

Gal Bitan

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127
papers

8,656
citations

44
h-index

92
g-index

157
ext. papers

9,489
ext. citations

6.4
avg, IF

5.91
L-index

#	Paper	IF	Citations
127	Amyloid beta -protein (Abeta) assembly: Abeta 40 and Abeta 42 oligomerize through distinct pathways. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 330-5	11.5	1077
126	Amyloid- β protein oligomerization and the importance of tetramers and dodecamers in the aetiology of Alzheimer's disease. <i>Nature Chemistry</i> , 2009 , 1, 326-31	17.6	737
125	Paradigm shifts in Alzheimer's disease and other neurodegenerative disorders: the emerging role of oligomeric assemblies. <i>Journal of Neuroscience Research</i> , 2002 , 69, 567-77	4.4	493
124	Amyloid beta-protein oligomerization: prenucleation interactions revealed by photo-induced cross-linking of unmodified proteins. <i>Journal of Biological Chemistry</i> , 2001 , 276, 35176-84	5.4	320
123	In silico study of amyloid beta-protein folding and oligomerization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 17345-50	11.5	305
122	Amyloid beta-protein: monomer structure and early aggregation states of Abeta42 and its Pro19 alloform. <i>Journal of the American Chemical Society</i> , 2005 , 127, 2075-84	16.4	296
121	Elucidation of primary structure elements controlling early amyloid beta-protein oligomerization. <i>Journal of Biological Chemistry</i> , 2003 , 278, 34882-9	5.4	246
120	Increased T cell reactivity to amyloid β protein in older humans and patients with Alzheimer disease. <i>Journal of Clinical Investigation</i> , 2003 , 112, 415-422	15.9	221
119	Lysine-specific molecular tweezers are broad-spectrum inhibitors of assembly and toxicity of amyloid proteins. <i>Journal of the American Chemical Society</i> , 2011 , 133, 16958-69	16.4	219
118	Elucidation of amyloid beta-protein oligomerization mechanisms: discrete molecular dynamics study. <i>Journal of the American Chemical Society</i> , 2010 , 132, 4266-80	16.4	211
117	Amyloid beta-protein monomer structure: a computational and experimental study. <i>Protein Science</i> , 2006 , 15, 420-8	6.3	211
116	Neurotoxic protein oligomers--what you see is not always what you get. <i>Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis</i> , 2005 , 12, 88-95	2.7	189
115	Elucidating amyloid beta-protein folding and assembly: A multidisciplinary approach. <i>Accounts of Chemical Research</i> , 2006 , 39, 635-45	24.3	188
114	Rapid photochemical cross-linking--a new tool for studies of metastable, amyloidogenic protein assemblies. <i>Accounts of Chemical Research</i> , 2004 , 37, 357-64	24.3	183
113	C-terminal peptides coassemble into Abeta42 oligomers and protect neurons against Abeta42-induced neurotoxicity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 14175-80	11.5	143
112	A molecular switch in amyloid assembly: Met35 and amyloid beta-protein oligomerization. <i>Journal of the American Chemical Society</i> , 2003 , 125, 15359-65	16.4	143
111	A novel "molecular tweezer" inhibitor of β synuclein neurotoxicity in vitro and in vivo. <i>Neurotherapeutics</i> , 2012 , 9, 464-76	6.4	123

