Darrell J Irvine

List of Publications by Year
in descending order

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211 papers	26,267 citations	4383 86 h-index	6990 154 g-index
229 all docs	229 docs citations	229 times ranked	29068 citing authors

#	Article	IF	Citations
1	Surface-structure-regulated cell-membrane penetration by monolayer-protected nanoparticles. Nature Materials, 2008, 7, 588-595.	13.3	1,179
2	Bio-inspired, bioengineered and biomimetic drug delivery carriers. Nature Reviews Drug Discovery, 2011, 10, 521-535.	21.5	1,038
3	Structure-based programming of lymph-node targeting in molecular vaccines. Nature, 2014, 507, 519-522.	13.7	760
4	Direct observation of ligand recognition by T cells. Nature, 2002, 419, 845-849.	13.7	725
5	Synthetic Nanoparticles for Vaccines and Immunotherapy. Chemical Reviews, 2015, 115, 11109-11146.	23.0	623
6	Therapeutic cell engineering with surface-conjugated synthetic nanoparticles. Nature Medicine, 2010, 16, 1035-1041.	15.2	599
7	Enhancing cancer immunotherapy with nanomedicine. Nature Reviews Immunology, 2020, 20, 321-334.	10.6	506
8	Engineering synthetic vaccines using cues from natural immunity. Nature Materials, 2013, 12, 978-990.	13.3	500
9	Interbilayer-crosslinked multilamellar vesicles as synthetic vaccines for potent humoral and cellular immune responses. Nature Materials, 2011, 10, 243-251.	13.3	498
10	T cell killing does not require the formation of a stable mature immunological synapse. Nature Immunology, 2004, 5, 524-530.	7.0	496
11	Enhancing T cell therapy through TCR-signaling-responsive nanoparticle drug delivery. Nature Biotechnology, 2018, 36, 707-716.	9.4	448
12	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
13	A robust, high-throughput assay to determine the phagocytic activity of clinical antibody samples. Journal of Immunological Methods, 2011, 366, 8-19.	0.6	393
14	T cell-targeting nanoparticles focus delivery of immunotherapy to improve antitumor immunity. Nature Communications, 2017, 8, 1747.	5.8	336
15	HIV Vaccine Design to Target Germline Precursors of Glycan-Dependent Broadly Neutralizing Antibodies. Immunity, 2016, 45, 483-496.	6.6	335
16	Engineering Nanoâ€•and Microparticles to Tune Immunity. Advanced Materials, 2012, 24, 3724-3746.	11.1	334
17	Beyond antigens and adjuvants: formulating future vaccines. Journal of Clinical Investigation, 2016, 126, 799-808.	3.9	309
18	Nanoparticulate STING agonists are potent lymph nodeâ€“targeted vaccine adjuvants. Journal of Clinical Investigation, 2015, 125, 2532-2546.	3.9	306

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19	Slow Delivery Immunization Enhances HIV Neutralizing Antibody and Germinal Center Responses via Modulation of Immunodominance. Cell, 2019, 177, 1153-1171.e28.	13.5	293
20	Enhancing humoral responses to a malaria antigen with nanoparticle vaccines that expand T _{fh} cells and promote germinal center induction. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1080-1085.	3.3	291
21	Sustained antigen availability during germinal center initiation enhances antibody responses to vaccination. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E6639-E6648.	3.3	286
22	Elicitation of Robust Tier 2 Neutralizing Antibody Responses in Nonhuman Primates by HIV Envelope Trimer Immunization Using Optimized Approaches. Immunity, 2017, 46, 1073-1088.e6.	6.6	286
