Jennifer R Cochran

List of Publications by Year
in descending order

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82 papers	5,089 citations	94269 37 h-index	98622 67 g-index
87 all docs	87 docs citations	87 times ranked	8335 citing authors

#	Article	IF	Citations
1	Eradication of large established tumors in mice by combination immunotherapy that engages innate and adaptive immune responses. Nature Medicine, 2016, 22, 1402-1410.	15.2	437
2	Defining the features and duration of antibody responses to SARS-CoV-2 infection associated with disease severity and outcome. Science Immunology, 2020, 5, .	5.6	404
3	Engineering growth factors for regenerative medicine applications. Acta Biomaterialia, 2016, 30, 1-12.	4.1	273
4	LYTACs that engage the asialoglycoprotein receptor for targeted protein degradation. Nature Chemical Biology, 2021, 17, 937-946.	3.9	211
5	Applications of Yeast Surface Display for Protein Engineering. Methods in Molecular Biology, 2015, 1319, 155-175.	0.4	170
6	Targeted Contrast-Enhanced Ultrasound Imaging of Tumor Angiogenesis with Contrast Microbubbles Conjugated to Integrin-Binding Knottin Peptides. Journal of Nuclear Medicine, 2010, 51, 433-440.	2.8	156
7	Emerging Strategies for Developing Next-Generation Protein Therapeutics for Cancer Treatment. Trends in Pharmacological Sciences, 2016, 37, 993-1008.	4.0	156
8	Engineered cystine knot peptides that bind Î±vÎ²3, Î±vÎ²5, and Î±5Î²1 integrins with lowâ€nanomolar affinity. Proteins: Structure, Function and Bioinformatics, 2009, 77, 359-369.	1.5	147
9	Engineered Knottin Peptides: A New Class of Agents for Imaging Integrin Expression in Living Subjects. Cancer Research, 2009, 69, 2435-2442.	0.4	146
10	Novel NanoLuc substrates enable bright two-population bioluminescence imaging in animals. Nature Methods, 2020, 17, 852-860.	9.0	123
11	Engineered Cystine-Knot Peptides that Bind Î±vÎ²3 Integrin with Antibody-Like Affinities. Journal of Molecular Biology, 2009, 385, 1064-1075.	2.0	117
12	An engineered Axl 'decoy receptor' effectively silences the Gas6-Axl signaling axis. Nature Chemical Biology, 2014, 10, 977-983.	3.9	117
13	Anti-GD2 synergizes with CD47 blockade to mediate tumor eradication. Nature Medicine, 2022, 28, 333-344.	15.2	105
14	High-throughput screening technologies for enzyme engineering. Current Opinion in Biotechnology, 2017, 48, 196-202.	3.3	99
15	Engineered knottin peptides as diagnostics, therapeutics, and drug delivery vehicles. Current Opinion in Chemical Biology, 2016, 34, 143-150.	2.8	96
16	High-throughput analysis and protein engineering using microcapillary arrays. Nature Chemical Biology, 2016, 12, 76-81.	3.9	95
17	Domain-level antibody epitope mapping through yeast surface display of epidermal growth factor receptor fragments. Journal of Immunological Methods, 2004, 287, 147-158.	0.6	90
18	Delivery of an engineered HGF fragment in an extracellular matrix-derived hydrogel prevents negative LV remodeling post-myocardial infarction. Biomaterials, 2015, 45, 56-63.	5.7	90

