

# Richard Lerner

## List of Publications by Year in descending order

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99  
papers

6,984  
citations

81900

39  
h-index

60623

81  
g-index

107  
all docs

107  
docs citations

107  
times ranked

7382  
citing authors

#	ARTICLE	IF	CITATIONS
1	Molecular characterization of an enzyme that degrades neuromodulatory fatty-acid amides. <i>Nature</i> , 1996, 384, 83-87.	27.8	1,933
2	Mitotic Misregulation and Human Aging. <i>Science</i> , 2000, 287, 2486-2492.	12.6	561
3	Cross-neutralization of influenza A viruses mediated by a single antibody loop. <i>Nature</i> , 2012, 489, 526-532.	27.8	434
4	DNA-Encoded Chemical Libraries: A Selection System Based on Endowing Organic Compounds with Amplifiable Information. <i>Annual Review of Biochemistry</i> , 2018, 87, 479-502.	11.1	294
5	Aldolase Antibodies of Remarkable Scope. <i>Journal of the American Chemical Society</i> , 1998, 120, 2768-2779.	13.7	233
6	Studies on the mechanism of general anesthesia. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 13757-13766.	7.1	140
7	Autocrine selection of a GLP-1R G-protein biased agonist with potent antidiabetic effects. <i>Nature Communications</i> , 2015, 6, 8918.	12.8	124
8	Regulation of NKT cell-mediated immune responses to tumours and liver inflammation by mitochondrial PGAM5-Drp1 signalling. <i>Nature Communications</i> , 2015, 6, 8371.	12.8	114
9	Inhibition of Oleamide Hydrolase Catalyzed Hydrolysis of the Endogenous Sleep-Inducing Lipid cis-9-Octadecenamide. <i>Journal of the American Chemical Society</i> , 1996, 118, 5938-5945.	13.7	109
10	Broadening the Aldolase Catalytic Antibody Repertoire by Combining Reactive Immunization and Transition State Theory: New Enantio- and Diastereoselectivities. <i>Angewandte Chemie - International Edition</i> , 1999, 38, 3738-3741.	13.8	109
11	Antibody 27F3 Broadly Targets Influenza A Group 1 and 2 Hemagglutinins through a Further Variation in VH1-69 Antibody Orientation on the HA Stem. <i>Cell Reports</i> , 2017, 20, 2935-2943.	6.4	103
12	DNA-Encoded Compound Libraries as Open Source: A Powerful Pathway to New Drugs. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 1164-1165.	13.8	102
13	A Catalytic Enantioselective Route to Hydroxy-Substituted Quaternary Carbon Centers: Resolution of Tertiary Aldols with a Catalytic Antibody. <i>Journal of the American Chemical Society</i> , 1999, 121, 7283-7291.	13.7	101
14	Catalytic Enantioselective Retro-Aldol Reactions: Kinetic Resolution of $\beta^2$ -Hydroxyketones with Aldolase Antibodies. <i>Angewandte Chemie - International Edition</i> , 1998, 37, 2481-2484.	13.8	100
15	Combinatorial antibody libraries: new advances, new immunological insights. <i>Nature Reviews Immunology</i> , 2016, 16, 498-508.	22.7	90
16	Enantioselective Aldol Cyclodehydrations Catalyzed by Antibody 38C2. <i>Organic Letters</i> , 1999, 1, 59-62.	4.6	86
17	A Structurally Distinct Human Mycoplasma Protein that Generically Blocks Antigen-Antibody Union. <i>Science</i> , 2014, 343, 656-661.	12.6	85
18	DNA-Encoded Libraries: Aryl Fluorosulfonates as Versatile Electrophiles Enabling Facile On-DNA Suzuki, Sonogashira, and Buchwald Reactions. <i>Advanced Science</i> , 2019, 6, 1901551.	11.2	84

