Dmitriy Chudakov

List of Publications by Year
in descending order

137 papers	17,736 citations	17405 63 h-index	15683 125 g-index
160 all docs	160 docs citations	160 times ranked	24479 citing authors

#	Article	IF	Citations
1	MiXCR: software for comprehensive adaptive immunity profiling. Nature Methods, 2015, 12, 380-381.	9.0	1,323
2	Fluorescent Proteins and Their Applications in Imaging Living Cells and Tissues. Physiological Reviews, 2010, 90, 1103-1163.	13.1	1,175
3	Bright far-red fluorescent protein for whole-body imaging. Nature Methods, 2007, 4, 741-746.	9.0	591
4	Bright monomeric red fluorescent protein with an extended fluorescence lifetime. Nature Methods, 2007, 4, 555-557.	9.0	582
5	VDJtools: Unifying Post-analysis of T Cell Receptor Repertoires. PLoS Computational Biology, 2015, 11, e1004503.	1.5	528
6	A genetically encoded photosensitizer. Nature Biotechnology, 2006, 24, 95-99.	9.4	519
7	Regulatory T Cells Exhibit Distinct Features in Human Breast Cancer. Immunity, 2016, 45, 1122-1134.	6.6	507
8	Far-red fluorescent tags for protein imaging in living tissues. Biochemical Journal, 2009, 418, 567-574.	1.7	497
9	Photoactivatable fluorescent proteins. Nature Reviews Molecular Cell Biology, 2005, 6, 885-890.	16.1	461
10	Fluorescent proteins as a toolkit for in vivo imaging. Trends in Biotechnology, 2005, 23, 605-613.	4.9	439
11	Towards error-free profiling of immune repertoires. Nature Methods, 2014, 11, 653-655.	9.0	411
12	Age-Related Decrease in TCR Repertoire Diversity Measured with Deep and Normalized Sequence Profiling. Journal of Immunology, 2014, 192, 2689-2698.	0.4	396
13	VDJdb: a curated database of T-cell receptor sequences with known antigen specificity. Nucleic Acids Research, 2018, 46, D419-D427.	6.5	391
14	B cells, plasma cells and antibody repertoires in the tumour microenvironment. Nature Reviews Immunology, 2020, 20, 294-307.	10.6	363
15	Photoswitchable cyan fluorescent protein for protein tracking. Nature Biotechnology, 2004, 22, 1435-1439.	9.4	345
16	Kindling fluorescent proteins for precise in vivo photolabeling. Nature Biotechnology, 2003, 21, 191-194.	9.4	304
17	Stability and function of regulatory T cells expressing the transcription factor T-bet. Nature, 2017, 546, 421-425.	13.7	287
18	Conversion of Red Fluorescent Protein into a Bright Blue Probe. Chemistry and Biology, 2008, 15, 1116-1124.	6.2	269

#	Article	IF	Citations
19	VDJdb in 2019: database extension, new analysis infrastructure and a T-cell receptor motif compendium. Nucleic Acids Research, 2020, 48, D1057-D1062.	6.5	268
20	Tracking intracellular protein movements using photoswitchable fluorescent proteins PS-CFP2 and Dendra2. Nature Protocols, 2007, 2, 2024-2032.	5.5	251
21	Antigen receptor repertoire profiling from RNA-seq data. Nature Biotechnology, 2017, 35, 908-911.	9.4	243
22	tcR: an R package for T cell receptor repertoire advanced data analysis. BMC Bioinformatics, 2015, 16, 175.	1.2	240
23	Near-infrared fluorescent proteins. Nature Methods, 2010, 7, 827-829.	9.0	205
24	Clonal selection in the human VÎ´1 T cell repertoire indicates Î³Î´ TCR-dependent adaptive immune surveillance. Nature Communications, 2017, 8, 14760.	5.8	203
25	Chromophore-assisted light inactivation (CALI) using the phototoxic fluorescent protein KillerRed. Nature Protocols, 2006, 1, 947-953.	5.5	189
26	High-quality full-length immunoglobulin profiling with unique molecular barcoding. Nature Protocols, 2016, 11, 1599-1616.	5.5	179
27	A monomeric red fluorescent protein with low cytotoxicity. Nature Communications, 2012, 3, 1204.	5.8	177
28	Green fluorescent proteins are light-induced electron donors. Nature Chemical Biology, 2009, 5, 459-461.	3.9	176
29	MiTCR: software for T-cell receptor sequencing data analysis. Nature Methods, 2013, 10, 813-814.	9.0	176
30	The human VÎ´2+ T-cell compartment comprises distinct innate-like VÎ³9+ and adaptive VÎ³9- subsets. Nature Communications, 2018, 9, 1760.	5.8	167
31	Two subsets of stem-like CD8+ memory T cell progenitors with distinct fate commitments in humans. Nature Immunology, 2020, 21, 1552-1562.	7.0	167
32	High-throughput identification of antigen-specific TCRs by TCR gene capture. Nature Medicine, 2013, 19, 1534-1541.	15.2	166
33	Dynamics of Individual T Cell Repertoires: From Cord Blood to Centenarians. Journal of Immunology, 2016, 196, 5005-5013.	0.4	160
34	Preparing Unbiased T-Cell Receptor and Antibody cDNA Libraries for the Deep Next Generation Sequencing Profiling. Frontiers in Immunology, 2013, 4, 456.	2.2	157
35	Kindling Fluorescent Protein fromAnemonia sulcata:Â Dark-State Structure at 1.38 Ã... Resolutionâ€,â€¡. Biochemistry, 2005, 44, 5774-5787.	1.2	153
36	Next generation sequencing for <scp>TCR</scp> repertoire profiling: Platformâ€specific features and correction algorithms. European Journal of Immunology, 2012, 42, 3073-3083.	1.6	150

