

## Резюме: Лукьянов Сергей Анатольевич



### Адрес

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

### Контакты

<https://www.ibch.ru/ru/users/20>

## Работа в ИБХ

2016–наст.вр.

Заведующий отделом

## Членство в советах и комиссиях ИБХ

Диссертационный совет

Ученый совет

Аттестационная комиссия

## Награды

2015	Государственная премия в области науки и техники	За разработку и внедрение комплекса технологий анализа структуры и функций сложных геномов
2006	Премия РАН имени Ю.А. Овчинникова и именная золотая медаль	За работу «Флуоресцентные белки: поиск, исследование и применение в биотехнологии»
2012	<a href="#">Международная премия в области нанотехнологий RUSNANOPRISE</a>	За работу «Флуоресцентные белки: поиск, исследование и применение в биотехнологии»

## Научные интересы

Основные научные интересы С. А. Лукьянова лежат в области анализа структуры и функции геномов эукариот.

## Степени и звания

Академик

Доктор наук (Биологические науки)

## Ссылки и контакты

Scopus: [7004533175](#), ORCID: [0000-0001-5559-9872](#), ResearcherID: [F-9140-2014](#), [Google Scholar](#)

## Публикации

1. 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](#)
2. Komech EA, Koltakova AD, Barinova AA, Minervina AA, Salnikova MA, Shmidt EI, Korotaeva TV, Loginova

- EY, Erdes SF, Bogdanova EA, Shugay M, **Lukyanov S**, Lebedev YB, Zvyagin IV (2022). TCR repertoire profiling revealed antigen-driven CD8<sup>+</sup> T cell clonal groups shared in synovial fluid of patients with spondyloarthritis. *Front Immunol* 13, 973243, [10.3389/fimmu.2022.973243](https://doi.org/10.3389/fimmu.2022.973243)
3. 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)
  4. 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)
  5. 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)
  6. 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)
  7. **(книга)** Markvicheva KN, Bogdanova EA, Staroverov DB, **Lukyanov S**, Belousov VV (2019). Imaging of Intracellular Hydrogen Peroxide Production with HyPer upon Stimulation of HeLa Cells with EGF. *Methods Mol Biol* 1990, 85–91, [10.1007/978-1-4939-9463-2\\_7](https://doi.org/10.1007/978-1-4939-9463-2_7)
  8. Kotlobay AA, Sarkisyan KS, Mokrushina YA, Marcet-Houben M, Serebrovskaya EO, Markina NM, Gonzalez Somermeyer L, Gorokhovatsky AY, Vvedensky A, Purtov KV, Petushkov VN, Rodionova NS, Chepurnyh TV, Fakhranurova LI, Guglya EB, Ziganshin R, Tsarkova AS, Kaskova ZM, Shender V, Abakumov M, Abakumova TO, Povolotskaya IS, Eroshkin FM, Zarskiy AG, Mishin AS, Dolgov SV, Mitouchkina TY, Kopantzev EP, Waldenmaier HE, Oliveira AG, Oba Y, Barsova E, Bogdanova EA, Gabaldón T, Stevani CV, **Lukyanov S**, Smirnov IV, Gitelson JI, Kondrashov FA, Yampolsky IV (2018). Genetically encodable bioluminescent system from fungi. *Proc Natl Acad Sci U S A* 115 (50), 12728–12732, [10.1073/pnas.1803615115](https://doi.org/10.1073/pnas.1803615115)
  9. Israelson MA, Stepanov AV, Staroverov DB, Shagina IA, Misorin AK, Schemeleva MA, Evstratieva AV, Merzlyak EM, Bogdanova EA, Britanova OV, **Lukyanov SA** (2018). Testing of monoclonal antibodies against the T-cell receptor associated with ankylosing spondylitis. *Bulletin of Russian State Medical University* 7 (5), 71–79, [10.24075/brsmu.2018.064](https://doi.org/10.24075/brsmu.2018.064)
  10. 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<sup>+</sup>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)
  11. 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)
  12. 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)
  13. Bozhanova NG, Baranov MS, Klementieva NV, Sarkisyan KS, Gavrikov AS, Yampolsky IV, Zagaynova EV, **Lukyanov SA**, Lukyanov KA, Mishin AS (2017). Protein labeling for live cell fluorescence microscopy with a highly photostable renewable signal. *Chem Sci* 8 (10), 7138–7142, [10.1039/c7sc01628j](https://doi.org/10.1039/c7sc01628j)
  14. 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)
  15. 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)
  16. Kaskova ZM, Dörr FA, Petushkov VN, Purtov KV, Tsarkova AS, Rodionova NS, Mineev KS, Guglya EB,

