

# David A Putnam

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

91 papers	5,048 citations	36 h-index	70 g-index
102 ext. papers	5,454 ext. citations	9.1 avg, IF	5.75 L-index

#	Paper	IF	Citations
91	Biological Nanoparticles in Vaccine Development... <i>Frontiers in Bioengineering and Biotechnology</i> , <b>2022</b> , 10, 867119	5.8	1
90	Microparticle fabricated from a series of symmetrical lipids based on dihydroxyacetone form textured architectures. <i>Journal of Controlled Release</i> , <b>2021</b> , 330, 1071-1079	11.7	
89	Induced fusion and aggregation of bacterial outer membrane vesicles: Experimental and theoretical analysis. <i>Journal of Colloid and Interface Science</i> , <b>2020</b> , 578, 522-532	9.3	7
88	Effect of Lubricin Mimetics on the Inhibition of Osteoarthritis in a Rat Anterior Cruciate Ligament Transection Model. <i>American Journal of Sports Medicine</i> , <b>2020</b> , 48, 624-634	6.8	11
87	Influence of Block Length on Articular Cartilage Lubrication with a Diblock Bottle-Brush Copolymer. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 330-337	9.5	4
86	A lipid mixing assay to accurately quantify the fusion of outer membrane vesicles. <i>Methods</i> , <b>2020</b> , 177, 74-79	4.6	
85	Enabling P-glycoprotein inhibition in multidrug resistant cancer through the reverse targeting of a quinidine-PEG conjugate. <i>Journal of Controlled Release</i> , <b>2020</b> , 317, 291-299	11.7	13
84	Boundary mode lubrication of articular cartilage with a biomimetic diblock copolymer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 12437-12441	11.5	18
83	Selective and Tunable Galectin Binding of Glycopolymers Synthesized by a Generalizable Conjugation Method. <i>Biomacromolecules</i> , <b>2019</b> , 20, 3704-3712	6.9	14
82	Altered Biodistribution and Tissue Retention of Nanoparticles Targeted with P-Glycoprotein Substrates. <i>Regenerative Engineering and Translational Medicine</i> , <b>2019</b> , 5, 308-318	2.4	0
81	The stochastic effect of polydispersity on polymeric DNA delivery vectors. <i>Journal of Applied Polymer Science</i> , <b>2018</b> , 135, 45965	2.9	1
80	Beneficial Effects of Exercise on Subendothelial Matrix Stiffness are Short-Lived. <i>Journal of Biomechanical Engineering</i> , <b>2018</b> , 140,	2.1	2
79	Immunization with outer membrane vesicles displaying conserved surface polysaccharide antigen elicits broadly antimicrobial antibodies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, E3106-E3115	11.5	47
78	Safe Recombinant Outer Membrane Vesicles that Display M2e Elicit Heterologous Influenza Protection. <i>Molecular Therapy</i> , <b>2017</b> , 25, 989-1002	11.7	53
77	Designer outer membrane vesicles as immunomodulatory systems - Reprogramming bacteria for vaccine delivery. <i>Advanced Drug Delivery Reviews</i> , <b>2017</b> , 114, 132-142	18.5	71
76	Transient phase behavior of an elastomeric biomaterial applied to abdominal laparotomy closure. <i>Acta Biomaterialia</i> , <b>2017</b> , 58, 413-420	10.8	
75	Tunable Lubricin-mimetics for Boundary Lubrication of Cartilage. <i>Biotribology</i> , <b>2017</b> , 9, 18-23	2.3	16

