

K Johan Rosengren

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135
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5,311
ext. citations

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L-index

#	Paper	IF	Citations
127	Twists, knots, and rings in proteins. Structural definition of the cyclotide framework. <i>Journal of Biological Chemistry</i> , 2003 , 278, 8606-16	5.4	254
126	Microcin J25 has a threaded sidechain-to-backbone ring structure and not a head-to-tail cyclized backbone. <i>Journal of the American Chemical Society</i> , 2003 , 125, 12464-74	16.4	217
125	Engineering stable peptide toxins by means of backbone cyclization: stabilization of the alpha-conotoxin MII. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 13767-72	11.5	200
124	Isolation, solution structure, and insecticidal activity of kalata B2, a circular protein with a twist: do MBius strips exist in nature?. <i>Biochemistry</i> , 2005 , 44, 851-60	3.2	199
123	Solution structures by 1H NMR of the novel cyclic trypsin inhibitor SFTI-1 from sunflower seeds and an acyclic permutant. <i>Journal of Molecular Biology</i> , 2001 , 311, 579-91	6.5	195
122	Theoretical and computational strategies for rational molecularly imprinted polymer design. <i>Biosensors and Bioelectronics</i> , 2009 , 25, 543-52	11.8	140
121	Discovery, structure and biological activities of cyclotides. <i>Advanced Drug Delivery Reviews</i> , 2009 , 61, 918-30	18.5	135
120	Alanine scanning mutagenesis of the prototypic cyclotide reveals a cluster of residues essential for bioactivity. <i>Journal of Biological Chemistry</i> , 2008 , 283, 9805-13	5.4	133
119	Decoding the membrane activity of the cyclotide kalata B1: the importance of phosphatidylethanolamine phospholipids and lipid organization on hemolytic and anti-HIV activities. <i>Journal of Biological Chemistry</i> , 2011 , 286, 24231-41	5.4	122
118	Functional analysis of the alpha-defensin disulfide array in mouse cryptdin-4. <i>Journal of Biological Chemistry</i> , 2004 , 279, 44188-96	5.4	104
117	Isolation and characterization of novel cyclotides from <i>Viola hederaceae</i> : solution structure and anti-HIV activity of vhl-1, a leaf-specific expressed cyclotide. <i>Journal of Biological Chemistry</i> , 2005 , 280, 22395-405	5.4	101
116	Identification of crucial residues for the antibacterial activity of the proline-rich peptide, pyrrocoricin. <i>FEBS Journal</i> , 2002 , 269, 4226-37		98
115	Pharmacological characterisation of the highly Na ^{1.7} selective spider venom peptide Pn3a. <i>Scientific Reports</i> , 2017 , 7, 40883	4.9	90
114	Combined X-ray and NMR analysis of the stability of the cyclotide cystine knot fold that underpins its insecticidal activity and potential use as a drug scaffold. <i>Journal of Biological Chemistry</i> , 2009 , 284, 10672-83	5.4	79
113	Solution structure and novel insights into the determinants of the receptor specificity of human relaxin-3. <i>Journal of Biological Chemistry</i> , 2006 , 281, 5845-51	5.4	79
112	The A-chain of human relaxin family peptides has distinct roles in the binding and activation of the different relaxin family peptide receptors. <i>Journal of Biological Chemistry</i> , 2008 , 283, 17287-97	5.4	76
111	Synthesis, conformation, and activity of human insulin-like peptide 5 (INSL5). <i>ChemBioChem</i> , 2008 , 9, 1816-22	3.8	75