- Kotlobay A, Baleeva NS, Baranov MS, Arseniev AS, Gitelson JI, **Lukyanov S**, Suzuki Y, Kanie S, Pinto E, Mascio PD, Waldenmaier HE, Pereira TA, Carvalho RP, Oliveira AG, Oba Y, Bastos EL, Stevani CV, Yampolsky IV (2017). Mechanism and color modulation of fungal bioluminescence. *Sci Adv* 3 (4), e1602847, [10.1126/sciadv.1602847](https://doi.org/10.1126/sciadv.1602847)
17. Klementieva NV, Pavlikov AI, Moiseev AA, Bozhanova NG, Mishina NM, **Lukyanov SA**, Zagaynova EV, Lukyanov KA, Mishin AS (2017). Intrinsic blinking of red fluorescent proteins for super-resolution microscopy. *Chem Commun (Camb)* 53 (5), 949–951, [10.1039/c6cc09200d](https://doi.org/10.1039/c6cc09200d)
  18. Ryumina AP, Serebrovskaya EO, Staroverov DB, Zlobovskaya OA, Shcheglov AS, **Lukyanov SA**, Lukyanov KA (2016). Lysosome-associated minisog as a photosensitizer for Mammalian cells. *Biotechniques* 61 (2), 92–94, [10.2144/000114445](https://doi.org/10.2144/000114445)
  19. Serebrovskaya EO, Yuzhakova DV, Ryumina AP, Druzhkova IN, Sharonov GV, Kotlobay AA, Zagaynova EV, **Lukyanov SA**, Shirmanova MV (2016). Soluble OX40L favors tumor rejection in CT26 colon carcinoma model. *Cytokine* 84, 10–16, [10.1016/j.cyto.2016.05.005](https://doi.org/10.1016/j.cyto.2016.05.005)
  20. 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)
  21. Yuzhakova DV, Shirmanova MV, Lapkina IV, Serebrovskaya EO, **Lukyanov SA**, Zagaynova EV (2016). The effect of housing temperature on the growth of CT26 tumor expressing fluorescent protein EGFP. *Progress in Biomedical Optics and Imaging - Proceedings of SPIE* 9917, , [10.1117/12.2228524](https://doi.org/10.1117/12.2228524)
  22. Klementieva NV, Lukyanov KA, Markina NM, **Lukyanov SA**, Zagaynova EV, Mishin AS (2016). Green-to-red primed conversion of Dendra2 using blue and red lasers. *Chem Commun (Camb)* 52 (89), 13144–13146, [10.1039/c6cc05599k](https://doi.org/10.1039/c6cc05599k)
  23. Shirmanova M, Yuzhakova D, Snopova L, Perelman G, Serebrovskaya E, Lukyanov K, Turchin I, Subochev P, **Lukyanov S**, Kamensky V, Zagaynova E (2015). Towards PDT with genetically encoded photosensitizer killerred: A comparison of continuous and pulsed laser regimens in an animal tumor model. *PLoS One* 10 (12), e0144617, [10.1371/journal.pone.0144617](https://doi.org/10.1371/journal.pone.0144617)
  24. Matlashov ME, Bogdanova YA, Ermakova GV, Mishina NM, Ermakova YG, Nikitin ES, Balaban PM, Okabe S, **Lukyanov S**, Enikolopov G, Zarsky AG, Belousov VV (2015). Fluorescent ratiometric pH indicator SypHer2: Applications in neuroscience and regenerative biology. *BIOCHIM BIOPHYS ACTA* 1850 (11), 2318–2328, [10.1016/j.bbagen.2015.08.002](https://doi.org/10.1016/j.bbagen.2015.08.002)
  25. Yuzhakova DV, Shirmanova MV, Serebrovskaya EO, Lukyanov KA, Druzhkova IN, Shakhov BE, **Lukyanov SA**, Zagaynova EV (2015). CT26 murine colon carcinoma expressing the red fluorescent protein KillerRed as a highly immunogenic tumor model. *J Biomed Opt* 20 (8), 88002, [10.1117/1.JBO.20.8.088002](https://doi.org/10.1117/1.JBO.20.8.088002)
  26. Bilan DS, Shokhina AG, **Lukyanov SA**, Belousov VV (2015). Main cellular redox couples. *Russ. J. Bioorganic Chem.* 41 (4), 341–356, [10.1134/S1068162015040044](https://doi.org/10.1134/S1068162015040044)
  27. Purtov KV, Petushkov VN, Baranov MS, Mineev KS, Rodionova NS, Kaskova ZM, Tsarkova AS, Petunin AI, Bondar VS, Rodicheva EK, Medvedeva SE, Oba Y, Oba Y, Arseniev AS, **Lukyanov S**, Gitelson JI, Yampolsky IV (2015). The Chemical Basis of Fungal Bioluminescence. *Angew Chem Int Ed Engl* 54 (28), 8124–8128, [10.1002/anie.201501779](https://doi.org/10.1002/anie.201501779)
  28. Shirmanova MV, Druzhkova IN, Lukina MM, Matlashov ME, Belousov VV, Snopova LB, Prodanetz NN, Dudenkova VV, **Lukyanov SA**, Zagaynova EV (2015). Intracellular pH imaging in cancer cells in vitro and tumors in vivo using the new genetically encoded sensor SypHer2. *BIOCHIM BIOPHYS ACTA* 1850 (9), 1905–1911, [10.1016/j.bbagen.2015.05.001](https://doi.org/10.1016/j.bbagen.2015.05.001)
  29. Bilan DS, **Lukyanov SA**, Belousov VV (2015). Genetically encoded fluorescent sensors for redox processes. *Russ. J. Bioorganic Chem.* 41 (3), 231–244, [10.1134/S106816201502003X](https://doi.org/10.1134/S106816201502003X)
  30. Mishina NM, Mishin AS, Belyaev Y, Bogdanova EA, **Lukyanov S**, Schultz C, Belousov VV (2015). Live-cell STED microscopy with genetically encoded biosensor. *Nano Lett* 15 (5), 2928–2932, [10.1021/nl504710z](https://doi.org/10.1021/nl504710z)
  31. Kleshnin M, Shirmanova M, Fiks I, Orlova A, Plekhanov V, Zagaynova E, **Lukyanov S**, Turchin I (2015). Trans-illumination fluorescence imaging of deep-seated tumors in small animals. *Photonics Lasers Med* 4 (1), 85–92, [10.1515/plm-2014-0024](https://doi.org/10.1515/plm-2014-0024)
  32. Билан ДС, Шохина АГ, **Лукьянов СА**, Белоусов ВВ (2015). Основные редокс-пары клетки. 41 (4), 385–

33. Pereverzev AP, Gurskaya NG, Ermakova GV, Kudryavtseva EI, Markina NM, Kotlobay AA, **Lukyanov SA**, Zaisky AG, Lukyanov KA (2015). Method for quantitative analysis of nonsense-mediated mRNA decay at the single cell level. *Sci Rep* 5, 7729, [10.1038/srep07729](https://doi.org/10.1038/srep07729)
34. Druzhkova I, Shirmanova M, Lukina M, Dudenkova V, Sergeeva T, Belousov V, **Lukyanov S**, Zagaynova E (2015). Registration of intracellular pH in cancer cells with genetically encoded ratiometric sensor. *Progress in Biomedical Optics and Imaging - Proceedings of SPIE* 9537, , [10.1117/12.2184756](https://doi.org/10.1117/12.2184756)
35. 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)
36. Kuznetsova DS, Shirmanova MV, Dudenkova VV, Subochev PV, Turchin IV, Zagaynova EV, **Lukyanov SA**, Shakhov BE, Kamensky VA (2015). Photobleaching and phototoxicity of KillerRed in tumor spheroids induced by continuous wave and pulsed laser illumination. *J Biophotonics* 8 (1112), 952–960, [10.1002/jbio.201400130](https://doi.org/10.1002/jbio.201400130)
37. Baranov MS, Solntsev KM, Baleeva NS, Mishin AS, **Lukyanov SA**, Lukyanov KA, Yampolsky IV (2014). Red-Shifted Fluorescent Aminated Derivatives of a Conformationally Locked GFP Chromophore. *Chemistry* 20 (41), 13234–13241, [10.1002/chem.201403678](https://doi.org/10.1002/chem.201403678)
38. Serebrovskaya EO, Ryumina AP, Boulina ME, Shirmanova MV, Zagaynova EV, Bogdanova EA, **Lukyanov SA**, Lukyanov KA (2014). Phototoxic effects of lysosome-associated genetically encoded photosensitizer killer red. *J Biomed Opt* 19 (7), 071403, [10.1117/1.JBO.19.7.071403](https://doi.org/10.1117/1.JBO.19.7.071403)
39. 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)
40. 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)
41. Mironova KE, Proshkina GM, Ryabova AV, Stremovskiy OA, **Lukyanov SA**, Petrov RV, Deyev SM (2013). Genetically encoded immunophotosensitizer 4D5scFv-miniSOG is a highly selective agent for targeted photokilling of tumor cells in vitro. *Theranostics* 3 (11), 831–840, [10.7150/thno.6715](https://doi.org/10.7150/thno.6715)
42. Klementyeva NV, Shirmanova MV, Serebrovskaya EO, Fradkov AF, Meleshina AV, Snopova LB, Prodanets NN, **Lukyanov SA**, Zagaynova EV (2013). In vivo bioluminescence imaging of tumor cells using optimized firefly luciferase luc2. *Sovrem Tekhnologii Med* 5 (3), 6–13.
43. Shirmanova MV, Serebrovskaya EO, Snopova LB, Kuznetsova MM, Ryumina AP, Turchin IV, Sergeeva EA, Ignatova NI, Klementyeva NV, Lukyanov KA, **Lukyanov SA**, Zagaynova EV (2013). KillerRed and miniSOG as genetically encoded photosensitizers for photodynamic therapy of cancer. *Progress in Biomedical Optics and Imaging - Proceedings of SPIE* 8803, , [10.1117/12.2032552](https://doi.org/10.1117/12.2032552)
44. Ryumina AP, Serebrovskaya EO, Shirmanova MV, Snopova LB, Kuznetsova MM, Turchin IV, Ignatova NI, Klementyeva NV, Fradkov AF, Shakhov BE, Zagaynova EV, Lukyanov KA, **Lukyanov SA** (2013). Flavoprotein miniSOG as a genetically encoded photosensitizer for cancer cells. *BIOCHIM BIOPHYS ACTA* 1830 (11), 5059–5067, [10.1016/j.bbagen.2013.07.015](https://doi.org/10.1016/j.bbagen.2013.07.015)
45. Mishina NM, Markvicheva KN, Fradkov AF, Zagaynova EV, Schultz C, **Lukyanov S**, Belousov VV (2013). Imaging H2O2 microdomains in receptor tyrosine kinases signaling. *Methods Enzymol* 526, 175–187, [10.1016/B978-0-12-405883-5.00011-9](https://doi.org/10.1016/B978-0-12-405883-5.00011-9)
46. Mishina NM, Markvicheva KN, Bilan DS, Matlashov ME, Shirmanova MV, Liebl D, Schultz C, **Lukyanov S**, Belousov VV (2013). Visualization of intracellular hydrogen peroxide with HyPer, a genetically encoded fluorescent probe. *Methods Enzymol* 526, 45–59, [10.1016/B978-0-12-405883-5.00003-X](https://doi.org/10.1016/B978-0-12-405883-5.00003-X)
47. 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)
48. Shirmanova MV, Snopova LB, Prodanets NN, Serebrovskaya EO, Ignatova NI, Sergeeva EA, Kamensky VA, Klementyeva NV, Lukyanov KA, **Lukyanov SA**, Zagaynova EV (2013). Pathomorphological study of



