Shiroh Futaki

List of Publications by Year
in descending order

249 papers	16,875 citations	16451 64 h-index	16650 123 g-index
267 all docs	267 docs citations	267 times ranked	12925 citing authors

#	Article	IF	Citations
1	Arginine-rich Peptides. Journal of Biological Chemistry, 2001, 276, 5836-5840.	3.4	1,473
2	Mechanisms of Cellular Uptake of Cell-Penetrating Peptides. Journal of Biophysics, 2011, 2011, 1-10.	0.8	747
3	Cellular Uptake of Arginine-Rich Peptides: Roles for Macropinocytosis and Actin Rearrangement. Molecular Therapy, 2004, 10, 1011-1022.	8.2	688
4	Stearylated Arginine-Rich Peptides:â€‰ A New Class of Transfection Systems. Bioconjugate Chemistry, 2001, 12, 1005-1011.	3.6	428
5	Delivery of Macromolecules Using Arginine-Rich Cell-Penetrating Peptides: Ways to Overcome Endosomal Entrapment. AAPS Journal, 2009, 11, 13-22.	4.4	417
6	High-resolution multi-dimensional NMR spectroscopy of proteins in human cells. Nature, 2009, 458, 106-109.	27.8	410
7	Possible Existence of Common Internalization Mechanisms among Arginine-rich Peptides. Journal of Biological Chemistry, 2002, 277, 2437-2443.	3.4	403
8	Membrane-permeable arginine-rich peptides and the translocation mechanisms. Advanced Drug Delivery Reviews, 2005, 57, 547-558.	13.7	384
9	Interaction of Arginine-Rich Peptides with Membrane-Associated Proteoglycans Is Crucial for Induction of Actin Organization and Macropinocytosisâ€. Biochemistry, 2007, 46, 492-501.	2.5	364
10	High Density of Octaarginine Stimulates Macropinocytosis Leading to Efficient Intracellular Trafficking for Gene Expression. Journal of Biological Chemistry, 2006, 281, 3544-3551.	3.4	355
11	Methodological and cellular aspects that govern the internalization mechanisms of arginine-rich cell-penetrating peptides. Advanced Drug Delivery Reviews, 2008, 60, 598-607.	13.7	323
12	Cellular Internalization and Distribution of Arginine-Rich Peptides as a Function of Extracellular Peptide Concentration, Serum, and Plasma Membrane Associated Proteoglycans. Bioconjugate Chemistry, 2008, 19, 656-664.	3.6	289
13	Efficient Intracellular Delivery of Nucleic Acid Pharmaceuticals Using Cell-Penetrating Peptides. Accounts of Chemical Research, 2012, 45, 1132-1139.	15.6	272
14	Cytosolic antibody delivery by lipid-sensitive endosomolytic peptide. Nature Chemistry, 2017, 9, 751-761.	13.6	271
15	Transferrin-Modified Liposomes Equipped with a pH-Sensitive Fusogenic Peptide:â€‰ An Artificial Viral-like Delivery System. Biochemistry, 2004, 43, 5618-5628.	2.5	268
16	Direct and Rapid Cytosolic Delivery Using Cell-Penetrating Peptides Mediated by Pyrenebutyrate. ACS Chemical Biology, 2006, 1, 299-303.	3.4	250
17	A pH-sensitive fusogenic peptide facilitates endosomal escape and greatly enhances the gene silencing of siRNA-containing nanoparticles in vitro and in vivo. Journal of Controlled Release, 2009, 139, 127-132.	9.9	238
18	Development of a non-viral multifunctional envelope-type nano device by a novel lipid film hydration method. Journal of Controlled Release, 2004, 98, 317-323.	9.9	232

#	Article	IF	Citations
19	Temperature-, concentration- and cholesterol-dependent translocation of L- and D-octa-arginine across the plasma and nuclear membrane of CD34+ leukaemia cells. Biochemical Journal, 2007, 403, 335-342.	3.7	219
20	Arginine-rich peptides: potential for intracellular delivery of macromolecules and the mystery of the translocation mechanisms. International Journal of Pharmaceutics, 2002, 245, 1-7.	5.2	213
21	Combined treatment with a pH-sensitive fusogenic peptide and cationic lipids achieves enhanced cytosolic delivery of exosomes. Scientific Reports, 2015, 5, 10112.	3.3	210
22	Arginine-rich peptides and their internalization mechanisms. Biochemical Society Transactions, 2007, 35, 784-787.	3.4	207
23	Octaarginine-modified multifunctional envelope-type nano device for siRNA. Journal of Controlled Release, 2007, 119, 360-367.	9.9	196
24	Cell-Surface Interactions on Arginine-Rich Cell-Penetrating Peptides Allow for Multiplex Modes of Internalization. Accounts of Chemical Research, 2017, 50, 2449-2456.	15.6	185
25	Oligoarginine vectors for intracellular delivery: Design and cellular-uptake mechanisms. Biopolymers, 2006, 84, 241-249.	2.4	182
26	Transient Focal Membrane Deformation Induced by Arginine-rich Peptides Leads to Their Direct Penetration into Cells. Molecular Therapy, 2012, 20, 984-993.	8.2	179
27	Octaarginine- and Octalysine-modified Nanoparticles Have Different Modes of Endosomal Escape. Journal of Biological Chemistry, 2008, 283, 23450-23461.	3.4	177
28	Translocation of Branched-Chain Arginine Peptides through Cell Membranes:Â Flexibility in the Spatial Disposition of Positive Charges in Membrane-Permeable Peptidesâ€. Biochemistry, 2002, 41, 7925-7930.	2.5	155
29	Intercellular chaperone transmission via exosomes contributes to maintenance of protein homeostasis at the organismal level. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E2497-506.	7.1	153
30	Nanoparticles for ex vivo siRNA delivery to dendritic cells for cancer vaccines: Programmed endosomal escape and dissociationâ˜†. Journal of Controlled Release, 2010, 143, 311-317.	9.9	131
31	Accumulation of arginine-rich cell-penetrating peptides in tumors and the potential for anticancer drug delivery in vivo. Journal of Controlled Release, 2012, 159, 181-188.	9.9	131
32	Anionic Fullerenes, Calixarenes, Coronenes, and Pyrenes as Activators of Oligo/Polyarginines in Model Membranes and Live Cells. Journal of the American Chemical Society, 2005, 127, 1114-1115.	13.7	130
33	Arginine-rich cell-penetrating peptide-modified extracellular vesicles for active macropinocytosis induction and efficient intracellular delivery. Scientific Reports, 2017, 7, 1991.	3.3	130
34	Direct Observation of Anion-Mediated Translocation of Fluorescent Oligoarginine Carriers into and across Bulk Liquid and Anionic Bilayer Membranes. ChemBioChem, 2005, 6, 114-122.	2.6	125
35	Transferrin receptor-dependent cytotoxicity of artemisininâ€"transferrin conjugates on prostate cancer cells and induction of apoptosis. Cancer Letters, 2009, 274, 290-298.	7.2	122
36	Arginine magic with new counterions up the sleeve. Organic and Biomolecular Chemistry, 2005, 3, 1659.	2.8	120