110	Increased T cell reactivity to amyloid beta protein in older humans and patients with Alzheimer disease. <i>Journal of Clinical Investigation</i> , 2003 , 112, 415-22	15.9	122
109	Role of electrostatic interactions in amyloid beta-protein (A beta) oligomer formation: a discrete molecular dynamics study. <i>Biophysical Journal</i> , 2007 , 92, 4064-77	2.9	98
108	Photoaffinity cross-linking identifies differences in the interactions of an agonist and an antagonist with the parathyroid hormone/parathyroid hormone-related protein receptor. <i>Journal of Biological Chemistry</i> , 2000 , 275, 9-17	5.4	98
107	Molecular tweezers for lysine and arginine - powerful inhibitors of pathologic protein aggregation. <i>Chemical Communications</i> , 2016 , 52, 11318-34	5.8	94
106	Comparison of three amyloid assembly inhibitors: the sugar scyllo-inositol, the polyphenol epigallocatechin gallate, and the molecular tweezer CLR01. <i>ACS Chemical Neuroscience</i> , 2012 , 3, 451-8	5.7	93
105	A key role for lysine residues in amyloid β protein folding, assembly, and toxicity. <i>ACS Chemical Neuroscience</i> , 2012 , 3, 473-81	5.7	85
104	Structure-function relationships of pre-fibrillar protein assemblies in Alzheimer's disease and related disorders. <i>Current Alzheimer Research</i> , 2008 , 5, 319-41	3	82
103	Protection of primary neurons and mouse brain from Alzheimer's pathology by molecular tweezers. <i>Brain</i> , 2012 , 135, 3735-48	11.2	75
102	The structure of Abeta42 C-terminal fragments probed by a combined experimental and theoretical study. <i>Journal of Molecular Biology</i> , 2009 , 387, 492-501	6.5	75
101	Building Units for N-Backbone Cyclic Peptides. 3. Synthesis of Protected N(alpha)-(omega-Aminoalkyl)amino Acids and N(alpha)-(omega-Carboxyalkyl)amino Acids. <i>Journal of Organic Chemistry</i> , 1997 , 62, 411-416	4.2	74
100	CNS-Derived Blood Exosomes as a Promising Source of Biomarkers: Opportunities and Challenges. <i>Frontiers in Molecular Neuroscience</i> , 2020 , 13, 38	6.1	73
99	Structural study of metastable amyloidogenic protein oligomers by photo-induced cross-linking of unmodified proteins. <i>Methods in Enzymology</i> , 2006 , 413, 217-36	1.7	73
98	Amino acid position-specific contributions to amyloid beta-protein oligomerization. <i>Journal of Biological Chemistry</i> , 2009 , 284, 23580-91	5.4	71
97	Molecular basis for preventing β synuclein aggregation by a molecular tweezer. <i>Journal of Biological Chemistry</i> , 2014 , 289, 10727-10737	5.4	70
96	A shortened Barnes maze protocol reveals memory deficits at 4-months of age in the triple-transgenic mouse model of Alzheimer's disease. <i>PLoS ONE</i> , 2013 , 8, e80355	3.7	69
95	A β (9-42) modulates A β oligomerization but not fibril formation. <i>Biochemistry</i> , 2012 , 51, 108-17	3.2	65
94	A Label-Free Platform for Identification of Exosomes from Different Sources. <i>ACS Sensors</i> , 2019 , 4, 488-497	3.9	60
93	Amyloid β protein assembly: The effect of molecular tweezers CLR01 and CLR03. <i>Journal of Physical Chemistry B</i> , 2015 , 119, 4831-41	3.4	58