phototoxicity of genetically-encoded photosensitizer KillerRed on animal tumors. *Sovrem Tekhnologii Med* 2013 (1), 6–13.

49. Bilan DS, Pase L, Joosen L, Gorokhovatsky AY, Ermakova YG, Gadella TWJ, Grabher C, Schultz C, **Lukyanov S**, Belousov VV (2013). HyPer-3: A genetically encoded H<sub>2</sub>O<sub>2</sub> probe with improved performance for ratiometric and fluorescence lifetime imaging. *ACS Chem Biol* 8 (3), 535–542, [10.1021/cb300625g](https://doi.org/10.1021/cb300625g)
50. Shirmanova MV, Serebrovskaya EO, Lukyanov KA, Snopova LB, Sirotkina MA, Prodanetz NN, Bugrova ML, Minakova EA, Turchin IV, Kamensky VA, **Lukyanov SA**, Zagaynova EV (2013). Phototoxic effects of fluorescent protein KillerRed on tumor cells in mice. *J Biophotonics* 6 (3), 283–290, [10.1002/jbio.201200056](https://doi.org/10.1002/jbio.201200056)
51. Shirmanova MV, Serebrovskaya EO, Snopova LB, Kuznetsova MM, Ryumina AP, Turchin IV, Sergeeva EA, Ignatova NI, Klementieva NV, Lukyanov KA, **Lukyanov SA**, Zagaynova EV (2013). KillerRed and miniSOG as genetically encoded photosensitizers for photodynamic therapy of cancer. *Optics InfoBase Conference Papers*, .
52. Belova AS, Mishina NM, Orlova AG, Sergeeva YA, Maslennikova AV, Brilkina AA, Shakhova NM, Belousov VV, **Lukyanov SA** (2013). The study of cisplatin effect on hydrogen peroxide and pH level in HeLa Kyoto cell line using genetically-encoded sensors. *Sovrem Tekhnologii Med* 5 (4), 19–22.
53. 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**, Zarakisky 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)
54. Meleshina AV, Cherkasova EI, Sergeeva EA, Kleshnin MS, Turchin IV, Kiseleva EV, Dashinimaev EV, Shirmanova MV, **Lukyanov SA**, Zagaynova EV (2012). The study of the interaction of mesenchymal stem cells and the Tumor using the methods of fluorescent bioimaging. *Sovrem Tekhnologii Med* 2012 (4), 7–14.
55. 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)
56. 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)
57. Sarkisyan KS, Yampolsky IV, Solntsev KM, **Lukyanov SA**, Lukyanov KA, Mishin AS (2012). Tryptophan-based chromophore in fluorescent proteins can be anionic. *Sci Rep* 2, 608, [10.1038/srep00608](https://doi.org/10.1038/srep00608)
58. 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)
59. Mishina NM, Bogeski I, Bolotin DA, Hoth M, Niemeyer BA, Schultz C, Zagaynova EV, **Lukyanov S**, Belousov VV (2012). Can we see PIP 3 and hydrogen peroxide with a single probe? *Antioxid Redox Signal* 17 (3), 505–512, [10.1089/ars.2012.4574](https://doi.org/10.1089/ars.2012.4574)
60. 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)
61. Shagina IA, Bogdanova EA, Altshuler IM, **Lukyanov SA**, Shagin DA (2011). The use of duplex-specific crab nuclease for rapid analysis of single-nucleotide polymorphisms and the detection of dna targets in complex PCR products. *Russ. J. Bioorganic Chem.* 37 (4), 464–471, [10.1134/S1068162011040121](https://doi.org/10.1134/S1068162011040121)
62. Bogdanova EA, Barsova EV, Shagina IA, Scheglov A, Anisimova V, Vagner LL, **Lukyanov SA**, Shagin DA (2011). Normalization of full-length-enriched cDNA. *Methods Mol Biol* 729, 85–98, [10.1007/978-1-61779-065-26](https://doi.org/10.1007/978-1-61779-065-26)
63. 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)
64. Ivashkin PE, Lukyanov KA, **Lukyanov S**, Yampolsky IV (2011). A synthetic GFP-like chromophore undergoes base-catalyzed autoxidation into acylimine red form. *J Org Chem* 76 (8), 2782–2791, [10.1021/jo200150b](https://doi.org/10.1021/jo200150b)
65. 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)
66. Serebrovskaya EO, Gorodnicheva TV, Ermakova GV, Solovieva EA, Sharonov GV, Zagaynova EV, Chudakov DM, **Lukyanov S**, Zaisky 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)
  67. 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)
  68. Markvicheva KN, Bilan DS, Mishina NM, Gorokhovatsky AY, Vinokurov LM, **Lukyanov S**, Belousov VV (2011). A genetically encoded sensor for H<sub>2</sub>O<sub>2</sub> with expanded dynamic range. *Bioorg Med Chem* 19 (3), 1079–1084, [10.1016/j.bmc.2010.07.014](https://doi.org/10.1016/j.bmc.2010.07.014)
  69. Mishina NM, Tyurin-Kuzmin PA, Markvicheva KN, Vorotnikov AV, Tkachuk VA, Laketa V, Schultz C, **Lukyanov S**, Belousov VV (2011). Does cellular hydrogen peroxide diffuse or act locally? *Antioxid Redox Signal* 14 (1), 1–7, [10.1089/ars.2010.3539](https://doi.org/10.1089/ars.2010.3539)
  70. 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)
  71. 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)
  72. 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)
  73. 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)
  74. Bogdanov EA, Shagina I, Barsova EV, Kelmanson I, Shagin DA, **Lukyanov SA** (2010). Normalizing cDNA libraries. *Curr Protoc Mol Biol* Chapter 5 (90), Unit 5.12.1–27, [10.1002/0471142727.mb0512s90](https://doi.org/10.1002/0471142727.mb0512s90)
  75. Markvicheva KN, Gorokhovatskii AY, Mishina NM, Mudrik NN, Vinokurov LM, **Lukyanov SA**, Belousov VV (2010). Signaling function of phagocytic NADPH oxidase: Activation of MAP kinase cascades in phagocytosis. *Russ. J. Bioorganic Chem.* 36 (1), 124–129, [10.1134/S1068162010010140](https://doi.org/10.1134/S1068162010010140)
  76. Shagina I, Bogdanova E, Mamedov IZ, Lebedev Y, **Lukyanov S**, Shagin D (2010). Normalization of genomic DNA using duplex-specific nuclease. *Biotechniques* 48 (6), 455–459, [10.2144/000113422](https://doi.org/10.2144/000113422)
  77. Markvicheva KN, Bogdanova EA, Staroverov DB, **Lukyanov S**, Belousov VV (2009). Imaging of intracellular hydrogen peroxide production with HyPer upon stimulation of HeLa cells with epidermal growth factor. *Methods Mol Biol* 476, 76–83.
  78. 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)
  79. 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)
  80. Shcherbo D, Murphy CS, Ermakova GV, Solovieva EA, Chepurnykh TV, Shcheglov AS, Verkhusha VV, Pletnev VZ, Hazelwood KL, Roche PM, **Lukyanov S**, Zaisky 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)
  81. Bogdanova EA, Shagina IA, Mudrik E, Amon P, Vagner LL, **Lukyanov SA**, Shagin DA (2009). DSN depletion is a simple method to remove selected transcripts from cDNA populations. *Mol Biotechnol* 41 (3), 247–253, [10.1007/s12033-008-9131-y](https://doi.org/10.1007/s12033-008-9131-y)
  82. Anisimova VE, Barsova EV, Bogdanova EA, **Lukyanov SA**, Shcheglov AS (2009). Thermolabile duplex-specific nuclease. *Biotechnol Lett* 31 (2), 251–257, [10.1007/s10529-008-9850-y](https://doi.org/10.1007/s10529-008-9850-y)
  83. 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](https://doi.org/10.1038/nchembio.174)
  84. Markvicheva KN, Bogdanova EA, Staroverov DB, **Lukyanov S**, Belousov VV (2008). Imaging of intracellular hydrogen peroxide production with hyper upon stimulation of hela cells with egf. *Methods Mol Biol* 476, 79–