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19	Enantioselective Total Synthesis of Some Brevicomins Using Aldolase Antibody 38C2. Chemistry - A European Journal, 1998, 4, 881-885.	3.3	83
20	Manufacturing Immunity to Disease in a Test Tube: The Magic Bullet Realized. Angewandte Chemie - International Edition, 2006, 45, 8106-8125.	13.8	71
21	Structural Basis for Antibody Catalysis of a Disfavored Ring Closure Reaction,. Biochemistry, 1999, 38, 7062-7074.	2.5	69
22	Copying Nature's Mechanism for the Decarboxylation of Î²-Keto Acids into Catalytic Antibodies by Reactive Immunization. Journal of the American Chemical Society, 1996, 118, 11720-11724.	13.7	65
23	Selection of antibodies that regulate phenotype from intracellular combinatorial antibody libraries. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15728-15733.	7.1	63
24	Rare antibodies from combinatorial libraries suggests an S.O.S. component of the human immunological repertoire. Molecular BioSystems, 2011, 7, 1004.	2.9	62
25	Cationic cyclopropanation by antibody catalysis. Nature, 1996, 379, 326-327.	27.8	60
26	Antibody Catalysis of Glycosidic Bond Hydrolysis. Angewandte Chemie International Edition in English, 1991, 30, 1711-1713.	4.4	59
27	Diversity of Functionally Permissive Sequences in the Receptor-Binding Site of Influenza Hemagglutinin. Cell Host and Microbe, 2017, 21, 742-753.e8.	11.0	59
28	Autocrine signaling based selection of combinatorial antibodies that transdifferentiate human stem cells. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8099-8104.	7.1	58
29	A complex epistatic network limits the mutational reversibility in the influenza hemagglutinin receptor-binding site. Nature Communications, 2018, 9, 1264.	12.8	58
30	Ozone in biology. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3013-3015.	7.1	55
31	In vitro evolution of an influenza broadly neutralizing antibody is modulated by hemagglutinin receptor specificity. Nature Communications, 2017, 8, 15371.	12.8	55
32	<i>gem</i>-difluoromethylene Alkyneâ€Enabled Diverse CâˆH Functionalization and Application to the onâ€DNA Synthesis of Difluorinated Isocoumarins. Angewandte Chemie - International Edition, 2021, 60, 1959-1966.	13.8	55
33	Functionalityâ€Independent DNA Encoding of Complex Natural Products. Angewandte Chemie - International Edition, 2019, 58, 9254-9261.	13.8	54
34	Different genetic barriers for resistance to HA stem antibodies in influenza H3 and H1 viruses. Science, 2020, 368, 1335-1340.	12.6	51
35	A Chemistry for Incorporation of Selenium into DNAâ€Encoded Libraries. Angewandte Chemie - International Edition, 2020, 59, 13273-13280.	13.8	50
36	Selection of an ASIC1a-blocking combinatorial antibody that protects cells from ischemic death. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7469-E7477.	7.1	48

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37	Selecting Agonists from Single Cells Infected with Combinatorial Antibody Libraries. <i>Chemistry and Biology</i> , 2013, 20, 734-741.	6.0	46
38	Convergence of Catalytic Antibody and Terpene Cyclase Mechanisms: Polyene Cyclization Directed by Carbocation- $\pi$ Interactions. <i>Angewandte Chemie - International Edition</i> , 1999, 38, 1743-1747.	13.8	45
39	Sets of Aldolase Antibodies with Antipodal Reactivities. Formal Synthesis of Epothilone E by Large-Scale Antibody-Catalyzed Resolution of Thiazole Aldol. <i>Organic Letters</i> , 1999, 1, 1623-1626.	4.6	42
40	Stereo- and regiodefined DNA-encoded chemical libraries enable efficient tumour-targeting applications. <i>Nature Chemistry</i> , 2021, 13, 540-548.	13.6	42
41	Interferon- $\beta$ is a master checkpoint regulator of cytokine-induced differentiation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E6867-E6874.	7.1	40
42	Combinatorial antibody libraries from cancer patients yield ligand-mimetic Arg-Gly-Asp-containing immunoglobulins that inhibit breast cancer metastasis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 17210-17215.	7.1	37
43	Prevention of Cell Death by Antibodies Selected from Intracellular Combinatorial Libraries. <i>Chemistry and Biology</i> , 2014, 21, 274-283.	6.0	35
44	A cell-cell interaction format for selection of high-affinity antibodies to membrane proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 14971-14978.	7.1	35
45	Converting stem cells to dendritic cells by agonist antibodies from unbiased morphogenic selections. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 14966-14971.	7.1	34
46	Replacing reprogramming factors with antibodies selected from combinatorial antibody libraries. <i>Nature Biotechnology</i> , 2017, 35, 960-968.	17.5	34
47	Selection of Small Molecules that Bind to and Activate the Insulin Receptor from a DNA-Encoded Library of Natural Products. <i>iScience</i> , 2020, 23, 101197.	4.1	34
48	Fully human agonist antibodies to TrkB using autocrine cell-based selection from a combinatorial antibody library. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E7023-E7032.	7.1	33
49	Design and Characterization of a Human Monoclonal Antibody that Modulates Mutant Connexin 26 Hemichannels Implicated in Deafness and Skin Disorders. <i>Frontiers in Molecular Neuroscience</i> , 2017, 10, 298.	2.9	31
50	Preparation of Stilbene-Tethered Nonnatural Nucleosides for Use with Blue-Fluorescent Antibodies. <i>Journal of Organic Chemistry</i> , 2001, 66, 1725-1732.	3.2	28
51	An Antibody-Catalyzed 1,2-Rearrangement of Carbon-Carbon Bonds. <i>Angewandte Chemie International Edition in English</i> , 1994, 33, 1607-1609.	4.4	23
52	Cofactor-Induced Refinement of Catalytic Antibody Activity: A Metal-Specific Allosteric Effect. <i>Journal of the American Chemical Society</i> , 1998, 120, 2963-2964.	13.7	23
53	DNA-kodierte Verbindungsbibliotheken als Open Source: ein leistungsfähiger Weg zu neuen Wirkstoffen. <i>Angewandte Chemie</i> , 2017, 129, 1184-1185.	2.0	23
54	The First Decade of Antibody Catalysis: Perspective and Prospects. <i>Israel Journal of Chemistry</i> , 1996, 36, 113-119.	2.3	22

