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Адрес

Федеральное государственное бюджетное учреждение науки Институт биоорганической химии им. академиков М.М. Шемякина и Ю.А. Овчинникова Российской академии наук, Москва, Россия

Контакты

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Образование

1995–2000	Россия, Москва	МГУ им. Ломоносова
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Работа в ИБХ

	Заведующий лабораторией
2019–наст.вр.	Главный научный сотрудник
2018–наст.вр.	Главный научный сотрудник
2018–2022	Заведующий лабораторией

Членство в советах и комиссиях ИБХ

	Ученый совет
2022–наст.вр.	Аттестационная комиссия

Награды

2012	Премия президента в области науки и инноваций для молодых ученых	За разработку генетически кодируемых флуоресцентных маркёров для визуализации объектов и процессов в биомедицинских исследованиях
2004	Медали РАН для молодых ученых и студентов с премией	За работу «Флуоресцентные и фотоактивируемые флуоресцентные белки»

Научные интересы

Специалист в области адаптивного иммунитета, автор более 150 работ в рецензируемых научных журналах, ряда международных патентов. Индекс Хирша - 55, цитирований - 10000. Принимал участие в более чем 50 международных конференциях.

Членство в сообществах

Член Совета по грантам Президента РФ для государственной поддержки молодых российских ученых (2013-2016), член Совета по науке при Министерстве образования и науки РФ (2013-2016). Эксперт научных фондов РФФИ, РНФ, европейских научных фондов.

Степени и звания

2022	Член-корреспондент РАН
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2016	Профессор РАН
2011	Доктор наук (Биологические науки, 03.00.03 — Молекулярная биология)
2003	Кандидат наук (Биологические науки)

Ссылки и контакты

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Гранты и проекты

2014– 2016	Возрастные изменения в структуре гуморального иммунитета
2019– 2021	Происхождение и пластичность функциональных популяций В лимфоцитов и плазматических клеток
2017– 2019	Сравнительный биоинформатический анализ гамма/дельта Т-клеточных рецепторов человека

Публикации

1. Krasik SV, Bryushkova EA, Sharonov GV, Myalik DS, Shurganova EV, Komarov DV, Shagina IA, Shpudeiko PS, Turchaninova MA, Vakhitova MT, Samoylenko IV, Marinov DT, Demidov LV, Zagaynov VE, **Chudakov DM**, Serebrovskaya EO (2025). Systematic evaluation of intratumoral and peripheral BCR repertoires in three cancers. *Elife* 13, , [10.7554/eLife.89506](#)
2. Ustiuzhanina MO, Boyko AA, Vavilova JD, Siniavin AE, Streltsova MA, Astrakhantseva IV, Drutskaya MS, **Chudakov DM**, Kovalenko EI (2024). The Antigen-Specific Response of NK Cells to SARS-CoV-2 Correlates With KIR2DS4 Expression. *J Med Virol* 96 (11), e70057, [10.1002/jmv.70057](#)
3. Tsareva A, Shelyakin PV, Shagina IA, Myshkin MY, Merzlyak EM, Kriukova VV, Apt AS, Linge IA, **Chudakov DM**, Britanova OV (2024). Aberrant adaptive immune response underlies genetic susceptibility to tuberculosis. *Front Immunol* 15, 1380971, [10.3389/fimmu.2024.1380971](#)
4. Nakonechnaya TO, Shagina IA, Myshkin MY, Mutovina ZY, Ryazantseva EV, **Chudakov DM**, Turchaninova MA, Britanova OV (2024). Interferon signature in the development of SLE: molecular mechanisms, approaches to diagnosis and treatment. *Bulletin of Russian State Medical University* (3), 4–12, [10.24075/brsmu.2024.027](#)
5. Nakonechnaya TO, Moltedo B, Putintseva EV, Leyn S, Bolotin DA, Britanova OV, Shugay M, **Chudakov DM** (2024). Convergence, plasticity, and tissue residence of regulatory T cell response via TCR repertoire prism. *Elife* 12, , [10.7554/eLife.89382](#)
6. Sheetikov SA, Khmelevskaya AA, Zornikova KV, Zvyagin IV, Shomuradova AS, Serdyuk YV, Shakirova NT, Peshkova IO, Titov A, Romaniuk DS, Shagina IA, **Chudakov DM**, Kiryukhin DO, Shcherbakova OV, Khamaganova EG, Dzutseva V, Afanasiev A, Bogolyubova AV, Efimov GA (2024). Clonal structure and the specificity of vaccine-induced T cell response to SARS-CoV-2 Spike protein. *Front Immunol* 15, 1369436, [10.3389/fimmu.2024.1369436](#)
7. Bryushkova EA, Mushenkova NV, Turchaninova MA, Lukyanov DK, **Chudakov DM**, Serebrovskaya EO (2024). B cell clonality in cancer. *Semin Immunol* 72, 101874, [10.1016/j.smim.2024.101874](#)
8. Ustiuzhanina MO, Streltsova MA, Timofeev ND, Kryukov MA, **Chudakov DM**, Kovalenko EI (2024). Autologous T-Cell-Free Antigen Presentation System Unveils hCMV-Specific NK Cell Response. *Cells* 13 (6), 530, [10.3390/cells13060530](#)
9. Serebrovskaya EO, Bryushkova EA, Lukyanov DK, Mushenkova NV, **Chudakov DM**, Turchaninova MA (2024). Toolkit for mapping the clonal landscape of tumor-infiltrating B cells. *Semin Immunol* 72, 101864, [10.1016/j.smim.2024.101864](#)
10. Karnaukhov VK, Shcherbinin DS, Chugunov AO, **Chudakov DM**, Efremov RG, Zvyagin IV, Shugay M (2024). Structure-based prediction of T cell receptor recognition of unseen epitopes using TCren. *NAT COMPUT SCI*

- 4, 510–521, [10.1038/s43588-024-00653-0](https://doi.org/10.1038/s43588-024-00653-0)
11. Britanova OV, Lupyr KR, Staroverov DB, Shagina IA, Aleksandrov AA, Ustyugov YY, Somov DV, Klimenko A, Shostak NA, Zvyagin IV, Stepanov AV, Merzlyak EM, Davydov AN, Izraelson M, Egorov ES, Bogdanova EA, Vladimirova AK, Iakovlev PA, Fedorenko DA, Ivanov RA, Skvortsova VI, Lukyanov S, **Chudakov DM** (2023). Targeted depletion of TRBV9+ T cells as immunotherapy in a patient with ankylosing spondylitis. *Nat Med* 29 (11), 2731–2736, [10.1038/s41591-023-02613-z](https://doi.org/10.1038/s41591-023-02613-z)
12. Smirnova AO, Miroshnichenkova AM, Belyaeva LD, Kelmanson IV, Lebedev YB, Mamedov IZ, **Chudakov DM**, Komkov AY (2023). Novel bimodal TRBD1-TRBD2 rearrangements with dual or absent D-region contribute to TRB V-(D)-J combinatorial diversity. *Front Immunol* 14, 1245175, [10.3389/fimmu.2023.1245175](https://doi.org/10.3389/fimmu.2023.1245175)
13. Shcherbinin DS, Karnaukhov VK, Zvyagin IV, **Chudakov DM**, Shugay M (2023). Large-scale template-based structural modeling of T-cell receptors with known antigen specificity reveals complementarity features. *Front Immunol* 14, 1224969, [10.3389/fimmu.2023.1224969](https://doi.org/10.3389/fimmu.2023.1224969)
14. Clement M, Ladell K, Miners KL, Marsden M, Chapman L, Cardus Figueras A, Scott J, Andrews R, Clare S, Kriukova VV, Lupyr KR, Britanova OV, Withers DR, Jones SA, **Chudakov DM**, Price DA, Humphreys IR (2023). Inhibitory IL-10-producing CD4+ T cells are T-bet-dependent and facilitate cytomegalovirus persistence via coexpression of arginase-1. *Elife* 12, , [10.7554/eLife.79165](https://doi.org/10.7554/eLife.79165)
15. Friman V, Quinti I, Davydov AN, Shugay M, Farroni C, Engström E, Pour Akaber S, Barresi S, Mohamed A, Pulvirenti F, Milito C, Granata G, Giorda E, Ahlström S, Karlsson J, Marasco E, Marcellini V, Bocci C, Cascioli S, Scarsella M, Phad G, Tilevik A, Tartaglia M, Bemark M, **Chudakov DM**, Carsetti R, Grimsholm O (2023). Defective peripheral B cell selection in common variable immune deficiency patients with autoimmune manifestations. *Cell Rep* 42 (5), 112446, [10.1016/j.celrep.2023.112446](https://doi.org/10.1016/j.celrep.2023.112446)
16. Smirnova AO, Miroshnichenkova AM, Olshanskaya YV, Maschan MA, Lebedev YB, **Chudakov DM**, Mamedov IZ, Komkov A (2023). The use of non-functional clonotypes as a natural calibrator for quantitative bias correction in adaptive immune receptor repertoire profiling. *Elife* 12, , [10.7554/eLife.69157](https://doi.org/10.7554/eLife.69157)
17. Ustiuzhanina MO, Vavilova JD, Alekseeva NA, Lutsenko GV, **Chudakov DM**, Kovalenko EI (2023). COORDINATION OF NK CELL MARKER EXPRESSION AND IgG RESPONSE IN hCMV INFECTION. *Medical Immunology (Russia)* 25 (3), 573–580, [10.15789/1563-0625-CON-2844](https://doi.org/10.15789/1563-0625-CON-2844)
18. Karnaukhov V, Paes W, Woodhouse IB, Partridge T, Nicastrì A, Brackenridge S, Shcherbinin D, **Chudakov DM**, Zvyagin IV, Ternette N, Koohy H, Borrow P, Shugay M (2022). HLA variants have different preferences to present proteins with specific molecular functions which are complemented in frequent haplotypes. *Front Immunol* 13, 1067463, [10.3389/fimmu.2022.1067463](https://doi.org/10.3389/fimmu.2022.1067463)
19. Yang X, Garner LI, Zvyagin IV, Paley MA, Komech EA, Jude KM, Zhao X, Fernandes RA, Hassman LM, Paley GL, Savvides CS, Brackenridge S, Quastel MN, **Chudakov DM**, Bowness P, Yokoyama WM, McMichael AJ, Gillespie GM, Garcia KC (2022). Autoimmunity-associated T cell receptors recognize HLA-B*27-bound peptides. *Nature* 612 (7941), 771–777, [10.1038/s41586-022-05501-7](https://doi.org/10.1038/s41586-022-05501-7)
20. Mikelov AI, Alekseeva EI, Komech EA, Staroverov DB, Turchaninova MA, Shugay M, **Chudakov DM**, Bazykin GA, Zvyagin IV (2022). Memory persistence and differentiation into antibody-secreting cells accompanied by positive selection in longitudinal BCR repertoires. *Elife* 11, , [10.7554/eLife.79254](https://doi.org/10.7554/eLife.79254)
21. Lebedin M, Foglierini M, Khorkova S, Vázquez García C, Ratswohl C, Davydov AN, Turchaninova MA, Daubenberger C, **Chudakov DM**, Lanzavecchia A, de la Rosa K (2022). Different classes of genomic inserts contribute to human antibody diversity. *Proc Natl Acad Sci U S A* 119 (36), e2205470119, [10.1073/pnas.2205470119](https://doi.org/10.1073/pnas.2205470119)
22. Bryushkova EA, Skatova VD, Mutovina ZY, Zagrebneva AI, Fomina DS, Kruglova TS, Akopyan AA, Strazhesko ID, Lukyanov SA, Tkacheva ON, Lysenko MA, **Chudakov DM** (2022). Tocilizumab, netakimab, and baricitinib in patients with mild-to-moderate COVID-19: An observational study. *PLoS One* 17 (8), e0273340, [10.1371/journal.pone.0273340](https://doi.org/10.1371/journal.pone.0273340)
23. Lomakin YA, Zvyagin IV, Ovchinnikova LA, Kabilov MR, Staroverov DB, Mikelov A, Tupikin AE, Zakharova MY, Bykova NA, Mukhina VS, Favorov AV, Ivanova M, Simaniv T, Rubtsov YP, **Chudakov DM**, Zakharova MN, Illarioshkin SN, Belogurov AA, Gabibov AG (2022). Deconvolution of B cell receptor repertoire in multiple sclerosis patients revealed a delay in tBreg maturation. *Front Immunol* 13, 803229, [10.3389/fimmu.2022.803229](https://doi.org/10.3389/fimmu.2022.803229)
24. Goncharov M, Bagaev D, Shcherbinin D, Zvyagin I, Bolotin D, Thomas PG, Minervina AA, Pogorelyy MV,