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37	Chromophore Environment Provides Clue to â€œKindling Fluorescent Proteinâ€•Riddle. Journal of Biological Chemistry, 2003, 278, 7215-7219.	1.6	136
38	Targeting cancer cells by using an antireceptor antibody-photosensitizer fusion protein. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 9221-9225.	3.3	135
39	Memory CD4+ T cells are generated in the human fetal intestine. Nature Immunology, 2019, 20, 301-312.	7.0	132
40	HRES-1/Rab4-mediated depletion of Drp1 impairs mitochondrial homeostasis and represents a target for treatment in SLE. Annals of the Rheumatic Diseases, 2014, 73, 1888-1897.	0.5	131
41	Pairing of <scp>T</scp>â€cell receptor chains via emulsion <scp>PCR</scp>. European Journal of Immunology, 2013, 43, 2507-2515.	1.6	126
42	Structural Basis for Phototoxicity of the Genetically Encoded Photosensitizer KillerRed. Journal of Biological Chemistry, 2009, 284, 32028-32039.	1.6	123
43	A mechanism for expansion of regulatory T-cell repertoire and its role in self-tolerance. Nature, 2015, 528, 132-136.	13.7	123
44	Detecting T cell receptors involved in immune responses from single repertoire snapshots. PLoS Biology, 2019, 17, e3000314.	2.6	116
45	Using photoactivatable fluorescent protein Dendra2 to track protein movement. BioTechniques, 2007, 42, 553-563.	0.8	111
46	Common Pathway for the Red Chromophore Formation in Fluorescent Proteins and Chromoproteins. Chemistry and Biology, 2004, 11, 845-854.	6.2	108
47	Precise tracking of vaccine-responding T cell clones reveals convergent and personalized response in identical twins. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12704-12709.	3.3	108
48	Distinctive properties of identical twins' TCR repertoires revealed by high-throughput sequencing. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5980-5985.	3.3	106
49	Human liver infiltrating Î³Î´ T cells are composed of clonally expanded circulating and tissue-resident populations. Journal of Hepatology, 2018, 69, 654-665.	1.8	103
50	Longitudinal high-throughput TCR repertoire profiling reveals the dynamics of T-cell memory formation after mild COVID-19 infection. ELife, 2021, 10, .	2.8	103
51	Structural basis for the fast maturation of Arthropoda green fluorescent protein. EMBO Reports, 2006, 7, 1006-1012.	2.0	99
52	Single fluorescent protein-based Ca2+ sensors with increased dynamic range. BMC Biotechnology, 2007, 7, 37.	1.7	99
53	A Crystallographic Study of Bright Far-Red Fluorescent Protein mKate Reveals pH-induced cis-trans Isomerization of the Chromophore. Journal of Biological Chemistry, 2008, 283, 28980-28987.	1.6	94
54	Practical and reliable FRET/FLIM pair of fluorescent proteins. BMC Biotechnology, 2009, 9, 24.	1.7	93

