Katsumi Matsuzaki

List of Publications by Year
in descending order

90 papers	11,503 citations	44444 50 h-index	54771 88 g-index
93 all docs	93 docs citations	93 times ranked	11166 citing authors

#	Article	IF	Citations
1	Elucidation of Complex Dynamic Intermolecular Interactions in Membranes. Chemical and Pharmaceutical Bulletin, 2022, 70, 1-9.	0.6	1
2	Thermodynamic and kinetic stabilities of transmembrane helix bundles as revealed by single-pair FRET analysis: Effects of the number of membrane-spanning segments and cholesterol. Biochimica Et Biophysica Acta - Biomembranes, 2021, 1863, 183532.	1.4	5
3	All-Atom Molecular Dynamics Elucidating Molecular Mechanisms of Single-Transmembrane Model Peptide Dimerization in a Lipid Bilayer. ACS Omega, 2021, 6, 11458-11465.	1.6	2
4	In-Cell FRET Indicates Magainin Peptide Induced Permeabilization of Bacterial Cell Membranes at Lower Peptide-to-Lipid Ratios Relevant to Liposomal Studies. ACS Infectious Diseases, 2021, 7, 2941-2945.	1.8	8
5	Improvement of Therapeutic Index by the Combination of Enhanced Peptide Cationicity and Proline Introduction. ACS Infectious Diseases, 2020, 6, 2271-2278.	1.8	10
6	AÎ²â€"ganglioside interactions in the pathogenesis of Alzheimer's disease. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183233.	1.4	53
7	Molecular Mechanism of Apoptosis by Amyloid Î²-Protein Fibrils Formed on Neuronal Cells. ACS Chemical Neuroscience, 2020, 11, 796-805.	1.7	28
8	Meeting Peptides in Kyoto. ChemBioChem, 2019, 20, 2015-2016.	1.3	1
9	Computational Study on the Assembly of Amyloid Î²-Peptides in the Hydrophobic Environment. Chemical and Pharmaceutical Bulletin, 2019, 67, 959-965.	0.6	6
10	Endowment of pH Responsivity to Anticancer Peptides by Introducing 2,3â€Diaminopropionic Acid Residues. ChemBioChem, 2019, 20, 2109-2117.	1.3	7
11	Live-cell imaging of membrane proteins by a coiled-coil labeling methodâ€"Principles and applications. Biochimica Et Biophysica Acta - Biomembranes, 2019, 1861, 1011-1017.	1.4	18
12	Membrane Permeabilization Mechanisms. Advances in Experimental Medicine and Biology, 2019, 1117, 9-16.	0.8	52
13	Toxic Amyloid Tape: A Novel Mixed Antiparallel/Parallel Î²-Sheet Structure Formed by Amyloid Î²-Protein on GM1 Clusters. ACS Chemical Neuroscience, 2019, 10, 563-572.	1.7	43
14	High performance plasma amyloid-Î² biomarkers for Alzheimerâ€™s disease. Nature, 2018, 554, 249-254.	13.7	1,180
15	Trace amounts of pyroglutaminated AÎ²-(3â€"42) enhance aggregation of AÎ²-(1â€"42) on neuronal membranes at physiological concentrations: FCS analysis of cell surface. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 1603-1608.	1.4	5
16	Not Oligomers but Amyloids are Cytotoxic in the Membraneâ€Mediated Amyloidogenesis of Amyloidâ€Î² Peptides. ChemBioChem, 2018, 19, 430-433.	1.3	19
17	A pH-dependent charge reversal peptide for cancer targeting. European Biophysics Journal, 2017, 46, 121-127.	1.2	19
18	GXXXGâ€Mediated Parallel and Antiparallel Dimerization of Transmembrane Helices and Its Inhibition by Cholesterol: Singleâ€Pair FRET and 2D IR Studies. Angewandte Chemie - International Edition, 2017, 56, 1756-1759.	7.2	21

