James R Heath

List of Publications by Year
in descending order

92 papers	8,565 citations	57631 44 h-index	53109 85 g-index
109 all docs	109 docs citations	109 times ranked	13197 citing authors

#	Article	IF	Citations
1	Vaccine breakthrough hypoxemic COVID-19 pneumonia in patients with auto-Abs neutralizing type I IFNs. Science Immunology, 2023, 8, .	5.6	35
2	Integrated analysis of plasma and single immune cells uncovers metabolic changes in individuals with COVID-19. Nature Biotechnology, 2022, 40, 110-120.	9.4	81
3	Protein Catalyzed Capture (PCC) Agents for Antigen Targeting. Methods in Molecular Biology, 2022, 2371, 177-191.	0.4	0
4	Multiple early factors anticipate post-acute COVID-19 sequelae. Cell, 2022, 185, 881-895.e20.	13.5	605
5	KIR ⁺ CD8 ⁺ T cells suppress pathogenic T cells and are active in autoimmune diseases and COVID-19. Science, 2022, 376, eabi9591.	6.0	113
6	The risk of COVID-19 death is much greater and age dependent with type I IFN autoantibodies. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2200413119.	3.3	110
7	Recessive inborn errors of type I IFN immunity in children with COVID-19 pneumonia. Journal of Experimental Medicine, 2022, 219, .	4.2	59
8	Characteristics and Factors Associated With Coronavirus Disease 2019 Infection, Hospitalization, and Mortality Across Race and Ethnicity. Clinical Infectious Diseases, 2021, 73, 2193-2204.	2.9	41
9	Multi-cohort analysis of host immune response identifies conserved protective and detrimental modules associated with severity across viruses. Immunity, 2021, 54, 753-768.e5.	6.6	42
10	Resolution of tissue signatures of therapy response in patients with recurrent GBM treated with neoadjuvant anti-PD1. Nature Communications, 2021, 12, 4031.	5.8	21
11	Autoantibodies neutralizing type I IFNs are present in ~4% of uninfected individuals over 70 years old and account for ~20% of COVID-19 deaths. Science Immunology, 2021, 6, .	5.6	357
12	X-linked recessive TLR7 deficiency in ~1% of men under 60 years old with life-threatening COVID-19. Science Immunology, 2021, 6, .	5.6	267
13	Early IFN-Î± signatures and persistent dysfunction are distinguishing features of NK cells in severe COVID-19. Immunity, 2021, 54, 2650-2669.e14.	6.6	145
14	Microfluidic Single-Cell Proteomics Assay Chip: Lung Cancer Cell Line Case Study. Micromachines, 2021, 12, 1147.	1.4	1
15	Unique challenges for glioblastoma immunotherapyâ€"discussions across neuro-oncology and non-neuro-oncology experts in cancer immunology. Meeting Report from the 2019 SNO Immuno-Oncology Think Tank. Neuro-Oncology, 2021, 23, 356-375.	0.6	59
16	Angiotensin II receptor I auto-antibodies following SARS-CoV-2 infection. PLoS ONE, 2021, 16, e0259902.	1.1	10
17	126. Magnitude and Dynamics of the T-Cell Response to SARS-CoV-2 Infection and Vaccination. Open Forum Infectious Diseases, 2021, 8, S77-S77.	0.4	0
18	HLA-Aâ^—02:01 restricted TÂcell receptors against the highly conserved SARS-CoV-2 polymerase cross-react with human coronaviruses. Cell Reports, 2021, 37, 110167.	2.9	18