92	Photo-induced cross-linking of unmodified proteins (PICUP) applied to amyloidogenic peptides. <i>Journal of Visualized Experiments</i> , 2009 ,	1.6	57
91	Synthesis and biological activity of NK-1 selective, N-backbone cyclic analogs of the C-terminal hexapeptide of substance P. <i>Journal of Medicinal Chemistry</i> , 1996 , 39, 3174-8	8.3	57
90	Rational design of β -sheet ligands against A β 2-induced toxicity. <i>Journal of the American Chemical Society</i> , 2011 , 133, 4348-58	16.4	55
89	A molecular tweezer antagonizes seminal amyloids and HIV infection. <i>ELife</i> , 2015 , 4,	8.9	55
88	Modulating self-assembly of amyloidogenic proteins as a therapeutic approach for neurodegenerative diseases: strategies and mechanisms. <i>ChemMedChem</i> , 2012 , 7, 359-74	3.7	52
87	Dendrimeric Abeta1-15 is an effective immunogen in wildtype and APP-tg mice. <i>Neurobiology of Aging</i> , 2007 , 28, 813-23	5.6	52
86	Mechanistic investigation of the inhibition of Abeta42 assembly and neurotoxicity by Abeta42 C-terminal fragments. <i>Biochemistry</i> , 2010 , 49, 6358-64	3.2	49
85	Effects of different amyloid β protein analogues on synaptic function. <i>Neurobiology of Aging</i> , 2013 , 34, 1032-44	5.6	48
84	Neurotoxicity of the Parkinson Disease-Associated Pesticide Ziram Is Synuclein-Dependent in Zebrafish Embryos. <i>Environmental Health Perspectives</i> , 2016 , 124, 1766-1775	8.4	45
83	Biophysical characterization of Abeta42 C-terminal fragments: inhibitors of Abeta42 neurotoxicity. <i>Biochemistry</i> , 2010 , 49, 1259-67	3.2	44
82	Structural basis for A β 2 toxicity inhibition by A β C-terminal fragments: discrete molecular dynamics study. <i>Journal of Molecular Biology</i> , 2011 , 410, 316-28	6.5	43
81	RNA aptamers generated against oligomeric Abeta40 recognize common amyloid aptatopes with low specificity but high sensitivity. <i>PLoS ONE</i> , 2009 , 4, e7694	3.7	43
80	Design of β amyloid aggregation inhibitors from a predicted structural motif. <i>Journal of Medicinal Chemistry</i> , 2012 , 55, 3002-10	8.3	42
79	Induction of methionine-sulfoxide reductases protects neurons from amyloid β protein insults in vitro and in vivo. <i>Biochemistry</i> , 2011 , 50, 10687-97	3.2	42
78	Preparation of aggregate-free, low molecular weight amyloid-beta for assembly and toxicity assays. <i>Methods in Molecular Biology</i> , 2005 , 299, 3-9	1.4	42
77	Mechanism of C-Terminal Fragments of Amyloid β Protein as A β Inhibitors: Do C-Terminal Interactions Play a Key Role in Their Inhibitory Activity?. <i>Journal of Physical Chemistry B</i> , 2016 , 120, 1615-23	3.4	39
76	Amyloid β protein oligomers promote the uptake of tau fibril seeds potentiating intracellular tau aggregation. <i>Alzheimer's Research and Therapy</i> , 2019 , 11, 86	9	39
75	Molecular tweezers inhibit islet amyloid polypeptide assembly and toxicity by a new mechanism. <i>ACS Chemical Biology</i> , 2015 , 10, 1555-69	4.9	37

74	Safety and pharmacological characterization of the molecular tweezer CLR01 - a broad-spectrum inhibitor of amyloid proteins' toxicity. <i>BMC Pharmacology & Toxicology</i> , 2014 , 15, 23	2.6	37
73	Molecular tweezers targeting transthyretin amyloidosis. <i>Neurotherapeutics</i> , 2014 , 11, 450-61	6.4	36
72	Disrupting self-assembly and toxicity of amyloidogenic protein oligomers by "molecular tweezers" - from the test tube to animal models. <i>Current Pharmaceutical Design</i> , 2014 , 20, 2469-83	3.3	36
71	Polyglutamine repeat length-dependent proteolysis of huntingtin. <i>Neurobiology of Disease</i> , 2002 , 11, 111-22	7.5	35
70	Inhibition of Huntingtin Exon-1 Aggregation by the Molecular Tweezer CLR01. <i>Journal of the American Chemical Society</i> , 2017 , 139, 5640-5643	16.4	34
69	A Molecular Tweezer Ameliorates Motor Deficits in Mice Overexpressing β Synuclein. <i>Neurotherapeutics</i> , 2017 , 14, 1107-1119	6.4	34
68	Zn ²⁺ -A β 0 complexes form metastable quasi-spherical oligomers that are cytotoxic to cultured hippocampal neurons. <i>Journal of Biological Chemistry</i> , 2012 , 287, 20555-64	5.4	33
67	Despite its role in assembly, methionine 35 is not necessary for amyloid beta-protein toxicity. <i>Journal of Neurochemistry</i> , 2010 , 113, 1252-62	6	32
66	C-terminal tetrapeptides inhibit A β 2-induced neurotoxicity primarily through specific interaction at the N-terminus of A β 2. <i>Journal of Medicinal Chemistry</i> , 2011 , 54, 8451-60	8.3	32
65	Modulation of Amyloid β Protein (A β) Assembly by Homologous C-Terminal Fragments as a Strategy for Inhibiting A β Toxicity. <i>ACS Chemical Neuroscience</i> , 2016 , 7, 845-56	5.7	30
64	Native Top-Down Mass Spectrometry and Ion Mobility Spectrometry of the Interaction of Tau Protein with a Molecular Tweezer Assembly Modulator. <i>Journal of the American Society for Mass Spectrometry</i> , 2019 , 30, 16-23	3.5	30
63	Building units for N-backbone cyclic peptides. Part 4.1 Synthesis of protected N ϵ -functionalized alkyl aminoacids by reductive alkylation of natural amino acids. <i>Journal of the Chemical Society Perkin Transactions 1</i> , 1997 , 1501-1510		28
62	Surprising toxicity and assembly behaviour of amyloid β protein oxidized to sulfone. <i>Biochemical Journal</i> , 2011 , 433, 323-32	3.8	26
61	Synthesis and biological activity of novel backbone-bicyclic substance-P analogs containing lactam and disulfide bridges. <i>Chemical Biology and Drug Design</i> , 1997 , 49, 421-6		26
60	Toxicity inhibitors protect lipid membranes from disruption by A β 2. <i>ACS Chemical Neuroscience</i> , 2015 , 6, 1860-9	5.7	25
59	Mapping the integrin alpha V beta 3-ligand interface by photoaffinity cross-linking. <i>Biochemistry</i> , 1999 , 38, 3414-20	3.2	25
58	The molecular tweezer CLR01 inhibits Ebola and Zika virus infection. <i>Antiviral Research</i> , 2018 , 152, 26-35	10.8	24
57	Role of Species-Specific Primary Structure Differences in A β 2 Assembly and Neurotoxicity. <i>ACS Chemical Neuroscience</i> , 2015 , 6, 1941-55	5.7	22