#	Article	IF	Citations
37	Elucidating cell-penetrating peptide mechanisms of action for membrane interaction, cellular uptake, and translocation utilizing the hydrophobic counter-anion pyrenebutyrate. Biochimica Et Biophysica Acta - Biomembranes, 2009, 1788, 2509-2517.	2.6	119
38	Preparation of Peptide Thioesters using Fmoc-Solid-Phase Peptide Synthesis and its Application to the Construction of a Template-Assembled Synthetic Protein (TASP). Tetrahedron Letters, 1997, 38, 6237-6240.	1.4	118
39	Detection of<i>N</i>⁶-methyladenosine based on the methyl-sensitivity of MazF RNA endonuclease. Chemical Communications, 2017, 53, 12930-12933.	4.1	113
40	Syndecan-4 Is a Receptor for Clathrin-Mediated Endocytosis of Arginine-Rich Cell-Penetrating Peptides. Bioconjugate Chemistry, 2016, 27, 1119-1130.	3.6	112
41	An artificial virus-like nano carrier system: enhanced endosomal escape of nanoparticles via synergistic action of pH-sensitive fusogenic peptide derivatives. Analytical and Bioanalytical Chemistry, 2008, 391, 2717-2727.	3.7	111
42	Endosomal escape and the knockdown efficiency of liposomal-siRNA by the fusogenic peptide shGALA. Biomaterials, 2011, 32, 5733-5742.	11.4	107
43	CXCR4 Stimulates Macropinocytosis: Implications for Cellular Uptake of Arginine-Rich Cell-Penetrating Peptides and HIV. Chemistry and Biology, 2012, 19, 1437-1446.	6.0	103
44	Enhanced intracellular delivery using arginine-rich peptides by the addition of penetration accelerating sequences (Pas). Journal of Controlled Release, 2009, 138, 128-133.	9.9	102
45	Cell-surface Accumulation of Flock House Virus-derived Peptide Leads to Efficient Internalization via Macropinocytosis. Molecular Therapy, 2009, 17, 1868-1876.	8.2	100
46	Current Understanding of Direct Translocation of Arginine-Rich Cell-Penetrating Peptides and Its Internalization Mechanisms. Chemical and Pharmaceutical Bulletin, 2016, 64, 1431-1437.	1.3	100
47	Intracellular Traffic and Fate of Protein Transduction Domains HIV-1 TAT Peptide and Octaarginine. Implications for Their Utilization as Drug Delivery Vectors. Bioconjugate Chemistry, 2006, 17, 90-100.	3.6	99
48	Octaarginine-modified liposomes: Enhanced cellular uptake and controlled intracellular trafficking. International Journal of Pharmaceutics, 2008, 354, 39-48.	5.2	96
49	Effects of Na+/H+ exchanger inhibitors on subcellular localisation of endocytic organelles and intracellular dynamics of protein transduction domains HIVâ€“TAT peptide and octaarginine. Journal of Controlled Release, 2006, 116, 247-254.	9.9	90
50	Cell-penetrating peptides (CPPs) as a vector for the delivery of siRNAs into cells. Molecular BioSystems, 2013, 9, 855.	2.9	89
51	Mitochondrial delivery of mastoparan with transferrin liposomes equipped with a pH-sensitive fusogenic peptide for selective cancer therapy. International Journal of Pharmaceutics, 2005, 303, 1-7.	5.2	87
52	Dynamic Amphiphile Libraries To Screen for the â€œFragrantâ€•Delivery of siRNA into HeLa Cells and Human Primary Fibroblasts. Journal of the American Chemical Society, 2013, 135, 9295-9298.	13.7	85
53	Endosomeâ€disruptive peptides for improving cytosolic delivery of bioactive macromolecules. Biopolymers, 2010, 94, 763-770.	2.4	82
54	Cytosolic Targeting of Macromolecules Using a pH-Dependent Fusogenic Peptide in Combination with Cationic Liposomes. Bioconjugate Chemistry, 2009, 20, 953-959.	3.6	81