- 86, [10.1007/978-1-59745-129-16](https://doi.org/10.1007/978-1-59745-129-16)
85. Panchin AY, Spirin SA, **Lukyanov SA**, Lebedev YB, Panchin YV (2008). Human trash ESTs - Sequences from cDNA collection that are not aligned to genome assembly. *J Bioinform Comput Biol* 6 (4), 759–773, [10.1142/S0219720008003709](https://doi.org/10.1142/S0219720008003709)
86. Anisimova VE, Shcheglov AS, Bogdanova EA, Rebrikov DV, Nekrasov AN, Barsova EV, Shagin DA, **Lukyanov SA** (2008). Is crab duplex-specific nuclease a member of the Serratia family of non-specific nucleases? *Gene* 418 (12), 41–48, [10.1016/j.gene.2008.04.005](https://doi.org/10.1016/j.gene.2008.04.005)
87. Anisimova VE, Rebrikov DV, Shagin DA, Kozhemyako VB, Menzorova NI, Staroverov DB, Ziganshin R, Vagner LL, Rasskazov VA, **Lukyanov SA**, Shcheglov AS (2008). Isolation, characterization and molecular cloning of Duplex-Specific Nuclease from the hepatopancreas of the Kamchatka crab. *BMC Biochem* 9 (1), 14, [10.1186/1471-2091-9-14](https://doi.org/10.1186/1471-2091-9-14)
88. Yampolsky IV, Kislukhin AA, Amatov TT, Shcherbo D, Potapov VK, **Lukyanov S**, Lukyanov KA (2008). Synthesis and properties of the red chromophore of the green-to-red photoconvertible fluorescent protein Kaede and its analogs. *Bioorg Chem* 36 (2), 96–104, [10.1016/j.bioorg.2007.12.003](https://doi.org/10.1016/j.bioorg.2007.12.003)
89. Bogdanova EA, Shagin DA, **Lukyanov SA** (2008). Normalization of full-length enriched cDNA. *Mol Biosyst* 4 (3), 205–212, [10.1039/b715110c](https://doi.org/10.1039/b715110c)
90. 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](https://doi.org/10.1038/nmeth1083)
91. 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](https://doi.org/10.1038/nprot.2007.291)
92. 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](https://doi.org/10.1038/nmeth1062)
93. Souslova EA, Belousov VV, Lock JG, Strömlblad S, Kasparov S, Bolshakov AP, Pinelis VG, Labas YA, **Lukyanov S**, Mayr LM, Chudakov DM (2007). Single fluorescent protein-based Ca<sup>2+</sup>sensors with increased dynamic range. *BMC Biotechnol* 7, 37, [10.1186/1472-6750-7-37](https://doi.org/10.1186/1472-6750-7-37)
94. Chudakov DM, **Lukyanov S**, Lukyanov KA (2007). Using photoactivatable fluorescent protein Dendra2 to track protein movement. *Biotechniques* 42 (5), 553–565, [10.2144/000112470](https://doi.org/10.2144/000112470)
95. Zhang L, Gurskaya NG, Merzlyak EM, Staroverov DB, Mudrik NN, Samarkina ON, Vinokurov LM, **Lukyanov S**, Lukyanov KA (2007). Method for real-time monitoring of protein degradation at the single cell level. *Biotechniques* 42 (4), 446–450, [10.2144/000112453](https://doi.org/10.2144/000112453)
96. Buzdin AA, **Lukyanov SA** (2007). Stem-loop oligonucleotides as hybridization probes and their practical use in molecular biology and biomedicine. , 85–96, [10.1007/978-1-4020-6040-34](https://doi.org/10.1007/978-1-4020-6040-34)
97. **Lukyanov SA**, Lukyanov KA, Gurskaya NG, Bogdanova EA, Buzdin AA (2007). Selective suppression of polymerase chain reaction and its most popular applications. , 29–51, [10.1007/978-1-4020-6040-32](https://doi.org/10.1007/978-1-4020-6040-32)
98. **Lukyanov SA**, Rebrikov D, Buzdin AA (2007). Suppression subtractive hybridization. , 53–84, [10.1007/978-1-4020-6040-33](https://doi.org/10.1007/978-1-4020-6040-33)
99. Hosp J, Tashpulatov A, Roessner U, Barsova E, Katholnigg H, Steinborn R, Melikant B, **Lukyanov S**, Heberle-Bors E, Touraev A (2007). Transcriptional and metabolic profiles of stress-induced, embryogenic tobacco microspores. *Plant Mol Biol* 63 (1), 137–149, [10.1007/s11103-006-9078-y](https://doi.org/10.1007/s11103-006-9078-y)
100. 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](https://doi.org/10.1111/j.1600-0854.2006.00468.x)
101. Efimov VA, Birikh KR, Staroverov DB, **Lukyanov SA**, Tereshina MB, Zaraisky AG, Chakhmakhcheva OG (2006). Hydroxyproline-based DNA mimics provide an efficient gene silencing in vitro and in vivo. *Nucleic Acids Res* 34 (8), 2247–2257, [10.1093/nar/gkl249](https://doi.org/10.1093/nar/gkl249)
102. 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](https://doi.org/10.1038/nprot.2006.89)
103. Anisimova VE, Rebrikov DV, Zhulidov PA, Staroverov DB, **Lukyanov SA**, Shcheglov AS (2006).