23	Enhanced CARâ€“T cell activity against solid tumors by vaccine boosting through the chimeric receptor. Science, 2019, 365, 162-168.	6.0	282
24	Co-regulation of cell adhesion by nanoscale RGD organization and mechanical stimulus. Journal of Cell Science, 2002, 115, 1423-33.	1.2	282
25	Cytosolic Delivery of Membrane-Impermeable Molecules in Dendritic Cells Using pH-Responsive Coreâ^'Shell Nanoparticles. Nano Letters, 2007, 7, 3056-3064.	4.5	276
26	Particulate vaccines: on the quest for optimal delivery and immune response. Drug Discovery Today, 2011, 16, 569-582.	3.2	265
27	Role of nanoscale antigen organization on B-cell activation probed using DNA origami. Nature Nanotechnology, 2020, 15, 716-723.	15.6	263
28	Polymer multilayer tattooing for enhanced DNAÂvaccination. Nature Materials, 2013, 12, 367-376.	13.3	242
29	Active targeting of chemotherapy to disseminated tumors using nanoparticle-carrying T cells. Science Translational Medicine, 2015, 7, 291ra94.	5.8	242
30	Effect of Particle Diameter and Surface Composition on the Spontaneous Fusion of Monolayer-Protected Gold Nanoparticles with Lipid Bilayers. Nano Letters, 2013, 13, 4060-4067.	4.5	236
31	Delivering safer immunotherapies for cancer. Advanced Drug Delivery Reviews, 2017, 114, 79-101.	6.6	233
32	CD4 enhances T cell sensitivity to antigen by coordinating Lck accumulation at the immunological synapse. Nature Immunology, 2004, 5, 791-799.	7.0	228
33	Innate immune recognition of glycans targets HIV nanoparticle immunogens to germinal centers. Science, 2019, 363, 649-654.	6.0	227
34	In Vitro and in Vivo mRNA Delivery Using Lipid-Enveloped pH-Responsive Polymer Nanoparticles. Molecular Pharmaceutics, 2011, 8, 774-787.	2.3	226
35	Enhancing cell therapies from the outside in: Cell surface engineering using synthetic nanomaterials. Nano Today, 2011, 6, 309-325.	6.2	215
36	In situ engineering of the lymph node microenvironment via intranodal injection of adjuvant-releasing polymer particles. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 15745-15750.	3.3	206

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37	Actin foci facilitate activation of the phospholipase C-Î³ in primary T lymphocytes via the WASP pathway. ELife, 2015, 4, .	2.8	200
38	Immunogenic Cell Death Amplified by Co-localized Adjuvant Delivery for Cancer Immunotherapy. Nano Letters, 2017, 17, 7387-7393.	4.5	184
39	Nanoparticle anchoring targets immune agonists to tumors enabling anti-cancer immunity without systemic toxicity. Nature Communications, 2018, 9, 6.	5.8	184
40	Coordinate linkage of HIV evolution reveals regions of immunological vulnerability. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11530-11535.	3.3	183
41	Nanoscale Clustering of RGD Peptides at Surfaces Using Comb Polymers. 1. Synthesis and Characterization of Comb Thin Films. Biomacromolecules, 2001, 2, 85-94.	2.6	182
42	Histone Deacetylase Inhibitors Impair the Elimination of HIV-Infected Cells by Cytotoxic T-Lymphocytes. PLoS Pathogens, 2014, 10, e1004287.	2.1	179
43	Localized Immunotherapy via Liposome-Anchored Anti-CD137 + IL-2 Prevents Lethal Toxicity and Elicits Local and Systemic Antitumor Immunity. Cancer Research, 2013, 73, 1547-1558.	0.4	176
44	Surface Functionalization of Living Cells with Multilayer Patches. Nano Letters, 2008, 8, 4446-4453.	4.5	174
45	Manipulating the Selection Forces during Affinity Maturation to Generate Cross-Reactive HIV Antibodies. Cell, 2015, 160, 785-797.	13.5	173
