

Michael R Sierks

List of Publications by Year in descending order

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74
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4,081
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109321

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all docs

74
docs citations

74
times ranked

4444
citing authors

#	ARTICLE	IF	CITATIONS
1	Soluble β -synuclein antibody complexes activate the NLRP3 inflammasome in hiPSC-derived microglia. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	69
2	A conformation-specific antibody against oligomeric β -amyloid restores neuronal integrity in a mouse model of Alzheimer's disease. Journal of Biological Chemistry, 2021, 296, 100241.	3.4	4
3	Isolation and characterization of antibody fragments selective for human FTD brain derived TDP-43 variants. BMC Neuroscience, 2020, 21, 36.	1.9	6
4	Isolation and characterization of antibody fragment selective for human Alzheimer's disease brain-derived tau variants. Neurobiology of Aging, 2020, 94, 7-14.	3.1	7
5	Bispecific Antibody Fragment Targeting APP and Inducing β -Site Cleavage Restores Neuronal Health in an Alzheimer's Mouse Model. Molecular Neurobiology, 2019, 56, 7420-7432.	4.0	9
6	CNS disease-related protein variants as blood-based biomarkers in traumatic brain injury. Neurology, 2018, 91, 702-709.	1.1	9
7	TDP-43 protein variants as biomarkers in amyotrophic lateral sclerosis. BMC Neuroscience, 2017, 18, 20.	1.9	27
8	Blood-Based Oligomeric and Other Protein Variant Biomarkers to Facilitate Pre-Symptomatic Diagnosis and Staging of Alzheimer's Disease. Journal of Alzheimer's Disease, 2017, 58, 23-35.	2.6	23
9	APP/ β structural diversity and Alzheimer's disease pathogenesis. Neurochemistry International, 2017, 110, 1-13.	3.8	78
10	β -synuclein conformational antibodies fused to penetratin are effective in models of Lewy body disease. Annals of Clinical and Translational Neurology, 2016, 3, 588-606.	3.7	36
11	Oligomeric β -synuclein and β -amyloid variants as potential biomarkers for Parkinson's and Alzheimer's diseases. European Journal of Neuroscience, 2016, 43, 3-16.	2.6	59
12	Novel Atomic Force Microscopy Based Biopanning for Isolation of Morphology Specific Reagents against TDP-43 Variants in Amyotrophic Lateral Sclerosis. Journal of Visualized Experiments, 2015, .	0.3	10
13	Toxic Oligomeric Alpha-Synuclein Variants Present in Human Parkinson's Disease Brains Are Differentially Generated in Mammalian Cell Models. Biomolecules, 2015, 5, 1634-1651.	4.0	33
14	A novel nicotinic mechanism underlies β -amyloid-induced neurotoxicity. Neuropharmacology, 2015, 97, 457-463.	4.1	24
15	Isolation and characterization of antibody fragments selective for toxic oligomeric tau. Neurobiology of Aging, 2015, 36, 1342-1355.	3.1	25
16	A Sensitive phage-based capture ELISA for sub-femtomolar detection of protein variants directly from biological samples. Biotechnology Progress, 2015, 31, 289-298.	2.6	13
17	ESCRT-mediated Uptake and Degradation of Brain-targeted β -synuclein Single Chain Antibody Attenuates Neuronal Degeneration In Vivo. Molecular Therapy, 2014, 22, 1753-1767.	8.2	80
18	Protein Misfolding and Neurodegenerative Diseases. International Journal of Cell Biology, 2014, 2014, 1-2.	2.5	13