- Ladell K, McLaren JE, Price DA, Nguyen THO, Rowntree LC, Clemens EB, Kedzierska K, Dolton G, Rius CR, Sewell A, Samir J, Luciani F, Zornikova KV, Khmelevskaya AA, Sheetikov SA, Efimov GA, **Chudakov D**, Shugay M (2022). VDJdb in the pandemic era: a compendium of T cell receptors specific for SARS-CoV-2. *Nat Methods* 19 (9), 1017–1019, [10.1038/s41592-022-01578-0](https://doi.org/10.1038/s41592-022-01578-0)
25. Goncharov MM, Bryushkova EA, Sharayev NI, Skatova VD, Baryshnikova AM, Sharonov GV, Karnaukhov V, Vakhitova MT, Samoylenko IV, Demidov LV, Lukyanov S, **Chudakov DM**, Serebrovskaya EO (2022). Pinpointing the tumor-specific T-cells via TCR clusters. *Elife* 11, , [10.7554/eLife.77274](https://doi.org/10.7554/eLife.77274)
 26. Zhitnyuk YV, Koval AP, Alferov AA, Shtykova YA, Mamedov IZ, Kushlinskii NE, **Chudakov DM**, Shcherbo DS (2022). Deep cfDNA fragment end profiling enables cancer detection. *Mol Cancer* 21 (1), 26, [10.1186/s12943-021-01491-8](https://doi.org/10.1186/s12943-021-01491-8)
 27. Dyugay IA, Lukyanov DK, Turchaninova MA, Serebrovskaya EO, Bryushkova EA, Zaretsky AR, Khalmurzaev O, Matveev VB, Shugay M, Shelyakin PV, **Chudakov DM** (2022). Accounting for B-cell behavior and sampling bias predicts anti-PD-L1 response in bladder cancer. *Cancer Immunol Res* 10 (3), 343–353, [10.1158/2326-6066.CIR-21-0489](https://doi.org/10.1158/2326-6066.CIR-21-0489)
 28. Shelyakin PV, Lupyr KR, Egorov ES, Kofiadi IA, Staroverov DB, Kasatskaya SA, Kriukova VV, Shagina IA, Merzlyak EM, Nakonechnaya TO, Latysheva EA, Manto IA, Khaitov MR, Lukyanov SA, **Chudakov DM**, Britanova OV (2021). Naïve Regulatory T Cell Subset Is Altered in X-Linked Agammaglobulinemia. *Front Immunol* 12, 697307, [10.3389/fimmu.2021.697307](https://doi.org/10.3389/fimmu.2021.697307)
 29. Izraelson M, Metsger M, Davydov AN, Shagina IA, Dronina MA, Obratsova AS, Miskevich DA, Mamedov IZ, Volchkova LN, Nakonechnaya TO, Shugay M, Bolotin DA, Staroverov DB, Sharonov GV, Kondratyuk EY, Zagaynova EV, Lukyanov S, Shams I, Britanova OV, **Chudakov DM** (2021). Distinct organization of adaptive immunity in the long-lived rodent *Spalax galili*. *Nat Aging* 1 (2), 179–189, [10.1038/s43587-021-00029-3](https://doi.org/10.1038/s43587-021-00029-3)
 30. Maiorova V, Mollaev MD, Vikhreva P, Kulakovskaya E, Pershin D, **Chudakov DM**, Kibardin A, Maschan MA, Larin S (2021). Natural Flt3Lg-based chimeric antigen receptor (Flt3-CAR) T cells successfully target Flt3 on aml cell lines. *Vaccines (Basel)* 9 (11), , [10.3390/vaccines9111238](https://doi.org/10.3390/vaccines9111238)
 31. Izosimova AV, Yuzhakova DV, Skatova VD, Volchkova LN, Zagaynova EV, **Chudakov DM**, Sharonov GV (2021). Deciphering repertoire of b16 melanoma reactive tcra by immunization, in vitro restimulation and sequencing of ifn γ -secreting t cells. *Int J Mol Sci* 22 (18), , [10.3390/ijms22189859](https://doi.org/10.3390/ijms22189859)
 32. (конференция) Звягин ИВ, Комеч ЕА, **Чудаков ДМ** (2021). AS-RELATED TCR BETA CLONOTYPES ARE PRESENT IN DIFFERENT INFLAMED TISSUES OF PATIENTS WITH SPONDYLOARTHRITIS. *Ann Rheum Dis* (80), 14–15, [10.1136/annrheumdis-2021-eular.3535](https://doi.org/10.1136/annrheumdis-2021-eular.3535)
 33. Karnaukhov V, Paes W, Woodhouse IB, Partridge T, Nicastri A, Brackenridge S, Scherbinin D, **Chudakov DM**, Zvyagin IV, Ternette N, Koohy H, Borrow P, Shugay M (2021). HLA binding of self-peptides is biased towards proteins with specific molecular functions. *Biorxiv* , , [10.1101/2021.02.16.431395](https://doi.org/10.1101/2021.02.16.431395)
 34. Barennes P, Quiniou V, Shugay M, Egorov ES, Davydov AN, **Chudakov DM**, Uddin I, Ismail M, Oakes T, Chain B, Eugster A, Kashofer K, Rainer PP, Darko S, Ransier A, Douek DC, Klatzmann D, Mariotti-Ferrandiz E (2021). Benchmarking of T cell receptor repertoire profiling methods reveals large systematic biases. *Nat Biotechnol* 39 (2), 236–245, [10.1038/s41587-020-0656-3](https://doi.org/10.1038/s41587-020-0656-3)
 35. Minervina AA, Komech EA, Titov A, Koraichi MB, Rosati E, Mamedov IZ, Franke A, Efimov GA, **Chudakov DM**, Mora T, Walczak AM, Lebedev YB, Pogorelyy MV (2021). Longitudinal high-throughput TCR repertoire profiling reveals the dynamics of T-cell memory formation after mild COVID-19 infection. *Elife* 10, 1–17, [10.7554/eLife.63502](https://doi.org/10.7554/eLife.63502)
 36. Kasatskaya SA, Ladell K, Egorov ES, Miners KL, Davydov AN, Metsger M, Staroverov DB, Matveishina EK, Shagina IA, Mamedov IZ, Izraelson M, Shelyakin PV, Britanova OV, Price DA, **Chudakov DM** (2020). Functionally specialized human CD4 T cell subsets express physicochemically distinct TCRs. *Elife* 9, 1–22, [10.7554/eLife.57063](https://doi.org/10.7554/eLife.57063)
 37. Kalinina AA, Nesterenko LN, Bruter AV, Balunets DV, **Chudakov DM**, Izraelson M, Britanova OV, Khromykh LM, Kazansky DB (2020). Adoptive Immunotherapy Based on Chain-Centric TCRs in Treatment of Infectious Diseases. *iScience* 23 (12), 101854, [10.1016/j.isci.2020.101854](https://doi.org/10.1016/j.isci.2020.101854)
 38. Blagov S, Zvyagin IV, Shelikhova L, Khismatullina R, Balashov D, Komech E, Fomchenkova V, Shugay M, Starichkova J, Kurnikova E, Pershin D, Fadeeva M, Glushkova S, Muzalevskii Y, Kazachenok A, Efimenko M, Osipova E, Novichkova G, **Chudakov D**, Maschan A, Maschan M (2020). T-cell tracking, safety, and effect of

