K Johan Rosengren

List of Publications by Year
in descending order

126 papers	5,835 citations	61977 43 h-index	85537 71 g-index
135 all docs	135 docs citations	135 times ranked	4828 citing authors

#	Article	IF	Citations
1	Twists, Knots, and Rings in Proteins. Journal of Biological Chemistry, 2003, 278, 8606-8616.	3.4	292
2	Microcin J25 Has a Threaded Sidechain-to-Backbone Ring Structure and Not a Head-to-Tail Cyclized Backbone. Journal of the American Chemical Society, 2003, 125, 12464-12474.	13.7	248
3	Isolation, Solution Structure, and Insecticidal Activity of Kalata B2, a Circular Protein with a Twist:Â Do MÃ¶bius Strips Exist in Nature?â€‚â€¡. Biochemistry, 2005, 44, 851-860.	2.5	225
4	Solution structures by 1 H NMR of the novel cyclic trypsin inhibitor SFTI-1 from sunflower seeds and an acyclic permutant 1 1Edited by M. F. Summers. Journal of Molecular Biology, 2001, 311, 579-591.	4.2	220
5	Engineering stable peptide toxins by means of backbone cyclization: Stabilization of the Â-conotoxin MII. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 13767-13772.	7.1	220
6	Discovery, structure and biological activities of cyclotidesâ˜†. Advanced Drug Delivery Reviews, 2009, 61, 918-930.	13.7	176
7	Theoretical and computational strategies for rational molecularly imprinted polymer design. Biosensors and Bioelectronics, 2009, 25, 543-552.	10.1	156
8	Decoding the Membrane Activity of the Cyclotide Kalata B1. Journal of Biological Chemistry, 2011, 286, 24231-24241.	3.4	155
9	Alanine Scanning Mutagenesis of the Prototypic Cyclotide Reveals a Cluster of Residues Essential for Bioactivity. Journal of Biological Chemistry, 2008, 283, 9805-9813.	3.4	153
10	Pharmacological characterisation of the highly NaV1.7 selective spider venom peptide Pn3a. Scientific Reports, 2017, 7, 40883.	3.3	120
11	Functional Analysis of the Î±-Defensin Disulfide Array in Mouse Cryptdin-4. Journal of Biological Chemistry, 2004, 279, 44188-44196.	3.4	119
12	Isolation and Characterization of Novel Cyclotides from Viola hederaceae. Journal of Biological Chemistry, 2005, 280, 22395-22405.	3.4	117
13	Identification of crucial residues for the antibacterial activity of the proline-rich peptide, pyrrhocoricin. FEBS Journal, 2002, 269, 4226-4237.	0.2	112
14	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. Journal of Biological Chemistry, 2009, 284, 10672-10683.	3.4	96
15	Solution Structure and Novel Insights into the Determinants of the Receptor Specificity of Human Relaxin-3. Journal of Biological Chemistry, 2006, 281, 5845-5851.	3.4	93
16	Design, Synthesis, and Characterization of a Single-Chain Peptide Antagonist for the Relaxin-3 Receptor RXFP3. Journal of the American Chemical Society, 2011, 133, 4965-4974.	13.7	86
17	The A-chain of Human Relaxin Family Peptides Has Distinct Roles in the Binding and Activation of the Different Relaxin Family Peptide Receptors. Journal of Biological Chemistry, 2008, 283, 17287-17297.	3.4	85
18	Semienzymatic Cyclization of Disulfide-rich Peptides Using Sortase A. Journal of Biological Chemistry, 2014, 289, 6627-6638.	3.4	83

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19	Synthesis, Conformation, and Activity of Human Insulinâ€Like Peptide 5 (INSL5). ChemBioChem, 2008, 9, 1816-1822.	2.6	77
20	Relaxin-3/RXFP3 system regulates alcohol-seeking. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20789-20794.	7.1	77