110	Design, synthesis, and characterization of a single-chain peptide antagonist for the relaxin-3 receptor RXFP3. <i>Journal of the American Chemical Society</i> , 2011 , 133, 4965-74	16.4	69
109	Semienzymatic cyclization of disulfide-rich peptides using Sortase A. <i>Journal of Biological Chemistry</i> , 2014 , 289, 6627-6638	5.4	65
108	Relaxin-3/RXFP3 system regulates alcohol-seeking. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 20789-94	11.5	63
107	Solid phase synthesis and structural analysis of novel A-chain dicarba analogs of human relaxin-3 (INSL7) that exhibit full biological activity. <i>Organic and Biomolecular Chemistry</i> , 2009 , 7, 1547-53	3.9	62
106	Solution structure and characterization of the LGR8 receptor binding surface of insulin-like peptide 3. <i>Journal of Biological Chemistry</i> , 2006 , 281, 28287-95	5.4	61
105	Identification and Characterization of ProTx-III [PTTX-Tp1a], a New Voltage-Gated Sodium Channel Inhibitor from Venom of the Tarantula <i>Thrixopelma pruriens</i> . <i>Molecular Pharmacology</i> , 2015 , 88, 291-303	4.3	60
104	Structure of thermolysin cleaved microcin J25: extreme stability of a two-chain antimicrobial peptide devoid of covalent links. <i>Biochemistry</i> , 2004 , 43, 4696-702	3.2	60
103	The cyclic cystine ladder in δ -defensins is important for structure and stability, but not antibacterial activity. <i>Journal of Biological Chemistry</i> , 2013 , 288, 10830-40	5.4	58
102	Chemical synthesis, 3D structure, and ASIC binding site of the toxin mambalgin-2. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 1017-20	16.4	56
101	The conserved glu in the cyclotide cycloviolacin O2 has a key structural role. <i>ChemBioChem</i> , 2009 , 10, 2354-60	3.8	56
100	Structures of naturally occurring circular proteins from bacteria. <i>Journal of Bacteriology</i> , 2003 , 185, 4011-21	13.5	53
99	Circular proteins from plants and fungi. <i>Journal of Biological Chemistry</i> , 2012 , 287, 27001-6	5.4	51
98	Structural characterization of the cyclic cystine ladder motif of δ -defensins. <i>Biochemistry</i> , 2012 , 51, 9718-26	3.6	50
97	Design and synthesis of truncated EGF-A peptides that restore LDL-R recycling in the presence of PCSK9 in vitro. <i>Chemistry and Biology</i> , 2014 , 21, 284-94		49
96	Relaxin family peptides: structure-activity relationship studies. <i>British Journal of Pharmacology</i> , 2017 , 174, 950-961	8.6	47
95	A single-chain derivative of the relaxin hormone is a functionally selective agonist of the G protein-coupled receptor, RXFP1. <i>Chemical Science</i> , 2016 , 7, 3805-3819	9.4	45
94	Engineered protease inhibitors based on sunflower trypsin inhibitor-1 (SFTI-1) provide insights into the role of sequence and conformation in Laskowski mechanism inhibition. <i>Biochemical Journal</i> , 2015 , 469, 243-53	3.8	45
93	Distribution of circular proteins in plants: large-scale mapping of cyclotides in the Violaceae. <i>Frontiers in Plant Science</i> , 2015 , 6, 855	6.2	44