- Renaturation, activation, and practical use of recombinant duplex-specific nuclease from Kamchatka crab. *Biochemistry (Mosc)* 71 (5), 513–519, [10.1134/S0006297906050075](https://doi.org/10.1134/S0006297906050075)
104. Gurskaya NG, Verkhusha VV, Shcheglov AS, Staroverov DB, Chepurnykh TV, Fradkov AF, **Lukyanov S**, Lukyanov KA (2006). Engineering of a monomeric green-to-red photoactivatable fluorescent protein induced by blue light. *Nat Biotechnol* 24 (4), 461–465, [10.1038/nbt1191](https://doi.org/10.1038/nbt1191)
  105. Ilina A, Lipkin A, Barsova E, Issaeva M, Leychenko E, Guzev K, Monastyrnaya M, **Lukyanov S**, Kozlovskaya E (2006). Amino acid sequence of RTX-A's isoform actinoporin from the sea anemone, *Radianthus macrodactylus*. *Toxicon* 47 (5), 517–520, [10.1016/j.toxicon.2005.12.014](https://doi.org/10.1016/j.toxicon.2005.12.014)
  106. Belousov VV, Fradkov AF, Lukyanov KA, Staroverov DB, Shakhbazov KS, Terskikh AV, **Lukyanov S** (2006). Genetically encoded fluorescent indicator for intracellular hydrogen peroxide. *Nat Methods* 3 (4), 281–286, [10.1038/nmeth866](https://doi.org/10.1038/nmeth866)
  107. 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](https://doi.org/10.1038/nbt1175)
  108. 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)
  109. 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)
  110. Zhulidov PA, Bogdanova EA, Shcheglov AS, Shagina IA, Wagner LL, Khazpekov GL, Kozhemyako VV, **Lukyanov SA**, Shagin DA (2005). A method for the preparation of normalized cDNA libraries enriched with full-length sequences. *Bioorg Khim* 31 (2), 186–194.
  111. 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)
  112. 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)
  113. Yampolsky IV, Remington SJ, Martynov VI, Potapov VK, **Lukyanov S**, Lukyanov KA (2005). Synthesis and properties of the chromophore of the asFP595 chromoprotein from *Anemonia sulcata*. *Biochemistry* 44 (15), 5788–5793, [10.1021/bi0476432](https://doi.org/10.1021/bi0476432)
  114. Zhulidov PA, Bogdanova EA, Shcheglov AS, Shagina IA, Wagner LL, Khazpekov GL, Kozhemyako VV, **Lukyanov SA**, Shagin DA (2005). A method for the preparation of normalized cDNA libraries enriched with full-length sequences. *Russ. J. Bioorganic Chem.* 31 (2), 170–177, [10.1007/s11171-005-0023-7](https://doi.org/10.1007/s11171-005-0023-7)
  115. Britanova O, Akopov S, **Lukyanov S**, Gruss P, Tarabykin V (2005). Novel transcription factor Satb2 interacts with matrix attachment region DNA elements in a tissue-specific manner and demonstrates cell-type-dependent expression in the developing mouse CNS. *Eur J Neurosci* 21 (3), 658–668, [10.1111/j.1460-9568.2005.03897.x](https://doi.org/10.1111/j.1460-9568.2005.03897.x)
  116. Yanushevich YG, Shagin DA, Fradkov AF, Shakhbazov KS, Barsova EV, Gurskaya NG, Labas YA, Matz MV, Lukyanov KA, **Lukyanov SA** (2005). Spectral diversity among members of the green fluorescent protein family in hydroid jellyfish (Cnidaria, Hydrozoa). *Russ. J. Bioorganic Chem.* 31 (1), 43–47, [10.1007/s11171-005-0005-9](https://doi.org/10.1007/s11171-005-0005-9)
  117. Polyakov AS, Speer N, Britanova OV, **Lukyanov SA**, Tarabykin VS, Korochkin LI (2004). Cloning and analysis of a new neurogene in the mouse. *Genetika* 40 (6), 853–857.
  118. 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)
  119. Bogdanova EA, Barsova EV, Punkova NI, Britanova OV, Shagin DA, Gurskaya NG, Usman NY, **Lukyanov SA** (2004). A family of genes of multidomain free lectins from a planarian: Structure, expression, and the use as markers for monitoring regeneration. *Russ. J. Bioorganic Chem.* 30 (6), 566–576, [10.1023/B:RUJBI.0000049774.74170.b4](https://doi.org/10.1023/B:RUJBI.0000049774.74170.b4)
  120. 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)

121. 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)
122. Polyakov AS, Speer N, Britanova OV, **Lukyanov SA**, Tarabykin VS, Korochkin LI (2004). Cloning and analysis of a new neurogene in the mouse. *Russ J Genet* 40 (6), 694–697, [10.1023/B:RUGE.0000033320.00563.e6](https://doi.org/10.1023/B:RUGE.0000033320.00563.e6)
123. Zhulidov PA, Bogdanova EA, Shcheglov AS, Vagner LL, Khaspekov GL, Kozhemyako VB, Matz MV, Meleshkevitch E, Moroz LL, **Lukyanov SA**, Shagin DA (2004). Simple cDNA normalization using kamchatka crab duplex-specific nuclease. *Nucleic Acids Res* 32 (3), e37, [10.1093/nar/gnh031](https://doi.org/10.1093/nar/gnh031)
124. Rebrikov DV, Desai SM, Siebert PD, **Lukyanov SA** (2004). Suppression subtractive hybridization. *Methods Mol Biol* 258, 107–134, [10.1385/1-59259-751-3:107](https://doi.org/10.1385/1-59259-751-3:107)
125. Shagin DA, Barsova EV, Yanushevich YG, Fradkov AF, Lukyanov KA, Labas YA, Semenova TN, Ugalde JA, Meyers A, Nunez JM, Widder EA, **Lukyanov SA**, Matz MV (2004). GFP-like Proteins as Ubiquitous Metazoan Superfamily: Evolution of Functional Features and Structural Complexity. *Mol Biol Evol* 21 (5), 841–850, [10.1093/molbev/msh079](https://doi.org/10.1093/molbev/msh079)
126. Baranova A, Ivanov D, Petrash N, Pestova A, Skoblov M, Kelmanson I, Shagin D, Nazarenko S, Geraymovych E, Litvin O, Tiunova A, Born TL, Usman N, Staroverov D, **Lukyanov S**, Panchin Y (2004). The mammalian pannexin family is homologous to the invertebrate innexin gap junction proteins. *Genomics* 83 (4), 706–716, [10.1016/j.ygeno.2003.09.025](https://doi.org/10.1016/j.ygeno.2003.09.025)
127. Kozhemyako VB, Rebrikov DV, **Lukyanov SA**, Bogdanova EA, Marin A, Mazur AK, Kovalchuk SN, Agafonova EV, Sova VV, Elyakova LA, Rasskazov VA (2004). Molecular cloning and characterization of an endo-1,3- $\beta$ -D-glucanase from the mollusk *Spisula sachalinensis*. *Comp Biochem Physiol B Biochem Mol Biol* 137 (2), 169–178, [10.1016/j.cbpc.2003.10.018](https://doi.org/10.1016/j.cbpc.2003.10.018)
128. Martynov VI, Maksimov BI, Martynova NY, Pakhomov AA, Gurskaya NG, **Lukyanov SA** (2003). A Purple-blue Chromoprotein from *Goniopora tenuidens* Belongs to the DsRed Subfamily of GFP-like Proteins. *J Biol Chem* 278 (47), 46288–46292, [10.1074/jbc.M306810200](https://doi.org/10.1074/jbc.M306810200)
129. Gurskaya NG, Fradkov AF, Pounkova NI, Staroverov DB, Bulina ME, Yanushevich YG, Labas YA, **Lukyanov S**, Lukyanov KA (2003). A colourless green fluorescent protein homologue from the non-fluorescent hydromedusa *Aequorea coerulescens* and its fluorescent mutants. *Biochem J* 373 (2), 403–408, [10.1042/BJ20021966](https://doi.org/10.1042/BJ20021966)
130. 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)
131. Chudakov DM, Belousov VV, Zaisky 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)
132. Rebrikov DV, Bogdanova EA, Bulina ME, **Lukyanov SA** (2002). A new planarian extrachromosomal virus-like element revealed by subtractive hybridization. *Mol Biol* 36 (6), 813–820, [10.1023/A:1021629825320](https://doi.org/10.1023/A:1021629825320)
133. Kelmanson IV, Shagin DA, Usman N, Matz MV, **Lukyanov SA**, Panchin YV (2002). Altering electrical connections in the nervous system of the pteropod mollusc *Clione limacina* by neuronal injections of gap junction mRNA. *Eur J Neurosci* 16 (12), 2475–2476, [10.1046/j.1460-9568.2002.02423.x](https://doi.org/10.1046/j.1460-9568.2002.02423.x)
134. Shagin DA, Rebrikov DV, Kozhemyako VB, Altshuler IM, Shcheglov AS, Zhulidov PA, Bogdanova EA, Staroverov DB, Rasskazov VA, **Lukyanov S** (2002). A novel method for SNP detection using a new duplex-specific nuclease from crab hepatopancreas. *Genome Res* 12 (12), 1935–1942, [10.1101/gr.547002](https://doi.org/10.1101/gr.547002)
135. Fradkov AF, Verkhusha VV, Staroverov DB, Bulina ME, Yanushevich YG, Martynov VI, **Lukyanov S**, Lukyanov KA (2002). Far-red fluorescent tag for protein labelling. *Biochem J* 368 (1), 17–21, [10.1042/BJ20021191](https://doi.org/10.1042/BJ20021191)
136. Matz MV, Lukyanov KA, **Lukyanov SA** (2002). Family of the green fluorescent protein: Journey to the end of the rainbow. *Bioessays* 24 (10), 953–959, [10.1002/bies.10154](https://doi.org/10.1002/bies.10154)
137. Rebrikov DV, Bulina ME, Bogdanova EA, Vagner LL, **Lukyanov SA** (2002). Complete genome sequence of a novel extrachromosomal virus-like element identified in planarian *Girardia tigrina*. *BMC Genomics* 3, 15.

