Dmitriy Chudakov

List of Publications by Citations

140 papers	12,564 citations	58 h-index	111 g-index
159 ext. papers	15,920 ext. citations	11.9 avg, IF	6.19 L-index

#	Paper	IF	Citations
140	Fluorescent proteins and their applications in imaging living cells and tissues. *Physiological Reviews*, **2010**, 90, 1103-63	47.9	956
139	MiXCR: software for comprehensive adaptive immunity profiling. *Nature Methods*, **2015**, 12, 380-1	21.6	696
138	Bright far-red fluorescent protein for whole-body imaging. *Nature Methods*, **2007**, 4, 741-6	21.6	508
137	Bright monomeric red fluorescent protein with an extended fluorescence lifetime. *Nature Methods*, **2007**, 4, 555-7	21.6	486
136	A genetically encoded photosensitizer. *Nature Biotechnology*, **2006**, 24, 95-9	44.5	439
135	Innovation: Photoactivatable fluorescent proteins. *Nature Reviews Molecular Cell Biology*, **2005**, 6, 885-91	18.7	411
134	Far-red fluorescent tags for protein imaging in living tissues. *Biochemical Journal*, **2009**, 418, 567-74	3.8	401
133	Fluorescent proteins as a toolkit for in vivo imaging. *Trends in Biotechnology*, **2005**, 23, 605-13	15.1	384
132	Regulatory T Cells Exhibit Distinct Features in Human Breast Cancer. *Immunity*, **2016**, 45, 1122-1134	32.3	329
131	Photoswitchable cyan fluorescent protein for protein tracking. *Nature Biotechnology*, **2004**, 22, 1435-9	44.5	309
130	VDJtools: Unifying Post-analysis of T Cell Receptor Repertoires. *PLoS Computational Biology*, **2015**, 11, e1004503	5	282
129	Kindling fluorescent proteins for precise in vivo photolabeling. *Nature Biotechnology*, **2003**, 21, 191-4	44.5	278
128	Towards error-free profiling of immune repertoires. *Nature Methods*, **2014**, 11, 653-5	21.6	267
127	Age-related decrease in TCR repertoire diversity measured with deep and normalized sequence profiling. *Journal of Immunology*, **2014**, 192, 2689-98	5.3	249
126	Tracking intracellular protein movements using photoswitchable fluorescent proteins PS-CFP2 and Dendra2. *Nature Protocols*, **2007**, 2, 2024-32	18.8	214
125	Conversion of red fluorescent protein into a bright blue probe. *Chemistry and Biology*, **2008**, 15, 1116-24		208
124	Stability and function of regulatory T cells expressing the transcription factor T-bet. *Nature*, **2017**, 546, 421-425	50.4	189

123	Near-infrared fluorescent proteins. *Nature Methods*, **2010**, 7, 827-9	21.6	184
122	VDJdb: a curated database of T-cell receptor sequences with known antigen specificity. *Nucleic Acids Research*, **2018**, 46, D419-D427	20.1	183
121	tcR: an R package for T cell receptor repertoire advanced data analysis. *BMC Bioinformatics*, **2015**, 16, 175	3.6	156
120	Green fluorescent proteins are light-induced electron donors. *Nature Chemical Biology*, **2009**, 5, 459-61	11.7	156
119	Chromophore-assisted light inactivation (CALI) using the phototoxic fluorescent protein KillerRed. *Nature Protocols*, **2006**, 1, 947-53	18.8	154
118	B cells, plasma cells and antibody repertoires in the tumour microenvironment. *Nature Reviews Immunology*, **2020**, 20, 294-307	36.5	149
117	Kindling fluorescent protein from Anemonia sulcata: dark-state structure at 1.38 A resolution. *Biochemistry*, **2005**, 44, 5774-87	3.2	141
116	A monomeric red fluorescent protein with low cytotoxicity. *Nature Communications*, **2012**, 3, 1204	17.4	139
115	MiTCR: software for T-cell receptor sequencing data analysis. *Nature Methods*, **2013**, 10, 813-4	21.6	138
114	Clonal selection in the human V□1 T cell repertoire indicates □TCR-dependent adaptive immune surveillance. *Nature Communications*, **2017**, 8, 14760	17.4	137
113	High-throughput identification of antigen-specific TCRs by TCR gene capture. *Nature Medicine*, **2013**, 19, 1534-41	50.5	127
112	Antigen receptor repertoire profiling from RNA-seq data. *Nature Biotechnology*, **2017**, 35, 908-911	44.5	125
111	Chromophore environment provides clue to "kindling fluorescent protein" riddle. *Journal of Biological Chemistry*, **2003**, 278, 7215-9	5.4	122
110	Next generation sequencing for TCR repertoire profiling: platform-specific features and correction algorithms. *European Journal of Immunology*, **2012**, 42, 3073-83	6.1	121
109	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, 9221-5	11.5	118
108	High-quality full-length immunoglobulin profiling with unique molecular barcoding. *Nature Protocols*, **2016**, 11, 1599-616	18.8	109
107	VDJdb in 2019: database extension, new analysis infrastructure and a T-cell receptor motif compendium. *Nucleic Acids Research*, **2020**, 48, D1057-D1062	20.1	107
106	The human V□2 T-cell compartment comprises distinct innate-like V□9 and adaptive V□9 subsets. *Nature Communications*, **2018**, 9, 1760	17.4	106