92	Identification, Characterization, and Three-Dimensional Structure of the Novel Circular Bacteriocin, Enterocin NKR-5-3B, from <i>Enterococcus faecium</i> . <i>Biochemistry</i> , 2015 , 54, 4863-76	3.2	42
91	Evolutionary origins of a bioactive peptide buried within Preproalbumin. <i>Plant Cell</i> , 2014 , 26, 981-95	11.6	42
90	Retrocyclin-2: structural analysis of a potent anti-HIV theta-defensin. <i>Biochemistry</i> , 2007 , 46, 9920-8	3.2	41
89	The minimal active structure of human relaxin-2. <i>Journal of Biological Chemistry</i> , 2011 , 286, 37555-65	5.4	40
88	Stabilization of the cysteine-rich conotoxin MrlA by using a 1,2,3-triazole as a disulfide bond mimetic. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 1361-4	16.4	38
87	The cyclic cystine ladder of theta-defensins as a stable, bifunctional scaffold: A proof-of-concept study using the integrin-binding RGD motif. <i>ChemBioChem</i> , 2014 , 15, 451-9	3.8	37
86	Elucidation of relaxin-3 binding interactions in the extracellular loops of RXFP3. <i>Frontiers in Endocrinology</i> , 2013 , 4, 13	5.7	37
85	Structure of human insulin-like peptide 5 and characterization of conserved hydrogen bonds and electrostatic interactions within the relaxin framework. <i>Biochemical Journal</i> , 2009 , 419, 619-27	3.8	37
84	Structure of the R3/I5 chimeric relaxin peptide, a selective GPCR135 and GPCR142 agonist. <i>Journal of Biological Chemistry</i> , 2008 , 283, 23811-8	5.4	37
83	Structural and functional characterization of the conserved salt bridge in mammalian paneth cell alpha-defensins: solution structures of mouse CRYPTDIN-4 and (E15D)-CRYPTDIN-4. <i>Journal of Biological Chemistry</i> , 2006 , 281, 28068-78	5.4	36
82	Solution structures of the cis- and trans-Pro30 isomers of a novel 38-residue toxin from the venom of <i>Hadronyche infensa</i> sp. that contains a cystine-knot motif within its four disulfide bonds. <i>Biochemistry</i> , 2002 , 41, 3294-301	3.2	36
81	The different ligand-binding modes of relaxin family peptide receptors RXFP1 and RXFP2. <i>Molecular Endocrinology</i> , 2012 , 26, 1896-906		35
80	Structural insights into the role of the cyclic backbone in a squash trypsin inhibitor. <i>Journal of Biological Chemistry</i> , 2013 , 288, 36141-8	5.4	34
79	Understanding the molecular basis of toxin promiscuity: the analgesic sea anemone peptide APETx2 interacts with acid-sensing ion channel 3 and hERG channels via overlapping pharmacophores. <i>Journal of Medicinal Chemistry</i> , 2014 , 57, 9195-203	8.3	33
78	The role of conserved Glu residue on cyclotide stability and activity: a structural and functional study of kalata B12, a naturally occurring Glu to Asp mutant. <i>Biochemistry</i> , 2011 , 50, 4077-86	3.2	33
77	Approaches to the stabilization of bioactive epitopes by grafting and peptide cyclization. <i>Biopolymers</i> , 2016 , 106, 89-100	2.2	33
76	Central injection of relaxin-3 receptor (RXFP3) antagonist peptides reduces motivated food seeking and consumption in C57BL/6J mice. <i>Behavioural Brain Research</i> , 2014 , 268, 117-26	3.4	30
75	Backbone Cyclization and Dimerization of LL-37-Derived Peptides Enhance Antimicrobial Activity and Proteolytic Stability. <i>Frontiers in Microbiology</i> , 2020 , 11, 168	5.7	29

