# Design of short membrane selective antimicrobial pepti arginine residues for improved activity, saltâ€resistanc

Biotechnology and Bioengineering

111, 37-49

DOI: 10.1002/bit.25003

Citation Report

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Modified Cysteine-Deleted Tachyplesin (CDT) Analogs as Linear Antimicrobial Peptides: Influence of Chain Length, Positive Charge, and Hydrophobicity on Antimicrobial and Hemolytic Activity. International Journal of Peptide Research and Therapeutics, 2014, 20, 519-530. | 0.9 | 18 |
| 2 | The in vitro effects of new D186 dendrimer on virulence factors of Candida albicans. Journal of Antibiotics, 2014, 67, 425-432. | 1.0 | 16 |
| 3 | Antimicrobial functionalization of silicone surfaces with engineered short peptides having broad spectrum antimicrobial and salt-resistant properties. Acta Biomaterialia, 2014, 10, 258-266. | 4.1 | 134 |
| 4 | High specific selectivity and Membrane-Active Mechanism of the synthetic centrosymmetric Î±-helical peptides with Gly-Gly pairs. Scientific Reports, 2015, 5, 15963. | 1.6 | 74 |
| 5 | Antimicrobial benzodiazepine-based short cationic peptidomimetics. Journal of Peptide Science, 2015, 21, 512-519. | 0.8 | 4 |
| 6 | Anti-Mycobacterial Peptides: From Human to Phage. Cellular Physiology and Biochemistry, 2015, 35, 452-466. | 1.1 | 24 |
| 7 | N-terminal aromatic tag induced self assembly of tryptophanâ€“arginine rich ultra short sequences and their potent antibacterial activity. RSC Advances, 2015, 5, 68610-68620. | 1.7 | 19 |
| 8 | Defense peptides: recent developments. Biomolecular Concepts, 2015, 6, 237-251. | 1.0 | 18 |
| 9 | Design and studies of multiple mechanism of anti-Candida activity of a new potent Trp-rich peptide dendrimers. European Journal of Medicinal Chemistry, 2015, 105, 106-119. | 2.6 | 34 |
| 10 | Interaction of blood components with cathelicidins and their modified versions. Biomaterials, 2015, 69, 201-211. | 5.7 | 20 |
| 11 | Saltâ€resistant short antimicrobial peptides. Biopolymers, 2016, 106, 345-356. | 1.2 | 33 |
| 12 | Modification and characterization of a new recombinant marine antimicrobial peptide N2. Process Biochemistry, 2016, 51, 734-739. | 1.8 | 5 |
| 13 | Short AntiMicrobial Peptides (SAMPs) as a class of extraordinary promising therapeutic agents. Journal of Peptide Science, 2016, 22, 438-451. | 0.8 | 64 |
| 14 | Improving short antimicrobial peptides despite elusive rules for activity. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 1024-1033. | 1.4 | 57 |
| 15 | Short, multiple-stranded Î²-hairpin peptides have antimicrobial potency with high selectivity and salt resistance. Acta Biomaterialia, 2016, 30, 78-93. | 4.1 | 92 |
| 16 | Archetypal tryptophan-rich antimicrobial peptides: properties and applications. World Journal of Microbiology and Biotechnology, 2016, 32, 31. | 1.7 | 67 |
| 17 | Recombinant expression, antimicrobial activity and mechanism of action of tritrpticin analogs containing fluoro-tryptophan residues. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 1012-1023. | 1.4 | 15 |
| 18 | Antifungal peptides: a potential new class of antifungals for treating vulvovaginal candidiasis caused by fluconazoleâ€resistant <scp>Candida albicans</scp>. Journal of Peptide Science, 2017, 23, 215-221. | 0.8 | 19 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Peptoids successfully inhibit the growth of gram negative E. coli causing substantial membrane damage. Scientific Reports, 2017, 7, 42332. | 1.6 | 70 |
| 20 | Screening for a Potent Antibacterial Peptide to Treat Mupirocin-Resistant MRSA Skin Infections. International Journal of Peptide Research and Therapeutics, 2017, 23, 481-491. | 0.9 | 2 |