105	Preparing unbiased T-cell receptor and antibody cDNA libraries for the deep next generation sequencing profiling. *Frontiers in Immunology*, **2013**, 4, 456	8.4	104
104	Structural basis for phototoxicity of the genetically encoded photosensitizer KillerRed. *Journal of Biological Chemistry*, **2009**, 284, 32028-39	5.4	102
103	A mechanism for expansion of regulatory T-cell repertoire and its role in self-tolerance. *Nature*, **2015**, 528, 132-136	50.4	96
102	Pairing of T-cell receptor chains via emulsion PCR. *European Journal of Immunology*, **2013**, 43, 2507-15	6.1	95
101	Using photoactivatable fluorescent protein Dendra2 to track protein movement. *BioTechniques*, **2007**, 42, 553, 555, 557 passim	2.5	94
100	Dynamics of Individual T Cell Repertoires: From Cord Blood to Centenarians. *Journal of Immunology* , **2016**, 196, 5005-13	5.3	94
99	Common pathway for the red chromophore formation in fluorescent proteins and chromoproteins. *Chemistry and Biology*, **2004**, 11, 845-54		91
98	Single fluorescent protein-based Ca2+ sensors with increased dynamic range. *BMC Biotechnology*, **2007**, 7, 37	3.5	89
97	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, 1888-97	2.4	88
96	Distinctive properties of identical twinsRTCR repertoires revealed by high-throughput sequencing. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 5980-5	11.5	86
95	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, 28980-7	5.4	84
94	Structural basis for the fast maturation of Arthropoda green fluorescent protein. *EMBO Reports*, **2006**, 7, 1006-12	6.5	84
93	Practical and reliable FRET/FLIM pair of fluorescent proteins. *BMC Biotechnology*, **2009**, 9, 24	3.5	78
92	Memory CD4 T cells are generated in the human fetal intestine. *Nature Immunology*, **2019**, 20, 301-312	19.1	77
91	Optogenetic in vivo cell manipulation in KillerRed-expressing zebrafish transgenics. *BMC Developmental Biology*, **2010**, 10, 110	3.1	75
90	Far-red fluorescent proteins evolved from a blue chromoprotein from Actinia equina. *Biochemical Journal*, **2005**, 392, 649-54	3.8	73
89	Human liver infiltrating □T cells are composed of clonally expanded circulating and tissue-resident populations. *Journal of Hepatology*, **2018**, 69, 654-665	13.4	71
88	Optogenetic experimentation on astrocytes. *Experimental Physiology*, **2011**, 96, 40-50	2.4	64