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55	Cellular and humoral immune responses to synthetic peptides deduced from the amino-acid sequences of Epstein-Barr virus-encoded proteins in EBV-transformed cells. <i>International Journal of Cancer</i> , 1987, 40, 455-460.	5.1	21
56	A potent antagonist antibody targeting connexin hemichannels alleviates Clouston syndrome symptoms in mutant mice. <i>EBioMedicine</i> , 2020, 57, 102825.	6.1	20
57	Metal-Catalyzed One-Pot On-DNA Syntheses of Diarylmethane and Thioether Derivatives. <i>ACS Catalysis</i> , 2022, 12, 1639-1649.	11.2	20
58	Autocrine-based selection of ligands for personalized CAR-T therapy of lymphoma. <i>Science Advances</i> , 2018, 4, eaau4580.	10.3	19
59	Selection of multiple agonist antibodies from intracellular combinatorial libraries reveals that cellular receptors are functionally pleiotropic. <i>Current Opinion in Chemical Biology</i> , 2015, 26, 1-7.	6.1	18
60	Migration-based selections of antibodies that convert bone marrow into trafficking microglia-like cells that reduce brain amyloid $\beta$ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E372-E381.	7.1	18
61	Functionality-independent DNA Encoding of Complex Natural Products. <i>Angewandte Chemie</i> , 2019, 131, 9355-9362.	2.0	18
62	Antigen-specific Stimulation and Expansion of CAR-T Cells Using Membrane Vesicles as Target Cell Surrogates. <i>Small</i> , 2021, 17, e2102643.	10.0	17
63	Antibodies from combinatorial libraries use functional receptor pleiotropism to regulate cell fates. <i>Quarterly Reviews of Biophysics</i> , 2015, 48, 389-394.	5.7	16
64	Agonist antibody that induces human malignant cells to kill one another. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E6158-E6165.	7.1	16
65	Robotic QM/MM-driven maturation of antibody combining sites. <i>Science Advances</i> , 2016, 2, e1501695.	10.3	15
66	Autocrine-Based Selection of Drugs That Target Ion Channels from Combinatorial Venom Peptide Libraries. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 9306-9310.	13.8	14
67	Phenotypic selection with an intrabody library reveals an anti-apoptotic function of PKM2 requiring Mitofusin-1. <i>PLoS Biology</i> , 2019, 17, e2004413.	5.6	14
68	Neutralizing Antibodies to SARS-CoV-2 Selected from a Human Antibody Library Constructed Decades Ago. <i>Advanced Science</i> , 2022, 9, e2102181.	11.2	14
69	A proximity based general method for identification of ligand and receptor interactions in living cells. <i>Biochemical and Biophysical Research Communications</i> , 2014, 454, 251-255.	2.1	13
70	An agonist antibody that blocks autoimmunity by inducing anti-inflammatory macrophages. <i>FASEB Journal</i> , 2016, 30, 738-747.	0.5	13
71	Multiscale computation delivers organophosphorus reactivity and stereoselectivity to immunoglobulin scavengers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 22841-22848.	7.1	13
72	A Chemistry for Incorporation of Selenium into DNA-Encoded Libraries. <i>Angewandte Chemie</i> , 2020, 132, 13375-13382.	2.0	13