- low-dose donor memory T-cell infusions after $\alpha\beta$ T cell-depleted hematopoietic stem cell transplantation. *Bone Marrow Transplant* 56 (4), 900–908, [10.1038/s41409-020-01128-2](https://doi.org/10.1038/s41409-020-01128-2)
39. Galletti G, De Simone G, Mazza EMC, Puccio S, Mezzanotte C, Bi TM, Davydov AN, Metsger M, Scamardella E, Alvisi G, De Paoli F, Zanon V, Scarpa A, Camisa B, Colombo FS, Anselmo A, Peano C, Polletti S, Mavilio D, Gattinoni L, Boi SK, Youngblood BA, Jones RE, Baird DM, Gostick E, Llewellyn-Lacey S, Ladell K, Price DA, **Chudakov DM**, Newell EW, Casucci M, Lugli E (2020). Two subsets of stem-like CD8+ memory T cell progenitors with distinct fate commitments in humans. *Nat Immunol* 21 (12), 1552–1562, [10.1038/s41590-020-0791-5](https://doi.org/10.1038/s41590-020-0791-5)
 40. Logunova NN, Kriukova VV, Shelyakin PV, Egorov ES, Pereverzeva A, Bozhanova NG, Shugay M, Shcherbinin DS, Pogorelyy MV, Merzlyak EM, Zubov VN, Meiler J, **Chudakov DM**, Apt AS, Britanova OV (2020). MHC-II alleles shape the CDR3 repertoires of conventional and regulatory naïve CD4 T cells. *Proc Natl Acad Sci U S A* 117 (24), 13659–13669, [10.1073/pnas.2003170117](https://doi.org/10.1073/pnas.2003170117)
 41. Yuzhakova DV, Volchkova LN, Pogorelyy MV, Serebrovskaya EO, Shagina IA, Bryushkova EA, Nakonechnaya TO, Izosimova AV, Zavyalova DS, Karabut MM, Izraelson M, Samoylenko IV, Zagaynov VE, **Chudakov DM**, Zagaynova EV, Sharonov GV (2020). Measuring Intratumoral Heterogeneity of Immune Repertoires. *Front Oncol* 10, 512, [10.3389/fonc.2020.00512](https://doi.org/10.3389/fonc.2020.00512)
 42. Zhigalova EA, Izosimova AI, Yuzhakova DV, Volchkova LN, Shagina IA, Turchaninova MA, Serebrovskaya EO, Zagaynova EV, **Chudakov DM**, Sharonov GV (2020). RNA-Seq-Based TCR Profiling Reveals Persistently Increased Intratumoral Clonality in Responders to Anti-PD-1 Therapy. *Front Oncol* 10, 385, [10.3389/fonc.2020.00385](https://doi.org/10.3389/fonc.2020.00385)
 43. Aparicio-Soto M, Riedel F, Leddermann M, Bacher P, Scheffold A, Kuhl H, Timmermann B, **Chudakov DM**, Molin S, Worm M, Heine G, Thierse HJ, Luch A, Siewert K (2020). TCRs with segment TRAV9-2 or a CDR3 histidine are overrepresented among nickel-specific CD4+ T cells. *Allergy* 75 (10), 2574–2586, [10.1111/all.14322](https://doi.org/10.1111/all.14322)
 44. Janssen A, Villacorta Hidalgo J, Beringer DX, van Dooremalen S, Fernando F, van Diest E, Terrizi AR, Bronsert P, Kock S, Schmitt-Gräff A, Werner M, Heise K, Follo M, Straetmans T, Sebestyen Z, **Chudakov DM**, Kasatskaya SA, Frenkel FE, Ravens S, Spierings E, Prinz I, Küppers R, Malkovsky M, Fisch P, Kuball J (2020). $\gamma\delta$ T-cell Receptors Derived from Breast Cancer-Infiltrating T Lymphocytes Mediate Antitumor Reactivity. *Cancer Immunol Res* 8 (4), 530–543, [10.1158/2326-6066.CIR-19-0513](https://doi.org/10.1158/2326-6066.CIR-19-0513)
 45. Muslinkina L, Pletnev VZ, Pletneva NV, Ruchkin DA, Kolesov DV, Bogdanov AM, Kost LA, Rakitina TV, Agapova YK, Shemyakina II, **Chudakov DM**, Pletnev S (2020). Two independent routes of post-translational chemistry in fluorescent protein FusionRed. *Int J Biol Macromol* 155, 551–559, [10.1016/j.ijbiomac.2020.03.244](https://doi.org/10.1016/j.ijbiomac.2020.03.244)
 46. Grimsholm O, Piano Mortari E, Davydov AN, Shugay M, Obraztsova AS, Bocci C, Marasco E, Marcellini V, Aranburu A, Farroni C, Silvestris DA, Cristofolletti C, Giorda E, Scarsella M, Cascioli S, Barresi S, Lougaris V, Plebani A, Cancrini C, Finocchi A, Moschese V, Valentini D, Vallone C, Signore F, de Vincentiis G, Zaffina S, Russo G, Gallo A, Locatelli F, Tozzi AE, Tartaglia M, **Chudakov DM**, Carsetti R (2020). The Interplay between CD27dull and CD27bright B Cells Ensures the Flexibility, Stability, and Resilience of Human B Cell Memory. *Cell Rep* 30 (9), 2963–2977.e6, [10.1016/j.celrep.2020.02.022](https://doi.org/10.1016/j.celrep.2020.02.022)
 47. Minervina AA, Pogorelyy MV, Komech EA, Karnaukhov VK, Bacher P, Rosati E, Franke A, **Chudakov D**, Mamedov IZ, Lebedev YB, Mora T, Walczak AM (2020). Primary and secondary anti-viral response captured by the dynamics and phenotype of individual T cell clones. *Elife* 9, , [10.7554/eLife.53704](https://doi.org/10.7554/eLife.53704)
 48. Sharonov GV, Serebrovskaya EO, Yuzhakova DV, Britanova OV, **Chudakov DM** (2020). B cells, plasma cells and antibody repertoires in the tumour microenvironment. *Nat Rev Immunol* 20 (5), 294–307, [10.1038/s41577-019-0257-x](https://doi.org/10.1038/s41577-019-0257-x)
 49. Brenna E, Davydov AN, Ladell K, McLaren JE, Bonaiuti P, Metsger M, Ramsden JD, Gilbert SC, Lambe T, Price DA, Campion SL, **Chudakov DM**, Borrow P, McMichael AJ (2020). CD4 T Follicular Helper Cells in Human Tonsils and Blood Are Clonally Convergent but Divergent from Non-Tfh CD4 Cells. *Cell Rep* 30 (1), 137–152.e5, [10.1016/j.celrep.2019.12.016](https://doi.org/10.1016/j.celrep.2019.12.016)
 50. Zvyagin IV, Tsvetkov VO, **Chudakov DM**, Shugay M (2019). An overview of immunoinformatics approaches and databases linking T cell receptor repertoires to their antigen specificity. *Immunogenetics* 72 (1-2), 77–84, [10.1007/s00251-019-01139-4](https://doi.org/10.1007/s00251-019-01139-4)

51. De Simone G, Mazza EMC, Cassotta A, Davydov AN, Kuka M, Zanon V, De Paoli F, Scamardella E, Metsger M, Roberto A, Pilipow K, Colombo FS, Tenedini E, Tagliafico E, Gattinoni L, Mavilio D, Peano C, Price DA, Singh SP, Farber JM, Serra V, Cucca F, Ferrari F, Orrù V, Fiorillo E, Iannacone M, **Chudakov DM**, Sallusto F, Lugli E (2019). CXCR3 Identifies Human Naive CD8 T Cells with Enhanced Effector Differentiation Potential. *J Immunol* 203 (12), 3179–3189, [10.4049/jimmunol.1901072](https://doi.org/10.4049/jimmunol.1901072)
52. Микелов АИ, Староверов ДБ, Комеч ЕА, Лебедев ЮБ, **Чудаков ДМ**, Zvyagin IV (2019). Correlated dynamics of serum IGE and IGE+ clonotype count with allergen air level in seasonal allergic rhinitis. *Bulletin of Russian State Medical University* 5 (5), 13–22, [10.24075/brsmu.2019.072](https://doi.org/10.24075/brsmu.2019.072)
53. Isaeva OI, Sharonov GV, Serebrovskaya EO, Turchaninova MA, Zaretsky AR, Shugay M, **Chudakov DM** (2019). Intratumoral immunoglobulin isotypes predict survival in lung adenocarcinoma subtypes. *J Immunother Cancer* 7 (1), 279, [10.1186/s40425-019-0747-1](https://doi.org/10.1186/s40425-019-0747-1)
54. Bagaev DV, Vroomans RMA, Samir J, Stervbo U, Rius C, Dolton G, Greenshields-Watson A, Attaf M, Egorov ES, Zvyagin IV, Babel N, Cole DK, Godkin AJ, Sewell AK, Kesmir C, **Chudakov DM**, Luciani F, Shugay M (2019). VDJdb in 2019: database extension, new analysis infrastructure and a T-cell receptor motif compendium. *Nucleic Acids Res* 48 (D1), D1057–D1062, [10.1093/nar/gkz874](https://doi.org/10.1093/nar/gkz874)
55. Komkov A, Miroshnichenkova A, Nugmanov G, Popov A, Pogorelyy M, Zapletalova E, Jelinkova H, Pospisilova S, Lebedev Y, **Chudakov D**, Olshanskaya Y, Plevova K, Maschan M, Mamedov I (2019). High-throughput sequencing of T-cell receptor alpha chain clonal rearrangements at the DNA level in lymphoid malignancies. *Br J Haematol* 188 (5), 723–731, [10.1111/bjh.16230](https://doi.org/10.1111/bjh.16230)
56. (конференция) Mikelov AI, Turchaninova MA, Komech EA, Staroverov DB, Shvets SM, Lebedev YB, **Chudakov DM**, Zvyagin IV (2019). Longitudinal profiling of immunoglobulin heavy-chain repertoires in memory B-cells, plasmablasts and plasma cells from peripheral blood of individuals with birch pollen allergy. *Allergy* 74 (S106), 174.
57. Pogorelyy MV, Minervina AA, Shugay M, **Chudakov DM**, Lebedev YB, Mora T, Walczak AM (2019). Detecting T cell receptors involved in immune responses from single repertoire snapshots. *PLoS Biol* 17 (6), e3000314, [10.1371/journal.pbio.3000314](https://doi.org/10.1371/journal.pbio.3000314)
58. Weber J, de la Rosa J, Grove CS, Schick M, Rad L, Baranov O, Strong A, Pfaus A, Friedrich MJ, Engleitner T, Lersch R, Öllinger R, Grau M, Menendez IG, Martella M, Kohlhofer U, Banerjee R, Turchaninova MA, Scherger A, Hoffman GJ, Hess J, Kuhn LB, Ammon T, Kim J, Schneider G, Unger K, Zimmer-Strobl U, Heikenwälder M, Schmidt-Supprian M, Yang F, Saur D, Liu P, Steiger K, **Chudakov DM**, Lenz G, Quintanilla-Martinez L, Keller U, Vassiliou GS, Cadiñanos J, Bradley A, Rad R (2019). PiggyBac transposon tools for recessive screening identify B-cell lymphoma drivers in mice. *Nat Commun* 10 (1), 1415, [10.1038/s41467-019-09180-3](https://doi.org/10.1038/s41467-019-09180-3)
59. Li N, van Unen V, Abdelaal T, Guo N, Kasatskaya SA, Ladell K, McLaren JE, Egorov ES, Izraelson M, Chuva de Sousa Lopes SM, Höllt T, Britanova OV, Eggermont J, de Miranda NFCC, **Chudakov DM**, Price DA, Lelieveldt BPF, Koning F (2019). Memory CD4 T cells are generated in the human fetal intestine. *Nat Immunol* 20 (3), 301–312, [10.1038/s41590-018-0294-9](https://doi.org/10.1038/s41590-018-0294-9)
60. Pogorelyy MV, Minervina AA, Touzel MP, Sycheva AL, Komech EA, Kovalenko EI, Karganova GG, Egorov ES, Komkov AY, **Chudakov DM**, Mamedov IZ, Mora T, Walczak AM, Lebedev YB (2018). Precise tracking of vaccine-responding T cell clones reveals convergent and personalized response in identical twins. *Proc Natl Acad Sci U S A* 115 (50), 12704–12709, [10.1073/pnas.1809642115](https://doi.org/10.1073/pnas.1809642115)
61. Bolotin DA, Poslavsky S, Davydov AN, **Chudakov DM** (2018). Reply to: Evaluation of immune repertoire inference methods from RNA-seq data. *Nat Biotechnol* 36 (11), 1035–1036, [10.1038/nbt.4296](https://doi.org/10.1038/nbt.4296)
62. Fan X, Moltedo B, Mendoza A, Davydov AN, Faire MB, Mazutis L, Sharma R, Peer D, **Chudakov DM**, Rudensky AY (2018). CD49b defines functionally mature Treg cells that survey skin and vascular tissues. *J Exp Med* 215 (11), 2796–2814, [10.1084/jem.20181442](https://doi.org/10.1084/jem.20181442)
63. Davydov AN, Obraztsova AS, Lebedin MY, Turchaninova MA, Staroverov DB, Merzlyak EM, Sharonov GV, Kladova O, Shugay M, Britanova OV, **Chudakov DM** (2018). Comparative Analysis of B-Cell Receptor Repertoires Induced by Live Yellow Fever Vaccine in Young and Middle-Age Donors. *Front Immunol* 9 (OCT), 2309, [10.3389/fimmu.2018.02309](https://doi.org/10.3389/fimmu.2018.02309)
64. Klementieva NV, Lukyanov KA, Gorbachev DA, **Chudakov DM**, Zagaynova EV, Mishin AS (2018). A surprising photoactivity of blue fluorescent protein TagBFP allows for super-resolution microscopy. *Sovrem*