46	Engineered immunogen binding to alum adjuvant enhances humoral immunity. Nature Medicine, 2020, 26, 430-440.	15.2	172
47	Releasable Layer-by-Layer Assembly of Stabilized Lipid Nanocapsules on Microneedles for Enhanced Transcutaneous Vaccine Delivery. ACS Nano, 2012, 6, 8041-8051.	7.3	170
48	A role for the immunological synapse in lineage commitment of CD4 lymphocytes. Nature, 2004, 431, 527-532.	13.7	169
49	Synapse-directed delivery of immunomodulators using T-cell-conjugated nanoparticles. Biomaterials, 2012, 33, 5776-5787.	5.7	168
50	Induction of potent anti-tumor responses while eliminating systemic side effects via liposome-anchored combinatorial immunotherapy. Biomaterials, 2011, 32, 5134-5147.	5.7	164
51	Immunological synapse arrays: Patterned protein surfaces that modulate immunological synapse structure formation in T cells. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 5700-5705.	3.3	159
52	Injectable dendritic cell-carrying alginate gels for immunization and immunotherapy. Biomaterials, 2008, 29, 3671-3682.	5.7	159
53	Synergistic Innate and Adaptive Immune Response to Combination Immunotherapy with Anti-Tumor Antigen Antibodies and Extended Serum Half-Life IL-2. Cancer Cell, 2015, 27, 489-501.	7.7	158
54	Generation of Effector Memory T Cellâ€“Based Mucosal and Systemic Immunity with Pulmonary Nanoparticle Vaccination. Science Translational Medicine, 2013, 5, 204ra130.	5.8	157

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55	Layer-by-Layer-Assembled Multilayer Films for Transcutaneous Drug and Vaccine Delivery. ACS Nano, 2009, 3, 3719-3729.	7.3	154
56	Vaccine-Induced Protection from Homologous Tier 2 SHIV Challenge in Nonhuman Primates Depends on Serum-Neutralizing Antibody Titers. Immunity, 2019, 50, 241-252.e6.	6.6	153
57	T Cell Receptor Internalization from the Immunological Synapse Is Mediated by TC21 and RhoG GTPase-Dependent Phagocytosis. Immunity, 2011, 35, 208-222.	6.6	152
58	Multifaceted Effects of Antigen Valency on B Cell Response Composition and Differentiation InÂVivo. Immunity, 2020, 53, 548-563.e8.	6.6	149
59	Composite Dissolving Microneedles for Coordinated Control of Antigen and Adjuvant Delivery Kinetics in Transcutaneous Vaccination. Advanced Functional Materials, 2013, 23, 161-172.	7.8	147
60	Nanoâ€Łayered Microneedles for Transcutaneous Delivery of Polymer Nanoparticles and Plasmid DNA. Advanced Materials, 2010, 22, 4851-4856.	11.1	145
61	Immunization expands B cells specific to HIV-1 V3 glycan in mice and macaques. Nature, 2019, 570, 468-473.	13.7	145
62	A Subset of Latency-Reversing Agents Expose HIV-Infected Resting CD4+ T-Cells to Recognition by Cytotoxic T-Lymphocytes. PLoS Pathogens, 2016, 12, e1005545.	2.1	142
63	Enhancing humoral immunity via sustained-release implantable microneedle patch vaccination. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16473-16478.	3.3	141
64	Anchoring of intratumorally administered cytokines to collagen safely potentiates systemic cancer immunotherapy. Science Translational Medicine, 2019, 11, .	5.8	141
65	Controlling timing and location in vaccines. Advanced Drug Delivery Reviews, 2020, 158, 91-115.	6.6	141
66	Hydrogel-Coated Microneedle Arrays for Minimally Invasive Sampling and Sensing of Specific Circulating Nucleic Acids from Skin Interstitial Fluid. ACS Nano, 2019, 13, 9620-9628.	7.3	140