#	Article	IF	Citations
55	Cell Permeable Peptide of JNK Inhibitor Prevents Islet Apoptosis Immediately After Isolation and Improves Islet Graft Function. American Journal of Transplantation, 2005, 5, 1848-1855.	4.7	80
56	Guanidineâ€Containing Molecular Transporters: Sorbitolâ€Based Transporters Show High Intracellular Selectivity toward Mitochondria. Angewandte Chemie - International Edition, 2007, 46, 5880-5884.	13.8	80
57	Membrane permeability commonly shared among arginineâ€rich peptides. Journal of Molecular Recognition, 2003, 16, 260-264.	2.1	76
58	A multifunctional envelope-type nano device for novel gene delivery of siRNA plasmids. International Journal of Pharmaceutics, 2005, 301, 277-285.	5.2	72
59	Facile Solid-Phase Synthesis of Sulfated Tyrosine-Containing Peptides: Total Synthesis of Human Big Gastrin-II and Cholecystokinin (CCK)-391,2. Journal of Organic Chemistry, 2001, 66, 1-10.	3.2	69
60	Vectorization of biomacromolecules into cells using extracellular vesicles with enhanced internalization induced by macropinocytosis. Scientific Reports, 2016, 6, 34937.	3.3	69
61	Arginine-rich Peptides: Methods of Translocation Through Biological Membranes. Current Pharmaceutical Design, 2013, 19, 2863-2868.	1.9	69
62	Unique features of a pH-sensitive fusogenic peptide that improves the transfection efficiency of cationic liposomes. Journal of Gene Medicine, 2005, 7, 1450-1458.	2.8	68
63	Acylation of octaarginine: Implication to the use of intracellular delivery vectors. Journal of Controlled Release, 2011, 149, 29-35.	9.9	68
64	Can Nuclear Localization Signals Enhance Nuclear Localization of Plasmid DNA?. Bioconjugate Chemistry, 2003, 14, 282-286.	3.6	66
65	Inverted micelle formation of cell-penetrating peptide studied by coarse-grained simulation: Importance of attractive force between cell-penetrating peptides and lipid head group. Journal of Chemical Physics, 2011, 134, 095103.	3.0	66
66	Effect of the Attachment of a Penetration Accelerating Sequence and the Influence of Hydrophobicity on Octaarginine-Mediated Intracellular Delivery. Molecular Pharmaceutics, 2012, 9, 1222-1230.	4.6	66
67	Low concentration thresholds of plasma membranes for rapid energy-independent translocation of a cell-penetrating peptide. Biochemical Journal, 2009, 420, 179-191.	3.7	64
68	Kinetic Analysis of the Interaction between Vitronectin and the Urokinase Receptor. Journal of Biological Chemistry, 2002, 277, 9395-9404.	3.4	62
69	Cellular uptake, distribution and cytotoxicity of the hydrophobic cell penetrating peptide sequence PFVYLI linked to the proapoptotic domain peptide PAD. Journal of Controlled Release, 2009, 140, 237-244.	9.9	60
70	Cellular uptake and subsequent intracellular trafficking of R8-liposomes introduced at low temperature. Biochimica Et Biophysica Acta - Biomembranes, 2006, 1758, 713-720.	2.6	59
71	Loosening of Lipid Packing Promotes Oligoarginine Entry into Cells. Angewandte Chemie - International Edition, 2017, 56, 7644-7647.	13.8	59
72	Topological Stability and Self-Association of a Completely Hydrophobic Model Transmembrane Helix in Lipid Bilayers. Biochemistry, 2002, 41, 3073-3080.	2.5	56

#	Article	IF	Citations
73	Structural Variety of Membrane Permeable Peptides. Current Protein and Peptide Science, 2003, 4, 87-96.	1.4	56
74	KALA-modified multi-layered nanoparticles as gene carriers for MHC class-I mediated antigen presentation for a DNA vaccine. Biomaterials, 2011, 32, 6342-6350.	11.4	54
75	Arginine Carrier Peptide Bearing Ni(II) Chelator to Promote Cellular Uptake of Histidine-Tagged Proteins. Bioconjugate Chemistry, 2004, 15, 475-481.	3.6	52
76	Anion hopping of (and on) functional oligoarginines: from chloroform to cells. Soft Matter, 2006, 2, 636.	2.7	50
77	Acid wash in determining cellular uptake of Fab/cell-permeating peptide conjugates. Biopolymers, 2007, 88, 98-107.	2.4	50
78	Curvature Engineering: Positive Membrane Curvature Induced by Epsin N-Terminal Peptide Boosts Internalization of Octaarginine. ACS Chemical Biology, 2013, 8, 1894-1899.	3.4	49
79	Importance of Net Hydrophobicity in the Cellular Uptake of All-Hydrocarbon Stapled Peptides. Molecular Pharmaceutics, 2018, 15, 1332-1340.	4.6	47
80	Transformation of an antimicrobial peptide into a plasma membrane-permeable, mitochondria-targeted peptide via the substitution of lysine with arginine. Chemical Communications, 2012, 48, 11097.	4.1	45
81	PDX-1 Protein is Internalized by Lipid Raft-Dependent Macropinocytosis. Cell Transplantation, 2005, 14, 637-645.	2.5	44
82	Intracellular target delivery of cell-penetrating peptide-conjugated dodecaborate for boron neutron capture therapy (BNCT). Chemical Communications, 2019, 55, 13955-13958.	4.1	44
83	Effects of pyrenebutyrate on the translocation of arginine-rich cell-penetrating peptides through artificial membranes: Recruiting peptides to the membranes, dissipating liquid-ordered phases, and inducing curvature. Biochimica Et Biophysica Acta - Biomembranes, 2013, 1828, 2134-2142.	2.6	42
84	Effects of Cell-Permeating Peptide Binding on the Distribution of 125I-Labeled Fab Fragment in Rats. Bioconjugate Chemistry, 2006, 17, 597-602.	3.6	41
85	Gramicidin-based channel systems for the detection of proteinâ€"ligand interaction. Bioorganic and Medicinal Chemistry, 2004, 12, 1343-1350.	3.0	40
86	Significant and prolonged antisense effect of a multifunctional envelope-type nano device encapsulating antisense oligodeoxynucleotideâ€. Journal of Pharmacy and Pharmacology, 2010, 58, 431-437.	2.4	40
87	Collagenâ€like Cellâ€Penetrating Peptides. Angewandte Chemie - International Edition, 2013, 52, 5497-5500.	13.8	40
88	Application of a Fusiogenic Peptide GALA for Intracellular Delivery. Methods in Molecular Biology, 2011, 683, 525-533.	0.9	40
89	Transmission of Extramembrane Conformational Change into Current:Â Construction of Metal-Gated Ion Channel. Journal of the American Chemical Society, 2006, 128, 6010-6011.	13.7	39
90	Signal Transduction Using an Artificial Receptor System that Undergoes Dimerization Upon Addition of a Bivalent Leucineâ€Zipper Ligand. Angewandte Chemie - International Edition, 2012, 51, 7464-7467.	13.8	39