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55	Quantitative Profiling of Immune Repertoires for Minor Lymphocyte Counts Using Unique Molecular Identifiers. Journal of Immunology, 2015, 194, 6155-6163.	0.4	90
56	Optogenetic in vivocell manipulation in KillerRed-expressing zebrafish transgenics. BMC Developmental Biology, 2010, 10, 110.	2.1	89
57	The Changing Landscape of Naive T Cell Receptor Repertoire With Human Aging. Frontiers in Immunology, 2018, 9, 1618.	2.2	87
58	Far-red fluorescent proteins evolved from a blue chromoprotein from Actinia equina. Biochemical Journal, 2005, 392, 649-654.	1.7	86
59	Persisting fetal clonotypes influence the structure and overlap of adult human T cell receptor repertoires. PLoS Computational Biology, 2017, 13, e1005572.	1.5	82
60	Benchmarking of T cell receptor repertoire profiling methods reveals large systematic biases. Nature Biotechnology, 2021, 39, 236-245.	9.4	78
61	The Interplay between CD27dull and CD27bright B Cells Ensures the Flexibility, Stability, and Resilience of Human B Cell Memory. Cell Reports, 2020, 30, 2963-2977.e6.	2.9	76
62	CD4+ T Follicular Helper Cells in Human Tonsils and Blood Are Clonally Convergent but Divergent from Non-Tfh CD4+ Cells. Cell Reports, 2020, 30, 137-152.e5.	2.9	74
63	Comparative analysis of murine Tâ€cell receptor repertoires. Immunology, 2018, 153, 133-144.	2.0	72
64	Optimized Peptideâ€“MHC Multimer Protocols for Detection and Isolation of Autoimmune T-Cells. Frontiers in Immunology, 2018, 9, 1378.	2.2	72
65	Optogenetic experimentation on astrocytes. Experimental Physiology, 2011, 96, 40-50.	0.9	71
66	Method for identification of condition-associated public antigen receptor sequences. ELife, 2018, 7, .	2.8	71
67	Cell culture medium affects GFP photostability: a solution. Nature Methods, 2009, 6, 859-860.	9.0	70
68	Spectrally-Resolved Response Properties of the Three Most Advanced FRET Based Fluorescent Protein Voltage Probes. PLoS ONE, 2009, 4, e4555.	1.1	68
69	In vivo imaging of ligand receptor binding with Gaussia luciferase complementation. Nature Medicine, 2012, 18, 172-177.	15.2	68
70	Human Miltons associate with mitochondria and induce microtubule-dependent remodeling of mitochondrial networks. Biochimica Et Biophysica Acta - Molecular Cell Research, 2010, 1803, 564-574.	1.9	64
71	Intratumoral immunoglobulin isotypes predict survival in lung adenocarcinoma subtypes. , 2019, 7, 279.		64
72	Quantitative tracking of T cell clones after haematopoietic stem cell transplantation. EMBO Molecular Medicine, 2011, 3, 201-207.	3.3	63

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73	Huge Overlap of Individual TCR Beta Repertoires. Frontiers in Immunology, 2013, 4, 466.	2.2	56
74	Single-cell analysis of glandular T cell receptors in SjÃ¶grenâ€™s syndrome. JCI Insight, 2016, 1, .	2.3	54
75	Primary and secondary anti-viral response captured by the dynamics and phenotype of individual T cell clones. ELife, 2020, 9, .	2.8	48
76	Astroglia are a possible cellular substrate of angiotensin(1-7) effects in the rostral ventrolateral medulla. Cardiovascular Research, 2010, 87, 578-584.	1.8	45
77	Light-induced blockage of cell division with a chromatin-targeted phototoxic fluorescent protein. Biochemical Journal, 2011, 435, 65-71.	1.7	44
78	Tracking T-cell immune reconstitution after TCRÎ±Î²/CD19-depleted hematopoietic cells transplantation in children. Leukemia, 2017, 31, 1145-1153.	3.3	44
79	HRES-1/Rab4 Promotes the Formation of LC3+ Autophagosomes and the Accumulation of Mitochondria during Autophagy. PLoS ONE, 2014, 9, e84392.	1.1	43
80	Î³Î´ T-cell Receptors Derived from Breast Cancerâ€“Infiltrating T Lymphocytes Mediate Antitumor Reactivity. Cancer Immunology Research, 2020, 8, 530-543.	1.6	42
81	Mother and Childâ€‰T Cell Receptor Repertoires: Deep Profiling Study. Frontiers in Immunology, 2013, 4, 463.	2.2	41
82	CD8+ T cells with characteristic T cell receptor beta motif are detected in blood and expanded in synovial fluid of ankylosing spondylitis patients. Rheumatology, 2018, 57, 1097-1104.	0.9	41
83	Fluorescent proteins as light-inducible photochemical partners. Photochemical and Photobiological Sciences, 2010, 9, 1301-1306.	1.6	39
84	Comparative study reveals better far-red fluorescent protein for whole body imaging. Scientific Reports, 2015, 5, 10332.	1.6	38
85	CD49b defines functionally mature Treg cells that survey skin and vascular tissues. Journal of Experimental Medicine, 2018, 215, 2796-2814.	4.2	37
86	PiggyBac transposon tools for recessive screening identify B-cell lymphoma drivers in mice. Nature Communications, 2019, 10, 1415.	5.8	37
87	MAGERI: Computational pipeline for molecular-barcoded targeted resequencing. PLoS Computational Biology, 2017, 13, e1005480.	1.5	37
88	Contribution of functional KIR3DL1 to ankylosing spondylitis. Cellular and Molecular Immunology, 2010, 7, 471-476.	4.8	36
89	VDJviz: a versatile browser for immunogenomics data. BMC Genomics, 2016, 17, 453.	1.2	35
90	CXCR3 Identifies Human Naive CD8+ T Cells with Enhanced Effector Differentiation Potential. Journal of Immunology, 2019, 203, 3179-3189.	0.4	34

