Donald M Engelman

List of Publications by Year in Descending Order

94 papers	11,900 citations	50 h-index	98 g-index
98 ext. papers	12,766 ext. citations	9 avg, IF	6.46 L-index

#	Paper	IF	Citations
94	MicroRNA function can be reversed by altering target gene expression levels. *IScience*, **2021**, 24, 1032086.1	0
93	Pharmacokinetic modeling reveals parameters that govern tumor targeting and delivery by a pH-Low Insertion Peptide (pHLIP). *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	3
92	Tumor-selective, antigen-independent delivery of a pH sensitive peptide-topoisomerase inhibitor conjugate suppresses tumor growth without systemic toxicity. *NAR Cancer*, **2021**, 3, zcab021	5.2	2
91	Kinetics of pHLIP peptide insertion into and exit from a membrane. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 12095-12100	11.5	3
90	Ku80-Targeted pH-Sensitive Peptide-PNA Conjugates Are Tumor Selective and Sensitize Cancer Cells to Ionizing Radiation. *Molecular Cancer Research*, **2020**, 18, 873-882	6.6	9
89	Targeting Acidic Diseased Tissues by pH-Triggered Membrane-Associated Peptide Folding. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 335	5.8	10
88	Tumor-Targeted, Cytoplasmic Delivery of Large, Polar Molecules Using a pH-Low Insertion Peptide. *Molecular Pharmaceutics*, **2020**, 17, 461-471	5.6	8
87	pHLIP ICG for delineation of tumors and blood flow during fluorescence-guided surgery. *Scientific Reports*, **2020**, 10, 18356	4.9	5
86	Mapping pH at Cancer Cell Surfaces. *Molecular Imaging and Biology*, **2019**, 21, 1020-1025	3.8	10
85	Peptides of pHLIP family for targeted intracellular and extracellular delivery of cargo molecules to tumors. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E2811-E2818	11.5	61
84	Bilayer Thickness and Curvature Influence Binding and Insertion of a pHLIP Peptide. *Biophysical Journal*, **2018**, 114, 2107-2115	2.9	15
83	Applications of pHLIP Technology for Cancer Imaging and Therapy. *Trends in Biotechnology*, **2017**, 35, 653-664	15.1	57
82	Two transmembrane dimers of the bovine papillomavirus E5 oncoprotein clamp the PDGF receptor in an active dimeric conformation. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E7262-E7271	11.5	13
81	PET Imaging of Extracellular pH in Tumors with (64)Cu- and (18)F-Labeled pHLIP Peptides: A Structure-Activity Optimization Study. *Bioconjugate Chemistry*, **2016**, 27, 2014-23	6.3	43
80	OncomiR or Tumor Suppressor? The Duplicity of MicroRNAs in Cancer. *Cancer Research*, **2016**, 76, 3666-76	10.1	428
79	Membranes Do Not Tell Proteins How To Fold. *Biochemistry*, **2016**, 55, 5-18	3.2	39
78	Probe for the measurement of cell surface pH in vivo and ex vivo. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 8177-81	11.5	126

77	Targeted imaging of urothelium carcinoma in human bladders by an ICG pHLIP peptide ex vivo. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 11829-11834	11.5	35
76	The pH low insertion peptide pHLIP Variant 3 as a novel marker of acidic malignant lesions. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 9710-5	11.5	40
75	Biologically active LIL proteins built with minimal chemical diversity. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, E4717-25	11.5	26
74	Targeting acidity in diseased tissues: mechanism and applications of the membrane-inserting peptide, pHLIP. *Archives of Biochemistry and Biophysics*, **2015**, 565, 40-8	4.1	49
73	MicroRNA silencing for cancer therapy targeted to the tumour microenvironment. *Nature*, **2015**, 518, 107-10	50.4	591
72	Targeting diseased tissues by pHLIP insertion at low cell surface pH. *Frontiers in Physiology*, **2014**, 5, 97	4.6	63
71	pHLIP-FIRE, a cell insertion-triggered fluorescent probe for imaging tumors demonstrates targeted cargo delivery in vivo. *ACS Chemical Biology*, **2014**, 9, 2545-53	4.9	28
70	Understanding the pharmacological properties of a metabolic PET tracer in prostate cancer. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 7254-9	11.5	34
69	Mapping the homodimer interface of an optimized, artificial, transmembrane protein activator of the human erythropoietin receptor. *PLoS ONE*, **2014**, 9, e95593	3.7	6
68	pH (low) insertion peptide (pHLIP) targets ischemic myocardium. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 82-6	11.5	49
67	pHLIP peptide targets nanogold particles to tumors. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 465-70	11.5	121
66	Aspartate embedding depth affects pHLIP's insertion pKa. *Biochemistry*, **2013**, 52, 4595-604	3.2	34
65	Peptide targeting and imaging of damaged lung tissue in influenza-infected mice. *Future Microbiology*, **2013**, 8, 257-69	2.9	15
64	Family of pH (low) insertion peptides for tumor targeting. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 5834-9	11.5	139
63	In vivo pH imaging with (99m)Tc-pHLIP. *Molecular Imaging and Biology*, **2012**, 14, 725-34	3.8	52
62	Modulation of the pHLIP transmembrane helix insertion pathway. *Biophysical Journal*, **2012**, 102, 1846-55	3.9	44
61	Membrane physical properties influence transmembrane helix formation. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 14422-7	11.5	55
60	Roles of carboxyl groups in the transmembrane insertion of peptides. *Journal of Molecular Biology*, **2011**, 413, 359-71	6.5	47