21	Solution Structure and Characterization of the LGR8 Receptor Binding Surface of Insulin-like Peptide 3. Journal of Biological Chemistry, 2006, 281, 28287-28295.	3.4	73
22	Identification and Characterization of ProTx-III [<i>Î¼</i>-TRTX-Tp1a], a New Voltage-Gated Sodium Channel Inhibitor from Venom of the Tarantula <i>Thrixopelma pruriens</i>. Molecular Pharmacology, 2015, 88, 291-303.	2.3	72
23	Relaxin family peptides: structureâ€“activity relationship studies. British Journal of Pharmacology, 2017, 174, 950-961.	5.4	72
24	Structure of Thermolysin Cleaved Microcin J25:â€‰ Extreme Stability of a Two-Chain Antimicrobial Peptide Devoid of Covalent Links[,]. Biochemistry, 2004, 43, 4696-4702.	2.5	70
25	A single-chain derivative of the relaxin hormone is a functionally selective agonist of the G protein-coupled receptor, RXFP1. Chemical Science, 2016, 7, 3805-3819.	7.4	70
26	Solid phase synthesis and structural analysis of novel A-chain dicarba analogs of human relaxin-3 (INSL7) that exhibit full biological activity. Organic and Biomolecular Chemistry, 2009, 7, 1547.	2.8	68
27	The Cyclic Cystine Ladder in Î¸-Defensins Is Important for Structure and Stability, but Not Antibacterial Activity. Journal of Biological Chemistry, 2013, 288, 10830-10840.	3.4	67
28	Chemical Synthesis, 3D Structure, and ASIC Binding Site of the Toxin Mambalginâ€2. Angewandte Chemie - International Edition, 2014, 53, 1017-1020.	13.8	66
29	Design and Synthesis of Truncated EGF-A Peptides that Restore LDL-R Recycling in the Presence of PCSK9 InÂVitro. Chemistry and Biology, 2014, 21, 284-294.	6.0	63
30	The Conserved Glu in the Cyclotide Cycloviolacin O2 Has a Key Structural Role. ChemBioChem, 2009, 10, 2354-2360.	2.6	62
31	Identification, Characterization, and Three-Dimensional Structure of the Novel Circular Bacteriocin, Enterocin NKR-5-3B, from <i>Enterococcus faecium</i>. Biochemistry, 2015, 54, 4863-4876.	2.5	62
32	Structural Characterization of the Cyclic Cystine Ladder Motif of Î¸-Defensins. Biochemistry, 2012, 51, 9718-9726.	2.5	59
33	Circular Proteins from Plants and Fungi. Journal of Biological Chemistry, 2012, 287, 27001-27006.	3.4	58
34	Distribution of circular proteins in plants: large-scale mapping of cyclotides in the Violaceae. Frontiers in Plant Science, 2015, 6, 855.	3.6	58
35	Structures of Naturally Occurring Circular Proteins from Bacteria. Journal of Bacteriology, 2003, 185, 4011-4021.	2.2	57
36	Engineered protease inhibitors based on sunflower trypsin inhibitor-1 (SFTI-1) provide insights into the role of sequence and conformation in Laskowski mechanism inhibition. Biochemical Journal, 2015, 469, 243-253.	3.7	57

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37	Approaches to the stabilization of bioactive epitopes by grafting and peptide cyclization. Biopolymers, 2016, 106, 89-100.	2.4	56
38	Backbone Cyclization and Dimerization of LL-37-Derived Peptides Enhance Antimicrobial Activity and Proteolytic Stability. Frontiers in Microbiology, 2020, 11, 168.	3.5	56
39	The Minimal Active Structure of Human Relaxin-2. Journal of Biological Chemistry, 2011, 286, 37555-37565.	3.4	52
40	Evolutionary Origins of a Bioactive Peptide Buried within Preproalbumin Â. Plant Cell, 2014, 26, 981-995.	6.6	51
41	Elucidation of relaxin-3 binding interactions in the extracellular loops of RXFP3. Frontiers in Endocrinology, 2013, 4, 13.	3.5	48