67	Implantable Silk Composite Microneedles for Programmable Vaccine Release Kinetics and Enhanced Immunogenicity in Transcutaneous Immunization. Advanced Healthcare Materials, 2014, 3, 47-58.	3.9	139
68	Simulations of Cell-Surface Integrin Binding to Nanoscale-Clustered Adhesion Ligands. Biophysical Journal, 2002, 82, 120-132.	0.2	133
69	Antigen-Displaying Lipid-Enveloped PLGA Nanoparticles as Delivery Agents for a Plasmodium vivax Malaria Vaccine. PLoS ONE, 2012, 7, e31472.	1.1	133
70	Nanoscale Clustering of RGD Peptides at Surfaces Using Comb Polymers. 2. Surface Segregation of Comb Polymers in Polylactide. Biomacromolecules, 2001, 2, 545-556.	2.6	132
71	Biomaterial Strategies for Immunomodulation. Annual Review of Biomedical Engineering, 2015, 17, 317-349.	5.7	132
72	One nanoparticle, one kill. Nature Materials, 2011, 10, 342-343.	13.3	130

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73	Membrane Anchored Immunostimulatory Oligonucleotides for In Vivo Cell Modification and Localized Immunotherapy. Angewandte Chemie - International Edition, 2011, 50, 7052-7055.	7.2	122
74	In vivo targeting of adoptively transferred T-cells with antibody- and cytokine-conjugated liposomes. Journal of Controlled Release, 2013, 172, 426-435.	4.8	122
75	Photogenerated Polyelectrolyte Bilayers from an Aqueous-Processible Photoresist for Multicomponent Protein Patterning. Journal of the American Chemical Society, 2004, 126, 9170-9171.	6.6	119
76	Enhancing Adoptive Cell Therapy of Cancer through Targeted Delivery of Small-Molecule Immunomodulators to Internalizing or Noninternalizing Receptors. ACS Nano, 2017, 11, 3089-3100.	7.3	117
77	STING agonist delivery by tumour-penetrating PEG-lipid nanodiscs primes robust anticancer immunity. Nature Materials, 2022, 21, 710-720.	13.3	114
78	Multifunctional oncolytic nanoparticles deliver self-replicating IL-12 RNA to eliminate established tumors and prime systemic immunity. Nature Cancer, 2020, 1, 882-893.	5.7	113
79	Interleukin-7 Receptor Signaling Network: An Integrated Systems Perspective. Cellular and Molecular Immunology, 2008, 5, 79-89.	4.8	112
80	Modular injectable matrices based on alginate solution/microsphere mixtures that gel in situ and co-deliver immunomodulatory factors. Acta Biomaterialia, 2009, 5, 969-982.	4.1	111
81	Cell and fluid sampling microneedle patches for monitoring skin-resident immunity. Science Translational Medicine, 2018, 10, .	5.8	111
82	Dynamics of Cell Surface Molecules During T Cell Recognition. Annual Review of Biochemistry, 2003, 72, 717-742.	5.0	105
83	High-throughput quantitation of inorganic nanoparticle biodistribution at the single-cell level using mass cytometry. Nature Communications, 2017, 8, 14069.	5.8	102
84	Targeting dendritic cells to accelerate T-cell activation overcomes a bottleneck in tuberculosis vaccine efficacy. Nature Communications, 2016, 7, 13894.	5.8	100
85	Enhancing Radiotherapy by Lipid Nanocapsule-Mediated Delivery of Amphiphilic Gold Nanoparticles to Intracellular Membranes. ACS Nano, 2014, 8, 8992-9002.	7.3	97
86	Enhanced Phagocytic Activity of HIV-Specific Antibodies Correlates with Natural Production of Immunoglobulins with Skewed Affinity for FcÎ³R2a and FcÎ³R2b. Journal of Virology, 2013, 87, 5468-5476.	1.5	94
87	Robust IgG responses to nanograms of antigen using a biomimetic lipid-coated particle vaccine. Journal of Controlled Release, 2012, 157, 354-365.	4.8	93