74	NMR and protein structure in drug design: application to cyclotides and conotoxins. <i>European Biophysics Journal</i> , 2011 , 40, 359-70	1.9	28
73	Chemically synthesized dicarba H2 relaxin analogues retain strong RXFP1 receptor activity but show an unexpected loss of in vitro serum stability. <i>Organic and Biomolecular Chemistry</i> , 2015 , 13, 10895-903	3.9	25
72	Solution structure, membrane interactions, and protein binding partners of the tetraspanin Sm-TSP-2, a vaccine antigen from the human blood fluke <i>Schistosoma mansoni</i> . <i>Journal of Biological Chemistry</i> , 2014 , 289, 7151-7163	5.4	25
71	Development of a Single-Chain Peptide Agonist of the Relaxin-3 Receptor Using Hydrocarbon Stapling. <i>Journal of Medicinal Chemistry</i> , 2016 , 59, 7445-56	8.3	25
70	Central relaxin-3 receptor (RXFP3) activation reduces elevated, but not basal, anxiety-like behaviour in C57BL/6J mice. <i>Behavioural Brain Research</i> , 2015 , 292, 125-32	3.4	24
69	European wild boars and domestic pigs display different polymorphic patterns in the Toll-like receptor (TLR) 1, TLR2, and TLR6 genes. <i>Immunogenetics</i> , 2010 , 62, 49-58	3.2	24
68	In vitro assays of molecular motors--impact of motor-surface interactions. <i>Frontiers in Bioscience - Landmark</i> , 2008 , 13, 5732-54	2.8	24
67	The β -defensin salt-bridge induces backbone stability to facilitate folding and confer proteolytic resistance. <i>Amino Acids</i> , 2012 , 43, 1471-83	3.5	23
66	Seed storage albumins: biosynthesis, trafficking and structures. <i>Functional Plant Biology</i> , 2014 , 41, 671-677	6.7	22
65	Structural and biochemical characteristics of the cyclotide kalata B5 from <i>Oldenlandia affinis</i> . <i>Biopolymers</i> , 2010 , 94, 647-58	2.2	22
64	Buried treasure: biosynthesis, structures and applications of cyclic peptides hidden in seed storage albumins. <i>Natural Product Reports</i> , 2018 , 35, 137-146	15.1	21
63	Efficient enzymatic cyclization of an inhibitory cystine knot-containing peptide. <i>Biotechnology and Bioengineering</i> , 2016 , 113, 2202-12	4.9	21
62	Isolation, Characterization, and Synthesis of the Barrettides: Disulfide-Containing Peptides from the Marine Sponge <i>Geodia barretti</i> . <i>Journal of Natural Products</i> , 2015 , 78, 1886-93	4.9	20
61	Conopeptide β 1A defines a new allosteric site on the extracellular surface of the β B-adrenoceptor. <i>Journal of Biological Chemistry</i> , 2013 , 288, 1814-27	5.4	20
60	The structural and functional role of the B-chain C-terminal arginine in the relaxin-3 peptide antagonist, R3(BDelta23-27)R/15. <i>Chemical Biology and Drug Design</i> , 2009 , 73, 46-52	2.9	19
59	Solution structure of BST1: a new trypsin inhibitor from skin secretions of <i>Bombina bombina</i> . <i>Biochemistry</i> , 2001 , 40, 4601-9	3.2	19
58	Prediction of disulfide dihedral angles using chemical shifts. <i>Chemical Science</i> , 2018 , 9, 6548-6556	9.4	19
57	Engineering of a Novel Simplified Human Insulin-Like Peptide 5 Agonist. <i>Journal of Medicinal Chemistry</i> , 2016 , 59, 2118-25	8.3	18

56	Solution structure, aggregation behavior, and flexibility of human relaxin-2. <i>ACS Chemical Biology</i> , 2015 , 10, 891-900	4.9	18
55	Insights into the molecular flexibility of β -defensins by NMR relaxation analysis. <i>Journal of Physical Chemistry B</i> , 2014 , 118, 14257-66	3.4	18
54	Identification of key residues essential for the structural fold and receptor selectivity within the A-chain of human gene-2 (H2) relaxin. <i>Journal of Biological Chemistry</i> , 2012 , 287, 41152-64	5.4	18
53	Cyclization of pyrrolicorin retains structural elements crucial for the antimicrobial activity of the native peptide. <i>Biopolymers</i> , 2004 , 76, 446-58	2.2	18
52	Cyclotide Evolution: Insights from the Analyses of Their Precursor Sequences, Structures and Distribution in Violets (). <i>Frontiers in Plant Science</i> , 2017 , 8, 2058	6.2	16
51	A cactus-derived toxin-like cystine knot Peptide with selective antimicrobial activity. <i>ChemBioChem</i> , 2015 , 16, 1068-77	3.8	14
50	The self-association of the cyclotide kalata B2 in solution is guided by hydrophobic interactions. <i>Biopolymers</i> , 2013 , 100, 453-60	2.2	14
49	How bugs make lassos. <i>Chemistry and Biology</i> , 2009 , 16, 1211-2		14
48	Random coil shifts of posttranslationally modified amino acids. <i>Journal of Biomolecular NMR</i> , 2019 , 73, 587-599	3	13
47	The structural determinants of insulin-like Peptide 3 activity. <i>Frontiers in Endocrinology</i> , 2012 , 3, 11	5.7	13
46	An Ancient Peptide Family Buried within Vicilin Precursors. <i>ACS Chemical Biology</i> , 2019 , 14, 979-993	4.9	12
45	Alanine and Lysine Scans of the LL-37-Derived Peptide Fragment KR-12 Reveal Key Residues for Antimicrobial Activity. <i>ChemBioChem</i> , 2018 , 19, 931-939	3.8	12
44	Novel analgesic β -conotoxins from the vermivorous cone snail <i>Conus moncuri</i> provide new insights into the evolution of conopeptides. <i>Scientific Reports</i> , 2018 , 8, 13397	4.9	12
43	Natural structural diversity within a conserved cyclic peptide scaffold. <i>Amino Acids</i> , 2017 , 49, 103-116	3.5	11
42	Three-Dimensional Structure Determination of Peptides Using Solution Nuclear Magnetic Resonance Spectroscopy. <i>Methods in Molecular Biology</i> , 2020 , 2068, 129-162	1.4	11
41	A tripartite approach identifies the major sunflower seed albumins. <i>Theoretical and Applied Genetics</i> , 2016 , 129, 613-29	6	10
40	Stabilisierung eines cysteinreichen Kegelschnecken-toxins, MrlA, in Form eines 1,2,3-Triazol-Disulfidbrückenmimetikums. <i>Angewandte Chemie</i> , 2015 , 127, 1378-1381	3.6	10
39	Two proteins for the price of one: Structural studies of the dual-destiny protein prealbumin with sunflower trypsin inhibitor-1. <i>Journal of Biological Chemistry</i> , 2017 , 292, 12398-12411	5.4	9