74	A single dose and long lasting vaccine against pandemic influenza through the controlled release of a heterospecies tandem M2 sequence embedded within detoxified bacterial outer membrane vesicles. <i>Vaccine</i> , <b>2017</b> , 35, 5373-5380	4.1	18
73	Binding and lubrication of biomimetic boundary lubricants on articular cartilage. <i>Journal of Orthopaedic Research</i> , <b>2017</b> , 35, 548-557	3.8	32
72	Synergistic Interactions of a Synthetic Lubricin-Mimetic with Fibronectin for Enhanced Wear Protection. <i>Frontiers in Bioengineering and Biotechnology</i> , <b>2017</b> , 5, 36	5.8	12
71	Polymers for siRNA Delivery: A Critical Assessment of Current Technology Prospects for Clinical Application. <i>ACS Biomaterials Science and Engineering</i> , <b>2016</b> , 2, 1837-1850	5.5	10
70	Outer membrane vesicles displaying engineered glycotopes elicit protective antibodies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, E3609-18	11.5	75
69	Immunization with Outer Membrane Vesicles Displaying Designer Glycotopes Yields Class-Switched, Glycan-Specific Antibodies. <i>Cell Chemical Biology</i> , <b>2016</b> , 23, 655-65	8.2	32
68	Synthetic Biomaterials from Metabolically Derived Synthons. <i>Chemical Reviews</i> , <b>2016</b> , 116, 2664-704	68.1	55
67	Recombinant M2e outer membrane vesicle vaccines protect against lethal influenza A challenge in BALB/c mice. <i>Vaccine</i> , <b>2016</b> , 34, 1252-8	4.1	58
66	Concepts, technologies, and practices for drug delivery past the blood-brain barrier to the central nervous system. <i>Journal of Controlled Release</i> , <b>2016</b> , 240, 251-266	11.7	46
65	Prolonged Release of Bioactive Model Proteins from Anionic Microgels Fabricated with a New Microemulsion Approach. <i>Pharmaceutical Research</i> , <b>2016</b> , 33, 879-92	4.5	3
64	One-step synthesis, biodegradation and biocompatibility of polyesters based on the metabolic synthon, dihydroxyacetone. <i>Biomaterials</i> , <b>2016</b> , 98, 41-52	15.6	12
63	Insight into the Unexpectedly Rapid Degradation of Dihydroxyacetone-Based Hydrogels. <i>Macromolecular Chemistry and Physics</i> , <b>2016</b> , 217, 1917-1925	2.6	5
62	A Simple and Sensitive Method to Quantify Biodegradable Nanoparticle Biodistribution using Europium Chelates. <i>Scientific Reports</i> , <b>2015</b> , 5, 13177	4.9	5
61	Pathogen-like particles: biomimetic vaccine carriers engineered at the nanoscale. <i>Current Opinion in Biotechnology</i> , <b>2014</b> , 28, 51-8	11.4	68
60	Microbial biosynthesis of designer outer membrane vesicles. <i>Current Opinion in Biotechnology</i> , <b>2014</b> , 29, 76-84	11.4	60
59	Polymeric Drug Delivery Systems in Tissue Engineering <b>2014</b> , 227-282		
58	Mucoadhesive Drug Delivery Systems <b>2014</b> , 319-342		1
57	Oral Controlled-Release Polymeric Drug Delivery Systems <b>2014</b> , 283-318		

56	Polymeric Nanoparticles <b>2014</b> , 117-161		1
55	Synthesis and characterization of macromolecular rhodamine tethers and their interactions with P-glycoprotein. <i>Bioconjugate Chemistry</i> , <b>2014</b> , 25, 1462-9	6.3	4
54	Stimuli-Responsive Polymer Delivery Systems <b>2014</b> , 375-427		
53	Implantable Drug Delivery Systems <b>2014</b> , 189-225		3
52	Challenges of Drug Delivery <b>2014</b> , 29-54		
51	Fundamentals of Drug Delivery <b>2014</b> , 1-28		2
50	Enhanced Oral Drug Delivery through Metabolic Pathways <b>2014</b> , 343-373		
49	Affinity-Based Drug Delivery <b>2014</b> , 429-452		5
48	Polymeric Microparticles <b>2014</b> , 85-116		1
47	Polymer-Drug Conjugates <b>2014</b> , 55-83		
46	Block Copolymer Micelles and Vesicles for Drug Delivery <b>2014</b> , 163-188		9
45	Design and development of effective siRNA delivery vehicles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 3903-4	11.5	8
44	Mechanistic insight into the TH1-biased immune response to recombinant subunit vaccines delivered by probiotic bacteria-derived outer membrane vesicles. <i>PLoS ONE</i> , <b>2014</b> , 9, e112802	3.7	33
43	A combinatorial library of bi-functional polymeric vectors for siRNA delivery in vitro. <i>Pharmaceutical Research</i> , <b>2013</b> , 30, 362-76	4.5	5
42	Protein release from dihydroxyacetone-based poly(carbonate ester) matrices. <i>Acta Biomaterialia</i> , <b>2013</b> , 9, 8245-53	10.8	17
41	LOW-DOSE RECOMBINANT VACCINE ANTIGEN DELIVERY BY ENGINEERED OUTER MEMBRANE VESICLES. <i>Nano LIFE</i> , <b>2013</b> , 03, 1342002	0.9	
40	Poly(acrylic acid) Undergoes Partial Esterification During RAFT Synthesis in Methanol and Interchain Disulfide Bridging Upon NaOH Treatment. <i>Macromolecular Chemistry and Physics</i> , <b>2012</b> , 213, 2536-2540	2.6	3
39	A mechanistic analysis of the quantitation of hydroxy ketones by the bicinchoninic acid assay. <i>Analytical Biochemistry</i> , <b>2012</b> , 430, 116-22	3.1	11