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73	Immunity against cancer cells may promote their proliferation and metastasis. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 426-431.	7.1	11
74	A DNA-encoded library for the identification of natural product binders that modulate poly (ADP-ribose) polymerase 1, a validated anti-cancer target. Biochemical and Biophysical Research Communications, 2020, 533, 241-248.	2.1	11
75	Selection of a picomolar antibody that targets CXCR2-mediated neutrophil activation and alleviates EAE symptoms. Nature Communications, 2021, 12, 2547.	12.8	11
76	Antikörperkatalysierte, enantioselektive Synthese im Gramma-Maßstab. Angewandte Chemie, 1994, 106, 485-486.	2.0	10
77	Synthesis of <i>N</i> -Acyl Sulfamates from Fluorosulfonates and Potassium Trimethylsilyloxy Imidates. Journal of Organic Chemistry, 2019, 84, 15380-15388.	3.2	10
78	A General Method for Insertion of Functional Proteins within Proteins via Combinatorial Selection of Permissive Junctions. Chemistry and Biology, 2015, 22, 1134-1143.	6.0	9
79	Antibody selection using clonal cocultivation of <i>Escherichia coli</i> and eukaryotic cells in miniecosystems. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6145-E6151.	7.1	9
80	Selection of a Full Agonist Combinatorial Antibody that Rescues Leptin Deficiency In Vivo. Advanced Science, 2020, 7, 2000818.	11.2	8
81	<i>N</i> -Difluoromethylene Alkyne Enabled Diverse <sup>13</sup> C Functionalization and Application to the on-site DNA Synthesis of Difluorinated Isocoumarins. Angewandte Chemie, 2021, 133, 1987-1994.	2.0	8
82	Antibody Libraries as Tools to Discover Functional Antibodies and Receptor Pleiotropism. International Journal of Molecular Sciences, 2021, 22, 4123.	4.1	8
83	DNA-Encoded Libraries: Hydrazide as a Pluripotent Precursor for on-site DNA Synthesis of Various Azole Derivatives. Chemistry - A European Journal, 2021, 27, 8214-8220.	3.3	8
84	Avidity-Based Selection of Tissue-Specific CAR-T Cells from a Combinatorial Cellular Library of CARs. Advanced Science, 2021, 8, 2003091.	11.2	8
85	Inhibitory antibodies identify unique sites of therapeutic vulnerability in rhinovirus and other enteroviruses. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13499-13508.	7.1	7
86	Immunochemical engineering of cell surfaces to generate virus resistance. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4655-4660.	7.1	6
87	A new immunochemical strategy for triple-negative breast cancer therapy. Scientific Reports, 2021, 11, 14875.	3.3	6
88	Reflections on DNA-encoded chemical libraries. Biochemical and Biophysical Research Communications, 2020, 527, 757-759.	2.1	6
89	Agonist Antibody Converts Stem Cells into Migrating Brown Adipocyte-Like Cells in Heart. Cells, 2020, 9, 256.	4.1	4
90	Activating pleiotropic receptors to kill cancer cells. Cell Cycle, 2016, 15, 158-159.	2.6	2

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91	Antikörperkatalysierte Hydrolyse von Phosphorsäuretriestern. <i>Angewandte Chemie</i> , 1995, 107, 2448-2450.	2.0	1
92	Autocrine-Based Selection of Drugs That Target Ion Channels from Combinatorial Venom Peptide Libraries. <i>Angewandte Chemie</i> , 2016, 128, 9452-9456.	2.0	1
93	Catalytic Enantioselective Retro-Aldol Reactions: Kinetic Resolution of $\beta^2$ -Hydroxyketones with Aldolase Antibodies. , 1998, 37, 2481.		1
94	Reply to van Swinderen and Hines: <i>Drosophila</i> model establishes the lipid membrane as a target of anesthetics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 24629-24629.	7.1	1
95	REGULATING CELLULAR LIFE DEATH AND DEVELOPMENT USING INTRACELLULAR COMBINATORIAL ANTIBODY LIBRARIES. , 2014, , .		0
96	Titelbild: Autocrine-Based Selection of Drugs That Target Ion Channels from Combinatorial Venom Peptide Libraries ( <i>Angew. Chem.</i> 32/2016). <i>Angewandte Chemie</i> , 2016, 128, 9245-9245.	2.0	0
97	A Proximity-Based Assay for Identification of Ligand and Membrane Protein Interaction in Living Cells. <i>Methods in Molecular Biology</i> , 2017, 1575, 215-222.	0.9	0
98	An agonist antibody prefers relapsed AML for induction of cells that kill each other. <i>Scientific Reports</i> , 2019, 9, 3494.	3.3	0
99	Innenrücktitelbild: A Chemistry for Incorporation of Selenium into DNA-Encoded Libraries ( <i>Angew.</i> ) <i>Tj ETQq1 1 0,784314 0gBT /O</i>	2.0	0