59	Measuring tumor aggressiveness and targeting metastatic lesions with fluorescent pHLIP. *Molecular Imaging and Biology*, **2011**, 13, 1146-56	3.8	77
58	Tuning a polar molecule for selective cytoplasmic delivery by a pH (Low) insertion peptide. *Biochemistry*, **2011**, 50, 10215-22	3.2	36
57	Thrombopoietin receptor activation: transmembrane helix dimerization, rotation, and allosteric modulation. *FASEB Journal*, **2011**, 25, 2234-44	0.9	49
56	Construction and genetic selection of small transmembrane proteins that activate the human erythropoietin receptor. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 3447-52	11.5	35
55	pH-sensitive membrane peptides (pHLIPs) as a novel class of delivery agents. *Molecular Membrane Biology*, **2010**, 27, 341-52	3.4	94
54	pH-(low)-insertion-peptide (pHLIP) translocation of membrane impermeable phalloidin toxin inhibits cancer cell proliferation. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 20246-50	11.5	105
53	pH (low) insertion peptide (pHLIP) inserts across a lipid bilayer as a helix and exits by a different path. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 4081-6	11.5	110
52	Tuning the insertion properties of pHLIP. *Biochimica Et Biophysica Acta - Biomembranes*, **2010**, 1798, 1041-8	3.8	49
51	Artificial transmembrane oncoproteins smaller than the bovine papillomavirus E5 protein redefine sequence requirements for activation of the platelet-derived growth factor beta receptor. *Journal of Virology*, **2009**, 83, 9773-85	6.6	24
50	Accurate analysis of tumor margins using a fluorescent pH Low Insertion Peptide (pHLIP). *International Journal of Molecular Sciences*, **2009**, 10, 3478-87	6.3	24
49	A novel technology for the imaging of acidic prostate tumors by positron emission tomography. *Cancer Research*, **2009**, 69, 4510-6	10.1	138
48	Computational analysis of membrane proteins: the largest class of drug targets. *Drug Discovery Today*, **2009**, 14, 1130-5	8.8	183
47	pHLIP-mediated translocation of membrane-impermeable molecules into cells. *Chemistry and Biology*, **2009**, 16, 754-62		54
46	Targeting acidic diseased tissue: New technology based on use of the pH (Low) Insertion Peptide (pHLIP) **2009**, 27, 34-37		34
45	Translocating cell-impermeable molecules through the plasma membrane of cancer cells. *FASEB Journal*, **2009**, 23, 796.7	0.9	
44	Bilayer interactions of pHLIP, a peptide that can deliver drugs and target tumors. *Biophysical Journal*, **2008**, 95, 225-35	2.9	65
43	Protein area occupancy at the center of the red blood cell membrane. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 2848-52	11.5	196
42	Energetics of peptide (pHLIP) binding to and folding across a lipid bilayer membrane. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 15340-5	11.5	137

41	A monomeric membrane peptide that lives in three worlds: in solution, attached to, and inserted across lipid bilayers. *Biophysical Journal*, **2007**, 93, 2363-72	2.9	148
40	Mechanism and uses of a membrane peptide that targets tumors and other acidic tissues in vivo. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 7893-8	11.5	228
39	Translocation of molecules into cells by pH-dependent insertion of a transmembrane helix. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 6460-5	11.5	179
38	The stability of transmembrane helix interactions measured in a biological membrane. *Journal of Molecular Biology*, **2006**, 358, 1221-8	6.5	54
37	ph-Triggered Transport of Molecules into Cells by Transmembrane Helix Insertion. *FASEB Journal*, **2006**, 20, A457	0.9	
36	Transmembrane homodimerization of receptor-like protein tyrosine phosphatases. *FEBS Letters*, **2005**, 579, 3855-8	3.8	43
35	Membranes are more mosaic than fluid. *Nature*, **2005**, 438, 578-80	50.4	693
34	The affinity of GXXXG motifs in transmembrane helix-helix interactions is modulated by long-range communication. *Journal of Biological Chemistry*, **2004**, 279, 16591-7	5.4	97
33	Selection and characterization of small random transmembrane proteins that bind and activate the platelet-derived growth factor beta receptor. *Journal of Molecular Biology*, **2004**, 338, 907-20	6.5	53
32	Computational analysis of membrane proteins: genomic occurrence, structure prediction and helix interactions. *Quarterly Reviews of Biophysics*, **2004**, 37, 121-46	7	55
31	Membrane protein folding: beyond the two stage model. *FEBS Letters*, **2003**, 555, 122-5	3.8	244
30	Electrostatic fasteners hold the T cell receptor-CD3 complex together. *Molecular Cell*, **2003**, 11, 5-6	17.6	26
29	Computation and mutagenesis suggest a right-handed structure for the synaptobrevin transmembrane dimer. *Proteins: Structure, Function and Bioinformatics*, **2001**, 45, 313-7	4.2	50
28	Design of single-layer beta-sheets without a hydrophobic core. *Nature*, **2000**, 403, 456-60	50.4	54
27	Statistical analysis of amino acid patterns in transmembrane helices: the GxxxG motif occurs frequently and in association with beta-branched residues at neighboring positions. *Journal of Molecular Biology*, **2000**, 296, 921-36	6.5	529
26	The GxxxG motif: a framework for transmembrane helix-helix association. *Journal of Molecular Biology*, **2000**, 296, 911-9	6.5	797
25	Interhelical hydrogen bonding drives strong interactions in membrane proteins. *Nature Structural Biology*, **2000**, 7, 154-60		212
24	Helical membrane protein folding, stability, and evolution. *Annual Review of Biochemistry*, **2000**, 69, 881-922	29.1	546