88	A DOCK8-WIP-WASp complex links T cell receptors to the actin cytoskeleton. Journal of Clinical Investigation, 2016, 126, 3837-3851.	3.9	93
89	Microfluidic squeezing for intracellular antigen loading in polyclonal B-cells as cellular vaccines. Scientific Reports, 2015, 5, 10276.	1.6	88
90	Vaccine delivery with microneedle skin patches in nonhuman primates. Nature Biotechnology, 2013, 31, 1082-1085.	9.4	85

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91	Wound Healing Versus Regeneration: Role of the Tissue Environment in Regenerative Medicine. MRS Bulletin, 2010, 35, 597-606.	1.7	82
92	Roles for Innate Immunity in Combination Immunotherapies. Cancer Research, 2017, 77, 5215-5221.	0.4	81
93	Shaping humoral immunity to vaccines through antigen-displaying nanoparticles. Current Opinion in Immunology, 2020, 65, 1-6.	2.4	78
94	Polymer-supported lipid shells, onions, and flowers. Soft Matter, 2008, 4, 1787.	1.2	77
95	Liposomal vaccines incorporating molecular adjuvants and intrastructural T-cell help promote the immunogenicity of HIV membrane-proximal external region peptides. Vaccine, 2015, 33, 861-868.	1.7	76
96	Evolution of Toll-like receptor 7/8 agonist therapeutics and their delivery approaches: From antiviral formulations to vaccine adjuvants. Advanced Drug Delivery Reviews, 2021, 175, 113803.	6.6	76
97	Homeostatic Lymphoid Chemokines Synergize with Adhesion Ligands to Trigger T and B Lymphocyte Chemokinesis. Journal of Immunology, 2006, 177, 2340-2348.	0.4	74
98	Guiding Principles in the Design of Molecular Bioconjugates for Vaccine Applications. Bioconjugate Chemistry, 2015, 26, 791-801.	1.8	74
99	Structurally Programmed Assembly of Translation Initiation Nanoplex for Superior mRNA Delivery. ACS Nano, 2017, 11, 2531-2544.	7.3	74
100	Synthetic Charge-Invertible Polymer for Rapid and Complete Implantation of Layer-by-Layer Microneedle Drug Films for Enhanced Transdermal Vaccination. ACS Nano, 2018, 12, 10272-10280.	7.3	72
101	Cytosolic Delivery Mediated via Electrostatic Surface Binding of Protein, Virus, or siRNA Cargos to pH-Responsive Coreâ^'Shell Gel Particles. Biomacromolecules, 2009, 10, 756-765.	2.6	71
102	Oligonucleotide Delivery by Cellâ€Penetrating â€œStripedâ€•Nanoparticles. Angewandte Chemie - International Edition, 2011, 50, 12312-12315.	7.2	71
103	Enhancing Humoral Responses Against HIV Envelope Trimers via Nanoparticle Delivery with Stabilized Synthetic Liposomes. Scientific Reports, 2018, 8, 16527.	1.6	69
104	Synthesis of Protein-Loaded Hydrogel Particles in an Aqueous Two-Phase System for Coincident Antigen and CpG Oligonucleotide Delivery to Antigen-Presenting Cells. Biomacromolecules, 2005, 6, 2590-2600.	2.6	68
105	Engineered SARS-CoV-2 receptor binding domain improves manufacturability in yeast and immunogenicity in mice. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	68
106	Targeting small molecule drugs to T cells with antibody-directed cell-penetrating gold nanoparticles. Biomaterials Science, 2019, 7, 113-124.	2.6	67
107	Engulfing tumors with synthetic extracellular matrices for cancer immunotherapy. Biomaterials, 2009, 30, 6757-6767.	5.7	63
108	Freely Suspended Cellular â€œBackpacksâ€•Lead to Cell Aggregate Self-Assembly. Biomacromolecules, 2010, 11, 1826-1832.	2.6	63

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109	A particulate saponin/TLR agonist vaccine adjuvant alters lymph flow and modulates adaptive immunity. Science Immunology, 2021, 6, eabf1152.	5.6	63