56	Major Differences between the Self-Assembly and Seeding Behavior of Heparin-Induced and in Vitro Phosphorylated Tau and Their Modulation by Potential Inhibitors. <i>ACS Chemical Biology</i> , 2019 , 14, 1363-1379	4.9	21
55	Preparation of pure populations of covalently stabilized amyloid β protein oligomers of specific sizes. <i>Analytical Biochemistry</i> , 2017 , 518, 78-85	3.1	21
54	The Amyloid Inhibitor CLR01 Relieves Autophagy and Ameliorates Neuropathology in a Severe Lysosomal Storage Disease. <i>Molecular Therapy</i> , 2020 , 28, 1167-1176	11.7	20
53	En route to early diagnosis of Alzheimer's disease--are we there yet?. <i>Trends in Biotechnology</i> , 2005 , 23, 531-3	15.1	20
52	Reducing synuclein accumulation improves neuronal survival after spinal cord injury. <i>Experimental Neurology</i> , 2016 , 278, 105-15	5.7	20
51	Early diagnostics and therapeutics for Alzheimer's disease--how early can we get there?. <i>Expert Review of Neurotherapeutics</i> , 2006 , 6, 1293-306	4.3	19
50	Determination of Peptide oligomerization state using rapid photochemical crosslinking. <i>Methods in Molecular Biology</i> , 2005 , 299, 11-8	1.4	19
49	Modulators of amyloid protein aggregation and toxicity: EGCG and CLR01. <i>Translational Neuroscience</i> , 2013 , 4,	1.2	18
48	The molecular tweezer CLR01 inhibits aberrant superoxide dismutase 1 (SOD1) self-assembly and in the G93A-SOD1 mouse model of ALS. <i>Journal of Biological Chemistry</i> , 2019 , 294, 3501-3513	5.4	18
47	The Lys-Specific Molecular Tweezer, CLR01, Modulates Aggregation of the Mutant p53 DNA Binding Domain and Inhibits Its Toxicity. <i>Biochemistry</i> , 2015 , 54, 3729-38	3.2	17
46	Selection of aptamers for amyloid beta-protein, the causative agent of Alzheimer's disease. <i>Journal of Visualized Experiments</i> , 2010 ,	1.6	16
45	Investigation of Anti-SOD1 Antibodies Yields New Structural Insight into SOD1 Misfolding and Surprising Behavior of the Antibodies Themselves. <i>ACS Chemical Biology</i> , 2018 , 13, 2794-2807	4.9	15
44	The molecular tweezer CLR01 reduces aggregated, pathologic, and seeding-competent β synuclein in experimental multiple system atrophy. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2019 , 1865, 165513	6.9	15
43	Plasma methionine sulfoxide in persons with familial Alzheimer's disease mutations. <i>Dementia and Geriatric Cognitive Disorders</i> , 2012 , 33, 219-25	2.6	15
42	Amyloids and Protein Aggregation <i>Analytical Methods</i> 2009 ,		15
41	Preparation of stable amyloid β protein oligomers of defined assembly order. <i>Methods in Molecular Biology</i> , 2012 , 849, 23-31	1.4	15
40	CLR01 protects dopaminergic neurons in vitro and in mouse models of Parkinson's disease. <i>Nature Communications</i> , 2020 , 11, 4885	17.4	14
39	Supramolecular Mechanism of Viral Envelope Disruption by Molecular Tweezers. <i>Journal of the American Chemical Society</i> , 2020 , 142, 17024-17038	16.4	14