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19	Enhanced safety and efficacy of protease-regulated CAR-T cell receptors. Cell, 2022, 185, 1745-1763.e22.	13.5	88
20	Inhibition of the GAS6/AXL pathway augments the efficacy of chemotherapies. Journal of Clinical Investigation, 2016, 127, 183-198.	3.9	86
21	Delivery of CAR-T cells in a transient injectable stimulatory hydrogel niche improves treatment of solid tumors. Science Advances, 2022, 8, eabn8264.	4.7	80
22	In Vivo Site-Specific Protein Tagging with Diverse Amines Using an Engineered Sortase Variant. Journal of the American Chemical Society, 2016, 138, 7496-7499.	6.6	77
23	Knottins: disulfide-bonded therapeutic and diagnostic peptides. Drug Discovery Today: Technologies, 2012, 9, e3-e11.	4.0	72
24	Engineered knottin peptide enables noninvasive optical imaging of intracranial medulloblastoma. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14598-14603.	3.3	67
25	A Chemically Cross-Linked Knottin Dimer Binds Integrins with Picomolar Affinity and Inhibits Tumor Cell Migration and Proliferation. Journal of the American Chemical Society, 2015, 137, 6-9.	6.6	63
26	A Dual-Labeled Knottin Peptide for PET and Near-Infrared Fluorescence Imaging of Integrin Expression in Living Subjects. Bioconjugate Chemistry, 2010, 21, 436-444.	1.8	61
27	Integrinâ€Targeting Knottin Peptideâ€“Drug Conjugates Are Potent Inhibitors of Tumor Cell Proliferation. Angewandte Chemie - International Edition, 2016, 55, 9894-9897.	7.2	61
28	Structure and Functional Binding Epitope of V-domain Ig Suppressor of T Cell Activation. Cell Reports, 2019, 28, 2509-2516.e5.	2.9	61
29	Evaluation of a ⁶⁴Cu-Labeled Cystine-Knot Peptide Based on Agouti-Related Protein for PET of Tumors Expressing Î±_vÎ²₃ Integrin. Journal of Nuclear Medicine, 2010, 51, 251-258.	2.8	59
30	Improved mutants from directed evolution are biased to orthologous substitutions. Protein Engineering, Design and Selection, 2006, 19, 245-253.	1.0	57
31	Engineering hepatocyte growth factor fragments with high stability and activity as Met receptor agonists and antagonists. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13035-13040.	3.3	53
32	Antagonistic VEGF variants engineered to simultaneously bind to and inhibit VEGFR2 and Î± _v Î² ₃ integrin. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 14067-14072.	3.3	53
33	Engineering Knottins as Novel Binding Agents. Methods in Enzymology, 2012, 503, 223-251.	0.4	46
34	An Engineered Knottin Peptide Labeled with ¹⁸F for PET Imaging of Integrin Expression. Bioconjugate Chemistry, 2009, 20, 2342-2347.	1.8	45
35	Engineering Agatoxin, a Cystine-Knot Peptide from Spider Venom, as a Molecular Probe for In Vivo Tumor Imaging. PLoS ONE, 2013, 8, e60498.	1.1	45
36	PET Imaging of Tumor Neovascularization in a Transgenic Mouse Model with a Novel 64Cu-DOTA-Knottin Peptide. Cancer Research, 2010, 70, 9022-9030.	0.4	43