110	Engineering chemoattractant gradients using chemokine-releasing polysaccharide microspheres. Biomaterials, 2011, 32, 4903-4913.	5.7	61
111	Antigen recognition-triggered drug delivery mediated by nanocapsule-functionalized cytotoxic T-cells. Biomaterials, 2017, 117, 44-53.	5.7	61
112	Signaling thresholds govern heterogeneity in ILâ€7â€receptorâ€mediated responses of naÃ¯ve CD8⁺ T cells. Immunology and Cell Biology, 2011, 89, 581-594.	1.0	60
113	Enhancement of Peptide Vaccine Immunogenicity by Increasing Lymphatic Drainage and Boosting Serum Stability. Cancer Immunology Research, 2018, 6, 1025-1038.	1.6	58
114	Immunogenicity of RNA Replicons Encoding HIV Env Immunogens Designed for Self-Assembly into Nanoparticles. Molecular Therapy, 2019, 27, 2080-2090.	3.7	58
115	Redox-responsive interleukin-2 nanogel specifically and safely promotes the proliferation and memory precursor differentiation of tumor-reactive T-cells. Biomaterials Science, 2019, 7, 1345-1357.	2.6	58
116	Low neoantigen expression and poor T-cell priming underlie early immune escape in colorectal cancer. Nature Cancer, 2021, 2, 1071-1085.	5.7	57
117	Large Area Two-Dimensional B Cell Arrays for Sensing and Cell-Sorting Applications. Biomacromolecules, 2004, 5, 822-827.	2.6	56
118	Rapid Conformational Epitope Mapping of Anti-gp120 Antibodies with a Designed Mutant Panel Displayed on Yeast. Journal of Molecular Biology, 2013, 425, 444-456.	2.0	56
119	Intratumourally injected alum-tethered cytokines elicit potent and safer local and systemic anticancer immunity. Nature Biomedical Engineering, 2022, 6, 129-143.	11.6	56
120	Quantifying signaling-induced reorientation of T cell receptors during immunological synapse formation. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 15024-15029.	3.3	54
121	Cytoskeletal tension actively sustains the migratory Tâ€cell synaptic contact. EMBO Journal, 2020, 39, e102783.	3.5	53
122	Î²â€“Amino Ester Polymers Facilitate in Vivo DNA Transfection and Adjuvant Plasmid DNA Immunization. Molecular Therapy, 2005, 12, 164-170.	3.7	52
123	Influence of the glycocalyx and plasma membrane composition on amphiphilic gold nanoparticle association with erythrocytes. Nanoscale, 2015, 7, 11420-11432.	2.8	51
124	Composition-Tunable Properties of Amphiphilic Comb Copolymers Containing Protected Methacrylic Acid Groups for Multicomponent Protein Patterning. Langmuir, 2006, 22, 353-359.	1.6	50
125	Control of T helper cell differentiation through cytokine receptor inclusion in the immunological synapse. Journal of Experimental Medicine, 2009, 206, 877-892.	4.2	50
126	Engineering New Approaches to Cancer Vaccines. Cancer Immunology Research, 2015, 3, 836-843.	1.6	50

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127	Contrasting the compatibilizing activity of comb and linear copolymers. Macromolecules, 1994, 27, 720-724.	2.2	48
128	Strategies for Controlling the Planar Arrangement of Block Copolymer Micelles and Inorganic Nanoclusters. Macromolecules, 2005, 38, 10728-10735.	2.2	47
129	Rapid Germinal Center and Antibody Responses in Non-human Primates after a Single Nanoparticle Vaccine Immunization. Cell Reports, 2019, 29, 1756-1766.e8.	2.9	47
130	Creating Patterned Carbon Nanotube Catalysts through the Microcontact Printing of Block Copolymer Micellar Thin Films. Langmuir, 2006, 22, 8273-8276.	1.6	45