38	Molecular Lysine Tweezers Counteract Aberrant Protein Aggregation. <i>Frontiers in Chemistry</i> , 2019 , 7, 657	5	12
37	Inhibition of Mutant B Crystallin-Induced Protein Aggregation by a Molecular Tweezer. <i>Journal of the American Heart Association</i> , 2017 , 6,	6	12
36	Application of photochemical cross-linking to the study of oligomerization of amyloidogenic proteins. <i>Methods in Molecular Biology</i> , 2012 , 849, 11-21	1.4	12
35	Computational On-Chip Imaging of Nanoparticles and Biomolecules using Ultraviolet Light. <i>Scientific Reports</i> , 2017 , 7, 44157	4.9	11
34	Ischemic axonal injury up-regulates MARK4 in cortical neurons and primes tau phosphorylation and aggregation. <i>Acta Neuropathologica Communications</i> , 2019 , 7, 135	7.3	10
33	Tranilast binds to α 1monomers and promotes α 1fibrillation. <i>Biochemistry</i> , 2013 , 52, 3995-4002	3.2	10
32	β Synuclein in blood exosomes immunoprecipitated using neuronal and oligodendroglial markers distinguishes Parkinson's disease from multiple system atrophy. <i>Acta Neuropathologica</i> , 2021 , 142, 495-511	14.3	10
31	Recommendations of the Global Multiple System Atrophy Research Roadmap Meeting. <i>Neurology</i> , 2018 , 90, 74-82	6.5	10
30	Using Molecular Tweezers to Remodel Abnormal Protein Self-Assembly and Inhibit the Toxicity of Amyloidogenic Proteins. <i>Methods in Molecular Biology</i> , 2018 , 1777, 369-386	1.4	9
29	Identification of a contact domain between echistatin and the integrin α (v) β (3) by photoaffinity cross-linking. <i>Biochemistry</i> , 2001 , 40, 15117-26	3.2	9
28	Transfer hydrogenation of diarylacetylenes by polymethylhydrosiloxane in the presence of the RhCl ₃ -Aliquat 336 catalyst. <i>Journal of Molecular Catalysis</i> , 1991 , 66, 313-319		9
27	Different Amyloid- β Self-Assemblies Have Distinct Effects on Intracellular Tau Aggregation. <i>Frontiers in Molecular Neuroscience</i> , 2019 , 12, 268	6.1	9
26	Assembly of Amyloid E Protein Variants Containing Familial Alzheimer's Disease-Linked Amino Acid Substitutions 2014 , 429-442		8
25	A two-step strategy for structure-activity relationship studies of N-methylated α 2 C-terminal fragments as α 2 toxicity inhibitors. <i>ChemMedChem</i> , 2012 , 7, 515-22	3.7	8
24	Structure-activity relationship of the ring portion in backbone-cyclic C-terminal hexapeptide analogs of substance P. NMR and molecular dynamics. <i>International Journal of Peptide and Protein Research</i> , 1996 , 48, 569-79		7
23	New backbone cyclic substance P analogs. <i>International Journal of Peptide Research and Therapeutics</i> , 1995 , 2, 121-124		7
22	The molecular tweezer CLR01 improves behavioral deficits and reduces tau pathology in P301S-tau transgenic mice. <i>Alzheimer's Research and Therapy</i> , 2021 , 13, 6	9	7
21	Ligand-integrin α v β 3 interaction determined by photoaffinity cross-linking: a challenge to the prevailing model. <i>Biochemistry</i> , 2000 , 39, 11014-23	3.2	6