42	Structure of human insulin-like peptide 5 and characterization of conserved hydrogen bonds and electrostatic interactions within the relaxin framework. Biochemical Journal, 2009, 419, 619-627.	3.7	47
43	Central injection of relaxin-3 receptor (RXFP3) antagonist peptides reduces motivated food seeking and consumption in C57BL/6J mice. Behavioural Brain Research, 2014, 268, 117-126.	2.2	46
44	The Different Ligand-Binding Modes of Relaxin Family Peptide Receptors RXFP1 and RXFP2. Molecular Endocrinology, 2012, 26, 1896-1906.	3.7	45
45	The Cyclic Cystine Ladder of Thetaâ€Defensins as a Stable, Bifunctional Scaffold: A Proofâ€ofâ€Concept Study Using the Integrinâ€Binding RGD Motif.. ChemBioChem, 2014, 15, 451-459.	2.6	45
46	Stabilization of the Cysteineâ€Rich Conotoxin MrIA by Using a 1,2,3â€Triazole as a Disulfide Bond Mimetic. Angewandte Chemie - International Edition, 2015, 54, 1361-1364.	13.8	45
47	Retrocyclin-2:â€‰ Structural Analysis of a Potent Anti-HIV Î¸-Defensin[,]. Biochemistry, 2007, 46, 9920-9928.	2.5	43
48	Structure of the R3/I5 Chimeric Relaxin Peptide, a Selective GPCR135 and GPCR142 Agonist. Journal of Biological Chemistry, 2008, 283, 23811-23818.	3.4	42
49	Development of a Single-Chain Peptide Agonist of the Relaxin-3 Receptor Using Hydrocarbon Stapling. Journal of Medicinal Chemistry, 2016, 59, 7445-7456.	6.4	42
50	Structural and Functional Characterization of the Conserved Salt Bridge in Mammalian Paneth Cell Î±-Defensins. Journal of Biological Chemistry, 2006, 281, 28068-28078.	3.4	40
51	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. Journal of Medicinal Chemistry, 2014, 57, 9195-9203.	6.4	40
52	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. Biochemistry, 2011, 50, 4077-4086.	2.5	39
53	Central relaxin-3 receptor (RXFP3) activation reduces elevated, but not basal, anxiety-like behaviour in C57BL/6J mice. Behavioural Brain Research, 2015, 292, 125-132.	2.2	39
54	Solution Structures of thecis- andtrans-Pro30 Isomers of a Novel 38-Residue Toxin from the Venom ofHadronyche Infensa sp. that Contains a Cystine-Knot Motif within Its Four Disulfide Bondsâ€,â€¡. Biochemistry, 2002, 41, 3294-3301.	2.5	38

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55	Structural Insights into the Role of the Cyclic Backbone in a Squash Trypsin Inhibitor. Journal of Biological Chemistry, 2013, 288, 36141-36148.	3.4	38
56	Seed storage albumins: biosynthesis, trafficking and structures. Functional Plant Biology, 2014, 41, 671.	2.1	37
57	Solution Structure, Membrane Interactions, and Protein Binding Partners of the Tetraspanin Sm-TSP-2, a Vaccine Antigen from the Human Blood Fluke Schistosoma mansoni. Journal of Biological Chemistry, 2014, 289, 7151-7163.	3.4	33
58	Buried treasure: biosynthesis, structures and applications of cyclic peptides hidden in seed storage albumins. Natural Product Reports, 2018, 35, 137-146.	10.3	31
59	NMR and protein structure in drug design: application to cyclotides and conotoxins. European Biophysics Journal, 2011, 40, 359-370.	2.2	30
60	Chemically synthesized dicarba H2 relaxin analogues retain strong RXFP1 receptor activity but show an unexpected loss of in vitro serum stability. Organic and Biomolecular Chemistry, 2015, 13, 10895-10903.	2.8	30