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19	GXXXGâ€Mediated Parallel and Antiparallel Dimerization of Transmembrane Helices and Its Inhibition by Cholesterol: Singleâ€Pair FRET and 2D IR Studies. Angewandte Chemie, 2017, 129, 1782-1785.	1.6	2
20	Stoichiometric analysis of oligomeric states of three classâ€A GPCRs, chemokineâ€CXCR4, dopamineâ€D2, and prostaglandinâ€EP1 receptors, on living cells. Journal of Peptide Science, 2017, 23, 650-658.	0.8	5
21	Aromaticity of Phenylalanine Residues Is Essential for Amyloid Formation by Alzheimerâ€™s Amyloid Î²-Peptide. Chemical and Pharmaceutical Bulletin, 2017, 65, 668-673.	0.6	18
22	Analysis of GXXXG-mediated Association of Transmembrane Helices as Studied by Single-pair Fluorescence and 2D-IR Spectroscopy. Seibutsu Butsuri, 2017, 57, 205-207.	0.0	0
23	Selective amine labeling of cell surface proteins guided by coiledâ€coil assembly. Biopolymers, 2016, 106, 484-490.	1.2	14
24	Cholesterol-Induced Lipophobic Interaction between Transmembrane Helices Using Ensemble and Single-Molecule Fluorescence Resonance Energy Transfer. Biochemistry, 2015, 54, 1371-1379.	1.2	27
25	Oligomerizationâ€"function relationship of EGFR on living cells detected by the coiled-coil labeling and FRET microscopy. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 1359-1366.	1.4	23
26	Comparison between the Aggregation of Human and Rodent Amyloid Î²-Proteins in GM1 Ganglioside Clusters. Biochemistry, 2014, 53, 7523-7530.	1.2	28
27	A Dimer Is the Minimal Proton-Conducting Unit of the Influenza A Virus M2 Channel. Journal of Molecular Biology, 2014, 426, 2679-2691.	2.0	19
28	How Do Membranes Initiate Alzheimerâ€™s Disease? Formation of Toxic Amyloid Fibrils by the Amyloid Î²-Protein on Ganglioside Clusters. Accounts of Chemical Research, 2014, 47, 2397-2404.	7.6	148
29	Binding and Aggregation Mechanism of Amyloid Î²-Peptides onto the GM1 Ganglioside-Containing Lipid Membrane. Journal of Physical Chemistry B, 2013, 117, 8085-8094.	1.2	75
30	Stoichiometric Analysis of Oligomerization of Membrane Proteins on Living Cells Using Coiled-Coil Labeling and Spectral Imaging. Analytical Chemistry, 2013, 85, 3454-3461.	3.2	33
31	Image Analysis of Membrane Receptors in Living Cells by Coiled-coil Labeling Method. Membrane, 2013, 38, 82-86.	0.0	0
32	High-Throughput Analysis of Ligand-Induced Internalization of Î²₂-Adrenoceptors Using the Coiled-Coil Tagâ€"Probe Method. Analytical Chemistry, 2012, 84, 1754-1759.	3.2	15
33	GM1 Cluster Mediates Formation of Toxic AÎ² Fibrils by Providing Hydrophobic Environments. Biochemistry, 2012, 51, 8125-8131.	1.2	48
34	Formation of GM1 Ganglioside Clusters on the Lipid Membrane Containing Sphingomyeline and Cholesterol. Journal of Physical Chemistry B, 2012, 116, 5111-5121.	1.2	66
35	Paradoxical Downregulation of CXC Chemokine Receptor 4 Induced by Polyphemusin II-Derived Antagonists. Bioconjugate Chemistry, 2012, 23, 1259-1265.	1.8	7
36	Interaction of Antimicrobial Peptide Magainin 2 with Gangliosides as a Target for Human Cell Binding. Biochemistry, 2012, 51, 10229-10235.	1.2	30