#	Article	IF	Citations
91	Modeling the endosomal escape of cell-penetrating peptides using a transmembrane pH gradient. Biochimica Et Biophysica Acta - Biomembranes, 2013, 1828, 1198-1204.	2.6	39
92	Evaluation of the Final Deprotection System for the Solid-Phase Synthesis of Tyr(SO3H)-Containing Peptides with 9-Fluorenylmethyloxycarbonyl (Fmoc)-Strategy and Its Application to the Synthesis of Cholecystokinin (CCK)-12.. Chemical and Pharmaceutical Bulletin, 1993, 41, 376-380.	1.3	38
93	Artificial Zinc Finger Peptide Containing a Novel His4Domain. Journal of the American Chemical Society, 2000, 122, 7648-7653.	13.7	38
94	Design, Synthesis, and Membrane-Translocation Studies of Inositol-Based Transporters. Angewandte Chemie - International Edition, 2006, 45, 2907-2912.	13.8	38
95	Generation of reactive oxygen species and activation of NF-Î°B by non-AÎ² component of Alzheimer's disease amyloid. Journal of Neurochemistry, 2002, 82, 305-315.	3.9	37
96	Alamethicinâ˜'Leucine Zipper Hybrid Peptide:Â A Prototype for the Design of Artificial Receptors and Ion Channels. Journal of the American Chemical Society, 2001, 123, 12127-12134.	13.7	36
97	Optimizing Charge Switching in Membrane Lytic Peptides for Endosomal Release of Biomacromolecules. Angewandte Chemie - International Edition, 2020, 59, 19990-19998.	13.8	36
98	Control of Peptide Structure and Recognition by Fe(III)-Induced Helix Destabilization. Journal of the American Chemical Society, 2004, 126, 15762-15769.	13.7	35
99	Molecular interplays involved in the cellular uptake of octaarginine on cell surfaces and the importance of syndecan-4 cytoplasmic V domain for the activation of protein kinase CÎ±. Biochemical and Biophysical Research Communications, 2014, 446, 857-862.	2.1	35
100	Membrane permeable peptide vectors: chemistry and functional design for the therapeutic applications. Advanced Drug Delivery Reviews, 2008, 60, 447.	13.7	34
101	Peptide ion channels: Design and creation of function. Biopolymers, 1998, 47, 75-81.	2.4	33
102	Delivery of Condensed DNA by Liposomal Non-viral Gene Delivery System into Nucleus of Dendritic Cells. Biological and Pharmaceutical Bulletin, 2006, 29, 1290-1293.	1.4	33
103	Evaluation of the nuclear delivery and intra-nuclear transcription of plasmid DNA condensed with Âµ (mu) and NLS-Âµ by cytoplasmic and nuclear microinjection: a comparative study with poly-L-lysine. Journal of Gene Medicine, 2006, 8, 198-206.	2.8	33
104	Syntheses of two tyrosine-sulphate containing peptides. Leucosulfakinin (LSK)-II and cholecystokinin (CCK)-12, using the 0--(methylsulphinyl)benzyl serine for the selective sulphation of tyrosine. Tetrahedron, 1992, 48, 8899-8914.	1.9	31
105	Oligomers of Î²-amino acid bearing non-planar amides form ordered structures. Tetrahedron, 2006, 62, 11635-11644.	1.9	31
106	Novel System to Achieve One-Pot Modification of Cargo Molecules with Oligoarginine Vectors for Intracellular Delivery. Bioconjugate Chemistry, 2009, 20, 249-257.	3.6	31
107	Stimulating Macropinocytosis for Intracellular Nucleic Acid and Protein Delivery: A Combined Strategy with Membrane-Lytic Peptides To Facilitate Endosomal Escape. Bioconjugate Chemistry, 2020, 31, 547-553.	3.6	31
108	Octa-Arginine Mediated Delivery of Wild-Type Lnk Protein Inhibits TPO-Induced M-MOK Megakaryoblastic Leukemic Cell Growth by Promoting Apoptosis. PLoS ONE, 2011, 6, e23640.	2.5	31

#	Article	IF	Citations
109	Site-specific DNA cleavage by artificial zinc finger-type nuclease with cerium-binding peptide. Biochemical and Biophysical Research Communications, 2005, 330, 247-252.	2.1	30
110	Mesostructured silica based delivery system for a drug with a peptide as a cell-penetrating vector. Microporous and Mesoporous Materials, 2009, 122, 201-207.	4.4	30
111	Embodying a stable Î±-helical protein structure through efficient chemical ligation via thioether formation. Bioorganic and Medicinal Chemistry, 1997, 5, 1883-1891.	3.0	29
112	Cell-penetrating d-Isomer Peptides of p53 C-terminus: Long-term Inhibitory Effect on the Growth of Bladder Cancer. Urology, 2010, 75, 813-819.	1.0	29
113	Liquid secondary-ion mass spectrometry of peptides containing multiple tyrosine-O-sulfates. Rapid Communications in Mass Spectrometry, 1995, 9, 1335-1341.	1.5	28
114	Modular Redesign of a Cationic Lytic Peptide To Promote the Endosomal Escape of Biomacromolecules. Angewandte Chemie - International Edition, 2018, 57, 12771-12774.	13.8	28
115	Induction of autophagic cell death of glioma-initiating cells by cell-penetrating d-isomer peptides consisting of Pas and the p53 C-terminus. Biomaterials, 2012, 33, 9061-9069.	11.4	27
116	Inducible Membrane Permeabilization by Attenuated Lytic Peptides: A New Concept for Accessing Cell Interiors through Ruffled Membranes. Molecular Pharmaceutics, 2019, 16, 2540-2548.	4.6	27
117	Peptide-unit assembling using disulfide cross-linking: A new approach for construction of protein models. Tetrahedron Letters, 1994, 35, 1267-1270.	1.4	25
118	Pharmacokinetic Analysis of the Tissue Distribution of Octaarginine Modified Liposomes in Mice. Drug Metabolism and Pharmacokinetics, 2005, 20, 275-281.	2.2	25
119	Î±-Helical Linker of an Artificial 6-Zinc Finger Peptide Contributes to Selective DNA Binding to a Discontinuous Recognition Sequence. Biochemistry, 2007, 46, 8517-8524.	2.5	24
120	Oligoarginine-Bearing Tandem Repeat Penetration-Accelerating Sequence Delivers Protein to Cytosol via Caveolae-Mediated Endocytosis. Biomacromolecules, 2019, 20, 1849-1859.	5.4	24
121	Peptide-assisted Intracellular Delivery of Biomacromolecules. Chemistry Letters, 2020, 49, 1088-1094.	1.3	24
122	Transduction of Cell-Penetrating Peptides into Induced Pluripotent Stem Cells. Cell Transplantation, 2010, 19, 901-909.	2.5	24
123	Programmable RNA methylation and demethylation using PUF RNA binding proteins. Chemical Communications, 2020, 56, 1365-1368.	4.1	23
124	Environmental pH stress influences cellular secretion and uptake of extracellular vesicles. FEBS Open Bio, 2021, 11, 753-767.	2.3	23
125	Development of an intracellularly acting inhibitory peptide selective for PKN. Biochemical Journal, 2010, 425, 445-543.	3.7	22
126	Reprint of: Nanoparticles for ex vivo siRNA delivery to dendritic cells for cancer vaccines: Programmed endosomal escape and dissociation. Journal of Controlled Release, 2011, 149, 58-64.	9.9	22