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37	Antitumor activity of an engineered decoy receptor targeting CLCF1â€“CNTFR signaling in lung adenocarcinoma. Nature Medicine, 2019, 25, 1783-1795.	15.2	43
38	Integrin-targeted cancer immunotherapy elicits protective adaptive immune responses. Journal of Experimental Medicine, 2017, 214, 1679-1690.	4.2	41
39	Developing therapeutic proteins by engineering ligandâ€“receptor interactions. Trends in Biotechnology, 2008, 26, 498-505.	4.9	40
40	Cystine-knot peptides engineered with specificities for Î±IIbÎ²3 or Î±IIbÎ²3 and Î±vÎ²3 integrins are potent inhibitors of platelet aggregation. Journal of Molecular Recognition, 2011, 24, 127-135.	1.1	39
41	Cystine-knot peptides: emerging tools for cancer imaging and therapy. Expert Review of Proteomics, 2014, 11, 561-572.	1.3	39
42	Functional Mutation of Multiple Solvent-Exposed Loops in the Ecballium elaterium Trypsin Inhibitor-II Cystine Knot Miniprotein. PLoS ONE, 2011, 6, e16112.	1.1	37
43	Heterogeneous delivery across the blood-brain barrier limits the efficacy of an EGFR-targeting antibody drug conjugate in glioblastoma. Neuro-Oncology, 2021, 23, 2042-2053.	0.6	37
44	Beyond antibodies: using biological principles to guide the development of next-generation protein therapeutics. Current Opinion in Biotechnology, 2013, 24, 1072-1077.	3.3	36
45	An engineered antibody binds a distinct epitope and is a potent inhibitor of murine and human VISTA. Scientific Reports, 2020, 10, 15171.	1.6	33
46	Targeting ligandâ€“receptor interactions for development of cancer therapeutics. Current Opinion in Chemical Biology, 2017, 38, 62-69.	2.8	32
47	Preliminary evaluation of 177Lu-labeled knottin peptides for integrin receptor-targeted radionuclide therapy. European Journal of Nuclear Medicine and Molecular Imaging, 2011, 38, 613-622.	3.3	31
48	PET Imaging of Integrin Positive Tumors Using ¹⁸F Labeled Knottin Peptides. Theranostics, 2011, 1, 403-412.	4.6	30
49	Interrogating and Predicting Tolerated Sequence Diversity in Protein Folds: Application to E. elaterium Trypsin Inhibitor-II Cystine-Knot Miniprotein. PLoS Computational Biology, 2009, 5, e1000499.	1.5	29
50	Targeted Drug Delivery with an Integrin-Binding Knottinâ€“Fcâ€“MMAF Conjugate Produced by Cell-Free Protein Synthesis. Molecular Cancer Therapeutics, 2016, 15, 1291-1300.	1.9	27
51	A novel proteinâ€engineered hepatocyte growth factor analog released via a shearâ€thinning injectable hydrogel enhances postâ€infarction ventricular function. Biotechnology and Bioengineering, 2017, 114, 2379-2389.	1.7	27
52	Degradable Acetalated Dextran Microparticles for Tunable Release of an Engineered Hepatocyte Growth Factor Fragment. ACS Biomaterials Science and Engineering, 2016, 2, 197-204.	2.6	26
53	Dual display of proteins on the yeast cell surface simplifies quantification of binding interactions and enzymatic bioconjugation reactions. Biotechnology Journal, 2017, 12, 1600696.	1.8	26
54	Multi-phase catheter-injectable hydrogel enables dual-stage protein-engineered cytokine release to mitigate adverse left ventricular remodeling following myocardial infarction in a small animal model and a large animal model. Cytokine, 2020, 127, 154974.	1.4	26