38	Diverse cyclic seed peptides in the Mexican zinnia (<i>Zinnia haageana</i>). <i>Biopolymers</i> , 2016 , 106, 806-817	2.2	9
37	Distinct but overlapping binding sites of agonist and antagonist at the relaxin family peptide 3 (RXFP3) receptor. <i>Journal of Biological Chemistry</i> , 2018 , 293, 15777-15789	5.4	9
36	Peptide ion channel toxins from the bootlace worm, the longest animal on Earth. <i>Scientific Reports</i> , 2018 , 8, 4596	4.9	8
35	An Orbitide From Seed Containing 16 Amino Acid Residues. <i>Journal of Natural Products</i> , 2019 , 82, 2152-2158	4.5	8
34	Structural insights into the function of relaxins. <i>Annals of the New York Academy of Sciences</i> , 2009 , 1160, 20-6	6.5	8
33	Mature forms of the major seed storage albumins in sunflower: A mass spectrometric approach. <i>Journal of Proteomics</i> , 2016 , 147, 177-186	3.9	8
32	Synthesis and pharmacological characterization of a europium-labelled single-chain antagonist for binding studies of the relaxin-3 receptor RXFP3. <i>Amino Acids</i> , 2015 , 47, 1267-71	3.5	7
31	Extensive polymorphism in the porcine Toll-like receptor 10 gene. <i>International Journal of Immunogenetics</i> , 2012 , 39, 68-76	2.3	7
30	The genetic origin of evolidine, the first cyclopeptide discovered in plants, and related orbitides. <i>Journal of Biological Chemistry</i> , 2020 , 295, 14510-14521	5.4	7
29	Binding conformation and determinants of a single-chain peptide antagonist at the relaxin-3 receptor RXFP3. <i>Journal of Biological Chemistry</i> , 2018 , 293, 15765-15776	5.4	7
28	Recifin A, Initial Example of the Tyr-Lock Peptide Structural Family, Is a Selective Allosteric Inhibitor of Tyrosyl-DNA Phosphodiesterase I. <i>Journal of the American Chemical Society</i> , 2020 , 142, 21178-21188	16.4	5
27	Site-specific modification and segmental isotope labelling of HMGN1 reveals long-range conformational perturbations caused by posttranslational modifications. <i>RSC Chemical Biology</i> , 2021 , 2, 537-550	3	5
26	The interaction with fungal cell wall polysaccharides determines the salt tolerance of antifungal plant defensins. <i>Cell Surface</i> , 2019 , 5, 100026	4.8	4
25	NMR of Peptide Toxins. <i>Annual Reports on NMR Spectroscopy</i> , 2009 , 89-147	1.7	4
24	Allosteric regulation of arylamine N-acetyltransferase 1 by adenosine triphosphate. <i>Biochemical Pharmacology</i> , 2018 , 158, 153-160	6	4
23	Development of Relaxin-3 Agonists and Antagonists Based on Grafted Disulfide-Stabilized Scaffolds. <i>Frontiers in Chemistry</i> , 2020 , 8, 87	5	3
22	Structural properties of relaxin chimeras. <i>Annals of the New York Academy of Sciences</i> , 2009 , 1160, 27-306.5	6.5	3
21	The Structural and Functional Diversity of Naturally Occurring Antimicrobial Peptides. <i>Anti-Infective Agents in Medicinal Chemistry</i> , 2002 , 1, 319-341		3