#	Article	IF	Citations
127	Increased hydrophobic block length of PTDMs promotes protein internalization. Polymer Chemistry, 2016, 7, 7514-7521.	3.9	22
128	Zn(II) Binding and DNA Binding Properties of Ligand-Substituted CXHH-Type Zinc Finger Proteins. Biochemistry, 2012, 51, 3342-3348.	2.5	21
129	Creating a TALE protein with unbiased 5â€²-T binding. Biochemical and Biophysical Research Communications, 2013, 441, 262-265.	2.1	21
130	Liquid Droplet Formation and Facile Cytosolic Translocation of IgG in the Presence of Attenuated Cationic Amphiphilic Lytic Peptides. Angewandte Chemie - International Edition, 2021, 60, 19804-19812.	13.8	21
131	Recognition of G-quadruplex RNA by a crucial RNA methyltransferase component, METTL14. Nucleic Acids Research, 2022, 50, 449-457.	14.5	21
132	Efficient solid-phase synthesis of sulfated tyrosine-containing peptides using 2-chlorotrityl resin: Facile synthesis of gastrin/cholecystokinin peptides. Tetrahedron Letters, 1997, 38, 599-602.	1.4	20
133	Assembling of the four individual helices corresponding to the transmembrane segments (S4 in repeat) Tj ETQq1 1 0.784314 rgBT /Ov	1.4	20
134	Synthetic copoly(Lys/Phe) and poly(Lys) translocate through lipid bilayer membranes. Biochimica Et Biophysica Acta - Biomembranes, 2003, 1616, 147-155.	2.6	20
135	New packaging method of mycobacterial cell wall using octaarginine-modified liposomes: Enhanced uptake by and immunostimulatory activity of dendritic cells. Journal of Controlled Release, 2007, 120, 60-69.	9.9	20
136	Cobalt(II)â€Responsive DNA Binding of a GCN4â€bZIP Protein Containing Cysteine Residues Functionalized with Iminodiacetic Acid. Angewandte Chemie - International Edition, 2009, 48, 6853-6856.	13.8	20
137	Identification of cellular proteins interacting with octaarginine (R8) cell-penetrating peptide by photo-crosslinking. Bioorganic and Medicinal Chemistry Letters, 2013, 23, 3738-3740.	2.2	20
138	Effect of Surface Modifications on Cellular Uptake of Gold Nanorods in Human Primary Cells and Established Cell Lines. ACS Omega, 2020, 5, 32744-32752.	3.5	20
139	Peptide-unit assembling via disulfide cross-linking: A versatile approach which enables the creation of artificial proteins comprising helices with different amino acid sequences. Tetrahedron, 1997, 53, 7479-7492.	1.9	19
140	Cell-penetrating mechanism of intracellular targeting albumin: Contribution of macropinocytosis induction and endosomal escape. Journal of Controlled Release, 2019, 304, 156-163.	9.9	19
141	Detection of proteinâ€"Ligand interaction on the membranes using C-Terminus biotin-Tagged alamethicin. Bioorganic and Medicinal Chemistry, 2002, 10, 2635-2639.	3.0	18
142	Bioinspired Mechanism for the Translocation of Peptide through the Cell Membrane. Chemistry Letters, 2012, 41, 1078-1080.	1.3	18
143	Î±,Î±-Disubstituted Glycines Bearing a Large Hydrocarbon Ring: Peptide Self-Assembly through Hydrophobic Recognition. Chemistry - A European Journal, 2004, 10, 617-626.	3.3	17
144	Direct entry of cell-penetrating peptide can be controlled by maneuvering the membrane curvature. Scientific Reports, 2021, 11, 31.	3.3	17

#	Article	IF	Citations
145	Preparation of peptide thioesters from naturally occurring sequences using reaction sequence consisting of regioselective Sâ€cyanylation and hydrazinolysis. Biopolymers, 2016, 106, 531-546.	2.4	16
146	Cholesterol-Lowering Effect of Octaarginine-Appended Î²-Cyclodextrin in <i>Npc1</i>-Trap-CHO Cells. Biological and Pharmaceutical Bulletin, 2016, 39, 1823-1829.	1.4	16
147	Dodecaborate-Encapsulated Extracellular Vesicles with Modification of Cell-Penetrating Peptides for Enhancing Macropinocytotic Cellular Uptake and Biological Activity in Boron Neutron Capture Therapy. Molecular Pharmaceutics, 2022, 19, 1135-1145.	4.6	16
148	Distribution of Immunoglobulin Fab Fragment Conjugated with HIV-1 REV Peptide following Intravenous Administration in Rats. Molecular Pharmaceutics, 2006, 3, 174-180.	4.6	15
149	Expressed protein ligation for the preparation of fusion proteins with cell penetrating peptides for endotoxin removal and intracellular delivery. Biochimica Et Biophysica Acta - Biomembranes, 2010, 1798, 2249-2257.	2.6	15
150	Rational Design Principles of Attenuated Cationic Lytic Peptides for Intracellular Delivery of Biomacromolecules. Molecular Pharmaceutics, 2020, 17, 2175-2185.	4.6	15
151	Studies on peptides. CLX. Synthesis of a 33-residue peptide corresponding to the entire amino acid sequence of human cholecystokinin (hCCK-33).. Chemical and Pharmaceutical Bulletin, 1988, 36, 3281-3291.	1.3	14
152	Detecting a tag on a channel opening: blockage of the biotinylated channels by streptavidin. Tetrahedron Letters, 2001, 42, 1563-1565.	1.4	14
153	Total synthesis of artificial zinc-finger proteins: Problems and perspectives. Biopolymers, 2004, 76, 98-109.	2.4	14
154	Metal-Assisted Channel Stabilization: Disposition of a Single Histidine on the N-terminus of Alamethicin Yields Channels with Extraordinarily Long Lifetimes. Biophysical Journal, 2010, 98, 1801-1808.	0.5	14
155	Extramembrane Control of Ion Channel Peptide Assemblies, Using Alamethicin as an Example. Accounts of Chemical Research, 2013, 46, 2924-2933.	15.6	14
156	Real-time In-cell19F NMR Study on Uptake of Fluorescent and Nonfluorescent19F-Octaarginines into Human Jurkat Cells. Chemistry Letters, 2005, 34, 1064-1065.	1.3	13
157	Ligand-Induced Extramembrane Conformation Switch Controlling Alamethicin Assembly and the Channel Current. Chemistry and Biodiversity, 2007, 4, 1313-1322.	2.1	13
158	Positive and negative cooperativity of modularly assembled zinc fingers. Biochemical and Biophysical Research Communications, 2009, 387, 440-443.	2.1	13
159	Relating structure and internalization for ROMP-based protein mimics. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 1443-1450.	2.6	13
160	Sequence-specific recognition of methylated DNA by an engineered transcription activator-like effector protein. Chemical Communications, 2016, 52, 14238-14241.	4.1	13
161	Cytosolic protein delivery using pH-responsive, charge-reversible lipid nanoparticles. Scientific Reports, 2021, 11, 19896.	3.3	13
162	Rapid Transcriptional Activity <i>in Vivo</i> and Slow DNA Binding <i>in Vitro</i> by an Artificial Multi-Zinc Finger Protein. Biochemistry, 2008, 47, 10171-10177.	2.5	12