138. Rebrikov DV, Bulina ME, Bogdanova EA, Vagner LL, **Lukyanov SA** (2002). Complete genome sequence of a novel extrachromosomal virus-like element identified in planarian *Girardia tigrina*. *BMC Genomics* 3, 15, [10.1186/1471-2164-3-15](https://doi.org/10.1186/1471-2164-3-15)
139. Barinova I, Zhexembekova M, Barsova E, **Lukyanov S**, Heberle-Bors E, Touraev A (2002). Antirrhinum majus microspore maturation and transient transformation in vitro. *J Exp Bot* 53 (371), 1119–1129, [10.1093/jexbot/53.371.1119](https://doi.org/10.1093/jexbot/53.371.1119)
140. Labas YA, Gurskaya NG, Yanushevich YG, Fradkov AF, Lukyanov KA, **Lukyanov SA**, Matz MV (2002). Diversity and evolution of the green fluorescent protein family. *Proc Natl Acad Sci U S A* 99 (7), 4256–4261, [10.1073/pnas.062552299](https://doi.org/10.1073/pnas.062552299)
141. Yanushevich YG, Staroverov DB, Savitsky AP, Fradkov AF, Gurskaya NG, Bulina ME, Lukyanov KA, **Lukyanov SA** (2002). A strategy for the generation of non-aggregating mutants of Anthozoa fluorescent proteins. *FEBS Lett* 511 (13), 11–14, [10.1016/S0014-5793\(01\)03263-X](https://doi.org/10.1016/S0014-5793(01)03263-X)
142. Britanova O, **Lukyanov S**, Gruss P, Tarabykin V (2002). The mouse *Laf4* gene: Exon/intron organization, cDNA sequence, alternative splicing, and expression during central nervous system development. *Genomics* 80 (1), 31–37, [10.1006/geno.2002.6796](https://doi.org/10.1006/geno.2002.6796)
143. Nikiforova NN, Velikodvorskaja TV, Kachko AV, Nikolaev LG, Monastyrskaya GS, **Lukyanov SA**, Konovalova SN, Protopopova EV, Svyatchenko VA, Kiselev NN, Loktev VB, Sverdlov ED (2002). Induction of alternatively spliced spermidine/spermine N1-acetyltransferase mRNA in the human kidney cells infected by Venezuelan equine encephalitis and tick-borne encephalitis viruses. *Virology* 297 (2), 163–171, [10.1006/viro.2002.1456](https://doi.org/10.1006/viro.2002.1456)
144. Shagin DA, Barsova EV, Bogdanova EA, Britanova OV, Gurskaya NG, Lukyanov KA, Matz MV, Punkova NI, Usman NY, Kopantzev EP, Salo E, **Lukyanov SA** (2002). Identification and characterization of a new family of C-type lectin-like genes from planaria *Girardia tigrina*. *Glycobiology* 12 (8), 463–472, [10.1093/glycob/cwf056](https://doi.org/10.1093/glycob/cwf056)
145. Danilevich VN, **Lukyanov SA**, Grishin EV (2001). Cloning and structure determination of the  $\alpha$ -latrocrustoxin gene from the black widow spider venom. *Bioorg Khim* 25 (7), 546–547.
146. Gurskaya NG, Fradkov AF, Tersikh A, Matz MV, Labas YA, Martynov VI, Yanushevich YG, Lukyanov KA, **Lukyanov SA** (2001). GFP-like chromoproteins as a source of far-red fluorescent proteins. *FEBS Lett* 507 (1), 16–20, [10.1016/S0014-5793\(01\)02930-1](https://doi.org/10.1016/S0014-5793(01)02930-1)
147. Gurskaya NG, Savitsky AP, Yanushevich YG, **Lukyanov SA**, Lukyanov KA (2001). Color transitions in coral's fluorescent proteins by site-directed mutagenesis. *BMC Biochem* 2, 1–7, [10.1186/1471-2091-2-6](https://doi.org/10.1186/1471-2091-2-6)
148. Martynov VI, Savitsky AP, Martynova NY, Savitsky PA, Lukyanov KA, **Lukyanov SA** (2001). Alternative cyclization in GFP-like proteins family. The formation and structure of the chromophore of a purple chromoprotein from *Anemonia sulcata*. *J Biol Chem* 276 (24), 21012–21016, [10.1074/jbc.M100500200](https://doi.org/10.1074/jbc.M100500200)
149. Tersikh A, Fradkov A, Ermakova G, Zaraisky A, Tan P, Kajava AV, Zhao X, **Lukyanov S**, Matz M, Kim S, Weissman I, Siebert P (2000). 'Fluorescent timer': Protein that changes color with time. *Science* 290 (5496), 1585–1588, [10.1126/science.290.5496.1585](https://doi.org/10.1126/science.290.5496.1585)
150. Rebrikov DV, Britanova OV, Gurskaya NG, Lukyanov KA, Tarabykin VS, **Lukyanov SA** (2000). Mirror orientation selection (MOS): a method for eliminating false positive clones from libraries generated by suppression subtractive hybridization. *Nucleic Acids Res* 28 (20), E90, [10.1093/nar/28.20.e90](https://doi.org/10.1093/nar/28.20.e90)
151. Lukyanov KA, Fradkov AF, Gurskaya NG, Matz MV, Labas YA, Savitsky AP, Markelov ML, Zaraisky AG, Zhao X, Fang Y, Tan W, **Lukyanov SA** (2000). Natural animal coloration can be determined by a nonfluorescent green fluorescent protein homolog. *J Biol Chem* 275 (34), 25879–25882, [10.1074/jbc.C000338200](https://doi.org/10.1074/jbc.C000338200)
152. Fradkov AF, Chen Y, Ding L, Barsova EV, Matz MV, **Lukyanov SA** (2000). Novel fluorescent protein from *Discosoma coral* and its mutants possesses a unique far-red fluorescence. *FEBS Lett* 479 (3), 127–130, [10.1016/S0014-5793\(00\)01895-0](https://doi.org/10.1016/S0014-5793(00)01895-0)
153. Panchina Y, Kelmanson I, Matz M, Lukyanov K, Usman N, **Lukyanov S** (2000). A ubiquitous family of putative gap junction molecules [2]. *Curr Biol* 10 (13), R473–4, [10.1016/S0960-9822\(00\)00576-5](https://doi.org/10.1016/S0960-9822(00)00576-5)
154. Tarabykin V, Britanova O, Fradkov A, Voss A, Katz LS, **Lukyanov S**, Gruss P (2000). Expression of PTTG and *prc1* genes during telencephalic neurogenesis. *Mech Dev* 92 (2), 301–304, [10.1016/S0925-4773\(00\)00243-4](https://doi.org/10.1016/S0925-4773(00)00243-4)
155. Zavalova LL, Baskova IP, **Lukyanov SA**, Sass AV, Snezhkov EV, Akopov SB, Artamonova II, Archipova VS,