38	Desensitizing mice to ovalbumin through subcutaneous microsphere immunotherapy (SMITH). <i>International Forum of Allergy and Rhinology</i> , <b>2011</b> , 1, 390-5	6.3	4
37	An in-depth analysis of polymer-analogous conjugation using DMTMM. <i>Bioconjugate Chemistry</i> , <b>2011</b> , 22, 329-37	6.3	30
36	Poly(carbonate-ester)s of dihydroxyacetone and lactic acid as potential biomaterials. <i>Biomacromolecules</i> , <b>2011</b> , 12, 977-86	6.9	34
35	Delivery of foreign antigens by engineered outer membrane vesicle vaccines. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 3099-104	11.5	188
34	Design of an injectable synthetic and biodegradable surgical biomaterial. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 11014-9	11.5	45
33	A rapidly resorbable hemostatic biomaterial based on dihydroxyacetone. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2010</b> , 93, 776-82	5.4	10
32	High Molecular Weight Poly(methacrylic acid) with Narrow Polydispersity by RAFT Polymerization. <i>Macromolecules</i> , <b>2009</b> , 42, 1494-1499	5.5	36
31	Simple and economical high-throughput equilibrium dialysis system. <i>ACS Combinatorial Science</i> , <b>2009</b> , 11, 202-5		5
30	Combinatorial evaluation of cations, pH-sensitive and hydrophobic moieties for polymeric vector design. <i>Molecular Therapy</i> , <b>2009</b> , 17, 480-90	11.7	44
29	Materials in surgery: a review of biomaterials in postsurgical tissue adhesion and seroma prevention. <i>Tissue Engineering - Part B: Reviews</i> , <b>2008</b> , 14, 377-91	7.9	24
28	Engineered bacterial outer membrane vesicles with enhanced functionality. <i>Journal of Molecular Biology</i> , <b>2008</b> , 380, 51-66	6.5	112
27	Polymer systems for gene deliveryPast, present, and future. <i>Progress in Polymer Science</i> , <b>2007</b> , 32, 799-837	29.6	369
26	Overcoming limiting side reactions associated with an NHS-activated precursor of polymethacrylamide-based polymers. <i>Bioconjugate Chemistry</i> , <b>2007</b> , 18, 970-82	6.3	52
25	Characterizing the structure/function parameter space of hydrocarbon-conjugated branched polyethylenimine for DNA delivery in vitro. <i>Journal of Controlled Release</i> , <b>2006</b> , 116, 227-37	11.7	67
24	A functionalizable biomaterial based on dihydroxyacetone, an intermediate of glucose metabolism. <i>Biomacromolecules</i> , <b>2006</b> , 7, 3239-44	6.9	40
23	Kinetic and efficacy analysis of RNA interference in stably and transiently expressing cell lines. <i>Molecular Pharmaceutics</i> , <b>2006</b> , 3, 601-13	5.6	16
22	Diblock copolymers based on dihydroxyacetone and ethylene glycol: synthesis, characterization, and nanoparticle formulation. <i>Biomacromolecules</i> , <b>2006</b> , 7, 3245-51	6.9	30
21	Polymers for gene delivery across length scales. <i>Nature Materials</i> , <b>2006</b> , 5, 439-51	27	494