| 21 | Surface-Adaptive Gold Nanoparticles with Effective Adherence and Enhanced Photothermal Ablation of Methicillin-Resistant Staphylococcus aureus Biofilm. ACS Nano, 2017, 11, 9330-9339. | 7.3 | 462 |
| 22 | The next generation of antimicrobial peptides (AMPs) as molecular therapeutic tools for the treatment of diseases with social and economic impacts. Drug Discovery Today, 2017, 22, 234-248. | 3.2 | 143 |
| 23 | Tryptophan-Containing Cyclic Decapeptides with Activity against Plant Pathogenic Bacteria. Molecules, 2017, 22, 1817. | 1.7 | 7 |
| 24 | Membrane Active Antimicrobial Peptides: Translating Mechanistic Insights to Design. Frontiers in Neuroscience, 2017, 11, 73. | 1.4 | 388 |
| 25 | Central Î²-turn increases the cell selectivity of imperfectly amphipathic Î±-helical peptides. Acta Biomaterialia, 2018, 69, 243-255. | 4.1 | 65 |
| 26 | Effects of Hydrophobic Amino Acid Substitutions on Antimicrobial Peptide Behavior. Probiotics and Antimicrobial Proteins, 2018, 10, 408-419. | 1.9 | 73 |
| 27 | Peptidoglycan potentiates the membrane disrupting effect of the carboxyamidated form of DMS-DA6, a Gram-positive selective antimicrobial peptide isolated from Pachymedusa dacnicolor skin. PLoS ONE, 2018, 13, e0205727. | 1.1 | 6 |
| 28 | Beta-defensin derived cationic antimicrobial peptides with potent killing activity against gram negative and gram positive bacteria. BMC Microbiology, 2018, 18, 54. | 1.3 | 34 |
| 29 | Arginine/TryptophanâEŘich Cyclic Î±/Î²âEAntimicrobial Peptides: Theâ€‰Roles of Hydrogen Bonding and Hydrophobic/Hydrophilic SolventâEAccessible Surface Areas upon Activity and Membrane Selectivity. Chemistry - A European Journal, 2018, 24, 14242-14253. | 1.7 | 18 |
| 30 | Imidazole-molecule-capped chitosanâ€“gold nanocomposites with enhanced antimicrobial activity for treating biofilm-related infections. Journal of Colloid and Interface Science, 2018, 531, 269-281. | 5.0 | 41 |
| 31 | Membrane Active Peptides and Their Biophysical Characterization. Biomolecules, 2018, 8, 77. | 1.8 | 126 |
| 32 | Antibacterial activity of Staphylococcus aureus biofilm under combined exposure of glutaraldehyde, near-infrared light, and 405-nm laser. PLoS ONE, 2018, 13, e0202821. | 1.1 | 13 |
| 33 | Influence of pH on the activity of thrombin-derived antimicrobial peptides. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 2374-2384. | 1.4 | 25 |
| 34 | Design of Î±-helical antimicrobial peptides with a high selectivity index. Expert Opinion on Drug Discovery, 2019, 14, 1053-1063. | 2.5 | 23 |
| 35 | Design of Trp-Rich Dodecapeptides with Broad-Spectrum Antimicrobial Potency and Membrane-Disruptive Mechanism. Journal of Medicinal Chemistry, 2019, 62, 6941-6957. | 2.9 | 63 |
| 36 | A short peptide with selective anti-biofilm activity against Pseudomonas aeruginosa and Klebsiella pneumoniae carbapenemase-producing bacteria. Microbial Pathogenesis, 2019, 135, 103605. | 1.3 | 7 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | De Novo Design and In Vitro Testing of Antimicrobial Peptides against Gram-Negative Bacteria. Pharmaceuticals, 2019, 12, 82. | 1.7 | 42 |
| 38 | Structure and Function in Antimicrobial Piscidins: Histidine Position, Directionality of Membrane Insertion, and pH-Dependent Permeabilization. Journal of the American Chemical Society, 2019, 141, 9837-9853. | 6.6 | 60 |
| 39 | Short, symmetric-helical peptides have narrow-spectrum activity with low resistance potential and high selectivity. Biomaterials Science, 2019, 7, 2394-2409. | 2.6 | 65 |