20	Defining the Familial Fold of the Vicilin-Buried Peptide Family. <i>Journal of Natural Products</i> , 2020 , 83, 3030-3040	4.9	3
19	Chemical Synthesis and NMR Solution Structure of Conotoxin GXIA from. <i>Marine Drugs</i> , 2021 , 19,	6	3
18	Heimdallarchaea encodes profilin with eukaryotic-like actin regulation and polyproline binding. <i>Communications Biology</i> , 2021 , 4, 1024	6.7	3
17	A chameleonic macrocyclic peptide with drug delivery applications. <i>Chemical Science</i> , 2021 , 12, 6670-6683	6.4	3
16	Investigation of Receptor Heteromers Using NanoBRET Ligand Binding. <i>International Journal of Molecular Sciences</i> , 2021 , 22,	6.3	3
15	The chemistry and biology of human relaxin-3. <i>Annals of the New York Academy of Sciences</i> , 2005 , 1041, 40-6	6.5	2
14	Insights into the Interaction of LVV-Hemorphin-7 with Angiotensin II Type 1 Receptor. <i>International Journal of Molecular Sciences</i> , 2020 , 22,	6.3	2
13	Pursuing Orally Bioavailable Hecpidin Analogues via Cyclic -Methylated Mini-Hecpidins. <i>Biomedicines</i> , 2021 , 9,	4.8	2
12	Exploring the Use of Helicogenic Amino Acids for Optimising Single Chain Relaxin-3 Peptide Agonists. <i>Biomedicines</i> , 2020 , 8,	4.8	1
11	Secondary Structure Transitions for a Family of Amyloidogenic, Antimicrobial Uperin 3 Peptides in Contact with Sodium Dodecyl Sulfate.. <i>ChemPlusChem</i> , 2022 , 87, e202100408	2.8	1
10	Synthetic hookworm-derived peptides are potent modulators of primary human immune cell function that protect against experimental colitis in vivo. <i>Journal of Biological Chemistry</i> , 2021 , 297, 100834	5.4	1
9	Barrettides: A Peptide Family Specifically Produced by the Deep-Sea Sponge. <i>Journal of Natural Products</i> , 2021 ,	4.9	1
8	Effects of C-Terminal B-Chain Modifications in a Relaxin 3 Agonist Analogue. <i>ACS Medicinal Chemistry Letters</i> , 2020 , 11, 2336-2340	4.3	0
7	Development of Synthetic Human and Mouse C5a: Application to Binding and Functional Assays and .. <i>ACS Pharmacology and Translational Science</i> , 2021 , 4, 1808-1817	5.9	0
6	Structural Studies of Cyclotides. <i>Advances in Botanical Research</i> , 2015 , 76, 155-186	2.2	
5	Threaded Rings and Complex Topologies in Antimicrobial Peptides: Nature's Engineering Templates 2006 , 243-247		
4	A conserved β -bulge glycine residue facilitates folding and increases stability of the mouse β -defensin cryptdin-4. <i>Peptide Science</i> , 2022 , 114, e24250	3	
3	Structural Characterization of the PawL-Derived Peptide Family, an Ancient Subfamily of Orbitides. <i>Journal of Natural Products</i> , 2021 , 84, 2914-2922	4.9	

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