87	Spectrally-resolved response properties of the three most advanced FRET based fluorescent protein voltage probes. *PLoS ONE*, **2009**, 4, e4555	3.7	64
86	In vivo imaging of ligand receptor binding with Gaussia luciferase complementation. *Nature Medicine*, **2011**, 18, 172-7	50.5	61
85	Cell culture medium affects GFP photostability: a solution. *Nature Methods*, **2009**, 6, 859-60	21.6	61
84	Quantitative profiling of immune repertoires for minor lymphocyte counts using unique molecular identifiers. *Journal of Immunology*, **2015**, 194, 6155-63	5.3	58
83	The Changing Landscape of Naive T Cell Receptor Repertoire With Human Aging. *Frontiers in Immunology*, **2018**, 9, 1618	8.4	58
82	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	11.5	58
81	Human Miltons associate with mitochondria and induce microtubule-dependent remodeling of mitochondrial networks. *Biochimica Et Biophysica Acta - Molecular Cell Research*, **2010**, 1803, 564-74	4.9	57
80	Two subsets of stem-like CD8 memory T cell progenitors with distinct fate commitments in humans. *Nature Immunology*, **2020**, 21, 1552-1562	19.1	57
79	Persisting fetal clonotypes influence the structure and overlap of adult human T cell receptor repertoires. *PLoS Computational Biology*, **2017**, 13, e1005572	5	56
78	Detecting T cell receptors involved in immune responses from single repertoire snapshots. *PLoS Biology*, **2019**, 17, e3000314	9.7	53
77	Quantitative tracking of T cell clones after haematopoietic stem cell transplantation. *EMBO Molecular Medicine*, **2011**, 3, 201-7	12	53
76	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	10.6	46
75	Longitudinal high-throughput TCR repertoire profiling reveals the dynamics of T-cell memory formation after mild COVID-19 infection. *ELife*, **2021**, 10,	8.9	44
74	The Interplay between CD27 and CD27 B Cells Ensures the Flexibility, Stability, and Resilience of Human B Cell Memory. *Cell Reports*, **2020**, 30, 2963-2977.e6	10.6	43
73	Astroglia are a possible cellular substrate of angiotensin(1-7) effects in the rostral ventrolateral medulla. *Cardiovascular Research*, **2010**, 87, 578-84	9.9	39
72	Light-induced blockage of cell division with a chromatin-targeted phototoxic fluorescent protein. *Biochemical Journal*, **2011**, 435, 65-71	3.8	37
71	Fluorescent proteins as light-inducible photochemical partners. *Photochemical and Photobiological Sciences*, **2010**, 9, 1301-6	4.2	37
70	Mother and child T cell receptor repertoires: deep profiling study. *Frontiers in Immunology*, **2013**, 4, 463	8.4	36

69	Benchmarking of T cell receptor repertoire profiling methods reveals large systematic biases. *Nature Biotechnology*, **2021**, 39, 236-245	44.5	35
68	Tracking T-cell immune reconstitution after TCR/CD19-depleted hematopoietic cells transplantation in children. *Leukemia*, **2017**, 31, 1145-1153	10.7	34
67	Optimized Peptide-MHC Multimer Protocols for Detection and Isolation of Autoimmune T-Cells. *Frontiers in Immunology*, **2018**, 9, 1378	8.4	33
66	Method for identification of condition-associated public antigen receptor sequences. *ELife*, **2018**, 7,	8.9	33
65	HRES-1/Rab4 promotes the formation of LC3(+) autophagosomes and the accumulation of mitochondria during autophagy. *PLoS ONE*, **2014**, 9, e84392	3.7	33
64	Huge Overlap of Individual TCR Beta Repertoires. *Frontiers in Immunology*, **2013**, 4, 466	8.4	32
63	Contribution of functional KIR3DL1 to ankylosing spondylitis. *Cellular and Molecular Immunology*, **2010**, 7, 471-6	15.4	30
62	Comparative analysis of murine T-cell receptor repertoires. *Immunology*, **2018**, 153, 133-144	7.8	29
61	Circular permutation of red fluorescent proteins. *PLoS ONE*, **2011**, 6, e20505	3.7	29
60	Intratumoral immunoglobulin isotypes predict survival in lung adenocarcinoma subtypes **2019**, 7, 279		28
59	Comparative study reveals better far-red fluorescent protein for whole body imaging. *Scientific Reports*, **2015**, 5, 10332	4.9	28
58	Hetero-oligomeric tagging diminishes non-specific aggregation of target proteins fused with Anthozoa fluorescent proteins. *Biochemical Journal*, **2003**, 371, 109-14	3.8	27
57	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, 1627-37	4.6	26
56	PiggyBac transposon tools for recessive screening identify B-cell lymphoma drivers in mice. *Nature Communications*, **2019**, 10, 1415	17.4	25
55	Crystallographic study of red fluorescent protein eqFP578 and its far-red variant Katushka reveals opposite pH-induced isomerization of chromophore. *Protein Science*, **2011**, 20, 1265-74	6.3	25
54	Primary and secondary anti-viral response captured by the dynamics and phenotype of individual T cell clones. *ELife*, **2020**, 9,	8.9	25
53	Fast and precise protein tracking using repeated reversible photoactivation. *Traffic*, **2006**, 7, 1304-10	5.7	23
52	MAGERI: Computational pipeline for molecular-barcoded targeted resequencing. *PLoS Computational Biology*, **2017**, 13, e1005480	5	23