| 40 | Succinylated casein-coated peptide-mesoporous silica nanoparticles as an antibiotic against intestinal bacterial infection. Biomaterials Science, 2019, 7, 2440-2451. | 2.6 | 39 |
| 41 | Antibacterial mechanisms of GNâ€2 derived peptides and peptoids against Escherichia coli. Biopolymers, 2019, 110, e23275. | 1.2 | 15 |
| 42 | Antimicrobial peptides: Promising alternatives in the post feeding antibiotic era. Medicinal Research Reviews, 2019, 39, 831-859. | 5.0 | 309 |
| 43 | Harnessing snake venom phospholipases A<sub>2</sub> to novel approaches for overcoming antibiotic resistance. Drug Development Research, 2019, 80, 68-85. | 1.4 | 30 |
| 44 | Study on the effects of different dimerization positions on biological activity of partial d-Amino acid substitution analogues of Anoplin. Microbial Pathogenesis, 2020, 139, 103871. | 1.3 | 19 |
| 45 | Characterization of the structureâ€“function relationship of a novel salt-resistant antimicrobial peptide, RR12. RSC Advances, 2020, 10, 23624-23631. | 1.7 | 8 |
| 46 | Design, Engineering and Discovery of Novel Î±-Helical and Î²-Boomerang Antimicrobial Peptides against Drug Resistant Bacteria. International Journal of Molecular Sciences, 2020, 21, 5773. | 1.8 | 47 |
| 47 | Lipidation of Antimicrobial Peptides as a Design Strategy for Future Alternatives to Antibiotics. International Journal of Molecular Sciences, 2020, 21, 9692. | 1.8 | 36 |
| 48 | Self-sterilizing diblock polycation-enhanced polyamidoxime shape-stable blow-spun nanofibers for high-performance uranium capture from seawater. Chemical Engineering Journal, 2020, 390, 124648. | 6.6 | 54 |
| 49 | Hybridization with Insect Cecropin A (1â€“8) Improve the Stability and Selectivity of Naturally Occurring Peptides. International Journal of Molecular Sciences, 2020, 21, 1470. | 1.8 | 21 |
| 50 | In Vitro and Ex Vivo Efficacy of Novel Trp-Arg Rich Analogue of Î±-MSH against Staphylococcus aureus. ACS Omega, 2020, 5, 3258-3270. | 1.6 | 11 |
| 51 | Peptides With Triplet-Tryptophan-Pivot Promoted Pathogenic Bacteria Membrane Defects. Frontiers in Microbiology, 2020, 11, 537. | 1.5 | 10 |
| 52 | Design and characterization of new antimicrobial peptides derived from aurein 1.2 with enhanced antibacterial activity. Biochimie, 2021, 181, 42-51. | 1.3 | 19 |
| 53 | An acid-triggered porphyrin-based block copolymer for enhanced photodynamic antibacterial efficacy. Science China Chemistry, 2021, 64, 459-466. | 4.2 | 25 |
| 54 | Design of improved synthetic antifungal peptides with targeted variations in charge, hydrophobicity and chirality based on a correlation study between biological activity and primary structure of plant defensin Î³-cores. Amino Acids, 2021, 53, 219-237. | 1.2 | 6 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | New Antimicrobial Peptides with Repeating Unit against Multidrug-Resistant Bacteria. ACS Infectious Diseases, 2021, 7, 1619-1637. | 1.8 | 22 |
| 56 | Antimicrobial peptides with symmetric structures against multidrug-resistant bacteria while alleviating antimicrobial resistance. Biochemical Pharmacology, 2021, 186, 114470. | 2.0 | 22 |
| 57 | The lexicon of antimicrobial peptides: a complete set of arginine and tryptophan sequences. Communications Biology, 2021, 4, 605. | 2.0 | 45 |
| 58 | Future of antimicrobial peptides derived from plants in food application â€“ A focus on synthetic peptides. Trends in Food Science and Technology, 2021, 112, 312-324. | 7.8 | 36 |
| 59 | Differential interactions of the antimicrobial peptide, RQ18, with phospholipids and cholesterol modulate its selectivity for microorganism membranes. Biochimica Et Biophysica Acta - General Subjects, 2021, 1865, 129937. | 1.1 | 10 |