#	Article	IF	Citations
163	Syntheses and properties of second-generation V-shaped xanthene dyes with piperidino groups. Tetrahedron, 2017, 73, 7061-7066.	1.9	12
164	Key Process and Factors Controlling the Direct Translocation of Cell-Penetrating Peptide through Bio-Membrane. International Journal of Molecular Sciences, 2020, 21, 5466.	4.1	12
165	Enhancing the activity of membrane remodeling epsin-peptide by trimerization. Bioorganic and Medicinal Chemistry Letters, 2020, 30, 127190.	2.2	12
166	Chemical Ligation to Obtain Proteins Comprising Helices with Individual Amino Acid Sequences. Bioorganic and Medicinal Chemistry, 1999, 7, 187-192.	3.0	11
167	Loosening of Lipid Packing Promotes Oligoarginine Entry into Cells. Angewandte Chemie, 2017, 129, 7752-7755.	2.0	11
168	Conversion of cationic amphiphilic lytic peptides to cellâ€penetration peptides. Peptide Science, 2020, 112, e24144.	1.8	11
169	Pseudoâ€Membrane Jackets: Twoâ€Dimensional Coordination Polymers Achieving Visible Phase Separation in Cell Membrane. Angewandte Chemie - International Edition, 2020, 59, 17931-17937.	13.8	11
170	Nanoscale Visualization of Morphological Alteration of Live-Cell Membranes by the Interaction with Oligoarginine Cell-Penetrating Peptides. Analytical Chemistry, 2021, 93, 5383-5393.	6.5	11
171	Discovery of a Macropinocytosisâ€Inducing Peptide Potentiated by Mediumâ€Mediated Intramolecular Disulfide Formation. Angewandte Chemie - International Edition, 2021, 60, 11928-11936.	13.8	11
172	Facile Solid-Phase Synthesis of Sulfated Tyrosine-Containing Peptides: Part II. Total Synthesis of Human Big Gastrin-II and Its C-Terminal Glycine-Extended Peptide (G34-Gly Sulfate) by the Solid-Phase Segment Condensation Approach.. Chemical and Pharmaceutical Bulletin, 2001, 49, 958-963.	1.3	10
173	Total chemical synthesis of large CCK isoforms using a thioester segment condensation approach. Tetrahedron, 2004, 60, 907-918.	1.9	10
174	Development of oligoarginineâ€"drug conjugates linked to new peptidic self-cleavable spacers toward effective intestinal absorption. Bioorganic and Medicinal Chemistry Letters, 2007, 17, 5129-5132.	2.2	10
175	Metalâ€Stimulated Regulation of Transcription by an Artificial Zincâ€Finger Protein. ChemBioChem, 2010, 11, 1653-1655.	2.6	10
176	Dipicolylamine as a unique structural switching element for helical peptides. Organic and Biomolecular Chemistry, 2012, 10, 6062.	2.8	10
177	A Cyclochiral Conformational Motif Constructed Using a Robust Hydrogen-Bonding Network. Journal of the American Chemical Society, 2013, 135, 13644-13647.	13.7	10
178	An influenza-derived membrane tension-modulating peptide regulates cell movement and morphology via actin remodeling. Communications Biology, 2019, 2, 243.	4.4	10
179	A facile combinatorial approach to construct a ratiometric fluorescent sensor: application for the real-time sensing of cellular pH changes. Chemical Science, 2021, 12, 8231-8240.	7.4	10
180	Influence of the Dabcyl group on the cellular uptake of cationic peptides: short oligoarginines as efficient cell-penetrating peptides. Amino Acids, 2021, 53, 1033-1049.	2.7	10