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19	Probing Antibody-Antigen Interactions. <i>Microbiology Spectrum</i> , 2014, 2, AID-0010-2013.	3.0	9
20	Trimeric Tau Is Toxic to Human Neuronal Cells at Low Nanomolar Concentrations. <i>International Journal of Cell Biology</i> , 2013, 2013, 1-9.	2.5	70
21	Isolation and characterization of antibody fragments selective for specific protein morphologies from nanogram antigen samples. <i>Biotechnology Progress</i> , 2013, 29, 463-471.	2.6	23
22	Human $\alpha 7$ Nicotinic Acetylcholine Receptor as a Novel Target of Oligomeric β -Synuclein. <i>PLoS ONE</i> , 2013, 8, e55886.	2.5	12
23	Nanotextured Material for Applications in CSF Sample Screening and Characterization. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1466, 20.	0.1	0
24	Nanobody specific for oligomeric beta-amyloid stabilizes nontoxic form. <i>Neurobiology of Aging</i> , 2012, 33, 1320-1328.	3.1	32
25	Bispecific Tandem Single Chain Antibody Simultaneously Inhibits β -Secretase and Promotes α -Secretase Processing of $A\beta$. <i>Journal of Alzheimer's Disease</i> , 2012, 28, 961-969.	2.6	14
26	Inhibiting β -Secretase Activity in Alzheimer's Disease Cell Models with Single-Chain Antibodies Specifically Targeting APP. <i>Journal of Molecular Biology</i> , 2011, 405, 436-447.	4.2	46
27	CSF levels of oligomeric alpha-synuclein and beta-amyloid as biomarkers for neurodegenerative disease. <i>Integrative Biology (United Kingdom)</i> , 2011, 3, 1188-1196.	1.3	72
28	Curcumin reduces β -synuclein induced cytotoxicity in Parkinson's disease cell model. <i>BMC Neuroscience</i> , 2010, 11, 57.	1.9	167
29	Antifibrillizing agents catalyze the formation of unstable intermediate aggregates of beta-amyloid. <i>Biotechnology Progress</i> , 2010, 26, 1172-1179.	2.6	2
30	Physico-chemical determinants of soluble intrabody expression in mammalian cell cytoplasm. <i>Protein Engineering, Design and Selection</i> , 2010, 23, 489-498.	2.1	54
31	Engineered Proteolytic Nanobodies Reduce $A\beta$ Burden and Ameliorate $A\beta$ -Induced Cytotoxicity. <i>Biochemistry</i> , 2010, 49, 4501-4508.	2.5	23
32	Detecting Morphologically Distinct Oligomeric Forms of β -Synuclein. <i>Journal of Biological Chemistry</i> , 2009, 284, 11048-11058.	3.4	89
33	A Novel Nicotinic Acetylcholine Receptor Subtype in Basal Forebrain Cholinergic Neurons with High Sensitivity to Amyloid Peptides. <i>Journal of Neuroscience</i> , 2009, 29, 918-929.	3.6	159
34	Promoting α -Secretase cleavage of beta-amyloid with engineered proteolytic antibody fragments. <i>Biotechnology Progress</i> , 2009, 25, 1054-1063.	2.6	12
35	Characterizing Antibody Specificity to Different Protein Morphologies by AFM. <i>Langmuir</i> , 2009, 25, 912-918.	3.5	19
36	Cyclodextrins promote protein aggregation posing risks for therapeutic applications. <i>Biochemical and Biophysical Research Communications</i> , 2009, 386, 526-531.	2.1	27

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37	Response letter to comments on "Cyclodextrins promote protein aggregation posing risks for therapeutic applications". Biochemical and Biophysical Research Communications, 2009, 390, 1426-1427.	2.1	0
38	Intracellular targeting and clearance of oligomeric alpha-synuclein alleviates toxicity in mammalian cells. Neuroscience Letters, 2009, 459, 16-18.	2.1	28
39	Conformational Targeting of Fibrillar Polyglutamine Proteins in Live Cells Escalates Aggregation and Cytotoxicity. PLoS ONE, 2009, 4, e5727.	2.5	51
40	Characterization of an antibody scFv that recognizes fibrillar insulin and I ² -amyloid using atomic force microscopy. Nanomedicine: Nanotechnology, Biology, and Medicine, 2008, 4, 1-7.	3.3	15
41	Anti-oligomeric single chain variable domain antibody differentially affects huntingtin and I ² -synuclein aggregates. FEBS Letters, 2008, 582, 517-522.	2.8	12
42	Anti-oligomeric A ¹² Single-chain Variable Domain Antibody Blocks A ¹² -induced Toxicity Against Human Neuroblastoma Cells. Journal of Molecular Biology, 2008, 384, 917-928.	4.2	75
43	Isolation of a Human Single Chain Antibody Fragment Against Oligomeric I ² -Synuclein that Inhibits Aggregation and Prevents I ² -Synuclein-induced Toxicity. Journal of Molecular Biology, 2007, 368, 1132-1144.	4.2	143
44	Single-molecule selection and recovery of structure-specific antibodies using atomic force microscopy. Nanomedicine: Nanotechnology, Biology, and Medicine, 2007, 3, 192-197.	3.3	14
45	Single Chain Fv Antibodies against the 25~35 A ¹² Fragment Inhibit Aggregation and Toxicity of A ¹² . Biochemistry, 2006, 45, 11532-11539.	2.5	43
46	Identification and Repair of Positive Binding Antibodies Containing Randomly Generated Amber Codons from Synthetic Phage Display Libraries. Biotechnology Progress, 2006, 22, 919-922.	2.6	13
47	Reduction of nonspecific protein binding on surface plasmon resonance biosensors. Analytical and Bioanalytical Chemistry, 2006, 386, 1951-1959.	3.7	66
48	Isolating recombinant antibodies against specific protein morphologies using atomic force microscopy and phage display technologies. Protein Engineering, Design and Selection, 2006, 19, 497-502.	2.1	46
49	Insights into the mechanisms of action of anti-A ¹² antibodies in Alzheimer's disease mouse models. FASEB Journal, 2006, 20, 2576-2578.	0.5	110
50	Improved affinity selection using phage display technology and off-rate based selection. Electronic Journal of Biotechnology, 2006, 9, 171-175.	2.2	16
51	Trehalose differentially inhibits aggregation and neurotoxicity of beta-amyloid 40 and 42. Neurobiology of Disease, 2005, 20, 74-81.	4.4	316
52	Ectoine and hydroxyectoine inhibit aggregation and neurotoxicity of Alzheimer's I ² -amyloid. FEBS Letters, 2005, 579, 4775-4780.	2.8	120
53	Quantification of Cytokines Involved in Wound Healing Using Surface Plasmon Resonance. Analytical Chemistry, 2005, 77, 7016-7023.	6.5	102
54	Residues 17-20 and 30-35 of beta-amyloid play critical roles in aggregation. Journal of Neuroscience Research, 2004, 75, 162-171.	2.9	161