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55	Targeting of Cancer Cells Using Quantum Dotâ€“Polypeptide Hybrid Assemblies That Function as Molecular Imaging Agents and Carrier Systems. Advanced Functional Materials, 2010, 20, 4091-4097.	7.8	25
56	Engineered Proteins Pull Double Duty. Science Translational Medicine, 2010, 2, 17ps5.	5.8	24
57	PET Reporter Gene Imaging and Ganciclovir-Mediated Ablation of Chimeric Antigen Receptor T Cells in Solid Tumors. Cancer Research, 2020, 80, 4731-4740.	0.4	24
58	An engineered dimeric fragment of hepatocyte growth factor is a potent câ€MET agonist. FEBS Letters, 2014, 588, 4831-4837.	1.3	23
59	Broad-spectrum CRISPR-mediated inhibition of SARS-CoV-2 variants and endemic coronaviruses in vitro. Nature Communications, 2022, 13, 2766.	5.8	20
60	Engineered epidermal growth factor mutants with faster binding on-rates correlate with enhanced receptor activation. FEBS Letters, 2011, 585, 1135-1139.	1.3	18
61	Development of a Protease Biosensor Based on a Dimerization-Dependent Red Fluorescent Protein. ACS Chemical Biology, 2018, 13, 66-72.	1.6	17
62	Engineering a potent receptor superagonist or antagonist from a novel IL-6 family cytokine ligand. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 14110-14118.	3.3	17
63	Neutralizing antibodies targeting the SARSâ€CoVâ€2 receptor binding domain isolated from a naÃ¯ve human antibody library. Protein Science, 2021, 30, 716-727.	3.1	16
64	CD52 Is Elevated on B cells of SLE Patients and Regulates B Cell Function. Frontiers in Immunology, 2020, 11, 626820.	2.2	15
65	An engineered ligand trap inhibits leukemia inhibitory factor as pancreatic cancer treatment strategy. Communications Biology, 2021, 4, 452.	2.0	15
66	Engineering High Affinity Proteinâ€“Protein Interactions Using a High-Throughput Microcapillary Array Platform. ACS Chemical Biology, 2017, 12, 336-341.	1.6	14
67	Systemic delivery of a targeted synthetic immunostimulant transforms the immune landscape for effective tumor regression. Cell Chemical Biology, 2022, 29, 451-462.e8.	2.5	14
68	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mtext>I</mml:mtext><mml:mrow><mml:mtext>111</mml:mtext></mml:m Cystine-Knot Peptides Based on the Agouti-Related Protein for Targeting Tumor Angiogenesis. Journal of Biomedicine and Biotechnology, 2012, 2012, 1-8.	3.0	12
69	Structural Basis of the Differential Binding of Engineered Knottins to Integrins Î±VÎ²3 and Î±5Î²1. Structure, 2019, 27, 1443-1451.e6.	1.6	12
70	A novel radiofluorinated agouti-related protein for tumor angiogenesis imaging. Amino Acids, 2013, 44, 673-681.	1.2	10
71	Heterochiral Knottin Protein: Folding and Solution Structure. Biochemistry, 2017, 56, 5720-5725.	1.2	10
72	Discovery of Improved EGF Agonists Using a Novel In Vitro Screening Platform. Journal of Molecular Biology, 2011, 413, 406-415.	2.0	9

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73	Phage display and molecular imaging: expanding fields of vision in living subjects. Biotechnology and Genetic Engineering Reviews, 2010, 27, 57-94.	2.4	7
74	Integrinâ€Targeting Knottin Peptideâ€“Drug Conjugates Are Potent Inhibitors of Tumor Cell Proliferation. Angewandte Chemie, 2016, 128, 10048-10051.	1.6	6
75	Engineered ligandâ€based VEGFR antagonists with increased receptor binding affinity more effectively inhibit angiogenesis. Bioengineering and Translational Medicine, 2017, 2, 81-91.	3.9	6
76	Engineering a potent inhibitor of matriptase from the natural hepatocyte growth factor activator inhibitor type-1 (HAI-1) protein. Journal of Biological Chemistry, 2018, 293, 4969-4980.	1.6	6
77	Identification of N-Terminally Diversified GLP-1R Agonists Using Saturation Mutagenesis and Chemical Design. ACS Chemical Biology, 2021, 16, 58-66.	1.6	5
78	Engineering Multivalent and Multispecific Protein Therapeutics. , 2014, , 365-396.		4
79	Cell Surface Display Systems For Protein Engineering. , 2009, , .		3
80	Use of Outpatient-Derived COVID-19 Convalescent Plasma in COVID-19 Patients Before Seroconversion. Frontiers in Immunology, 2021, 12, 739037.	2.2	3
81	A Bioengineered Peptide That Localizes To And Illuminates Medulloblastoma: A New Tool With Potential For Fluorescence-Guided Surgical Resection. Cureus, 2014, 6, .	0.2	2
82	Innentitelbild: Integrin-Targeting Knottin Peptide-Drug Conjugates Are Potent Inhibitors of Tumor Cell Proliferation (Angew. Chem. 34/2016). Angewandte Chemie, 2016, 128, 9950-9950.	1.6	0