Tekhnologii Med 10 (1), 35–38, [10.17691/stm2018.10.1.04](https://doi.org/10.17691/stm2018.10.1.04)

65. Hunter S, Willcox CR, Davey MS, Kasatskaya SA, Jeffery HC, **Chudakov DM**, Oo YH, Willcox BE (2018). Human liver infiltrating $\gamma\delta$ T cells are composed of clonally expanded circulating and tissue-resident populations. *J Hepatol* 69 (3), 654–665, [10.1016/j.jhep.2018.05.007](https://doi.org/10.1016/j.jhep.2018.05.007)
66. Pogorelyy MV, Fedorova AD, McLaren JE, Ladell K, Bagaev DV, Eliseev AV, Mikelov AI, Koneva AE, Zvyagin IV, Price DA, **Chudakov DM**, Shugay M (2018). Exploring the pre-immune landscape of antigen-specific T cells. *Genome Med* 10 (1), 68, [10.1186/s13073-018-0577-7](https://doi.org/10.1186/s13073-018-0577-7)
67. Pennacchietti F, Serebrovskaya EO, Faro AR, Shemyakina II, Bozhanova NG, Kotlobay AA, Gurskaya NG, Bodén A, Dreier J, **Chudakov DM**, Lukyanov KA, Verkhusha VV, Mishin AS, Testa I (2018). Fast reversibly photoswitching red fluorescent proteins for live-cell RESOLFT nanoscopy. *Nat Methods* 15 (8), 601–604, [10.1038/s41592-018-0052-9](https://doi.org/10.1038/s41592-018-0052-9)
68. Egorov ES, Kasatskaya SA, Zubov VN, Izraelson M, Nakonechnaya TO, Staroverov DB, Angius A, Cucca F, Mamedov IZ, Rosati E, Franke A, Shugay M, Pogorelyy MV, **Chudakov DM**, Britanova OV (2018). The changing landscape of naive T cell receptor repertoire with human aging. *Front Immunol* 9 (JUL), 1618, [10.3389/fimmu.2018.01618](https://doi.org/10.3389/fimmu.2018.01618)
69. (конференция) Fomchenkova E, Komech A, Blagov , Sycheva L, Lebedev B, **Chudakov M**, Maschan A, Zvyagin V (2018). T cell repertoire profiling after hematopoietic stem cell transplantation with CD19/ $\alpha\beta$ T cell depletion and donor lymphocyte infusion. *FEBS Open Bio* 8 (S1), 281: P.09–230–Tue.
70. Dolton G, Zervoudi E, Rius C, Wall A, Thomas HL, Fuller A, Yeo L, Legut M, Wheeler S, Attaf M, **Chudakov DM**, Choy E, Peakman M, Sewell AK (2018). Optimized peptide-MHC multimer protocols for detection and isolation of autoimmune T-cells. *Front Immunol* 9 (JUN), 1378, [10.3389/fimmu.2018.01378](https://doi.org/10.3389/fimmu.2018.01378)
71. Komech EA, Pogorelyy MV, Egorov ES, Britanova OV, Rebrikov DV, Bochkova AG, Shmidt EI, Shostak NA, Shugay M, Lukyanov S, Mamedov IZ, Lebedev YB, **Chudakov DM**, Zvyagin IV (2018). CD8+T cells with characteristic T cell receptor beta motif are detected in blood and expanded in synovial fluid of ankylosing spondylitis patients. *Rheumatology (Oxford)* 57 (6), 1097–1104, [10.1093/rheumatology/kex517](https://doi.org/10.1093/rheumatology/kex517)
72. Davey MS, Willcox CR, Hunter S, Kasatskaya SA, Remmerswaal EBM, Salim M, Mohammed F, Bemelman FJ, **Chudakov DM**, Oo YH, Willcox BE (2018). The human V δ 2+T-cell compartment comprises distinct innate-like V γ 9+and adaptive V γ 9-subsets. *Nat Commun* 9 (1), 1760, [10.1038/s41467-018-04076-0](https://doi.org/10.1038/s41467-018-04076-0)
73. Sycheva AL, Pogorelyy MV, Komech EA, Minervina AA, Zvyagin IV, Staroverov DB, **Chudakov DM**, Lebedev YB, Mamedov IZ (2018). Quantitative profiling reveals minor changes of T cell receptor repertoire in response to subunit inactivated influenza vaccine. *Vaccine* 36 (12), 1599–1605, [10.1016/j.vaccine.2018.02.027](https://doi.org/10.1016/j.vaccine.2018.02.027)
74. Pogorelyy MV, Minervina AA, **Chudakov DM**, Mamedov IZ, Lebedev YB, Mora T, Walczak AM (2018). Method for identification of condition-associated public antigen receptor sequences. *Elife* 7, , [10.7554/eLife.33050](https://doi.org/10.7554/eLife.33050)
75. Komech EA, Lebedev YB, Koshenkova AV, Syrko DS, Musatkina EA, Lukyanov SA, **Chudakov DM**, Zvyagin IV (2018). A study of the repertoire of activated T-cell clones obtained from a patient with ankylosing spondylitis. *Bulletin of Russian State Medical University* 7 (1), 65–73, [10.24075/brsmu.2018.001](https://doi.org/10.24075/brsmu.2018.001)
76. Shagin DA, Shagina IA, Zaretsky AR, Barsova EV, Kelmanson IV, Lukyanov S, **Chudakov DM**, Shugay M (2017). A high-throughput assay for quantitative measurement of PCR errors. *Sci Rep* 7 (1), 2718, [10.1038/s41598-017-02727-8](https://doi.org/10.1038/s41598-017-02727-8)
77. Sorcini D, Bruscoli S, Frammartino T, Cimino M, Mazzon E, Galuppo M, Bramanti P, Al-Banchaabouchi M, Farley D, Ermakova O, Britanova O, Izraelson M, **Chudakov D**, Biagioli M, Sportoletti P, Flamini S, Raspa M, Scavizzi F, Nerlov C, Migliorati G, Riccardi C, Bereshchenko O (2017). WNT/ β -catenin signaling induces integrin α 4 β 1 in T cells and promotes a progressive neuroinflammatory disease in mice. *J Immunol* 199 (9), 3031–3041, [10.4049/jimmunol.1700247](https://doi.org/10.4049/jimmunol.1700247)
78. Izraelson M, Nakonechnaya TO, Moltedo B, Egorov ES, Kasatskaya SA, Putintseva EV, Mamedov IZ, Staroverov DB, Shemiakina II, Zakharova MY, Davydov AN, Bolotin DA, Shugay M, **Chudakov DM**, Rudensky AY, Britanova OV (2017). Comparative analysis of murine T-cell receptor repertoires. *Immunology* 153 (2), 133–144, [10.1111/imm.12857](https://doi.org/10.1111/imm.12857)
79. Bolotin DA, Poslavsky S, Davydov AN, Frenkel FE, Fanchi L, Zolotareva OI, Hemmers S, Putintseva EV, Obratsova AS, Shugay MA, Ataulakhanov RI, Rudensky AY, Schumacher TN, **Chudakov DM** (2017). Antigen receptor repertoire profiling from RNA-seq data. *Nat Biotechnol* 35 (10), 908–911, [10.1038/nbt.3979](https://doi.org/10.1038/nbt.3979)