20	Backbone cyclization of the C-terminal part of substance P. Part 1: The important role of the sulphur in position 11. <i>Journal of Peptide Science</i> , 1996 , 2, 261-9	2.1	6
19	Backbone cyclization as a tool for imposing conformational constraint on peptides 1993 , 482-485		6
18	Aptamers targeting amyloidogenic proteins and their emerging role in neurodegenerative diseases.. <i>Journal of Biological Chemistry</i> , 2021 , 101478	5.4	4
17	Inhibition of Staphylococcus aureus biofilm-forming functional amyloid by molecular tweezers. <i>Cell Chemical Biology</i> , 2021 , 28, 1310-1320.e5	8.2	4
16	Preparation of Pure Populations of Amyloid β Protein Oligomers of Defined Size. <i>Methods in Molecular Biology</i> , 2018 , 1779, 3-12	1.4	3
15	Synthesis of a bicyclic BPTI mimetic containing 4-thioprolin replacing Cys38. <i>International Journal of Peptide Research and Therapeutics</i> , 1998 , 5, 101-103		3
14	The Amyloid β Protein384-491		2
13	Overview of Fibrillar and Oligomeric Assemblies of Amyloidogenic Proteins 2012 , 1-36		2
12	Disease-modifying therapy for proteinopathies: Can the exception become the rule?. <i>Progress in Molecular Biology and Translational Science</i> , 2019 , 168, 277-287	4	2
11	Different Inhibitors of A β 2-Induced Toxicity Have Distinct Metal-Ion Dependency. <i>ACS Chemical Neuroscience</i> , 2020 , 11, 2243-2255	5.7	1
10	Exact modeling of cylindrical metal-dielectric multilayers beyond the effective medium approximation. <i>Optics Letters</i> , 2014 , 39, 6517-20	3	1
9	O2-12-01: Lysine-specific molecular tweezers protect neurons against beta-amyloid-induced synaptotoxicity and lower beta-amyloid and p-tau load in a mouse model of Alzheimer's disease 2012 , 8, P259-P259		1
8	Towards Inhibition of Amyloid β protein Oligomerization 2006 , 515-516		1
7	Three-repeat and four-repeat Tau isoforms form different oligomers.. <i>Protein Science</i> , 2021 ,	6.3	1
6	On-chip ultraviolet holography for high-throughput nanoparticle and biomolecule detection 2018 ,		1
5	Examination of SOD1 aggregation modulators and their effect on SOD1 enzymatic activity as a proxy for potential toxicity. <i>FASEB Journal</i> , 2020 , 34, 11957-11969	0.9	1
4	Lysine-selective molecular tweezers are cell penetrant and concentrate in lysosomes. <i>Communications Biology</i> , 2021 , 4, 1076	6.7	1
3	Counteracting Semen-mediated Enhancement of HIV Infection and Enveloped Virus Infection by a Lysine-specific Molecular Tweezer. <i>AIDS Research and Human Retroviruses</i> , 2014 , 30, A263-A263	1.6	

- 2 Synthesis of a bicyclic BPTI mimetic containing 4-thioprolino replacing Cys38. *International Journal of Peptide Research and Therapeutics*, **1998**, 5, 101-103
- 1 F2-06-01: MAJOR DIFFERENCES BETWEEN THE SELF-ASSEMBLY, SEEDING BEHAVIOR, AND INTERACTION WITH MODULATORS OF HEPARIN-INDUCED VERSUS IN-VITRO PHOSPHORYLATED TAU **2019**, 15, P524-P525