- Nesmeyanov VA, Kozlov DG, Benevolensky SV, Kiseleva VI, Poverenny AM, Sverdlov ED (2000). Destabilase from the medicinal leech is a representative of a novel family of lysozymes. *Biochim Biophys Acta* 1478 (1), 69–77, [10.1016/S0167-4838\(00\)00006-6](https://doi.org/10.1016/S0167-4838(00)00006-6)
156. Lukyanov KA, Gurskaya NG, Bogdanova EA, **Lukyanov SA** (1999). Selective suppression of polymerase chain reaction. *Bioorg Khim* 25 (3), 169–170.
  157. Danilevich VN, **Lukyanov SA**, Grishin EV (1999). Cloning and structure determination of the  $\alpha$ -latrocrustoxin gene from the black widow spider venom. *Bioorg Khim* 25 (7), 537–547.
  158. Bogush ML, Velikodvorskaya TV, Lebedev YB, Nikolaev LG, **Lukyanov SA**, Fradkov AF, Pliyev BK, Boichenko MN, Usatova GN, Vorobiev AA, Andersen GL, Sverdlov ED (1999). Identification and localization of differences between *Escherichia coli* and *Salmonella typhimurium* genomes by suppressive subtractive hybridization. *Mol Gen Genet* 262 (45), 721–729, [10.1007/s004380051134](https://doi.org/10.1007/s004380051134)
  159. Matz MV, Fradkov AF, Labas YA, Savitsky AP, Zaraisky AG, Markelov ML, **Lukyanov SA** (1999). Fluorescent proteins from nonbioluminescent Anthozoa species. *Nat Biotechnol* 17 (10), 969–973, [10.1038/13657](https://doi.org/10.1038/13657)
  160. Danilevich VN, **Lukyanov SA**, Grishin EV (1999). Cloning and structure determination of the  $\alpha$ -latrocrustoxin gene from the black widow spider venom. *Russ. J. Bioorganic Chem.* 25 (7), 477–486.
  161. Broude NE, Storm N, Malpel S, Graber JH, **Lukyanov S**, Sverdlov E, Smith CL (1999). PCR based targeted genomic and cDNA differential display. *Genet Anal Tech Appl* 15 (2), 51–63, [10.1016/S1050-3862\(98\)00038-2](https://doi.org/10.1016/S1050-3862(98)00038-2)
  162. Matz M, Shagin D, Bogdanova E, Britanova O, **Lukyanov S**, Diatchenko L, Chenchik A (1999). Amplification of cDNA ends based on template-switching effect and step-out PCR. *Nucleic Acids Res* 27 (6), 1558–1560, [10.1093/nar/27.6.1558](https://doi.org/10.1093/nar/27.6.1558)
  163. Lukyanov KA, Gurskaya NG, Bogdanova EA, **Lukyanov SA** (1999). Selective suppression of polymerase chain reaction. *Russ. J. Bioorganic Chem.* 25 (3), 141–147.
  164. Lavrentieva I, Broude NE, Lebedev Y, Gottesman II, **Lukyanov SA**, Smith CL, Sverdlov ED (1999). High polymorphism level of genomic sequences flanking insertion sites of human endogenous retroviral long terminal repeats. *FEBS Lett* 443 (3), 341–347, [10.1016/S0014-5793\(99\)00004-6](https://doi.org/10.1016/S0014-5793(99)00004-6)
  165. Matz MV, **Lukyanov SA** (1998). Different strategies of differential display: Areas of application. *Nucleic Acids Res* 26 (24), 5537–5543, [10.1093/nar/26.24.5537](https://doi.org/10.1093/nar/26.24.5537)
  166. Matz MV, Shagin DA, Usman NY, Bogdanova EA, Fradkov AF, Soboleva TA, **Lukyanov SA** (1998). Cloning of region-specific genetic markers of planarian *Dugesia tigrina* by means of a new method: Ordered differential display. *Russ. J. Bioorganic Chem.* 24 (12), 808–812.
  167. Kazanskaya OV, Ermakova GV, Pannese M, **Lukyanov SA**, Boncinelli E, Zaraisky AG (1998). cDNA cloning of three new homeobox-containing genes of the *Anf* class from human, chicken, and newt. *Russ. J. Bioorganic Chem.* 24 (3), 166–172.
  168. Matz MV, Shagin DA, Usman NY, Bogdanova EA, Fradkov AF, Soboleva TA, **Lukyanov SA** (1998). Cloning of Region-Specific Genetic Markers of Planarian *Dugesia tigrina* by Means of a New Method: Ordered Differential Display. *Bioorg Khim* 24 (12), 915.
  169. Akopyants NS, Fradkov A, Diatchenko L, Hill JE, Siebert PD, **Lukyanov SA**, Sverdlov ED, Berg DE (1998). PCR-based subtractive hybridization and differences in gene content among strains of *Helicobacter pylori*. *Proc Natl Acad Sci U S A* 95 (22), 13108–13113, [10.1073/pnas.95.22.13108](https://doi.org/10.1073/pnas.95.22.13108)
  170. Fradkov AF, Lukyanov KA, Matz MV, Diatchenko LB, Siebert PD, **Lukyanov SA** (1998). Sequence-independent method for in vitro generation of nested deletions for sequencing large DNA fragments. *Anal Biochem* 258 (1), 138–141, [10.1006/abio.1997.2591](https://doi.org/10.1006/abio.1997.2591)
  171. Bogdanova E, Matz M, Tarabykin V, Usman N, Shagin D, Zaraisky A, **Lukyanov S** (1998). Inductive interactions regulating body patterning in planarian, revealed by analysis of expression of novel gene scarf. *Dev Biol* 194 (2), 172–181, [10.1006/dbio.1997.8828](https://doi.org/10.1006/dbio.1997.8828)
  172. Vasiliev OL, **Lukyanov SA**, Belyavsky AV, Kazanskaya OV, Zaraisky AG (1997). A novel marker of early epidermal differentiation: cDNA subtractive cloning starting on a single explant of *Xenopus laevis* gastrula epidermis. *Int J Dev Biol* 41 (6), 877–882.
  173. Lukyanov KA, **Lukyanov SA** (1997). In vitro Cloning of DNA Fragments Using One Polymerase Chain Reaction. *Bioorg Khim* 23 (11), 887.