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55	Proteolytic Antibody Light Chains Alter β -Amyloid Aggregation and Prevent Cytotoxicity. <i>Biochemistry</i> , 2004, 43, 9999-10007.	2.5	37
56	Inhibiting Aggregation of β -Synuclein with Human Single Chain Antibody Fragments. <i>Biochemistry</i> , 2004, 43, 2871-2878.	2.5	104
57	Single Chain Variable Fragments against β -Amyloid ($A\beta$) Can Inhibit $A\beta$ Aggregation and Prevent $A\beta$ -Induced Neurotoxicity. <i>Biochemistry</i> , 2004, 43, 6959-6967.	2.5	111
58	A human single-chain Fv intrabody blocks aberrant cellular effects of overexpressed β -synuclein. <i>Molecular Therapy</i> , 2004, 10, 1023-1031.	8.2	112
59	Degradation of β -Amyloid by Proteolytic Antibody Light Chains. <i>Biochemistry</i> , 2003, 42, 14328-14334.	2.5	62
60	Specific Glycosidase Activity Isolated from a Random Phage Display Antibody Library. <i>Biotechnology Progress</i> , 2001, 17, 197-202.	2.6	5
61	Solvent and Viscosity Effects on the Rate-Limiting Product Release Step of Glucoamylase during Maltose Hydrolysis. <i>Biotechnology Progress</i> , 1997, 13, 601-608.	2.6	27
62	Synthesis of the first pseudosugar-C-disaccharide. A potential antigen for eliciting glycoside-bond forming antibodies with catalytic groups. <i>Tetrahedron</i> , 1995, 51, 9063-9078.	1.9	27
63	Aglycon mimicking: Glycoside bond cleavage transition state mimics based on hydroxypyrrrolidine inhibitors. <i>Tetrahedron Letters</i> , 1995, 36, 6541-6544.	1.4	19
64	Isofagomine, a Potent, New Glycosidase Inhibitor. <i>Angewandte Chemie International Edition in English</i> , 1994, 33, 1778-1779.	4.4	163
65	Synthesis of isofagomine, a novel glycosidase inhibitor. <i>Tetrahedron</i> , 1994, 50, 13449-13460.	1.9	75
66	Protein engineering of the relative specificity of glucoamylase from <i>Aspergillus awamori</i> based on sequence similarities between starch-degrading enzymes. <i>Protein Engineering, Design and Selection</i> , 1994, 7, 1479-1484.	2.1	32
67	Starch- and glycogen-debranching and branching enzymes: Prediction of structural features of the catalytic (8-barrel domain and evolutionary relationship to other amylolytic enzymes. <i>The Protein Journal</i> , 1993, 12, 791-805.	1.1	258
68	Functional roles and subsite locations of Leu177, Trp178 and Asn182 of <i>Aspergillus awamori</i> glucoamylase determined by site-directed mutagenesis. <i>Protein Engineering, Design and Selection</i> , 1993, 6, 75-79.	2.1	26
69	Kinetic identification of a hydrogen bonding pair in the glucoamylase-maltose transition state complex. <i>Protein Engineering, Design and Selection</i> , 1992, 5, 185-188.	2.1	37
70	Roles of the aromatic side chains in the binding of substrates, inhibitors, and cyclomalto-oligosaccharides to the glucoamylase from <i>Aspergillus niger</i> probed by perturbation difference spectroscopy, chemical modification, and mutagenesis. <i>Carbohydrate Research</i> , 1992, 227, 29-44.	2.3	77
71	Activity and thermal stability of genetically truncated forms of <i>Aspergillus glucoamylase</i> . <i>Gene</i> , 1990, 91, 131-134.	2.2	53
72	Catalytic mechanism of fungal glucoamylase as defined by mutagenesis of Asp176, Glu179 and Glu180 in the enzyme from <i>Aspergillus awamori</i> . <i>Protein Engineering, Design and Selection</i> , 1990, 3, 193-198.	2.1	108

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73	Site-directed mutagenesis at the active site Trp120 of Aspergillus awamori glucoamylase. Protein Engineering, Design and Selection, 1989, 2, 621-625.	2.1	62
74	Probing Antibody-Antigen Interactions. , 0 , 381-397.		0