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91	Circular Permutation of Red Fluorescent Proteins. PLoS ONE, 2011, 6, e20505.	1.1	32
92	Crystallographic study of red fluorescent protein eqFP578 and its farâ€red variant Katushka reveals opposite pHâ€induced isomerization of chromophore. Protein Science, 2011, 20, 1265-1274.	3.1	32
93	Hetero-oligomeric tagging diminishes non-specific aggregation of target proteins fused with Anthozoa fluorescent proteins. Biochemical Journal, 2003, 371, 109-114.	1.7	29
94	Extracellular calcium depletion transiently elevates oxygen consumption in neurosecretory PC12 cells through activation of mitochondrial Na+/Ca2+ exchange. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 1627-1637.	0.5	29
95	MHC-II alleles shape the CDR3 repertoires of conventional and regulatory naÃ¯ve CD4⁺T cells. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13659-13669.	3.3	28
96	A high-throughput assay for quantitative measurement of PCR errors. Scientific Reports, 2017, 7, 2718.	1.6	27
97	Fast and Precise Protein Tracking Using Repeated Reversible Photoactivation. Traffic, 2006, 7, 1304-1310.	1.3	25
98	Yellow fluorescent protein phiYFPv (Phialidium): structure and structure-based mutagenesis. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 1005-1012.	2.5	25
99	Comparative Analysis of B-Cell Receptor Repertoires Induced by Live Yellow Fever Vaccine in Young and Middle-Age Donors. Frontiers in Immunology, 2018, 9, 2309.	2.2	25
100	First autologous hematopoietic SCT for ankylosing spondylitis: a case report and clues to understanding the therapy. Bone Marrow Transplantation, 2012, 47, 1479-1481.	1.3	24
101	Structural basis for bathochromic shift of fluorescence in far-red fluorescent proteins eqFP650 and eqFP670. Acta Crystallographica Section D: Biological Crystallography, 2012, 68, 1088-1097.	2.5	22
102	Wnt/Î²-Catenin Signaling Induces Integrin Î±4Î²1 in T Cells and Promotes a Progressive Neuroinflammatory Disease in Mice. Journal of Immunology, 2017, 199, 3031-3041.	0.4	22
103	Individual characterization of stably expanded T cell clones in ankylosing spondylitis patients. Autoimmunity, 2009, 42, 525-536.	1.2	19
104	Visualizing Compound Transgenic Zebrafish in Development: A Tale of Green Fluorescent Protein and KillerRed. Zebrafish, 2011, 8, 23-29.	0.5	19
105	TCR usage, gene expression and function of two distinct FOXP3⁺Treg subsets within CD4⁺CD25^{hi} T cells identified by expression of CD39 and CD45RO. Immunology and Cell Biology, 2016, 94, 293-305.	1.0	19
106	Substrate Recognition of Anthrax Lethal Factor Examined by Combinatorial and Pre-steady-state Kinetic Approaches. Journal of Biological Chemistry, 2009, 284, 17902-17913.	1.6	18
107	The Structure of Ca2+ Sensor Case16 Reveals the Mechanism of Reaction to Low Ca2+ Concentrations. Sensors, 2010, 10, 8143-8160.	2.1	18
108	New Class of Blue Animal Pigments Based on Frizzled and Kringle Protein Domains. Journal of Biological Chemistry, 2004, 279, 43367-43370.	1.6	17