80. Merzlyak EM, Kasatskaya SA, Sosnovskaya AV, Israelson MA, Staroverov DB, Nakonechnaya TO, Novikov PI, **Chudakov DM**, Britanova OV (2017). Long-term effect of high cyclophosphamide doses on the repertoire of T-cell receptors of peripheral blood T-lymphocytes in patients with autoimmune vasculitis. *Bulletin of Russian State Medical University* 6 (5), 68–74, [10.24075/brsmu.2017-05-07](https://doi.org/10.24075/brsmu.2017-05-07)
81. Kost LA, Nikitin ES, Ivanova VO, Sung U, Putintseva EV, **Chudakov DM**, Balaban PM, Lukyanov KA, Bogdanov AM (2017). Insertion of the voltage-sensitive domain into circularly permuted red fluorescent protein as a design for genetically encoded voltage sensor. *PLoS One* 12 (9), e0184225, [10.1371/journal.pone.0184225](https://doi.org/10.1371/journal.pone.0184225)
82. Shugay M, Bagaev DV, Zvyagin IV, Vroomans RM, Crawford JC, Dolton G, Komech EA, Sycheva AL, Koneva AE, Egorov ES, Eliseev AV, Van Dyk E, Dash P, Attaf M, Rius C, Ladell K, McLaren JE, Matthews KK, Clemens EB, Douek DC, Luciani F, Van Baarle D, Kedzierska K, Kesmir C, Thomas PG, Price DA, Sewell AK, **Chudakov DM** (2017). VDJdb: A curated database of T-cell receptor sequences with known antigen specificity. *Nucleic Acids Res* 46 (1), D419–D427, [10.1093/nar/gkx760](https://doi.org/10.1093/nar/gkx760)
83. Pogorelyy MV, Elhanati Y, Marcou Q, Sycheva AL, Komech EA, Nazarov VI, Britanova OV, **Chudakov DM**, Mamedov IZ, Lebedev YB, Mora T, Walczak AM (2017). Persisting fetal clonotypes influence the structure and overlap of adult human T cell receptor repertoires. *PLoS Comput Biol* 13 (7), e1005572, [10.1371/journal.pcbi.1005572](https://doi.org/10.1371/journal.pcbi.1005572)
84. Levine AG, Medoza A, Hemmers S, Moltedo B, Niec RE, Schizas M, Hoyos BE, Putintseva EV, Chaudhry A, Dikiy S, Fujisawa S, **Chudakov DM**, Treuting PM, Rudensky AY (2017). Stability and function of regulatory T cells expressing the transcription factor T-bet. *Nature* 546 (7658), 421–425, [10.1038/nature22360](https://doi.org/10.1038/nature22360)
85. Shagin DA, Turchaninova MA, Shagina IA, Shugay M, Zaretsky AR, Zueva OI, Bolotin DA, Lukyanov S, **Chudakov DM** (2017). Application of nonsense-mediated primer exclusion (NOPE) for preparation of unique molecular barcoded libraries. *BMC Genomics* 18 (1), 440, [10.1186/s12864-017-3815-2](https://doi.org/10.1186/s12864-017-3815-2)
86. (конференция) Pogorelyy M, PuelmaTouzer M, Minervina AA, Sycheva AL, **Chudakov DM**, Mamedov IZ, Mora T, Walczak AM, Lebedev YB (2017). High throughput sequencing of identical twins TCR repertoires after yellow fever vaccination. , 60.
87. Zvyagin IV, Mamedov IZ, Tatarinova OV, Komech EA, Kurnikova EE, Boyakova EV, Brilliantova V, Shelikhova LN, Balashov DN, Shugay M, Sycheva AL, Kasatskaya SA, Lebedev YB, Maschan AA, Maschan MA, **Chudakov DM** (2017). Tracking T-cell immune reconstitution after TCRαβ/CD19-depleted hematopoietic cells transplantation in children. *Leukemia* 31 (5), 1145–1153, [10.1038/leu.2016.321](https://doi.org/10.1038/leu.2016.321)
88. Shugay M, Zaretsky AR, Shagin DA, Shagina IA, Volchenkov IA, Shelenkov AA, Lebedin MY, Bagaev DV, Lukyanov S, **Chudakov DM** (2017). MAGERI: Computational pipeline for molecular-barcoded targeted resequencing. *PLoS Comput Biol* 13 (5), e1005480, [10.1371/journal.pcbi.1005480](https://doi.org/10.1371/journal.pcbi.1005480)
89. Davey MS, Willcox CR, Joyce SP, Ladell K, Kasatskaya SA, McLaren JE, Hunter S, Salim M, Mohammed F, Price DA, **Chudakov DM**, Willcox BE (2017). Clonal selection in the human Vδ1 T cell repertoire indicates γδ TCR-dependent adaptive immune surveillance. *Nat Commun* 8, 14760, [10.1038/ncomms14760](https://doi.org/10.1038/ncomms14760)
90. Lebedin MY, Turchaninova MA, Egorov ES, Britanova OV, **Chudakov DM** (2017). High-throughput immunoglobulin sequencing data analysis with the use of unique molecular identifiers. *Immunologiya* 38 (1), 59–63, [10.18821/0206-4952-2017-38-1-59-63](https://doi.org/10.18821/0206-4952-2017-38-1-59-63)
91. (конференция) Zvyagin I, Tatarinova O, Mamedov I, Komech E, Maschan A, Shelikhova L, Kurnikova E, Boyakova E, Lebedev Y, Maschan M, **Chudakov D** (2016). T Cell Repertoire after Alpha/Beta-T Cell Depleted Allogeneic Hematopoietic Stem Cell Transplantation in Pediatric Patients. *Blood* (128), 4582.
92. Plitas G, Konopacki C, Wu K, Bos PD, Morrow M, Putintseva EV, **Chudakov DM**, Rudensky AY (2016). Regulatory T Cells Exhibit Distinct Features in Human Breast Cancer. *Immunity* 45 (5), 1122–1134, [10.1016/j.immuni.2016.10.032](https://doi.org/10.1016/j.immuni.2016.10.032)
93. Kost LA, Putintseva EV, Pereverzeva AR, **Chudakov DM**, Lukyanov KA, Bogdanov AM (2016). Bimolecular fluorescence complementation based on the red fluorescent protein FusionRed. *Russ. J. Bioorganic Chem.* 42 (6), 619–623, [10.1134/S1068162016060054](https://doi.org/10.1134/S1068162016060054)
94. Nazarov VI, Minervina AA, Komkov AY, Pogorelyy MV, Maschan MA, Olshanskaya YV, Zvyagin IV, **Chudakov DM**, Lebedev YB, Mamedov IZ (2016). Reliability of immune receptor rearrangements as genetic markers for minimal residual disease monitoring. *Bone Marrow Transplant* 51 (10), 1408–1410, [10.1038/bmt.2016.148](https://doi.org/10.1038/bmt.2016.148)

95. (конференция) Komkov AY, Minervina AA, Pogorelyy MV, Zvyagin IV, Panferova A, Olshanskaya Y, **Chudakov DM**, Maschan M, Mamedov IZ, Lebedev YB (2016). Next generation sequencing based approach for monitoring of minimal residual disease in acute lymphoblastic leukemia. *FEBS J* 283 (S1), 376, [10.1111/febs.13808](https://doi.org/10.1111/febs.13808)
96. Svirshchevskaya E, Fattakhova G, Khlgatian S, **Chudakov D**, Kashirina E, Ryazantsev D, Kotsareva O, Zavriev S (2016). Direct versus sequential immunoglobulin switch in allergy and antiviral responses. *Clin Immunol* 170, 31–38, [10.1016/j.clim.2016.07.022](https://doi.org/10.1016/j.clim.2016.07.022)
97. Turchaninova MA, Davydov A, Britanova OV, Shugay M, Bikos V, Egorov ES, Kirgizova VI, Merzlyak EM, Staroverov DB, Bolotin DA, Mamedov IZ, Izraelson M, Logacheva MD, Kladova O, Plevova K, Pospisilova S, **Chudakov DM** (2016). High-quality full-length immunoglobulin profiling with unique molecular barcoding. *Nat Protoc* 11 (9), 1599–1616, [10.1038/nprot.2016.093](https://doi.org/10.1038/nprot.2016.093)
98. Britanova OV, Shugay M, Merzlyak EM, Staroverov DB, Putintseva EV, Turchaninova MA, Mamedov IZ, Pogorelyy MV, Bolotin DA, Izraelson M, Davydov AN, Egorov ES, Kasatskaya SA, Rebrikov DV, Lukyanov S, **Chudakov DM** (2016). Dynamics of individual T Cell repertoires: From cord blood to centenarians. *J Immunol* 196 (12), 5005–5013, [10.4049/jimmunol.1600005](https://doi.org/10.4049/jimmunol.1600005)
99. Bagaev DV, Zvyagin IV, Putintseva EV, Izraelson M, Britanova OV, **Chudakov DM**, Shugay M (2016). VDJviz: A versatile browser for immunogenomics data. *BMC Genomics* 17 (1), 453, [10.1186/s12864-016-2799-7](https://doi.org/10.1186/s12864-016-2799-7)
100. Joachims ML, Leehan KM, Lawrence C, Pelikan RC, Moore JS, Pan Z, Rasmussen A, Radfar L, Lewis DM, Grundahl KM, Kelly JA, Wiley GB, Shugay M, **Chudakov DM**, Lessard CJ, Stone DU, Scofield RH, Montgomery CG, Sivils KL, Thompson LF, Farris AD (2016). Single-cell analysis of glandular T cell receptors in Sjögren's syndrome. *JCI Insight* 1 (8), , [10.1172/jci.insight.85609](https://doi.org/10.1172/jci.insight.85609)
101. Ye L, Goodall JC, Zhang L, Putintseva EV, Lam B, Jiang L, Liu W, Yin J, Lin L, Li T, Wu X, Yeo G, Shugay M, **Chudakov DM**, Gaston H, Xu H (2016). TCR usage, gene expression and function of two distinct FOXP3 + Treg subsets within CD4+CD25hiT cells identified by expression of CD39 and CD45RO. *Immunol Cell Biol* 94 (3), 293–305, [10.1038/icb.2015.90](https://doi.org/10.1038/icb.2015.90)
102. Sarkisyan KS, Bolotin DA, Meer MV, Usmanova DR, Mishin AS, Sharonov GV, Ivankov DN, Bozhanova NG, Baranov MS, Soylemez O, Bogatyreva NS, Vlasov PK, Egorov ES, Logacheva MD, Kondrashov AS, **Chudakov DM**, Putintseva EV, Mamedov IZ, Tawfik DS, Lukyanov KA, Kondrashov FA (2016). Local fitness landscape of the green fluorescent protein. *Nature* 533 (7603), 397–401, [10.1038/nature17995](https://doi.org/10.1038/nature17995)
103. Izraelson M, Kasatskaya S, Pogorelyy M, Kirgizova V, Putintseva E, Egorov ES, Britanova OV, **Chudakov DM** (2016). Analysis of individual repertoires of T cell receptors. *Immunologiya* 37 (6), 347–352, [10.18821/0206-4952-2016-37-6-347-352](https://doi.org/10.18821/0206-4952-2016-37-6-347-352)
104. Nazarov VI, Pogorelyy MV, Komech EA, Zvyagin IV, Bolotin DA, Shugay M, **Chudakov DM**, Lebedev YB, Mamedov IZ (2015). tcR: An R package for T cell receptor repertoire advanced data analysis. *BMC Bioinformatics* 16 (1), 175, [10.1186/s12859-015-0613-1](https://doi.org/10.1186/s12859-015-0613-1)
105. Feng Y, Van Der Veeke J, Shugay M, Putintseva EV, Osmanbeyoglu HU, Dikiy S, Hoyos BE, Moltedo B, Hemmers S, Treuting P, Leslie CS, **Chudakov DM**, Rudensky AY (2015). A mechanism for expansion of regulatory T-cell repertoire and its role in self-tolerance. *Nature* 528 (7580), 132–136, [10.1038/nature16141](https://doi.org/10.1038/nature16141)
106. Shugay M, Bagaev DV, Turchaninova MA, Bolotin DA, Britanova OV, Putintseva EV, Pogorelyy MV, Nazarov VI, Zvyagin IV, Kirgizova VI, Kirgizov KI, Skorobogatova EV, **Chudakov DM** (2015). VDJtools: Unifying Post-analysis of T Cell Receptor Repertoires. *PLoS Comput Biol* 11 (11), e1004503, [10.1371/journal.pcbi.1004503](https://doi.org/10.1371/journal.pcbi.1004503)
107. Luker KE, Pata P, Shemiakina II, Pereverzeva A, Stacer AC, Shcherbo DS, Pletnev VZ, Skolnaja M, Lukyanov KA, Luker GD, Pata I, **Chudakov DM** (2015). Comparative study reveals better far-red fluorescent protein for whole body imaging. *Sci Rep* 5, 10332, [10.1038/srep10332](https://doi.org/10.1038/srep10332)
108. **Чудаков Б** (2015). Стимуляция ex vivo экспрессии проаллергических тканевых цитокинов в клетках мышинной трахеи. 9 (18), 110–112.
109. Bolotin DA, Poslavsky S, Mitrophanov I, Shugay M, Mamedov IZ, Putintseva EV, **Chudakov DM** (2015). MiXCR: Software for comprehensive adaptive immunity profiling. *Nat Methods* 12 (5), 380–381, [10.1038/nmeth.3364](https://doi.org/10.1038/nmeth.3364)
110. Shugay M, Lukyanov S, **Chudakov DM** (2015). Sequencing rare T-cell populations. *Oncotarget* 6 (37), 39393–39394, [10.18632/oncotarget.6349](https://doi.org/10.18632/oncotarget.6349)