61	Engineering of a Novel Simplified Human Insulin-Like Peptide 5 Agonist. Journal of Medicinal Chemistry, 2016, 59, 2118-2125.	6.4	30
62	Prediction of disulfide dihedral angles using chemical shifts. Chemical Science, 2018, 9, 6548-6556.	7.4	30
63	The Î±-defensin salt-bridge induces backbone stability to facilitate folding and confer proteolytic resistance. Amino Acids, 2012, 43, 1471-1483.	2.7	29
64	Solution Structure, Aggregation Behavior, and Flexibility of Human Relaxin-2. ACS Chemical Biology, 2015, 10, 891-900.	3.4	27
65	In vitro assays of molecular motors - impact of motor-surface interactions. Frontiers in Bioscience - Landmark, 2008, Volume, 5732.	3.0	27
66	European wild boars and domestic pigs display different polymorphic patterns in the Toll-like receptor (TLR) 1, TLR2, and TLR6 genes. Immunogenetics, 2010, 62, 49-58.	2.4	26
67	Alanine and Lysine Scans of the LLâ€37â€Derived Peptide Fragment KRâ€12 Reveal Key Residues for Antimicrobial Activity. ChemBioChem, 2018, 19, 931-939.	2.6	26
68	Solution Structure of BSTI:Â A New Trypsin Inhibitor from Skin Secretions ofBombina bombinaâ€,â€¡. Biochemistry, 2001, 40, 4601-4609.	2.5	25
69	Cyclotide Evolution: Insights from the Analyses of Their Precursor Sequences, Structures and Distribution in Violets (Viola). Frontiers in Plant Science, 2017, 8, 2058.	3.6	25
70	Structural and biochemical characteristics of the cyclotide kalata B5 from <i>Oldenlandia affinis</i>. Biopolymers, 2010, 94, 647-658.	2.4	24
71	Random coil shifts of posttranslationally modified amino acids. Journal of Biomolecular NMR, 2019, 73, 587-599.	2.8	24
72	Conopeptide Ï•TIA Defines a New Allosteric Site on the Extracellular Surface of the Î±1B-Adrenoceptor. Journal of Biological Chemistry, 2013, 288, 1814-1827.	3.4	23

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73	Isolation, Characterization, and Synthesis of the Barrettides: Disulfide-Containing Peptides from the Marine Sponge <i>Geodia barretti</i>. Journal of Natural Products, 2015, 78, 1886-1893.	3.0	23
74	The Structural and Functional Role of the Bâ€chain Câ€terminal Arginine in the Relaxinâ€3 Peptide Antagonist, R3(BÎ”23â€27)R/I5. Chemical Biology and Drug Design, 2009, 73, 46-52.	3.2	22
75	Insights into the Molecular Flexibility of Î¸-Defensins by NMR Relaxation Analysis. Journal of Physical Chemistry B, 2014, 118, 14257-14266.	2.6	22
76	Efficient enzymatic cyclization of an inhibitory cystine knotâ€containing peptide. Biotechnology and Bioengineering, 2016, 113, 2202-2212.	3.3	22
77	Peptide ion channel toxins from the bootlace worm, the longest animal on Earth. Scientific Reports, 2018, 8, 4596.	3.3	22
78	Novel analgesic Ï‰-conotoxins from the vermivorous cone snail Conus moncuri provide new insights into the evolution of conopeptides. Scientific Reports, 2018, 8, 13397.	3.3	22
79	Cyclization of pyrrhocoricin retains structural elements crucial for the antimicrobial activity of the native peptide. Biopolymers, 2004, 76, 446-458.	2.4	21
80	Identification of Key Residues Essential for the Structural Fold and Receptor Selectivity within the A-chain of Human Gene-2 (H2) Relaxin. Journal of Biological Chemistry, 2012, 287, 41152-41164.	3.4	21
81	The selfâ€association of the cyclotide kalata B2 in solution is guided by hydrophobic interactions. Biopolymers, 2013, 100, 453-460.	2.4	19
82	A Cactusâ€Derived Toxinâ€Like Cystine Knot Peptide with Selective Antimicrobial Activity. ChemBioChem, 2015, 16, 1068-1077.	2.6	18