51	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	3.9	22
50	Single-cell analysis of glandular T cell receptors in Sjögren's syndrome. *JCI Insight*, **2016**, 1,	9.9	22
49	CXCR3 Identifies Human Naive CD8 T Cells with Enhanced Effector Differentiation Potential. *Journal of Immunology*, **2019**, 203, 3179-3189	5.3	21
48	First autologous hematopoietic SCT for ankylosing spondylitis: a case report and clues to understanding the therapy. *Bone Marrow Transplantation*, **2012**, 47, 1479-81	4.4	20
47	VDJviz: a versatile browser for immunogenomics data. *BMC Genomics*, **2016**, 17, 453	4.5	19
46	CD49b defines functionally mature Treg cells that survey skin and vascular tissues. *Journal of Experimental Medicine*, **2018**, 215, 2796-2814	16.6	19
45	T-cell Receptors Derived from Breast Cancer-Infiltrating T Lymphocytes Mediate Antitumor Reactivity. *Cancer Immunology Research*, **2020**, 8, 530-543	12.5	18
44	Structural basis for bathochromic shift of fluorescence in far-red fluorescent proteins eqFP650 and eqFP670. *Acta Crystallographica Section D: Biological Crystallography*, **2012**, 68, 1088-97		17
43	Visualizing compound transgenic zebrafish in development: a tale of green fluorescent protein and KillerRed. *Zebrafish*, **2011**, 8, 23-9	2	17
42	Substrate recognition of anthrax lethal factor examined by combinatorial and pre-steady-state kinetic approaches. *Journal of Biological Chemistry*, **2009**, 284, 17902-13	5.4	17
41	Wnt/Catenin Signaling Induces Integrin 41 in T Cells and Promotes a Progressive Neuroinflammatory Disease in Mice. *Journal of Immunology*, **2017**, 199, 3031-3041	5.3	16
40	A high-throughput assay for quantitative measurement of PCR errors. *Scientific Reports*, **2017**, 7, 2718	4.9	16
39	The structure of Ca2+ sensor Case16 reveals the mechanism of reaction to low Ca2+ concentrations. *Sensors*, **2010**, 10, 8143-60	3.8	16
38	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	5	15
37	Yellow fluorescent protein phiYFPv (Phialidium): structure and structure-based mutagenesis. *Acta Crystallographica Section D: Biological Crystallography*, **2013**, 69, 1005-12		15
36	Genetically encoded intracellular sensors based on fluorescent proteins. *Biochemistry (Moscow)*, **2007**, 72, 683-97	2.9	14
35	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, 1850-60		13
34	Individual characterization of stably expanded T cell clones in ankylosing spondylitis patients. *Autoimmunity*, **2009**, 42, 525-36	3	13