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19	Case Study: A Precision Medicine Approach to Multifactorial Dementia and Alzheimer's Disease.. , 2021, 11, .		0
20	Key Parameters of Tumor Epitope Immunogenicity Revealed Through a Consortium Approach Improve Neoantigen Prediction. Cell, 2020, 183, 818-834.e13.	13.5	287
21	Interdisciplinary Profile: An Established Chemist Journeys into Different Disciplines. IScience, 2020, 23, 101088.	1.9	0
22	Multi-Omics Resolves a Sharp Disease-State Shift between Mild and Moderate COVID-19. Cell, 2020, 183, 1479-1495.e20.	13.5	449
23	Raman-guided subcellular pharmaco-metabolomics for metastatic melanoma cells. Nature Communications, 2020, 11, 4830.	5.8	88
24	Multi-omic single-cell snapshots reveal multiple independent trajectories to drug tolerance in a melanoma cell line. Nature Communications, 2020, 11, 2345.	5.8	74
25	Antibody-recruiting protein-catalyzed capture agents to combat antibiotic-resistant bacteria. Chemical Science, 2020, 11, 3054-3067.	3.7	14
26	MATE-Seq: microfluidic antigen-TCR engagement sequencing. Lab on A Chip, 2019, 19, 3011-3021.	3.1	36
27	Inhibition of heme sequestration of histidineâ€rich protein 2 using multiple epitopeâ€targeted peptides. Journal of Peptide Science, 2019, 25, e3203.	0.8	6
28	4D electron microscopy of T cell activation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 22014-22019.	3.3	6
29	Sensitive Detection and Analysis of Neoantigen-Specific T Cell Populations from Tumors and Blood. Cell Reports, 2019, 28, 2728-2738.e7.	2.9	65
30	Development of Hematopoietic Stem Cell-Engineered Invariant Natural Killer T Cell Therapy for Cancer. Cell Stem Cell, 2019, 25, 542-557.e9.	5.2	48
31	T cell antigen discovery via signaling and antigen-presenting bifunctional receptors. Nature Methods, 2019, 16, 191-198.	9.0	103
32	T cell antigen discovery via trogocytosis. Nature Methods, 2019, 16, 183-190.	9.0	117
33	Phenotypic heterogeneity and evolution of melanoma cells associated with targeted therapy resistance. PLoS Computational Biology, 2019, 15, e1007034.	1.5	41
34	Protein-Catalyzed Capture Agents. Chemical Reviews, 2019, 119, 9950-9970.	23.0	27
35	Framing technology challenges associated with improving cancer immunotherapies. Lab on A Chip, 2019, 19, 3366-3367.	3.1	0
36	Modulating the Folding Landscape of Superoxide Dismutaseâ€...1 with Targeted Molecular Binders. Angewandte Chemie - International Edition, 2018, 57, 6212-6215.	7.2	11

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37	Epitopeâ€Targeted Macrocyclic Peptide Ligand with Picomolar Cooperative Binding to Interleukinâ€17F. Chemistry - A European Journal, 2018, 24, 3760-3767.	1.7	16
38	Modulating the Folding Landscape of Superoxide Dismutaseâ€...1 with Targeted Molecular Binders. Angewandte Chemie, 2018, 130, 6320-6323.	1.6	5
39	Isolation of a Structural Mechanism for Uncoupling T Cell Receptor Signaling from Peptide-MHC Binding. Cell, 2018, 174, 672-687.e27.	13.5	229
40	Allosteric Inhibitor of KRas Identified Using a Barcoded Assay Microchip Platform. Analytical Chemistry, 2018, 90, 8824-8830.	3.2	11
41	Surface Immobilization of Redoxâ€Labile Fluorescent Probes: Enabling Singleâ€Cell Coâ€Profiling of Aerobic Glycolysis and Oncogenic Protein Signaling Activities. Angewandte Chemie - International Edition, 2018, 57, 11554-11558.	7.2	13
42	Surface Immobilization of Redoxâ€Labile Fluorescent Probes: Enabling Singleâ€Cell Coâ€Profiling of Aerobic Glycolysis and Oncogenic Protein Signaling Activities. Angewandte Chemie, 2018, 130, 11728-11732.	1.6	0
43	Integrated measurement of intracellular proteins and transcripts in single cells. Lab on A Chip, 2018, 18, 3251-3262.	3.1	16
44	A kinetic investigation of interacting, stimulated T cells identifies conditions for rapid functional enhancement, minimal phenotype differentiation, and improved adoptive cell transfer tumor eradication. PLoS ONE, 2018, 13, e0191634.	1.1	12
45	Preinfusion polyfunctional anti-CD19 chimeric antigen receptor T cells are associated with clinical outcomes in NHL. Blood, 2018, 132, 804-814.	0.6	246
46	High-throughput screening of rare metabolically active tumor cells in pleural effusion and peripheral blood of lung cancer patients. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2544-2549.	3.3	67
47	Single-cell analysis resolves the cell state transition and signaling dynamics associated with melanoma drug-induced resistance. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13679-13684.	3.3	196
48	Protein catalyzed capture agents with tailored performance for in vitro and in vivo applications. Biopolymers, 2017, 108, e22934.	1.2	18
49	Degradation of Akt using protein-catalyzed capture agents. Journal of Peptide Science, 2016, 22, 196-200.	0.8	36
50	Single-Cell Phosphoproteomics Resolves Adaptive Signaling Dynamics and Informs Targeted Combination Therapy in Glioblastoma. Cancer Cell, 2016, 29, 563-573.	7.7	140
51	Intercellular signaling through secreted proteins induces free-energy gradient-directed cell movement. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5520-5525.	3.3	37
52	Critical Points in Tumorigenesis: A Carcinogenâ€Initiated Phase Transition Analyzed via Singleâ€Cell Proteomics. Small, 2016, 12, 1425-1431.	5.2	19
53	A Thermodynamic-Based Interpretation of Protein Expression Heterogeneity in Different Glioblastoma Multiforme Tumors Identifies Tumor-Specific Unbalanced Processes. Journal of Physical Chemistry B, 2016, 120, 5990-5997.	1.2	11
54	Single-cell analysis tools for drug discovery and development. Nature Reviews Drug Discovery, 2016, 15, 204-216.	21.5	407