| 60 | Key Physicochemical Determinants in the Antimicrobial Peptide RiLK1 Promote Amphipathic Structures. International Journal of Molecular Sciences, 2021, 22, 10011. | 1.8 | 4 |
| 61 | Schistocins: Novel antimicrobial peptides encrypted in the Schistosoma mansoni Kunitz Inhibitor SmKI-1. Biochimica Et Biophysica Acta - General Subjects, 2021, 1865, 129989. | 1.1 | 6 |
| 62 | A Thermostable, Modified Cathelicidin-Derived Peptide With Enhanced Membrane-Active Activity Against Salmonella enterica serovar Typhimurium. Frontiers in Microbiology, 2020, 11, 592220. | 1.5 | 7 |
| 63 | The Strategies of Pathogen-Oriented Therapy on Circumventing Antimicrobial Resistance. Research, 2020, 2020, 2016201. | 2.8 | 14 |
| 64 | The Trp-rich Antimicrobial Amphiphiles With Intramolecular Aromatic Interactions for the Treatment of Bacterial Infection. Frontiers in Microbiology, 2021, 12, 733441. | 1.5 | 4 |
| 65 | Antimicrobial Activity of Snake Î²-Defensins and Derived Peptides. Toxins, 2022, 14, 1. | 1.5 | 7 |
| 66 | A novel hybrid peptide composed of LfcinB6 and KR-12-a4 with enhanced antimicrobial, anti-inflammatory and anti-biofilm activities. Scientific Reports, 2022, 12, 4365. | 1.6 | 16 |
| 67 | Amphiphilic cyclic peptide [W4KR5]-Antibiotics combinations as broad-spectrum antimicrobial agents. European Journal of Medicinal Chemistry, 2022, 235, 114278. | 2.6 | 7 |
| 69 | A new bioinspired peptide on defensin from C. annuum fruits: Antimicrobial activity, mechanisms of action and therapeutical potential. Biochimica Et Biophysica Acta - General Subjects, 2022, 1866, 130218. | 1.1 | 4 |
| 70 | Design and Evaluation of Short Bovine Lactoferrin-Derived Antimicrobial Peptides against Multidrug-Resistant Enterococcus faecium. Antibiotics, 2022, 11, 1085. | 1.5 | 4 |
| 71 | The design of cell-selective tryptophan and arginine-rich antimicrobial peptides by introducing hydrophilic uncharged residues. Acta Biomaterialia, 2022, 153, 557-572. | 4.1 | 13 |
| 72 | <scp>PLâ€101â€WK</scp> , a novel tryptophanâ€and lysineâ€rich peptide with antimicrobial activity against Staphylococcus aureus. Peptide Science, 0, , . | 1.0 | 0 |
| 73 | Short, mirror-symmetric antimicrobial peptides centered on â€œRRRâ€have broad-spectrum antibacterial activity with low drug resistance and toxicity. Acta Biomaterialia, 2022, 154, 145-167. | 4.1 | 5 |

| # | Article | IF | Citations |
|---|---|---|---|
| 74 | Electrospinning membranes with Au@carbon dots: Low toxicity and efficient antibacterial photothermal therapy. , 2022, 142, 213155. | | 8 |
| 75 | Deciphering Structure-Function Relationship Unveils Salt-Resistant Mode of Action of a Potent MRSA-Inhibiting Antimicrobial Peptide, RR14. Journal of Bacteriology, 0, , . | 1.0 | 0 |
| 76 | Membrane-Active Cyclic Amphiphilic Peptides: Broad-Spectrum Antibacterial Activity Alone and in Combination with Antibiotics. Journal of Medicinal Chemistry, 2022, 65, 15819-15839. | 2.9 | 7 |
| 77 | Rational design of potent ultrashort antimicrobial peptides with programmable assembly into nanostructured hydrogels. Frontiers in Chemistry, 0, 10, . | 1.8 | 3 |
| 78 | Thinking on the Construction of Antimicrobial Peptide Databases: Powerful Tools for the Molecular Design and Screening. International Journal of Molecular Sciences, 2023, 24, 3134. | 1.8 | 6 |
| 79 | Actinomycin-X2-Immobilized Silk Fibroin Film with Enhanced Antimicrobial and Wound Healing Activities. International Journal of Molecular Sciences, 2023, 24, 6269. | 1.8 | 3 |