33	New class of blue animal pigments based on Frizzled and Kringle protein domains. *Journal of Biological Chemistry*, **2004**, 279, 43367-70	5.4	13
32	MHC-II alleles shape the CDR3 repertoires of conventional and regulatory naïve CD4 T cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 13659-13669	11.5	11
31	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	8.4	11
30	Experimental models of arthritis in which pathogenesis is dependent on TNF expression. *Biochemistry (Moscow)*, **2014**, 79, 1349-57	2.9	10
29	Photoswitchable cyan fluorescent protein as a FRET donor. *Microscopy Research and Technique*, **2006**, 69, 207-9	2.8	10
28	Use of green fluorescent protein (GFP) and its homologs for in vivo protein motility studies. *Biochemistry (Moscow)*, **2003**, 68, 952-7	2.9	9
27	Quantitative profiling reveals minor changes of T cell receptor repertoire in response to subunit inactivated influenza vaccine. *Vaccine*, **2018**, 36, 1599-1605	4.1	8
26	Molecular mechanism of a green-shifted, pH-dependent red fluorescent protein mKate variant. *PLoS ONE*, **2011**, 6, e23513	3.7	8
25	TCRs with segment TRAV9-2 or a CDR3 histidine are overrepresented among nickel-specific CD4+ T cells. *Allergy: European Journal of Allergy and Clinical Immunology*, **2020**, 75, 2574-2586	9.3	8
24	Adoptive Immunotherapy Based on Chain-Centric TCRs in Treatment of Infectious Diseases. *IScience*, **2020**, 23, 101854	6.1	7
23	Discovery and Properties of GFP-Like Proteins from Nonbioluminescent Anthozoa. *Methods of Biochemical Analysis*, **2005**, 121-138		6
22	Longitudinal high-throughput TCR repertoire profiling reveals the dynamics of T cell memory formation after mild COVID-19 infection		6
21	Reliability of immune receptor rearrangements as genetic markers for minimal residual disease monitoring. *Bone Marrow Transplantation*, **2016**, 51, 1408-1410	4.4	5
20	High-throughput sequencing of T-cell receptor alpha chain clonal rearrangements at the DNA level in lymphoid malignancies. *British Journal of Haematology*, **2020**, 188, 723-731	4.5	5
19	Measuring Intratumoral Heterogeneity of Immune Repertoires. *Frontiers in Oncology*, **2020**, 10, 512	5.3	4
18	RNA-Seq-Based TCR Profiling Reveals Persistently Increased Intratumoral Clonality in Responders to Anti-PD-1 Therapy. *Frontiers in Oncology*, **2020**, 10, 385	5.3	4
17	Reply to "Evaluation of immune repertoire inference methods from RNA-seq data". *Nature Biotechnology*, **2018**, 36, 1035-1036	44.5	4
16	Single high-dose treatment with glucosaminyl-muramyl dipeptide is ineffective in treating ankylosing spondylitis. *Rheumatology International*, **2011**, 31, 1101-3	3.6	3

15	Functionally specialized human CD4 T-cell subsets express physicochemically distinct TCRs. *ELife*, **2020**, 9,	8.9	3
14	SARS-CoV-2 escape from cytotoxic T cells during long-term COVID-19		3
13	Application of nonsense-mediated primer exclusion (NOPE) for preparation of unique molecular barcoded libraries. *BMC Genomics*, **2017**, 18, 440	4.5	2
12	Substrate specificity of the anthrax lethal factor. *Doklady Biochemistry and Biophysics*, **2008**, 418, 14-7	0.8	2
11	Deep cfDNA fragment end profiling enables cancer detection.. *Molecular Cancer*, **2022**, 21, 26	42.1	2
10	Natural Flt3Lg-Based Chimeric Antigen Receptor (Flt3-CAR) T Cells Successfully Target Flt3 on AML Cell Lines. *Vaccines*, **2021**, 9,	5.3	2
9	Comprehensive analysis of antiviral adaptive immunity formation and reactivation down to single-cell level		2
8	Author response: Longitudinal high-throughput TCR repertoire profiling reveals the dynamics of T-cell memory formation after mild COVID-19 infection **2020**,		2
7	Bimolecular fluorescence complementation based on the red fluorescent protein FusionRed. *Russian Journal of Bioorganic Chemistry*, **2016**, 42, 619-623	1	2
6	T-cell tracking, safety, and effect of low-dose donor memory T-cell infusions after T cell-depleted hematopoietic stem cell transplantation. *Bone Marrow Transplantation*, **2021**, 56, 900-908	4.4	2
5	Precise tracking of vaccine-responding T-cell clones reveals convergent and personalized response in identical twins		1
4	Detecting T-cell receptors involved in immune responses from single repertoire snapshots		1
3	Distinct organization of adaptive immunity in the long-lived rodent Spalax galili. *Nature Aging*, **2021**, 1, 179-189		1
2	Naïve Regulatory T Cell Subset Is Altered in X-Linked Agammaglobulinemia. *Frontiers in Immunology*, **2021**, 12, 697307	8.4	1
1	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	0.4	