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37	Coiled-Coil Tagâ€"Probe Labeling Methods for Live-Cell Imaging of Membrane Receptors. Methods in Enzymology, 2012, 504, 355-370.	0.4	16
38	Improvement of probe peptides for coiledâ€coil labeling by introducing phosphoserines. Biopolymers, 2012, 98, 234-238.	1.2	9
39	Mechanism of Amyloid Î²-Protein Aggregation Mediated by GM1 Ganglioside Clusters. Biochemistry, 2011, 50, 6433-6440.	1.2	95
40	Thermodynamics of Insertion and Self-Association of a Transmembrane Helix: A Lipophobic Interaction by Phosphatidylethanolamine. Biochemistry, 2011, 50, 6806-6814.	1.2	20
41	Formation of Toxic Amyloid Fibrils by AmyloidÎ²-Protein on Ganglioside Clusters. International Journal of Alzheimer's Disease, 2011, 2011, 1-7.	1.1	29
42	Gangliosideâ€mediated aggregation of amyloid Î²â€proteins (AÎ²): comparison between AÎ²â€(1â€"42) and AÎ²â€(1â€"40). Journal of Neurochemistry, 2011, 116, 851-857.	2.1	46
43	Fluorescence ratiometric detection of ligand-induced receptor internalization using extracellular coiled-coil tag-probe labeling. FEBS Letters, 2011, 585, 2385-2388.	1.3	15
44	AÎ² polymerization through interaction with membrane gangliosides. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2010, 1801, 868-877.	1.2	202
45	A Disulfide-Linked Amyloid-Î² Peptide Dimer Forms a Protofibril-like Oligomer through a Distinct Pathway from Amyloid Fibril Formation. Biochemistry, 2010, 49, 7100-7107.	1.2	75
46	Design of a Soluble Transmembrane Helix for Measurements of Water-Membrane Partitioning. Journal of Physical Chemistry B, 2010, 114, 1925-1931.	1.2	9
47	Peptide-Lipid Huge Toroidal Pore, a New Antimicrobial Mechanism Mediated by a Lactococcal Bacteriocin, Lacticin Q. Antimicrobial Agents and Chemotherapy, 2009, 53, 3211-3217.	1.4	114
48	Gangliosideâ€induced amyloid formation by human islet amyloid polypeptide in lipid rafts. FEBS Letters, 2009, 583, 2854-2858.	1.3	79
49	Control of cell selectivity of antimicrobial peptides. Biochimica Et Biophysica Acta - Biomembranes, 2009, 1788, 1687-1692.	1.4	553
50	Tagâ€"probe labeling methods for live-cell imaging of membrane proteins. Biochimica Et Biophysica Acta - Biomembranes, 2009, 1788, 2124-2131.	1.4	58
51	Magainin 2 in Action: Distinct Modes of Membrane Permeabilization in Living Bacterial and Mammalian Cells. Biophysical Journal, 2008, 95, 5757-5765.	0.2	99
52	Formation of Toxic AÎ²(1â€"40) Fibrils on GM1 Ganglioside-Containing Membranes Mimicking Lipid Rafts: Polymorphisms in AÎ²(1â€"40) Fibrils. Journal of Molecular Biology, 2008, 382, 1066-1074.	2.0	111
53	Driving force of binding of amyloid Î²-protein to lipid bilayers. Biochemical and Biophysical Research Communications, 2008, 370, 525-529.	1.0	51
54	Coiled-Coil Tagâ^'Probe System for Quick Labeling of Membrane Receptors in Living Cells. ACS Chemical Biology, 2008, 3, 341-345.	1.6	108

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55	Inhibitors of amyloid Î²-protein aggregation mediated by GM1-containing raft-like membranes. Biochimica Et Biophysica Acta - Biomembranes, 2007, 1768, 122-130.	1.4	70
56	Action mechanism of tachyplesin I and effects of PEGylation. Biochimica Et Biophysica Acta - Biomembranes, 2007, 1768, 1160-1169.	1.4	137
57	Physicochemical interactions of amyloid Î²-peptide with lipid bilayers. Biochimica Et Biophysica Acta - Biomembranes, 2007, 1768, 1935-1942.	1.4	192
58	Action mechanism of PEGylated magainin 2 analogue peptide. Biochimica Et Biophysica Acta - Biomembranes, 2007, 1768, 2578-2585.	1.4	78
59	Formation of Toxic Fibrils of Alzheimerâ€™s Amyloid Î²-Protein-(1â€“40) by Monosialoganglioside GM1, a Neuronal Membrane Component. Journal of Molecular Biology, 2007, 371, 481-489.	2.0	111
60	Formation of Amyloids by AÎ²-(1â€“42) on NGF-differentiated PC12 Cells: Roles of Gangliosides and Cholesterol. Journal of Molecular Biology, 2007, 371, 924-933.	2.0	72
61	Measurement of Thermodynamic Parameters for Hydrophobic Mismatch 1:â€‰ Self-Association of a Transmembrane Helixâ€. Biochemistry, 2006, 45, 3370-3378.	1.2	56
62	Cross-seeding of wild-type and hereditary variant-type amyloid beta-proteins in the presence of gangliosides. Journal of Neurochemistry, 2005, 95, 1167-1176.	2.1	36
63	GM1 ganglioside-mediated accumulation of amyloid Î²-protein on cell membranes. Biochemical and Biophysical Research Communications, 2005, 328, 1019-1023.	1.0	121
64	A Seed for Alzheimer Amyloid in the Brain. Journal of Neuroscience, 2004, 24, 4894-4902.	1.7	234
65	Environment- and mutation-dependent aggregation behavior of Alzheimer amyloid Î²-protein. Journal of Neurochemistry, 2004, 90, 62-69.	2.1	65
66	Membrane Translocation Mechanism of the Antimicrobial Peptide Buforin 2â€. Biochemistry, 2004, 43, 15610-15616.	1.2	126
67	Translocation of Analogues of the Antimicrobial Peptides Magainin and Buforin across Human Cell Membranes. Journal of Biological Chemistry, 2003, 278, 1310-1315.	1.6	174
68	Position-Dependent Hydrophobicity of the Antimicrobial Magainin Peptide Affects the Mode of Peptideâˆ'Lipid Interactions and Selective Toxicity. Biochemistry, 2002, 41, 10723-10731.	1.2	145
69	Topological Stability and Self-Association of a Completely Hydrophobic Model Transmembrane Helix in Lipid Bilayers. Biochemistry, 2002, 41, 3073-3080.	1.2	56
70	Interactions of Amyloid Î²-Protein with Various Gangliosides in Raft-Like Membranes:Â Importance of GM1 Ganglioside-Bound Form as an Endogenous Seed for Alzheimer Amyloidâ€. Biochemistry, 2002, 41, 7385-7390.	1.2	351
71	Effects of peptide dimerization on pore formation: Antiparallel disulfide-dimerized magainin 2 analogue. Biopolymers, 2001, 58, 437-446.	1.2	67
72	Cholesterol-dependent Formation of GM1 Ganglioside-bound Amyloid Î²-Protein, an Endogenous Seed for Alzheimer Amyloid. Journal of Biological Chemistry, 2001, 276, 24985-24990.	1.6	371