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109	Genetically encoded intracellular sensors based on fluorescent proteins. Biochemistry (Moscow), 2007, 72, 683-697.	0.7	17
110	Quantitative profiling reveals minor changes of T cell receptor repertoire in response to subunit inactivated influenza vaccine. Vaccine, 2018, 36, 1599-1605.	1.7	17
111	Deep cfDNA fragment end profiling enables cancer detection. Molecular Cancer, 2022, 21, 26.	7.9	17
112	TCRs with segment TRAV9â€2 or a CDR3 histidine are overrepresented among nickelâ€specific CD4+ T cells. Allergy: European Journal of Allergy and Clinical Immunology, 2020, 75, 2574-2586.	2.7	16
113	Structure of the red fluorescent protein from a lancelet (Branchiostoma lanceolatum): a novel GYG chromophore covalently bound to a nearby tyrosine. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 1850-1860.	2.5	15
114	Pinpointing the tumor-specific T cells via TCR clusters. ELife, 2022, 11, .	2.8	15
115	Use of green fluorescent protein (GFP) and its homologs for in vivo protein motility studies. Biochemistry (Moscow), 2003, 68, 952-957.	0.7	13
116	Experimental models of arthritis in which pathogenesis is dependent on TNF expression. Biochemistry (Moscow), 2014, 79, 1349-1357.	0.7	13
117	Highâ€throughput sequencing of Tâ€cell receptor alpha chain clonal rearrangements at the DNA level in lymphoid malignancies. British Journal of Haematology, 2020, 188, 723-731.	1.2	13
118	Functionally specialized human CD4+ T-cell subsets express physicochemically distinct TCRs. ELife, 2020, 9, .	2.8	13
119	Measuring Intratumoral Heterogeneity of Immune Repertoires. Frontiers in Oncology, 2020, 10, 512.	1.3	12
120	Photoswitchable cyan fluorescent protein as a FRET donor. Microscopy Research and Technique, 2006, 69, 207-209.	1.2	11
121	RNA-Seq-Based TCR Profiling Reveals Persistently Increased Intratumoral Clonality in Responders to Anti-PD-1 Therapy. Frontiers in Oncology, 2020, 10, 385.	1.3	11
122	Adoptive Immunotherapy Based on Chain-Centric TCRs in Treatment of Infectious Diseases. IScience, 2020, 23, 101854.	1.9	11
123	Natural Flt3Lg-Based Chimeric Antigen Receptor (Flt3-CAR) T Cells Successfully Target Flt3 on AML Cell Lines. Vaccines, 2021, 9, 1238.	2.1	11
124	Molecular Mechanism of a Green-Shifted, pH-Dependent Red Fluorescent Protein mKate Variant. PLoS ONE, 2011, 6, e23513.	1.1	9
125	Accounting for B-cell Behavior and Sampling Bias Predicts Antiâ€“PD-L1 Response in Bladder Cancer. Cancer Immunology Research, 2022, 10, 343-353.	1.6	9
126	Reliability of immune receptor rearrangements as genetic markers for minimal residual disease monitoring. Bone Marrow Transplantation, 2016, 51, 1408-1410.	1.3	8

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127	T-cell tracking, safety, and effect of low-dose donor memory T-cell infusions after Î±Î² T cell-depleted hematopoietic stem cell transplantation. Bone Marrow Transplantation, 2021, 56, 900-908.	1.3	8
128	Reply to "Evaluation of immune repertoire inference methods from RNA-seq data". Nature Biotechnology, 2018, 36, 1035-1036.	9.4	7
129	Discovery and Properties of GFP-Like Proteins from Nonbioluminescent Anthozoa. Methods of Biochemical Analysis, 2005, , 121-138.	0.2	6
130	Distinct organization of adaptive immunity in the long-lived rodent Spalax galili. Nature Aging, 2021, 1, 179-189.	5.3	5
131	Single high-dose treatment with glucosaminyl-muramyl dipeptide is ineffective in treating ankylosing spondylitis. Rheumatology International, 2011, 31, 1101-1103.	1.5	4
132	Substrate specificity of the anthrax lethal factor. Doklady Biochemistry and Biophysics, 2008, 418, 14-17.	0.3	2
133	Bimolecular fluorescence complementation based on the red fluorescent protein FusionRed. Russian Journal of Bioorganic Chemistry, 2016, 42, 619-623.	0.3	2
134	Application of nonsense-mediated primer exclusion (NOPE) for preparation of unique molecular barcoded libraries. BMC Genomics, 2017, 18, 440.	1.2	2
135	NaÃ¯ve Regulatory T Cell Subset Is Altered in X-Linked Agammaglobulinemia. Frontiers in Immunology, 2021, 12, 697307.	2.2	2
136	Sequencing rare T-cell populations. Oncotarget, 2015, 6, 39393-39394.	0.8	2
137	Correlated dynamics of serum IGE and IGE+ clonotype count with allergen air level in seasonal allergic rhinitis. Bulletin of Russian State Medical University, 2019, , 13-22.	0.3	0