#	Article	IF	Citations
181	Functional Peptides That Target Biomembranes: Design and Modes of Action. Chemical and Pharmaceutical Bulletin, 2021, 69, 601-607.	1.3	10
182	Pseudo-symmetrical protein: Construction of a four-helix-bundle protein with four intramolecular disulfide cross-linkings. Tetrahedron Letters, 1996, 37, 201-204.	1.4	9
183	Development of a novel nanoparticle by dual modification with the pluripotential cellâ€penetrating peptide PepFect6 for cellular uptake, endosomal escape, and decondensation of an siRNA core complex. Biopolymers, 2013, 100, 698-704.	2.4	9
184	An Artificial Amphiphilic Peptide Promotes Endocytic Uptake by Inducing Membrane Curvature. Bioconjugate Chemistry, 2020, 31, 1611-1615.	3.6	9
185	Potentiating the Membrane Interaction of an Attenuated Cationic Amphiphilic Lytic Peptide for Intracellular Protein Delivery by Anchoring with Pyrene Moiety. Bioconjugate Chemistry, 2021, 32, 950-957.	3.6	9
186	Peptide-Based Therapeutic Approaches for Treatment of the Polyglutamine Diseases. Current Medicinal Chemistry, 2014, 21, 2575-2582.	2.4	9
187	Artificial Nanocage Formed via Self-Assembly of Î²-Annulus Peptide for Delivering Biofunctional Proteins into Cell Interiors. Bioconjugate Chemistry, 2022, 33, 311-320.	3.6	9
188	Enhanced Target-Specific Accumulation of Radiolabeled Antibodies by Conjugating Arginine-Rich Peptides as Anchoring Molecules. Bioconjugate Chemistry, 2010, 21, 2031-2037.	3.6	8
189	An Arginine Residue Instead of a Conserved Leucine Residue in the Recognition Helix of the Finger 3 of Zif268 Stabilizes the Domain Structure and Mediates DNA Binding. Biochemistry, 2011, 50, 6266-6272.	2.5	8
190	Selective isolation of N-blocked peptide by combining AspN digestion, transamination, and tosylhydrazine glass treatment. Analytical Biochemistry, 2011, 410, 214-223.	2.4	8
191	Controlling leucine-zipper partner recognition in cells through modification of aâ€“g interactions. Chemical Communications, 2014, 50, 6364-6367.	4.1	8
192	Effect of Vesicle Size on the Cytolysis of Cell-Penetrating Peptides (CPPs). International Journal of Molecular Sciences, 2020, 21, 7405.	4.1	8
193	Improved cytosolic delivery of macromolecules through dimerization of attenuated lytic peptides. Bioorganic and Medicinal Chemistry Letters, 2020, 30, 127362.	2.2	8
194	pH-Sensitive Liposomes in Nuclear Targeting of Macromolecules. Methods in Enzymology, 2003, 372, 349-361.	1.0	7
195	RNase S complex bearing arginine-rich peptide and anti-HIV activity. Journal of Molecular Recognition, 2005, 18, 169-174.	2.1	7
196	Effect of Polyethyleneglycol Spacer on the Binding Properties of Nuclear Localization Signal-Modified Liposomes to Isolated Nucleus. Biological and Pharmaceutical Bulletin, 2009, 32, 1303-1306.	1.4	7
197	Zinc fingerâ€“zinc finger interaction between the transcription factors, GATA-1 and Sp1. Biochemical and Biophysical Research Communications, 2010, 400, 625-630.	2.1	7
198	Oligopeptides derived from autophosphorylation sites of EGF receptor suppress EGF-stimulated responses in human lung carcinoma A549 cells. European Journal of Pharmacology, 2013, 698, 87-94.	3.5	7

#	Article	IF	Citations
199	Cell Penetrating Peptides for Chemical Biological Studies. Methods in Molecular Biology, 2015, 1324, 387-396.	0.9	7
200	Development of a Membrane Curvature-Sensing Peptide Based on a Structureâ€"Activity Correlation Study. Chemical and Pharmaceutical Bulletin, 2019, 67, 1131-1138.	1.3	7
201	Pseudoâ€Membrane Jackets: Twoâ€Dimensional Coordination Polymers Achieving Visible Phase Separation in Cell Membrane. Angewandte Chemie, 2020, 132, 18087-18093.	2.0	7
202	Use of homoarginine to obtain attenuated cationic membrane lytic peptides. Bioorganic and Medicinal Chemistry Letters, 2021, 40, 127925.	2.2	7
203	Membrane anchoring of a curvature-inducing peptide, EpN18, promotes membrane translocation of octaarginine. Bioorganic and Medicinal Chemistry Letters, 2021, 43, 128103.	2.2	7
204	Oligoarginine-Based Prodrugs with Self-Cleavable Spacers for Caco-2 Cell Permeation. Chemical and Pharmaceutical Bulletin, 2008, 56, 1515-1520.	1.3	6
205	Rev-derived peptides inhibit HIV-1 replication by antagonism of Rev and a co-receptor, CXCR4. International Journal of Biochemistry and Cell Biology, 2010, 42, 1482-1488.	2.8	6
206	Cellâ€penetrating peptide induces various deformations of lipid bilayer membrane: Inverted micelle, double bilayer, and transmembrane. International Journal of Quantum Chemistry, 2012, 112, 178-183.	2.0	6
207	Effect of amino acid substitution in the hydrophobic face of amphiphilic peptides on membrane curvature and perturbation: Nâ€terminal helix derived from adenovirus internal protein VI as a model. Biopolymers, 2016, 106, 430-439.	2.4	6
208	Nested PUF Proteins: Extending Target RNA Elements for Gene Regulation. ChemBioChem, 2018, 19, 171-176.	2.6	6
209	Development of xanthene dyes containing arylacetylenes: The role of acetylene linker and substituents on the aryl group. Tetrahedron, 2018, 74, 3608-3615.	1.9	6
210	Dipicolylamine/Metal Complexes that Promote Direct Cell-Membrane Penetration of Octaarginine. Bioconjugate Chemistry, 2019, 30, 454-460.	3.6	6
211	Development of a Simple and Rapid Method for In Situ Vesicle Detection in Cultured Media. Journal of Molecular Biology, 2020, 432, 5876-5888.	4.2	6
212	Optimizing Charge Switching in Membrane Lytic Peptides for Endosomal Release of Biomacromolecules. Angewandte Chemie, 2020, 132, 20165-20173.	2.0	6
213	Protein Delivery to Cytosol by Cell-Penetrating Peptide Bearing Tandem Repeat Penetration-Accelerating Sequence. Methods in Molecular Biology, 2022, 2383, 265-273.	0.9	6
214	Synthesis and Properties of V-Shaped Xanthene Dyes with Tunable and Predictable Absorption and Emission Wavelengths. Journal of Organic Chemistry, 2022, 87, 2336-2344.	3.2	6
215	Piezo1 activation using Yoda1 inhibits macropinocytosis in A431 human epidermoid carcinoma cells. Scientific Reports, 2022, 12, 6322.	3.3	6
216	Stearylated Macropinocytosis-Inducing Peptides Facilitating the Cellular Uptake of Small Extracellular Vesicles. Bioconjugate Chemistry, 2022, 33, 869-880.	3.6	6