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73	Polar Angle as a Determinant of Amphipathic Î±-Helix-Lipid Interactions: A Model Peptide Study. Biophysical Journal, 2000, 79, 2075-2083.	0.2	80
74	Interactions of the Novel Antimicrobial Peptide Buforin 2 with Lipid Bilayers:Â Proline as a Translocation Promoting Factorâ€. Biochemistry, 2000, 39, 8648-8654.	1.2	200
75	Interactions of an antimicrobial peptide, magainin 2, with lipopolysaccharide-containing liposomes as a model for outer membranes of Gram-negative bacteria. FEBS Letters, 1999, 449, 221-224.	1.3	135
76	Why and how are peptideâ€"lipid interactions utilized for self-defense? Magainins and tachyplesins as archetypes. Biochimica Et Biophysica Acta - Biomembranes, 1999, 1462, 1-10.	1.4	847
77	Interactions of Amyloid Î²-Peptide (1â^'40) with Ganglioside-Containing Membranesâ€. Biochemistry, 1999, 38, 4137-4142.	1.2	226
78	Magainins as paradigm for the mode of action of pore forming polypeptides. BBA - Biomembranes, 1998, 1376, 391-400.	7.9	522
79	Mechanism of Synergism between Antimicrobial Peptides Magainin 2 and PGLa. Biochemistry, 1998, 37, 15144-15153.	1.2	229
80	Relationship of Membrane Curvature to the Formation of Pores by Magainin 2â€. Biochemistry, 1998, 37, 11856-11863.	1.2	435
81	Modulation of Magainin 2â^'Lipid Bilayer Interactions by Peptide Chargeâ€. Biochemistry, 1997, 36, 2104-2111.	1.2	171
82	Interactions of an antimicrobial peptide, magainin 2, with outer and inner membranes of Gram-negative bacteria. Biochimica Et Biophysica Acta - Biomembranes, 1997, 1327, 119-130.	1.4	313
83	Transbilayer Transport of Ions and Lipids Coupled with Mastoparan X Translocationâ€. Biochemistry, 1996, 35, 8450-8456.	1.2	154
84	An Antimicrobial Peptide, Magainin 2, Induced Rapid Flip-Flop of Phospholipids Coupled with Pore Formation and Peptide Translocation. Biochemistry, 1996, 35, 11361-11368.	1.2	674
85	Kinetics of Pore Formation by an Antimicrobial Peptide, Magainin 2, in Phospholipid Bilayers. Biochemistry, 1995, 34, 12553-12559.	1.2	172
86	Molecular Basis for Membrane Selectivity of an Antimicrobial Peptide, Magainin 2. Biochemistry, 1995, 34, 3423-3429.	1.2	420
87	Orientational and Aggregational States of Magainin 2 in Phospholipid Bilayers. Biochemistry, 1994, 33, 3342-3349.	1.2	308
88	Interactions of an antimicrobial peptide, tachyplesin I, with lipid membranes. Biochimica Et Biophysica Acta - Biomembranes, 1991, 1070, 259-264.	1.4	73
89	Physicochemical determinants for the interactions of magainins 1 and 2 with acidic lipid bilayers. Biochimica Et Biophysica Acta - Biomembranes, 1991, 1063, 162-170.	1.4	182
90	Magainin 1-induced leakage of entrapped calcein out of negatively-charged lipid vesicles. Biochimica Et Biophysica Acta - Biomembranes, 1989, 981, 130-134.	1.4	174