83	An Ancient Peptide Family Buried within Vicilin Precursors. ACS Chemical Biology, 2019, 14, 979-993.	3.4	17
84	Secondary Structure Transitions for a Family of Amyloidogenic, Antimicrobial Uperin 3 Peptides in Contact with Sodium Dodecyl Sulfate. ChemPlusChem, 2022, 87, e202100408.	2.8	17
85	How Bugs Make Lassos. Chemistry and Biology, 2009, 16, 1211-1212.	6.0	16
86	The Structural Determinants of Insulin-Like Peptide 3 Activity. Frontiers in Endocrinology, 2012, 3, 11.	3.5	16
87	A tripartite approach identifies the major sunflower seed albumins. Theoretical and Applied Genetics, 2016, 129, 613-629.	3.6	14
88	Natural structural diversity within a conserved cyclic peptide scaffold. Amino Acids, 2017, 49, 103-116.	2.7	14
89	An Orbitide from <i>Ratibida columnifera</i> Seed Containing 16 Amino Acid Residues. Journal of Natural Products, 2019, 82, 2152-2158.	3.0	14
90	Three-Dimensional Structure Determination of Peptides Using Solution Nuclear Magnetic Resonance Spectroscopy. Methods in Molecular Biology, 2020, 2068, 129-162.	0.9	14

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91	Mature forms of the major seed storage albumins in sunflower: A mass spectrometric approach. Journal of Proteomics, 2016, 147, 177-186.	2.4	13
92	Diverse cyclic seed peptides in the Mexican zinnia (Zinnia haageana). Biopolymers, 2016, 106, 806-817.	2.4	13
93	Distinct but overlapping binding sites of agonist and antagonist at the relaxin family peptide 3 (RXFP3) receptor. Journal of Biological Chemistry, 2018, 293, 15777-15789.	3.4	13
94	Synthesis and pharmacological characterization of a europium-labelled single-chain antagonist for binding studies of the relaxin-3 receptor RXFP3. Amino Acids, 2015, 47, 1267-1271.	2.7	12
95	Two proteins for the price of one: Structural studies of the dual-destiny protein preproalbumin with sunflower trypsin inhibitor-1. Journal of Biological Chemistry, 2017, 292, 12398-12411.	3.4	12
96	The genetic origin of evolidine, the first cyclopeptide discovered in plants, and related orbitides. Journal of Biological Chemistry, 2020, 295, 14510-14521.	3.4	11
97	Heimdallarchaea encodes profilin with eukaryotic-like actin regulation and polyproline binding. Communications Biology, 2021, 4, 1024.	4.4	11
98	Investigation of Receptor Heteromers Using NanoBRET Ligand Binding. International Journal of Molecular Sciences, 2021, 22, 1082.	4.1	10
99	A chameleonic macrocyclic peptide with drug delivery applications. Chemical Science, 2021, 12, 6670-6683.	7.4	9
100	Structural Insights into the Function of Relaxins. Annals of the New York Academy of Sciences, 2009, 1160, 20-26.	3.8	8
101	Extensive polymorphism in the porcine Tollâ€like receptor 10 gene. International Journal of Immunogenetics, 2012, 39, 68-76.	1.8	8
102	Binding conformation and determinants of a single-chain peptide antagonist at the relaxin-3 receptor RXFP3. Journal of Biological Chemistry, 2018, 293, 15765-15776.	3.4	8
103	The interaction with fungal cell wall polysaccharides determines the salt tolerance of antifungal plant defensins. Cell Surface, 2019, 5, 100026.	3.0	8
104	NMR of Peptide Toxins. Annual Reports on NMR Spectroscopy, 2009, , 89-147.	1.5	7
105	Recifin A, Initial Example of the Tyr-Lock Peptide Structural Family, Is a Selective Allosteric Inhibitor of Tyrosyl-DNA Phosphodiesterase I. Journal of the American Chemical Society, 2020, 142, 21178-21188.	13.7	7