23	Multistep denaturation of Borrelia burgdorferi OspA, a protein containing a single-layer beta-sheet. *Biochemistry*, **1999**, 38, 4757-67	3.2	33
22	Models for the transmembrane region of the phospholamban pentamer: which is correct?. *Annals of the New York Academy of Sciences*, **1998**, 853, 178-85	6.5	7
21	A solution SAXS study of Borrelia burgdorferi OspA, a protein containing a single-layer beta-sheet. *Protein Science*, **1998**, 7, 2681-3	6.3	19
20	Structural perspectives of phospholamban, a helical transmembrane pentamer. *Annual Review of Biophysics and Biomolecular Structure*, **1997**, 26, 157-79		64
19	A transmembrane helix dimer: structure and implications. *Science*, **1997**, 276, 131-3	33.3	893
18	The effect of point mutations on the free energy of transmembrane alpha-helix dimerization. *Journal of Molecular Biology*, **1997**, 272, 266-75	6.5	223
17	Spontaneous, pH-dependent membrane insertion of a transbilayer alpha-helix. *Biochemistry*, **1997**, 36, 15177-92	3.2	204
16	Dimerization of the p185neu transmembrane domain is necessary but not sufficient for transformation. *Oncogene*, **1997**, 14, 687-96	9.2	70
15	Improved prediction for the structure of the dimeric transmembrane domain of glycophorin A obtained through global searching. *Proteins: Structure, Function and Bioinformatics*, **1996**, 26, 257-61	4.2	141
14	Leucine side-chain rotamers in a glycophorin A transmembrane peptide as revealed by three-bond carbon-carbon couplings and 13C chemical shifts. *Journal of Biomolecular NMR*, **1996**, 7, 256-60	3	30
13	Surface point mutations that significantly alter the structure and stability of a protein\'s denatured state. *Protein Science*, **1996**, 5, 2009-19	6.3	42
12	Mapping the lipid-exposed surfaces of membrane proteins. *Nature Structural Biology*, **1996**, 3, 240-3		16
11	Computational searching and mutagenesis suggest a structure for the pentameric transmembrane domain of phospholamban. *Nature Structural and Molecular Biology*, **1995**, 2, 154-62	17.6	186
10	A dimerization motif for transmembrane alpha-helices. *Nature Structural Biology*, **1994**, 1, 157-63		278
9	Specificity and promiscuity in membrane helix interactions. *Quarterly Reviews of Biophysics*, **1994**, 27, 157-218	7	168
8	Sequence specificity in the dimerization of transmembrane alpha-helices. *Biochemistry*, **1992**, 31, 12719-25	3.2	482
7	Bacteriorhodopsin can be refolded from two independently stable transmembrane helices and the complementary five-helix fragment. *Biochemistry*, **1992**, 31, 6144-51	3.2	149
6	Bacteriorhodopsin reconstituted from two individual helices and the complementary five-helix fragment is photoactive. *Photochemistry and Photobiology*, **1992**, 56, 895-901	3.6	21

5	Refolding of bacteriorhodopsin in lipid bilayers. A thermodynamically controlled two-stage process. *Journal of Molecular Biology*, **1987**, 198, 655-76	6.5	269
4	Lipid bilayer thickness varies linearly with acyl chain length in fluid phosphatidylcholine vesicles. *Journal of Molecular Biology*, **1983**, 166, 211-7	6.5	695
3	Inelastic neutron scattering analysis of hexokinase dynamics and its modification on binding of glucose. *Nature*, **1982**, 300, 84-6	50.4	51
2	X-ray and neutron small-angle scattering studies of the complex between protein S1 and the 30-S ribosomal subunit. *FEBS Journal*, **1978**, 85, 529-34		6
1	Molecular mechanism for the interaction of phospholipid with cholesterol. *Nature: New Biology*, **1972**, 237, 42-4		115