#	Article	IF	Citations
217	Construction of a Rhythm Transfer System That Mimics the Cellular Clock. ACS Chemical Biology, 2012, 7, 1817-1821.	3.4	5
218	Rational design of DNA sequenceâ€specific zinc fingers. FEBS Letters, 2012, 586, 918-923.	2.8	5
219	Construction of a Ca²⁺-Gated Artificial Channel by Fusing Alamethicin with a Calmodulin-Derived Extramembrane Segment. Bioconjugate Chemistry, 2013, 24, 188-195.	3.6	5
220	Modular Redesign of a Cationic Lytic Peptide To Promote the Endosomal Escape of Biomacromolecules. Angewandte Chemie, 2018, 130, 12953-12956.	2.0	5
221	Loosening of Lipid Packing by Cellâ€Surface Recruitment of Amphiphilic Peptides by Coiledâ€Coil Tethering. ChemBioChem, 2019, 20, 2151-2159.	2.6	5
222	Chemical passports to cross biological borders. Nature Chemistry, 2021, 13, 517-519.	13.6	5
223	Binding of Tat peptides on DOPC and DOPG lipid bilayer membrane studied by molecular dynamics simulations. Molecular Simulation, 2012, 38, 366-368.	2.0	4
224	Cellular Uptake of Arginine-Rich Cell-Penetrating Peptides and the Contribution of Membrane-Associated Proteoglycans. Trends in Glycoscience and Glycotechnology, 2015, 27, 81-88.	0.1	4
225	Suppressive effect of membrane-permeable peptides derived from autophosphorylation sites of the IGF-1 receptor on breast cancer cells. European Journal of Pharmacology, 2015, 765, 24-33.	3.5	4
226	Design of the N-Terminus Substituted Curvature-Sensing Peptides That Exhibit Highly Sensitive Detection Ability of Bacterial Extracellular Vesicles. Chemical and Pharmaceutical Bulletin, 2021, 69, 1075-1082.	1.3	4
227	NMR Investigation of the Electrostatic Effect in Binding of a Neuropeptide, Achatin-I, to Phosphatidylcholine Bilayers. Journal of Physical Chemistry B, 2007, 111, 3831-3838.	2.6	3
228	Control of Circadian Phase by an Artificial Zinc Finger Transcription Regulator. Angewandte Chemie - International Edition, 2011, 50, 9396-9399.	13.8	3
229	Effective RNA Regulation by Combination of Multiple Programmable RNA-Binding Proteins. Applied Sciences (Switzerland), 2020, 10, 6803.	2.5	3
230	L17ER4: A cell-permeable attenuated cationic amphiphilic lytic peptide. Bioorganic and Medicinal Chemistry, 2022, 61, 116728.	3.0	3
231	Grafting Hydrophobic Amino Acids Critical for Inhibition of Proteinâ€“Protein Interactions on a Cell-Penetrating Peptide Scaffold. Molecular Pharmaceutics, 2022, 19, 558-567.	4.6	3
232	Control of leakage activities of alamethicin analogs by metals: Side chain-dependent adverse gating response to Zn2+. Bioorganic and Medicinal Chemistry, 2012, 20, 6870-6876.	3.0	2
233	Sequence-specific 5mC detection in live cells based on the TALE-split luciferase complementation system. Analyst, The, 2018, 143, 3793-3797.	3.5	2
234	Discovery of a Macropinocytosisâ€Inducing Peptide Potentiated by Mediumâ€Mediated Intramolecular Disulfide Formation. Angewandte Chemie, 2021, 133, 12035-12043.	2.0	2

#	Article	IF	Citations
235	Liquid Droplet Formation and Facile Cytosolic Translocation of IgG in the Presence of Attenuated Cationic Amphiphilic Lytic Peptides. Angewandte Chemie, 2021, 133, 19957-19965.	2.0	2
236	A â€˜cassetteâ€™ RNase. Bioorganic and Medicinal Chemistry Letters, 2001, 11, 1165-1168.	2.2	1
237	<scp>C</scp>almodulin EFâ€hand peptides as Ca²⁺â€switchable recognition tags. Biopolymers, 2017, 108, e22937.	2.4	1
238	Meeting Peptides in Kyoto. ChemBioChem, 2019, 20, 2015-2016.	2.6	1
239	Design and Creation of Functional Membrane-Interacting Peptides. Yuki Gosei Kagaku Kyokaishi/Journal of Synthetic Organic Chemistry, 2020, 78, 1058-1065.	0.1	1
240	Design of Intracellular Delivery Using Peptide Vectors. Kobunshi, 2006, 55, 345-345.	0.0	0
241	3P-184 Membrane deformation by arginine-rich peptide(Biol & Artifi memb.:Dynamics,The 47th) Tj ETQq1 1 0.784314 rgBT /Overlo	0.1	0
242	Two-Dimensional Molecular Assembly of Bacteriochlorophyll a Derivatives Using Synthetic Poly(ethylene glycol)-Linked Light-Harvesting Model Polypeptides on a Gold Electrode Modified with Supported Lipid Bilayers. ACS Macro Letters, 2012, 1, 28-32.	4.8	0
243	Titelbild: Liquid Droplet Formation and Facile Cytosolic Translocation of IgG in the Presence of Attenuated Cationic Amphiphilic Lytic Peptides (Angew. Chem. 36/2021). Angewandte Chemie, 2021, 133, 19645-19645.	2.0	0
244	Intracellular Delivery Using Membrane-Permeable Basic Peptides: The Molecular Mechanisms and Applications. Seibutsu Butsuri, 2010, 50, 137-140.	0.1	0
245	Internalization of Arginine-rich Cell-penetrating Peptides and Delivery of Biomacromolecules into Cells. Membrane, 2011, 36, 139-144.	0.0	0
246	Photoaffinity Labeling Methods to Explore Internalization Mechanisms of Arginine-Rich Cell-Penetrating Peptides. , 2017, , 225-240.		0
247	Middle Molecule Drug Discovery and DDS. Drug Delivery System, 2020, 35, 167-167.	0.0	0
248	Lipid Packing in Cell Membrane and Intracellular Delivery. Oleoscience, 2022, 22, 115-120.	0.0	0
249	Split luciferase-based estimation of cytosolic cargo concentration delivered intracellularly via attenuated cationic amphiphilic lytic peptides. Bioorganic and Medicinal Chemistry Letters, 2022, 72, 128875.	2.2	0