106	Site-specific modification and segmental isotope labelling of HMGN1 reveals long-range conformational perturbations caused by posttranslational modifications. RSC Chemical Biology, 2021, 2, 537-550.	4.1	7
107	Allosteric regulation of arylamine N-acetyltransferase 1 by adenosine triphosphate. Biochemical Pharmacology, 2018, 158, 153-160.	4.4	6
108	Defining the Familial Fold of the Vicilin-Buried Peptide Family. Journal of Natural Products, 2020, 83, 3030-3040.	3.0	6

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109	Barrettides: A Peptide Family Specifically Produced by the Deep-Sea Sponge <i>Geodia barretti</i>. Journal of Natural Products, 2021, 84, 3138-3146.	3.0	6
110	Development of Relaxin-3 Agonists and Antagonists Based on Grafted Disulfide-Stabilized Scaffolds. Frontiers in Chemistry, 2020, 8, 87.	3.6	5
111	Synthetic hookworm-derived peptides are potent modulators of primary human immune cell function that protect against experimental colitis inÂvivo. Journal of Biological Chemistry, 2021, 297, 100834.	3.4	5
112	Insights into the Interaction of LVV-Hemorphin-7 with Angiotensin II Type 1 Receptor. International Journal of Molecular Sciences, 2021, 22, 209.	4.1	5
113	Pursuing Orally Bioavailable Hepcidin Analogues via Cyclic N-Methylated Mini-Hepcidins. Biomedicines, 2021, 9, 164.	3.2	4
114	The Structural and Functional Diversity of Naturally Occurring Antimicrobial Peptides. Anti-Infective Agents in Medicinal Chemistry, 2002, 1, 319-341.	0.9	4
115	Development of Synthetic Human and Mouse C5a: Application to Binding and Functional Assays <i>In Vitro</i> and <i>In Vivo</i>. ACS Pharmacology and Translational Science, 2021, 4, 1808-1817.	4.9	4
116	Structural Properties of Relaxin Chimeras. Annals of the New York Academy of Sciences, 2009, 1160, 27-30.	3.8	3
117	Chemical Synthesis and NMR Solution Structure of Conotoxin GXIA from Conus geographus. Marine Drugs, 2021, 19, 60.	4.6	3
118	The Chemistry and Biology of Human Relaxin-3. Annals of the New York Academy of Sciences, 2005, 1041, 40-46.	3.8	2
119	Effects of C-Terminal B-Chain Modifications in a Relaxin 3 Agonist Analogue. ACS Medicinal Chemistry Letters, 2020, 11, 2336-2340.	2.8	2
120	Exploring the Use of Helicogenic Amino Acids for Optimising Single Chain Relaxin-3 Peptide Agonists. Biomedicines, 2020, 8, 415.	3.2	2
121	Posttranslational modifications of Î±-conotoxins: sulfotyrosine and C-terminal amidation stabilise structures and increase acetylcholine receptor binding. RSC Medicinal Chemistry, 2021, 12, 1574-1584.	3.9	2
122	Solution NMR and racemic crystallography provide insights into a novel structural class of cyclic plant peptides. RSC Chemical Biology, 2021, 2, 1682-1691.	4.1	1
123	A conserved Î²â€bulge glycine residue facilitates folding and increases stability of the mouse Î±â€defensin cryptdinâ€4. Peptide Science, 2022, 114, e24250.	1.8	1
124	Threaded Rings and Complex Topologies in Antimicrobial Peptides: Natureâ€™s Engineering Templates. , 2006, , 243-247.		0
125	Structural Studies of Cyclotides. Advances in Botanical Research, 2015, 76, 155-186.	1.1	0
126	Structural Characterization of the PawL-Derived Peptide Family, an Ancient Subfamily of Orbitides. Journal of Natural Products, 2021, 84, 2914-2922.	3.0	0