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55	Supramolecular Probes for Assessing Glutamine Uptake Enable Semi-Quantitative Metabolic Models in Single Cells. Journal of the American Chemical Society, 2016, 138, 3085-3093.	6.6	33
56	Domain-swapped T cell receptors improve the safety of TCR gene therapy. ELife, 2016, 5, .	2.8	48
57	2D Materials: The Influence of Water on the Optical Properties of Single-Layer Molybdenum Disulfide (Adv. Mater. 17/2015). Advanced Materials, 2015, 27, 2733-2733.	11.1	1
58	Epitope Targeting of Tertiary Protein Structure Enables Targetâ€Guided Synthesis of a Potent Inâ€Cell Inhibitor of Botulinum Neurotoxin. Angewandte Chemie - International Edition, 2015, 54, 7114-7119.	7.2	29
59	A General Synthetic Approach for Designing Epitope Targeted Macrocyclic Peptide Ligands. Angewandte Chemie - International Edition, 2015, 54, 13219-13224.	7.2	46
60	Nanotechnologies for biomedical science and translational medicine. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14436-14443.	3.3	76
61	Quantitative assessments of glycolysis from single cells. Technology, 2015, 03, 172-178.	1.4	3
62	Epitope Targeting of Tertiary Protein Structure Enables Targetâ€Guided Synthesis of a Potent Inâ€Cell Inhibitor of Botulinum Neurotoxin. Angewandte Chemie, 2015, 127, 7220-7225.	1.6	4
63	Chemical Methods for the Simultaneous Quantitation of Metabolites and Proteins from Single Cells. Journal of the American Chemical Society, 2015, 137, 4066-4069.	6.6	87
64	A protein-targeting strategy used to develop a selective inhibitor of the E17K point mutation in the PH domain of Akt1. Nature Chemistry, 2015, 7, 455-462.	6.6	25
65	Glioblastoma cellular architectures are predicted through the characterization of two-cell interactions. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6521-6526.	3.3	52
66	Human NK Cells Licensed by Killer Ig Receptor Genes Have an Altered Cytokine Program That Modifies CD4+ T Cell Function. Journal of Immunology, 2014, 193, 940-949.	0.4	28
67	Adoptive Transfer of MART-1 T-Cell Receptor Transgenic Lymphocytes and Dendritic Cell Vaccination in Patients with Metastatic Melanoma. Clinical Cancer Research, 2014, 20, 2457-2465.	3.2	204
68	Conversion of Danger Signals into Cytokine Signals by Hematopoietic Stem and Progenitor Cells for Regulation of Stress-Induced Hematopoiesis. Cell Stem Cell, 2014, 14, 445-459.	5.2	276
69	A Chemical Epitopeâ€Targeting Strategy for Protein Capture Agents: The Serine 474 Epitope of the Kinase Akt2. Angewandte Chemie - International Edition, 2013, 52, 13975-13979.	7.2	20
70	Microchip platforms for multiplex single-cell functional proteomics with applications to immunology and cancer research. Genome Medicine, 2013, 5, 75.	3.6	46
71	In situclick chemistry: from small molecule discovery to synthetic antibodies. Integrative Biology (United Kingdom), 2013, 5, 87-95.	0.6	34
72	A Chemically Synthesized Capture Agent Enables the Selective, Sensitive, and Robust Electrochemical Detection of Anthrax Protective Antigen. ACS Nano, 2013, 7, 9452-9460.	7.3	56