111. Egorov ES, Merzlyak EM, Shelenkov AA, Britanova OV, Sharonov GV, Staroverov DB, Bolotin DA, Davydov AN, Barsova E, Lebedev YB, Shugay M, **Chudakov DM** (2015). Quantitative profiling of immune repertoires for minor lymphocyte counts using unique molecular identifiers. *J Immunol* 194 (12), 6155–6163, [10.4049/jimmunol.1500215](https://doi.org/10.4049/jimmunol.1500215)
112. Zvyagin IV, Pogorelyy MV, Ivanova ME, Komech EA, Shugay M, Bolotin DA, Shelenkov AA, Kurnosov AA, Staroverov DB, **Chudakov DM**, Lebedev YB, Mamedov IZ (2014). Distinctive properties of identical twins' TCR repertoires revealed by high-throughput sequencing. *Proc Natl Acad Sci U S A* 111 (16), 5980–5985, [10.1073/pnas.1319389111](https://doi.org/10.1073/pnas.1319389111)
113. Britanova OV, Putintseva EV, Shugay M, Merzlyak EM, Turchaninova MA, Staroverov DB, Bolotin DA, Lukyanov S, Bogdanova EA, Mamedov IZ, Lebedev YB, **Chudakov DM** (2014). Age-Related decrease in TCR repertoire diversity measured with deep and normalized sequence profiling. *J Immunol* 192 (6), 2689–2698, [10.4049/jimmunol.1302064](https://doi.org/10.4049/jimmunol.1302064)
114. Shugay M, Britanova OV, Merzlyak EM, Turchaninova MA, Mamedov IZ, Tuganbaev TR, Bolotin DA, Staroverov DB, Putintseva EV, Plevova K, Linnemann C, Shagin D, Pospisilova S, Lukyanov S, Schumacher TN, **Chudakov DM** (2014). Towards error-free profiling of immune repertoires. *Nat Methods* 11 (6), 653–655, [10.1038/nmeth.2960](https://doi.org/10.1038/nmeth.2960)
115. Drutskaya MS, Efimov GA, Zvartsev RV, Chashchina AA, **Chudakov DM**, Tillib SV, Kruglov AA, Nedospasov SA (2014). Experimental models of arthritis in which pathogenesis is dependent on TNF expression. *Biochemistry (Mosc)* 79 (12), 1349–1357, [10.1134/S0006297914120086](https://doi.org/10.1134/S0006297914120086)
116. Caza TN, Fernandez DR, Talaber G, Oaks Z, Haas M, Madaio MP, Lai ZW, Miklosy G, Singh RR, **Chudakov DM**, Malorni W, Middleton F, Banki K, Perl A (2014). HRES-1/Rab4-mediated depletion of Drp1 impairs mitochondrial homeostasis and represents a target for treatment in SLE. *Ann Rheum Dis* 73 (10), 1888–1897, [10.1136/annrheumdis-2013-203794](https://doi.org/10.1136/annrheumdis-2013-203794)
117. Talaber G, Miklosy G, Oaks Z, Liu Y, Tooze SA, **Chudakov DM**, Banki K, Perl A (2014). HRES-1/Rab4 promotes the formation of LC3+autophagosomes and the accumulation of mitochondria during autophagy. *PLoS One* 9 (1), e84392, [10.1371/journal.pone.0084392](https://doi.org/10.1371/journal.pone.0084392)
118. Mamedov IZ, Britanova OV, Zvyagin IV, Turchaninova MA, Bolotin DA, Putintseva EV, Lebedev YB, **Chudakov DM** (2013). Preparing unbiased T-cell receptor and antibody cDNA libraries for the deep next generation sequencing profiling. *Front Immunol* 4 (DEC), 456, [10.3389/fimmu.2013.00456](https://doi.org/10.3389/fimmu.2013.00456)
119. Shugay M, Bolotin DA, Putintseva EV, Pogorelyy MV, Mamedov IZ, **Chudakov DM** (2013). Huge overlap of individual TCR beta repertoires. *Front Immunol* 4 (DEC), 466, [10.3389/fimmu.2013.00466](https://doi.org/10.3389/fimmu.2013.00466)
120. Putintseva EV, Britanova OV, Staroverov DB, Merzlyak EM, Turchaninova MA, Shugay M, Bolotin DA, Pogorelyy MV, Mamedov IZ, Bobrynina V, Maschan M, Lebedev YB, **Chudakov DM** (2013). Mother and child T cell receptor repertoires: Deep profiling study. *Front Immunol* 4 (DEC), 463, [10.3389/fimmu.2013.00463](https://doi.org/10.3389/fimmu.2013.00463)
121. Linnemann C, Heemskerk B, Kvistborg P, Kluin RJC, Bolotin DA, Chen X, Bresser K, Nieuwland M, Schotte R, Michels S, Gomez-Eerland R, Jahn L, Hombrink P, Legrand N, Shu CJ, Mamedov IZ, Velds A, Blank CU, Haanen JBAG, Turchaninova MA, Kerkhoven RM, Spits H, Hadrup SR, Heemskerk MHM, Blankenstein T, **Chudakov DM**, Bendle GM, Schumacher TNM (2013). High-throughput identification of antigen-specific TCRs by TCR gene capture. *Nat Med* 19 (11), 1534–1541, [10.1038/nm.3359](https://doi.org/10.1038/nm.3359)
122. Bolotin DA, Shugay M, Mamedov IZ, Putintseva EV, Turchaninova MA, Zvyagin IV, Britanova OV, **Chudakov DM** (2013). MiTCR: Software for T-cell receptor sequencing data analysis. *Nat Methods* 10 (9), 813–814, [10.1038/nmeth.2555](https://doi.org/10.1038/nmeth.2555)
123. Pletnev VZ, Pletneva NV, Lukyanov KA, Souslova EA, Fradkov AF, **Chudakov DM**, Chepurnykh T, Yampolsky IV, Wlodawer A, Dauter Z, Pletnev S (2013). Structure of the red fluorescent protein from a lancelet (*Branchiostoma lanceolatum*): A novel GYG chromophore covalently bound to a nearby tyrosine. *Acta Crystallogr D Biol Crystallogr* 69 (9), 1850–1860, [10.1107/S0907444913015424](https://doi.org/10.1107/S0907444913015424)
124. Turchaninova MA, Britanova OV, Bolotin DA, Shugay M, Putintseva EV, Staroverov DB, Sharonov G, Shcherbo D, Zvyagin IV, Mamedov IZ, Linnemann C, Schumacher TN, **Chudakov DM** (2013). Pairing of T-cell receptor chains via emulsion PCR. *Eur J Immunol* 43 (9), 2507–2515, [10.1002/eji.201343453](https://doi.org/10.1002/eji.201343453)
125. Pletneva NV, Pletnev VZ, Souslova E, **Chudakov DM**, Lukyanov S, Martynov VI, Arhipova S, Artemyev I, Wlodawer A, Dauter Z, Pletnev S (2013). Yellow fluorescent protein phiYFPv (Phialidium): Structure and structure-based mutagenesis. *Acta Crystallogr D Biol Crystallogr* 69 (6), 1005–1012,

[10.1107/S0907444913004034](https://doi.org/10.1107/S0907444913004034)