131	Lymphoid tissue engineering: Invoking lymphoid tissue neogenesis in immunotherapy and models of immunity. Seminars in Immunology, 2008, 20, 137-146.	2.7	45
132	Cancer Cell Coating Nanoparticles for Optimal Tumor-Specific Cytokine Delivery. ACS Nano, 2020, 14, 11238-11253.	7.3	45
133	Cellular Barcodes for Efficiently Profiling Single-Cell Secretory Responses by Microengraving. Analytical Chemistry, 2012, 84, 10531-10536.	3.2	44
134	Pharmacokinetic tuning of proteinâ€“antigen fusions enhances the immunogenicity of T-cell vaccines. Nature Biomedical Engineering, 2020, 4, 636-648.	11.6	44
135	Immunogenicity of Membrane-bound HIV-1 gp41 Membrane-proximal External Region (MPER) Segments Is Dominated by Residue Accessibility and Modulated by Stereochemistry. Journal of Biological Chemistry, 2013, 288, 31888-31901.	1.6	43
136	Amphiphilic nanoparticle delivery enhances the anticancer efficacy of a TLR7 ligand via local immune activation. Biomaterials, 2019, 190-191, 111-120.	5.7	43
137	Exploiting albumin as a mucosal vaccine chaperone for robust generation of lung-resident memory T cells. Science Immunology, 2021, 6, .	5.6	43
138	Smart Radiation Therapy Biomaterials. International Journal of Radiation Oncology Biology Physics, 2017, 97, 624-637.	0.4	42
139	Engineering Strategies for Immunomodulatory Cytokine Therapies: Challenges and Clinical Progress. Advanced Therapeutics, 2021, 4, 2100035.	1.6	42
140	Self-assembled cGAMP-STINGÎ”TM signaling complex as a bioinspired platform for cGAMP delivery. Science Advances, 2020, 6, eaba7589.	4.7	41
141	Regulation of thymocyte positive selection and motility by GIT2. Nature Immunology, 2010, 11, 503-511.	7.0	40
142	In vitro evolution of enhanced RNA replicons for immunotherapy. Scientific Reports, 2019, 9, 6932.	1.6	40
143	ABC triblock bottlebrush copolymer-based injectable hydrogels: design, synthesis, and application to expanding the therapeutic index of cancer immunochemotherapy. Chemical Science, 2020, 11, 5974-5986.	3.7	40
144	An adjuvant strategy enabled by modulation of the physical properties of microbial ligands expands antigen immunogenicity. Cell, 2022, 185, 614-629.e21.	13.5	40

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145	Regulatory T cells engineered with TCR signalingâ€“responsive IL-2 nanogels suppress alloimmunity in sites of antigen encounter. Science Translational Medicine, 2020, 12, .	5.8	39
146	Targeting HIV Env immunogens to B cell follicles in nonhuman primates through immune complex or protein nanoparticle formulations. Npj Vaccines, 2020, 5, 72.	2.9	39
147	Design of Lipid Nanocapsule Delivery Vehicles for Multivalent Display of Recombinant Env Trimers in HIV Vaccination. Bioconjugate Chemistry, 2014, 25, 1470-1478.	1.8	38
148	Calcium-triggered fusion of lipid membranes is enabled by amphiphilic nanoparticles. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18470-18476.	3.3	38
149	Temporally Programmed CD8Î± + DC Activation Enhances Combination Cancer Immunotherapy. Cell Reports, 2016, 17, 2503-2511.	2.9	37
150	Disassembly of HIV envelope glycoprotein trimer immunogens is driven by antibodies elicited via immunization. Science Advances, 2021, 7, .	4.7	37
151	Block Copolymer Micelles as Nanocontainers for Controlled Release of Proteins from Biocompatible Oil Phases. Biomacromolecules, 2009, 10, 732-741.	2.6	36
152	Structureâ€“Property Relationships of Amphiphilic Nanoparticles That Penetrate or Fuse Lipid Membranes. Bioconjugate Chemistry, 2018, 29, 1131-1140.	1.8	36