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73	Hypoxia induces a phase transition within a kinase signaling network in cancer cells. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1352-60.	3.3	61
74	Multifunctional T-cell Analyses to Study Response and Progression in Adoptive Cell Transfer Immunotherapy. Cancer Discovery, 2013, 3, 418-429.	7.7	130
75	A Cocktail of Thermally Stable, Chemically Synthesized Capture Agents for the Efficient Detection of Anti-Gp41 Antibodies from Human Sera. PLoS ONE, 2013, 8, e76224.	1.1	15
76	Single-cell proteomic chip for profiling intracellular signaling pathways in single tumor cells. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 419-424.	3.3	300
77	Iterative in Situ Click Chemistry Assembles a Branched Capture Agent and Allosteric Inhibitor for Akt1. Journal of the American Chemical Society, 2011, 133, 18280-18288.	6.6	46
78	A solid-state switch containing an electrochemically switchable bistable poly[n]rotaxane. Journal of Materials Chemistry, 2011, 21, 1487-1495.	6.7	45
79	A clinical microchip for evaluation of single immune cells reveals high functional heterogeneity in phenotypically similar T cells. Nature Medicine, 2011, 17, 738-743.	15.2	403
80	High performance ring oscillators from 10-nm wide silicon nanowire field-effect transistors. Nano Research, 2011, 4, 1005-1012.	5.8	19
81	Chemistries for Patterning Robust DNA MicroBarcodes Enable Multiplex Assays of Cytoplasm Proteins from Single Cancer Cells. ChemPhysChem, 2010, 11, 3063-3069.	1.0	47
82	Accurate MALDI-TOF/TOF Sequencing of One-Beadâ^'One-Compound Peptide Libraries with Application to the Identification of Multiligand Protein Affinity Agents Using in Situ Click Chemistry Screening. Analytical Chemistry, 2010, 82, 672-679.	3.2	24
83	Iterative In Situ Click Chemistry Creates Antibodyâ€like Proteinâ€Capture Agents. Angewandte Chemie - International Edition, 2009, 48, 4944-4948.	7.2	114
84	Nanomedicine Targets Cancer. Scientific American, 2009, 300, 44-51.	1.0	31
85	Modular Nucleic Acid Assembled p/MHC Microarrays for Multiplexed Sorting of Antigen-Specific T Cells. Journal of the American Chemical Society, 2009, 131, 9695-9703.	6.6	84
86	Molecular Electronics. Annual Review of Materials Research, 2009, 39, 1-23.	4.3	311
87	Nanotechnology and Cancer. Annual Review of Medicine, 2008, 59, 251-265.	5.0	337
88	Rapid Microwave-Assisted CNBr Cleavage of Bead-Bound Peptides. ACS Combinatorial Science, 2008, 10, 807-809.	3.3	14
89	DNA-Encoded Antibody Libraries:Â A Unified Platform for Multiplexed Cell Sorting and Detection of Genes and Proteins. Journal of the American Chemical Society, 2007, 129, 1959-1967.	6.6	255
90	NanoSystems biology. Molecular Imaging and Biology, 2003, 5, 312-325.	1.3	68

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91	Kinetic Inference Resolves Epigenetic Mechanism of Drug Resistance in Melanoma. SSRN Electronic Journal, 0, , .	0.4	2
92	Constraint-Based Reconstruction and Analyses of Metabolic Models: Open-Source Python Tools and Applications to Cancer. Frontiers in Oncology, 0, 12, .	1.3	6