126. Shemiakina II, Ermakova GV, Cranfill PJ, Baird MA, Evans RA, Souslova EA, Staroverov DB, Gorokhovatsky AY, Putintseva EV, Gorodnicheva TV, Chepurnykh TV, Strukova L, Lukyanov S, Zaraisky AG, Davidson MW, **Chudakov DM**, Shcherbo D (2012). A monomeric red fluorescent protein with low cytotoxicity. *Nat Commun* 3, 1204, [10.1038/ncomms2208](https://doi.org/10.1038/ncomms2208)
127. Bolotin DA, Mamedov IZ, Britanova OV, Zvyagin IV, Shagin D, Ustyugova SV, Turchaninova MA, Lukyanov S, Lebedev YB, **Chudakov DM** (2012). Next generation sequencing for TCR repertoire profiling: Platform-specific features and correction algorithms. *Eur J Immunol* 42 (11), 3073–3083, [10.1002/eji.201242517](https://doi.org/10.1002/eji.201242517)
128. Britanova OV, Bochkova AG, Staroverov DB, Fedorenko DA, Bolotin DA, Mamedov IZ, Turchaninova MA, Putintseva EV, Kotlobay AA, Lukyanov S, Novik AA, Lebedev YB, **Chudakov DM** (2012). First autologous hematopoietic SCT for ankylosing spondylitis: A case report and clues to understanding the therapy. *Bone Marrow Transplant* 47 (11), 1479–1481, [10.1038/bmt.2012.44](https://doi.org/10.1038/bmt.2012.44)
129. Pletnev S, Pletneva NV, Souslova EA, **Chudakov DM**, Lukyanov S, Wlodawer A, Dauter Z, Pletnev V (2012). Structural basis for bathochromic shift of fluorescence in far-red fluorescent proteins eqFP650 and eqFP670. *Acta Crystallogr D Biol Crystallogr* 68 (9), 1088–1097, [10.1107/S0907444912020598](https://doi.org/10.1107/S0907444912020598)
130. Luker KE, Mihalko LA, Schmidt BT, Lewin SA, Ray P, Shcherbo D, **Chudakov DM**, Luker GD (2012). In vivo imaging of ligand receptor binding with Gaussia luciferase complementation. *Nat Med* 18 (1), 172–177, [10.1038/nm.2590](https://doi.org/10.1038/nm.2590)
131. Wang Q, Byrnes LJ, Shui B, Röhrig UF, Singh A, **Chudakov DM**, Lukyanov S, Zipfel WR, Kotlikoff MI, Sondermann H (2011). Molecular mechanism of a green-shifted, pH-dependent red fluorescent protein mKate variant. *PLoS One* 6 (8), e23513, [10.1371/journal.pone.0023513](https://doi.org/10.1371/journal.pone.0023513)
132. Britanova OV, Staroverov DB, Chkalina AV, Kotlobay AA, Zvezdova ES, Bochkova AG, **Chudakov DM** (2011). Single high-dose treatment with glucosaminyl-muramyl dipeptide is ineffective in treating ankylosing spondylitis. *Rheumatol Int* 31 (8), 1101–1103, [10.1007/s00296-010-1663-3](https://doi.org/10.1007/s00296-010-1663-3)
133. Pletneva NV, Pletnev VZ, Shemiakina II, **Chudakov DM**, Artemyev I, Wlodawer A, Dauter Z, Pletnev S (2011). Crystallographic study of red fluorescent protein eqFP578 and its far-red variant Katushka reveals opposite pH-induced isomerization of chromophore. *Protein Sci* 20 (7), 1265–1274, [10.1002/pro.654](https://doi.org/10.1002/pro.654)
134. Shui B, Wang Q, Lee F, Byrnes LJ, **Chudakov DM**, Lukyanov SA, Sondermann H, Kotlikoff MI (2011). Circular permutation of red fluorescent proteins. *PLoS One* 6 (5), e20505, [10.1371/journal.pone.0020505](https://doi.org/10.1371/journal.pone.0020505)
135. Mamedov IZ, Britanova OV, Bolotin DA, Chkalina AV, Staroverov DB, Zvyagin IV, Kotlobay AA, Turchaninova MA, Fedorenko DA, Novik AA, Sharonov GV, Lukyanov S, **Chudakov DM**, Lebedev YB (2011). Quantitative tracking of T cell clones after haematopoietic stem cell transplantation. *EMBO Mol Med* 3 (4), 201–207, [10.1002/emmm.201100129](https://doi.org/10.1002/emmm.201100129)
136. Serebrovskaya EO, Gorodnicheva TV, Ermakova GV, Solovieva EA, Sharonov GV, Zagaynova EV, **Chudakov DM**, Lukyanov S, Zaraisky AG, Lukyanov KA (2011). Light-induced blockage of cell division with a chromatin-targeted phototoxic fluorescent protein. *Biochem J* 435 (1), 65–71, [10.1042/BJ20101217](https://doi.org/10.1042/BJ20101217)
137. Korzh V, Teh C, Kondrychyn I, **Chudakov DM**, Lukyanov S (2011). Visualizing compound transgenic zebrafish in development: A tale of green fluorescent protein and KillerRed. *Zebrafish* 8 (1), 23–29, [10.1089/zeb.2011.0689](https://doi.org/10.1089/zeb.2011.0689)
138. Serebrovskaya EO, Stremovskii OA, **Chudakov DM**, Lukyanov KA, Deev SM (2011). [Genetically encoded photoimmunosenitizer]. *Bioorg Khim* 37 (1), 137–144.
139. Serebrovskaya EO, Stremovsky OA, **Chudakov DM**, Lukyanov KA, Deyev SM (2011). Genetically encoded immunophotosensitizer. *Russ. J. Bioorganic Chem.* 37 (1), 123–129, [10.1134/S1068162011010134](https://doi.org/10.1134/S1068162011010134)
140. Teh C, **Chudakov DM**, Poon KL, Mamedov IZ, Sek JY, Shidlovsky K, Lukyanov S, Korzh V (2010). Optogenetic in vivo cell manipulation in KillerRed-expressing zebrafish transgenics. *BMC Dev Biol* 10, 110, [10.1186/1471-213X-10-110](https://doi.org/10.1186/1471-213X-10-110)
141. Zvyagin IV, Mamedov IZ, Britanova OV, Staroverov DB, Nasonov EL, Bochkova AG, Chkalina AV, Kotlobay AA, Korostin DO, Rebrikov DV, Lukyanov S, Lebedev YB, **Chudakov DM** (2010). Contribution of functional KIR3DL1 to ankylosing spondylitis. *Cell Mol Immunol* 7 (6), 471–476, [10.1038/cmi.2010.42](https://doi.org/10.1038/cmi.2010.42)
142. Lukyanov KA, Serebrovskaya EO, Lukyanov S, **Chudakov DM** (2010). Fluorescent proteins as light-inducible photochemical partners. *Photochem Photobiol Sci* 9 (10), 1301–1306, [10.1039/c0pp00114g](https://doi.org/10.1039/c0pp00114g)
143. Shcherbo D, Shemiakina II, Ryabova AV, Luker KE, Schmidt BT, Souslova EA, Gorodnicheva TV, Strukova

- L, Shidlovskiy KM, Britanova OV, Zaraisky AG, Lukyanov KA, Loschenov VB, Luker GD, **Chudakov DM** (2010). Near-infrared fluorescent proteins. *Nat Methods* 7 (10), 827–829, [10.1038/nmeth.1501](https://doi.org/10.1038/nmeth.1501)
144. Leder L, Stark W, Freuler F, Marsh M, Meyerhofer M, Stettler T, Mayr LM, Britanova OV, Strukova LA, **Chudakov DM**, Souslova EA (2010). The structure of Ca²⁺-sensor case16 reveals the mechanism of reaction to low Ca²⁺-concentrations. *Sensors (Basel)* 10 (9), 8143–8160, [10.3390/s100908143](https://doi.org/10.3390/s100908143)
 145. Zhdanov AV, Ward MW, Taylor CT, Souslova EA, **Chudakov DM**, Prehn JHM, Papkovsky DB (2010). Extracellular calcium depletion transiently elevates oxygen consumption in neurosecretory PC12 cells through activation of mitochondrial Na⁺/Ca²⁺ exchange. *BIOCHIM BIOPHYS ACTA* 1797 (9), 1627–1637, [10.1016/j.bbabi.2010.06.006](https://doi.org/10.1016/j.bbabi.2010.06.006)
 146. **Chudakov DM**, Matz MV, Lukyanov S, Lukyanov KA (2010). Fluorescent proteins and their applications in imaging living cells and tissues. *Physiol Rev* 90 (3), 1103–1163, [10.1152/physrev.00038.2009](https://doi.org/10.1152/physrev.00038.2009)
 147. Koutsopoulos OS, Laine D, Osellame L, **Chudakov DM**, Parton RG, Frazier AE, Ryan MT (2010). Human Mitons associate with mitochondria and induce microtubule-dependent remodeling of mitochondrial networks. *BIOCHIM BIOPHYS ACTA* 1803 (5), 564–574, [10.1016/j.bbamcr.2010.03.006](https://doi.org/10.1016/j.bbamcr.2010.03.006)
 148. Zhang L, Gurskaia NG, Kopantseva EE, Mudrik NN, Vagner LL, Lukyanov KA, **Chudakov DM** (2010). Identification of the amino acid residues responsible for the reversible photoconversion of the monomeric red fluorescent protein TagRFP protein. *Bioorg Khim* 36 (2), 187–192.
 149. Zhang L, Gurskaya NG, Kopantseva YE, Mudrik NN, Vagner LL, Lukyanov KA, **Chudakov DM** (2010). Identification of the amino acid residues responsible for the reversible photoconversion of the monomeric red fluorescent protein TagRFP. *Russ. J. Bioorganic Chem.* 36 (2), 179–184, [10.1134/S1068162010020068](https://doi.org/10.1134/S1068162010020068)
 150. Figueiredo M, Lane S, Tang F, Liu BH, Hewinson J, Marina N, Kasymov V, Souslova EA, **Chudakov DM**, Gourine AV, Teschemacher AG, Kasparov S (2010). Optogenetic experimentation on astrocytes. *Exp Physiol* 96 (1), 40–50, [10.1113/expphysiol.2010.052597](https://doi.org/10.1113/expphysiol.2010.052597)
 151. Guo F, Liu B, Tang F, Lane S, Souslova EA, **Chudakov DM**, Paton JFR, Kasparov S (2010). Astroglia are a possible cellular substrate of angiotensin(1-7) effects in the rostral ventrolateral medulla. *Cardiovasc Res* 87 (3), 578–584, [10.1093/cvr/cvq059](https://doi.org/10.1093/cvr/cvq059)
 152. Bogdanov AM, Bogdanova EA, **Chudakov DM**, Gorodnicheva TV, Lukyanov S, Lukyanov KA (2009). Cell culture medium affects GFP photostability: A solution. *Nat Methods* 6 (12), 859–860, [10.1038/nmeth1209-859](https://doi.org/10.1038/nmeth1209-859)
 153. Pletnev S, Gurskaya NG, Pletneva NV, Lukyanov KA, **Chudakov DM**, Martynov VI, Popov VO, Kovalchuk MV, Wlodawer A, Dauter Z, Pletnev V (2009). Structural basis for phototoxicity of the genetically encoded photosensitizer KillerRed. *J Biol Chem* 284 (46), 32028–32039, [10.1074/jbc.M109.054973](https://doi.org/10.1074/jbc.M109.054973)
 154. Mamedov IZ, Britanova OV, Chkalina AV, Staroverov DB, Amosova AL, Mishin AS, Kurnikova MA, Zvyagin IV, Mutovina ZY, Gordeev AV, Khaidukov SV, Sharonov GV, Shagin DA, **Chudakov DM**, Lebedev YB (2009). Individual characterization of stably expanded T cell clones in ankylosing spondylitis patients. *Autoimmunity* 42 (6), 525–536, [10.1080/08916930902960362](https://doi.org/10.1080/08916930902960362)
 155. Zakharova MY, Kuznetsov NA, Dubiley SA, Kozyr AV, Fedorova OS, **Chudakov DM**, Knorre DG, Shemyakin IG, Gabibov AG, Kolesnikov AV (2009). Substrate recognition of anthrax lethal factor examined by combinatorial and pre-steady-state kinetic approaches. *J Biol Chem* 284 (27), 17902–17913, [10.1074/jbc.M807510200](https://doi.org/10.1074/jbc.M807510200)
 156. Serebrovskaya EO, Edelweiss EF, Stremovskiy OA, Lukyanov KA, **Chudakov DM**, Deyev SM (2009). Targeting cancer cells by using an antireceptor antibody-photosensitizer fusion protein. *Proc Natl Acad Sci U S A* 106 (23), 9221–9225, [10.1073/pnas.0904140106](https://doi.org/10.1073/pnas.0904140106)
 157. Shcherbo D, Souslova EA, Goedhart J, Chepurnykh TV, Gaintzeva A, Shemiakina II, Gadella TWJ, Lukyanov S, **Chudakov DM** (2009). Practical and reliable FRET/FLIM pair of fluorescent proteins. *BMC Biotechnol* 9, 24, [10.1186/1472-6750-9-24](https://doi.org/10.1186/1472-6750-9-24)
 158. Shcherbo D, Murphy CS, Ermakova GV, Solovieva EA, Chepurnykh TV, Shcheglov AS, Verkhusha VV, Pletnev VZ, Hazelwood KL, Roche PM, Lukyanov S, Zaraisky AG, Davidson MW, **Chudakov DM** (2009). Far-red fluorescent tags for protein imaging in living tissues. *Biochem J* 418 (3), 567–574, [10.1042/BJ20081949](https://doi.org/10.1042/BJ20081949)
 159. Mutoh H, Perron A, Dimitrov D, Iwamoto Y, Akemann W, **Chudakov DM**, Knöpfel T (2009). Spectrally-resolved response properties of the three most advanced FRET based fluorescent protein voltage probes. *PLoS One* 4 (2), e4555, [10.1371/journal.pone.0004555](https://doi.org/10.1371/journal.pone.0004555)
 160. Bogdanov AM, Mishin AS, Yampolsky IV, Belousov VV, **Chudakov DM**, Subach FV, Verkhusha VV,