153	Resistance to PD1 blockade in the absence of metalloprotease-mediated LAG3 shedding. Science Immunology, 2020, 5, .	5.6	36
154	Antigen Delivery by Lipid-Enveloped PLGA Microparticle Vaccines Mediated by in Situ Vesicle Shedding. Biomacromolecules, 2014, 15, 2475-2481.	2.6	35
155	Materializing the future of vaccines and immunotherapy. Nature Reviews Materials, 2016, 1, .	23.3	32
156	The injury response to DNA damage in live tumor cells promotes antitumor immunity. Science Signaling, 2021, 14, eabc4764.	1.6	32
157	High Avidity CD8+ T Cells Efficiently Eliminate Motile HIV-Infected Targets and Execute a Locally Focused Program of Anti-Viral Function. PLoS ONE, 2014, 9, e87873.	1.1	31
158	In Situ Covalent Functionalization of DNA Origami Virus-like Particles. ACS Nano, 2021, 15, 14316-14322.	7.3	29
159	Mannose-binding lectin and complement mediate follicular localization and enhanced immunogenicity of diverse protein nanoparticle immunogens. Cell Reports, 2022, 38, 110217.	2.9	29
160	In Chemotaxing Fibroblasts, Both High-Fidelity and Weakly Biased Cell Movements Track the Localization of PI3K Signaling. Biophysical Journal, 2011, 100, 1893-1901.	0.2	27
161	Sequential immunization of macaques elicits heterologous neutralizing antibodies targeting the V3-glycan patch of HIV-1 Env. Science Translational Medicine, 2021, 13, eabk1533.	5.8	27
162	Functional Nanocavity Arrays via Amphiphilic Block Copolymer Thin Films. Macromolecules, 2008, 41, 1739-1744.	2.2	25

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163	Surface Plasmonâ€Enhanced Shortâ€Wave Infrared Fluorescence for Detecting Subâ€Millimeterâ€Sized Tumors. Advanced Materials, 2021, 33, e2006057.	11.1	23
164	Screening for CD19-specific chimaeric antigen receptors with enhanced signalling via a barcoded library of intracellular domains. Nature Biomedical Engineering, 2022, 6, 855-866.	11.6	23
165	Controlling Nuclease Degradation of Wireframe DNA Origami with Minor Groove Binders. ACS Nano, 2022, 16, 8954-8966.	7.3	22
166	Synthetic surfaces as artificial antigen presenting cells in the study of T cell receptor triggering and immunological synapse formation. Seminars in Immunology, 2007, 19, 245-254.	2.7	21
167	Radiation-enhanced delivery of systemically administered amphiphilic-CpG oligodeoxynucleotide. Journal of Controlled Release, 2017, 266, 248-255.	4.8	21
168	Reprogramming NK cells and macrophages via combined antibody and cytokine therapy primes tumors for elimination by checkpoint blockade. Cell Reports, 2021, 37, 110021.	2.9	21
169	CD4 ⁺ T cellâ€“dependent and CD4 ⁺ T cellâ€“independent cytokine-chemokine network changes in the immune responses of HIV-infected individuals. Science Signaling, 2015, 8, ra104.	1.6	20
170	Generation of Long-Lived Bone Marrow Plasma Cells Secreting Antibodies Specific for the HIV-1 gp41 Membrane-Proximal External Region in the Absence of Polyreactivity. Journal of Virology, 2016, 90, 8875-8890.	1.5	20
171	Phosphate-mediated coanchoring of RBD immunogens and molecular adjuvants to alum potentiates humoral immunity against SARS-CoV-2. Science Advances, 2021, 7, eabj6538.	4.7	19
172	Synergistic Antitumor Activity from Two-Stage Delivery of Targeted Toxins and Endosome-Disrupting Nanoparticles. Biomacromolecules, 2013, 14, 1093-1102.	2.6	18
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