*, **2013**, 450, 231-42	3.8	66
38	Peripheral site and acyl pocket define selective inhibition of mouse butyrylcholinesterase by two biscarbamates. *Archives of Biochemistry and Biophysics*, **2013**, 529, 140-5	4.1	10
37	Metaproterenol, isoproterenol, and their bisdimethylcarbamate derivatives as human cholinesterase inhibitors. *Journal of Medicinal Chemistry*, **2012**, 55, 6716-23	8.3	27
36	Refinement of structural leads for centrally acting oxime reactivators of phosphylated cholinesterases. *Journal of Biological Chemistry*, **2012**, 287, 11798-809	5.4	81
35	Reactivation of Tabun-inhibited Acetylcholinesterase Investigated by Two Oximes and Mutagenesis. *Croatica Chemica Acta*, **2012**, 85, 209-212	0.8	9
34	Mechanism of stereoselective interaction between butyrylcholinesterase and ethopropazine enantiomers. *Biochimie*, **2011**, 93, 1797-807	4.6	24
33	Oxime-assisted acetylcholinesterase catalytic scavengers of organophosphates that resist aging. *Journal of Biological Chemistry*, **2011**, 286, 29718-24	5.4	45
32	New structural scaffolds for centrally acting oxime reactivators of phosphylated cholinesterases. *Journal of Biological Chemistry*, **2011**, 286, 19422-30	5.4	98
31	In vivo experimental approach to treatment against tabun poisoning. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2010**, 25, 531-6	5.6	9
30	Structural aspects of flavonoids as inhibitors of human butyrylcholinesterase. *European Journal of Medicinal Chemistry*, **2010**, 45, 186-92	6.8	120
29	Synthesis and evaluation of novel analogues of vitamin B6 as reactivators of tabun and paraoxon inhibited acetylcholinesterase. *Chemico-Biological Interactions*, **2010**, 187, 234-7	5	13
28	Pseudo-catalytic scavenging: searching for a suitable reactivator of phosphorylated butyrylcholinesterase. *Chemico-Biological Interactions*, **2010**, 187, 167-71	5	49
27	Interactions of pyridinium oximes with acetylcholinesterase. *Chemico-Biological Interactions*, **2010**, 187, 172-6	5	23
26	Evaluation of oxime k203 as antidote in tabun poisoning. *Arhiv Za Higijenu Rada I Toksikologiju*, **2009**, 60, 19-26	1.7	53
25	Interactions of butane, but-2-ene or xylene-like linked bispyridinium para-aldoximes with native and tabun-inhibited human cholinesterases. *Chemico-Biological Interactions*, **2008**, 175, 305-8	5	23
24	Oximes: Reactivators of phosphorylated acetylcholinesterase and antidotes in therapy against tabun poisoning. *Chemico-Biological Interactions*, **2008**, 175, 173-9	5	33

23	Stereoselective inhibition of human, mouse, and horse cholinesterases by bambuterol enantiomers. *Chemico-Biological Interactions*, **2008**, 175, 192-5	5	23
22	Amino acid residues involved in stereoselective inhibition of cholinesterases with bambuterol. *Archives of Biochemistry and Biophysics*, **2008**, 471, 72-6	4.1	7
21	Application of recombinant DNA methods for production of cholinesterases as organophosphate antidotes and detectors. *Arhiv Za Higijenu Rada I Toksikologiju*, **2007**, 58, 339-45	1.7	8
20	Evaluation of monoquaternary pyridinium oximes potency to reactivate tabun-inhibited human acetylcholinesterase. *Toxicology*, **2007**, 233, 85-96	4.4	40
19	Mutation of acetylcholinesterase to enhance oxime-assisted catalytic turnover of methylphosphonates. *Toxicology*, **2007**, 233, 79-84	4.4	34
18	Limitation of the Ellman method: cholinesterase activity measurement in the presence of oximes. *Analytical Biochemistry*, **2007**, 370, 223-7	3.1	80
17	Acetylcholinesterase: converting a vulnerable target to a template for antidotes and detection of inhibitor exposure. *Toxicology*, **2007**, 233, 70-8	4.4	25
16	Structure-activity approach in the reactivation of tabun-phosphorylated human acetylcholinesterase with bispyridinium para-aldoximes. *Arhiv Za Higijenu Rada I Toksikologiju*, **2007**, 58, 201-9	1.7	22
15	Preparative HPLC separation of bambuterol enantiomers and stereoselective inhibition of human cholinesterases. *Analytical and Bioanalytical Chemistry*, **2006**, 385, 1513-9	4.4	26
14	para- and ortho-Pyridinium aldoximes in reaction with acetylthiocholine. *FEBS Letters*, **2006**, 580, 3167-73	3.8	35
13	Active site mutant acetylcholinesterase interactions with 2-PAM, HI-6, and DDVP. *Biochemical and Biophysical Research Communications*, **2006**, 342, 973-8	3.4	27
12	In vitro and in vivo evaluation of pyridinium oximes: mode of interaction with acetylcholinesterase, effect on tabun- and soman-poisoned mice and their cytotoxicity. *Toxicology*, **2006**, 219, 85-96	4.4	105
11	Pretreatment with pyridinium oximes improves antidotal therapy against tabun poisoning. *Toxicology*, **2006**, 228, 41-50	4.4	49
10	Interaction of pyridinium oximes with acetylcholinesterase and their effect on organophosphate-poisoned mice. *Journal of Molecular Neuroscience*, **2006**, 30, 113-4	3.3	2
9	Acetylcholinesterase mutants: oxime-assisted catalytic scavengers of organophosphonates. *Chemico-Biological Interactions*, **2005**, 157-158, 388-90	5	2
8	Structure-inhibition relationships in the interaction of butyrylcholinesterase with bambuterol, haloxon and their leaving groups. *Chemico-Biological Interactions*, **2005**, 157-158, 421-3	5	3
7	Interaction of human butyrylcholinesterase variants with bambuterol and terbutaline. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2004**, 19, 113-7	5.6	17
6	Mutant cholinesterases possessing enhanced capacity for reactivation of their phosphonylated conjugates. *Biochemistry*, **2004**, 43, 3222-9	3.2	96

5	Acetylcholinesterase active centre and gorge conformations analysed by combinatorial mutations and enantiomeric phosphonates. *Biochemical Journal*, **2003**, 373, 33-40	3.8	103
4	An improvement in segregation of human butyrylcholinesterase phenotypes having the fluoride-resistant variants. *Arhiv Za Higijenu Rada I Toksikologiju*, **2003**, 54, 239-44	1.7	2
3	Amino acid residues involved in the interaction of acetylcholinesterase and butyrylcholinesterase with the carbamates Ro 02-0683 and bambuterol, and with terbutaline. *BBA - Proteins and Proteomics*, **1999**, 1433, 261-71		22
2	Reversible inhibition of acetylcholinesterase and butyrylcholinesterase by 4,4[-bipyridine and by a coumarin derivative. *Chemico-Biological Interactions*, **1999**, 119-120, 119-28	5	18
1	An explanation for the different inhibitory characteristics of human serum butyrylcholinesterase phenotypes deriving from inhibition of atypical heterozygotes. *Chemico-Biological Interactions*, **1999**, 119-120, 159-64	5	3