20	Biophysical and structural characterization of polyethylenimine-mediated siRNA delivery in vitro. <i>Pharmaceutical Research</i> , <b>2006</b> , 23, 1868-76	4.5	276
19	Poly(carbonate- $\beta$ -cetal)s from the Dimer Form of Dihydroxyacetone. <i>Macromolecules</i> , <b>2005</b> , 38, 5532-5537	5.5	27
18	Structure-function relationships of gene delivery vectors in a limited polycation library. <i>Journal of Controlled Release</i> , <b>2005</b> , 103, 273-83	11.7	62
17	Biomaterial microarrays: rapid, microscale screening of polymer-cell interaction. <i>Biomaterials</i> , <b>2005</b> , 26, 4892-7	15.6	252
16	Molecularly engineered poly(ortho ester) microspheres for enhanced delivery of DNA vaccines. <i>Nature Materials</i> , <b>2004</b> , 3, 190-6	27	228
15	Determination of P-glycoprotein inhibition by excipients and their combinations using an integrated high-throughput process. <i>Journal of Pharmaceutical Sciences</i> , <b>2004</b> , 93, 2755-67	3.9	48
14	Enhancement of a human immunodeficiency virus env DNA vaccine using a novel polycationic nanoparticle formulation. <i>Immunology Letters</i> , <b>2003</b> , 90, 67-70	4.1	40
13	Polyhistidine-PEG:DNA nanocomposites for gene delivery. <i>Biomaterials</i> , <b>2003</b> , 24, 4425-33	15.6	108
12	Competitive reactions in solutions of poly-L-histidine, calf thymus DNA, and synthetic polyanions: determining the binding constants of polyelectrolytes. <i>Journal of the American Chemical Society</i> , <b>2003</b> , 125, 13693-9	16.4	53
11	Aliphatic ionenes as gene delivery agents: elucidation of structure-function relationship through modification of charge density and polymer length. <i>Bioconjugate Chemistry</i> , <b>2002</b> , 13, 548-53	6.3	74
10	Poly(lactic acid)-poly(ethylene glycol) nanoparticles as new carriers for the delivery of plasmid DNA. <i>Journal of Controlled Release</i> , <b>2001</b> , 75, 211-24	11.7	252
9	Accelerated discovery of synthetic transfection vectors: parallel synthesis and screening of a degradable polymer library. <i>Journal of the American Chemical Society</i> , <b>2001</b> , 123, 8155-6	16.4	356
8	Polymer-based gene delivery with low cytotoxicity by a unique balance of side-chain termini. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2001</b> , 98, 1200-5	11.5	151
7	Design of imidazole-containing endosomolytic biopolymers for gene delivery. <i>Biotechnology and Bioengineering</i> , <b>2000</b> , 67, 217-223	4.9	242
6	Design of imidazole-containing endosomolytic biopolymers for gene delivery <b>2000</b> , 67, 217		4
5	PLGA microspheres containing plasmid DNA: preservation of supercoiled DNA via cryopreparation and carbohydrate stabilization. <i>Journal of Pharmaceutical Sciences</i> , <b>1999</b> , 88, 126-30	3.9	198
4	Poly(4-hydroxy-L-proline ester): Low-Temperature Polycondensation and Plasmid DNA Complexation. <i>Macromolecules</i> , <b>1999</b> , 32, 3658-3662	5.5	115
3	Intracellularly biorecognizable derivatives of 5-fluorouracil. Implications for site-specific delivery in the human condition. <i>Biochemical Pharmacology</i> , <b>1996</b> , 52, 957-62	6	27

- 2 Enantioselective release of 5-fluorouracil from N-(2-hydroxypropyl)methacrylamide-based copolymers via lysosomal enzymes. *Bioconjugate Chemistry*, **1995**, 6, 483-92 6.3 44
- 1 A modular platform for on-demand vaccine self-assembly enabled by decoration of bacterial outer membrane vesicles with biotinylated antigens 1