- Lukyanov S, Lukyanov KA (2009). Green fluorescent proteins are light-induced electron donors. *Nat Chem Biol* 5 (7), 459–461, [10.1038/nchembio.174](#)
161. Pletnev S, Shcherbo D, **Chudakov DM**, Pletneva N, Merzlyak EM, Wlodawer A, Dauter Z, Pletnev V (2008). A crystallographic study of bright far-red fluorescent protein mKate reveals pH-induced cis-trans isomerization of the chromophore. *J Biol Chem* 283 (43), 28980–28987, [10.1074/jbc.M800599200](#)
 162. Subach OM, Gundorov IS, Yoshimura M, Subach FV, Zhang J, Grünwald D, Souslova EA, **Chudakov DM**, Verkhusha VV (2008). Conversion of Red Fluorescent Protein into a Bright Blue Probe. *Cell Chem Biol* 15 (10), 1116–1124, [10.1016/j.chembiol.2008.08.006](#)
 163. Shkrob MA, Mishin AS, **Chudakov DM**, Labas IA, Lukyanov KA (2008). Chromoproteins of the green fluorescent protein family: properties and applications. *Bioorg Khim* 34 (5), 581–590.
 164. Shkrob MA, Mishin AS, **Chudakov DM**, Labas YA, Lukyanov KA (2008). Chromoproteins of the green fluorescent protein family: Properties and applications. *Russ. J. Bioorganic Chem.* 34 (5), 517–525, [10.1134/S1068162008050014](#)
 165. Zakharova MY, Dubiley SA, **Chudakov DM**, Gabibov AG, Shemyakin IG, Kolesnikov AV (2008). Substrate specificity of the anthrax lethal factor. *Dokl Biochem Biophys* 418 (1), 14–17, [10.1007/s10628-008-1004-6](#)
 166. Shcherbo D, Merzlyak EM, Chepurnykh TV, Fradkov AF, Ermakova GV, Solovieva EA, Lukyanov KA, Bogdanova EA, Zaraisky AG, Lukyanov S, **Chudakov DM** (2007). Bright far-red fluorescent protein for whole-body imaging. *Nat Methods* 4 (9), 741–746, [10.1038/nmeth1083](#)
 167. **Chudakov DM**, Lukyanov S, Lukyanov KA (2007). Tracking intracellular protein movements using photoswitchable fluorescent proteins PS-CFP2 and Dendra2. *Nat Protoc* 2 (8), 2024–2032, [10.1038/nprot.2007.291](#)
 168. Pletneva NV, Pletnev SV, **Chudakov DM**, Tikhonova TV, Popov VO, Martynov VI, Wlodawer A, Dauter Z, Pletnev VZ (2007). Three-dimensional structure of yellow fluorescent protein zYFP538 from *Zoanthus* sp. at the resolution 1.8 angstrom. *Bioorg Khim* 33 (4), 421–430.
 169. Souslova EA, **Chudakov DM** (2007). Genetically encoded intracellular sensors based on fluorescent proteins. *Biochemistry (Mosc)* 72 (7), 683–697, [10.1134/S0006297907070012](#)
 170. Merzlyak EM, Goedhart J, Shcherbo D, Bulina ME, Shcheglov AS, Fradkov AF, Gaintzeva A, Lukyanov KA, Lukyanov S, Gadella TWJ, **Chudakov DM** (2007). Bright monomeric red fluorescent protein with an extended fluorescence lifetime. *Nat Methods* 4 (7), 555–557, [10.1038/nmeth1062](#)
 171. Pletneva NV, Pletnev SV, **Chudakov DM**, Tikhonova TV, Popov VO, Martynov VI, Wlodawer A, Dauter Z, Pletnev VZ (2007). Three-dimensional structure of yellow fluorescent protein zYFP538 from *Zoanthus* sp. at the resolution 1.8 Å. *Russ. J. Bioorganic Chem.* 33 (4), 390–398, [10.1134/S1068162007040048](#)
 172. Souslova EA, Belousov VV, Lock JG, Strömblad S, Kasparov S, Bolshakov AP, Pinelis VG, Labas YA, Lukyanov S, Mayr LM, **Chudakov DM** (2007). Single fluorescent protein-based Ca²⁺-sensors with increased dynamic range. *BMC Biotechnol* 7, 37, [10.1186/1472-6750-7-37](#)
 173. **Chudakov DM**, Lukyanov S, Lukyanov KA (2007). Using photoactivatable fluorescent protein Dendra2 to track protein movement. *Biotechniques* 42 (5), 553–565, [10.2144/000112470](#)
 174. Evdokimov AG, Pokross ME, Egorov NS, Zaraisky AG, Yampolsky IV, Merzlyak EM, Shkoporov AN, Sander I, Lukyanov KA, **Chudakov DM** (2006). Structural basis for the fast maturation of Arthropoda green fluorescent protein. *EMBO Rep* 7 (10), 1006–1012, [10.1038/sj.embor.7400787](#)
 175. **Chudakov DM**, Chepurnykh TV, Belousov VV, Lukyanov S, Lukyanov KA (2006). Fast and precise protein tracking using repeated reversible photoactivation. *Traffic* 7 (10), 1304–1310, [10.1111/j.1600-0854.2006.00468.x](#)
 176. Bulina ME, Lukyanov KA, Britanova OV, Onichtchouk D, Lukyanov S, **Chudakov DM** (2006). Chromophore-assisted light inactivation (CALI) using the phototoxic fluorescent protein KillerRed. *Nat Protoc* 1 (2), 947–953, [10.1038/nprot.2006.89](#)
 177. Souslova EA, **Chudakov DM** (2006). Photoswitchable cyan fluorescent protein as a FRET donor. *Microsc Res Tech* 69 (3), 207–209, [10.1002/jemt.20278](#)
 178. Bulina ME, **Chudakov DM**, Britanova OV, Yanushevich YG, Staroverov DB, Chepurnykh TV, Merzlyak EM, Shkrob MA, Lukyanov S, Lukyanov KA (2006). A genetically encoded photosensitizer. *Nat Biotechnol* 24 (1), 95–99, [10.1038/nbt1175](#)
 179. Shkrob MA, Yanushevich YG, **Chudakov DM**, Gurskaya NG, Labas YA, Poponov SY, Mudrik NN, Lukyanov

- S, Lukyanov KA (2005). Far-red fluorescent proteins evolved from a blue chromoprotein from *Actinia equina*. *Biochem J* 392 (3), 649–654, [10.1042/BJ20051314](https://doi.org/10.1042/BJ20051314)
180. Lukyanov KA, **Chudakov DM**, Fradkov AF, Labas YA, Matz MV, Lukyanov S (2005). Discovery and properties of GFP-like proteins from nonbioluminescent Anthozoa. *Methods Biochem Anal* 47, 121–138, [10.1002/0471739499.ch6](https://doi.org/10.1002/0471739499.ch6)
 181. **Chudakov DM**, Lukyanov S, Lukyanov KA (2005). Fluorescent proteins as a toolkit for in vivo imaging. *Trends Biotechnol* 23 (12), 605–613, [10.1016/j.tibtech.2005.10.005](https://doi.org/10.1016/j.tibtech.2005.10.005)
 182. Lukyanov KA, **Chudakov DM**, Lukyanov S, Verkhusha VV (2005). Photoactivatable fluorescent proteins. *Nat Rev Mol Cell Biol* 6 (11), 885–891, [10.1038/nrm1741](https://doi.org/10.1038/nrm1741)
 183. Quillin ML, Anstrom DM, Shu X, OLeary S, Kallio K, **Chudakov DM**, Remington SJ (2005). Kindling fluorescent protein from *Anemonia sulcata*: Dark-state structure at 1.38 Å resolution. *Biochemistry* 44 (15), 5774–5787, [10.1021/bi047644u](https://doi.org/10.1021/bi047644u)
 184. **Chudakov DM**, Verkhusha VV, Staroverov DB, Souslova EA, Lukyanov S, Lukyanov KA (2004). Photoswitchable cyan fluorescent protein for protein tracking. *Nat Biotechnol* 22 (11), 1435–1439, [10.1038/nbt1025](https://doi.org/10.1038/nbt1025)
 185. Bulina ME, Lukyanov KA, Yampolsky IV, **Chudakov DM**, Staroverov DB, Shcheglov AS, Gurskaya NG, Lukyanov S (2004). New class of blue animal pigments based on Frizzled and Kringle protein domains. *J Biol Chem* 279 (42), 43367–43370, [10.1074/jbc.C400337200](https://doi.org/10.1074/jbc.C400337200)
 186. Verkhusha VV, **Chudakov DM**, Gurskaya NG, Lukyanov S, Lukyanov KA (2004). Common pathway for the red chromophore formation in fluorescent proteins and chromoproteins. *Cell Chem Biol* 11 (6), 845–854, [10.1016/j.chembiol.2004.04.007](https://doi.org/10.1016/j.chembiol.2004.04.007)
 187. **Chudakov DM**, Lukyanov KA (2003). Review: Use of green fluorescent protein (GFP) and its homologs for in vivo protein motility studies. *Biochemistry (Mosc)* 68 (9), 1166–1172.
 188. **Chudakov DM**, Lukyanov KA (2003). Use of Green Fluorescent Protein (GFP) and Its Homologs for in vivo Protein Motility Studies. *Biochemistry (Mosc)* 68 (9), 952–957, [10.1023/A:1026048109654](https://doi.org/10.1023/A:1026048109654)
 189. Bulina ME, Verkhusha VV, Staroverov DB, **Chudakov DM**, Lukyanov KA (2003). Hetero-oligomeric tagging diminishes non-specific aggregation of target proteins fused with Anthozoa fluorescent proteins. *Biochem J* 371 (1), 109–114, [10.1042/BJ20021796](https://doi.org/10.1042/BJ20021796)
 190. **Chudakov DM**, Feofanov AV, Mudrik NN, Lukyanov S, Lukyanov KA (2003). Chromophore environment provides clue to "kindling fluorescent protein" riddle. *J Biol Chem* 278 (9), 7215–7219, [10.1074/jbc.M211988200](https://doi.org/10.1074/jbc.M211988200)
 191. **Chudakov DM**, Belousov VV, Zaraisky AG, Novoselov VV, Staroverov DB, Zorov DB, Lukyanov S, Lukyanov KA (2003). Kindling fluorescent proteins for precise in vivo photolabeling. *Nat Biotechnol* 21 (2), 191–194, [10.1038/nbt778](https://doi.org/10.1038/nbt778)
 192. Bulina ME, **Chudakov DM**, Mudrik NN, Lukyanov KA (2002). Interconversion of Anthozoa GFP-like fluorescent and non-fluorescent proteins by mutagenesis. *BMC Biochem* 3, 1–8, [10.1186/1471-2091-3-7](https://doi.org/10.1186/1471-2091-3-7)