174. Lukyanov KA, **Lukyanov SA** (1997). In vitro cloning of DNA fragments using one polymerase chain reaction. *Russ. J. Bioorganic Chem.* 23 (11), 785–789.
175. Kazanskaya OV, Severtzova EA, Barth KA, Ermakova GV, **Lukyanov SA**, Benyumov AO, Pannese M, Boncinelli E, Wilson SW, Zaisky AG (1997). Anf: A novel class of vertebrate homeobox genes expressed at the anterior end of the main embryonic axis. *Gene* 200 (12), 25–34, [10.1016/S0378-1119\(97\)00326-0](https://doi.org/10.1016/S0378-1119(97)00326-0)
176. Matz M, Usman N, Shagin D, Bogdanova E, **Lukyanov S** (1997). Ordered differential display: A simple method for systematic comparison of gene expression profiles. *Nucleic Acids Res* 25 (12), 2541–2542, [10.1093/nar/25.12.2541](https://doi.org/10.1093/nar/25.12.2541)
177. Lukyanov K, Diatchenko L, Chenchik A, Nanisetti A, Siebert P, Usman N, Matz M, **Lukyanov S** (1997). Construction of cDNA libraries from small amounts of total RNA using the suppression PCR effect. *Biochem Biophys Res Commun* 230 (2), 285–288, [10.1006/bbrc.1996.5948](https://doi.org/10.1006/bbrc.1996.5948)
178. Bogdanova EA, Matz MV, Tarabykin VS, Usman NY, **Lukyanov SA** (1997). Differential Gene Expression during Repair Regeneration of Different Polarity in Planarians. *Ontogenez* 28 (2), 136–137.
179. Markitantova YV, Lukyanov KA, Kazanskaya OV, Mitashov VI, **Lukyanov SA** (1997). Analysis of Expression of the Genes Containing LeR-1 and VeR-1 Sequences during Embryogenesis and Regeneration and in Intact Tissues of Newts. *Ontogenez* 28 (4), 269–270.
180. Zavalova L, **Lukyanov S**, Baskova I, Snezhkov E, Akopov S, Berezhnoy S, Bogdanova E, Barsova E, Sverdlov ED (1996). Genes from the medicinal leech (*Hirudo medicinalis*) coding for unusual enzymes that specifically cleave endo- $\epsilon$ ( $\gamma$ -Glu)-Lys isopeptide bonds and help to dissolve blood clots. *Mol Gen Genet* 253 (12), 20–25, [10.1007/s004380050291](https://doi.org/10.1007/s004380050291)
181. Lukyanov KA, Gurskaya NG, Matts MV, Khaspekov GL, Dyachenko LB, Chenchik AA, Ilevich-Stuchkov SG, **Lukyanov SA** (1996). A Method for Obtaining Equalized cDNA Libraries Based on Polymerase Chain Reaction Suppression. *Bioorg Khim* 22 (9), .
182. Ermolaeva OD, **Lukyanov SA**, Sverdlov ED (1996). The mathematical model of subtractive hybridization and its practical application. *Proc Int Conf Intell Syst Mol Biol* 4, 52–58.
183. Vasilev OL, **Lukyanov SA**, Belyavskii AV, Kazanskaya OV, Zaraiskii AG (1996). A novel technique of subtractive hybridization of cDNA permitting the cloning of genes specifically expressed in cell micropopulations. *Russ. J. Bioorganic Chem.* 22 (12), 779–784.
184. Chenchik A, Diachenko L, Moqadam F, Tarabykin Y, **Lukyanov S**, Siebert PD (1996). Full-length cDNA cloning and determination of mRNA 5' and 3' ends by amplification of adaptor-ligated cDNA. *Biotechniques* 21 (3), 526–534, [10.2144/96213pf02](https://doi.org/10.2144/96213pf02)
185. Lukyanov KA, Gurskaya NG, Matts MV, Khaspekov GL, Dyachenko LB, Chenchik AA, Ilevich-Stuchkov SG, **Lukyanov SA** (1996). A method for obtaining equalized cDNA libraries based on polymerase chain reaction suppression. *Russ. J. Bioorganic Chem.* 22 (9), 587–591.
186. Gurskaya NG, Diatchenko L, Chenchik A, Siebert PD, Khaspekov GL, Lukyanov KA, Vagner LL, Ermolaeva OD, **Lukyanov SA**, Sverdlov ED (1996). Equalizing cDNA subtraction based on selective suppression of polymerase chain reaction: Cloning of Jurkat cell transcripts induced by phytohemagglutinin and phorbol 12-myristate 13-acetate. *Anal Biochem* 240 (1), 90–97, [10.1006/abio.1996.0334](https://doi.org/10.1006/abio.1996.0334)
187. Fradkov A, Berezhnoy S, Barsova E, Zavalova L, **Lukyanov S**, Baskova I, Sverdlov ED (1996). Enzyme from the medicinal leech (*Hirudo medicinalis*) that specifically splits endo- $\epsilon$ ( $\gamma$ -Glu)-Lys isopeptide bonds: cDNA cloning and protein primary structure. *FEBS Lett* 390 (2), 145–148, [10.1016/0014-5793\(96\)00644-8](https://doi.org/10.1016/0014-5793(96)00644-8)
188. Diatchenko L, Lau YFC, Campbell AP, Chenchik A, Moqadam F, Huang B, **Lukyanov S**, Lukyanov K, Gurskaya N, Sverdlov ED, Siebert PD (1996). Suppression subtractive hybridization: A method for generating differentially regulated or tissue-specific cDNA probes and libraries. *Proc Natl Acad Sci U S A* 93 (12), 6025–6030, [10.1073/pnas.93.12.6025](https://doi.org/10.1073/pnas.93.12.6025)
189. Gurskaya NG, Shagin DA, Lukyanov KA, Vagner LL, Shtutman MS, Musatkina EA, Moinova EV, Tatosyan AG, **Lukyanov SA**, Sverdlov ED (1996). Cloning of the ha-SDGF gene cDNA from a highly metastatic golden hamster cell line by subtractive hybridization. *Russ. J. Bioorganic Chem.* 22 (6), 368–373.
190. Lukyanov KA, Matz MV, Bogdanova EA, Gurskaya NG, **Lukyanov SA** (1996). Molecule by molecule PCR amplification of complex DNA mixtures for direct sequencing: An approach to in vitro cloning. *Nucleic Acids Res* 24 (11), 2194–2195, [10.1093/nar/24.11.2194](https://doi.org/10.1093/nar/24.11.2194)
191. Lukyanov KA, Gurskaya NG, Kopantsev EP, **Lukyanov SA** (1996). Selective Amplification of Evolutionarily



Conserved Expressed Sequences. *Bioorg Khim* 22 (1), 53.

192. Gurskaya NG, Shagin DA, Lukyanov KA, Vagner LL, Shtutman MS, Musatkina EA, Moinova EV, Tatosyan AG, **Lukyanov SA**, Sverdlov ED (1996). Cloning of the ha-SDGF Gene cDNA from a Highly Metastatic Golden Hamster Cell Line by Subtractive Hybridization. *Bioorg Khim* 22 (6), 430–431.
193. Vasilpev OL, **Lukyanov SA**, Belyavskii AV, Kazanskaya OV, Zارايسкий AG (1996). A Novel Technique of Subtractive Hybridization of cDNA Permitting the Cloning of Genes Specifically Expressed in Cell Micropopulations. *Bioorg Khim* 22 (12), 894–9.
194. Lukyanov KA, Gurskaya NG, Kopantsev EP, **Lukyanov SA** (1996). Selective amplification of evolutionarily conserved expressed sequences. *Russ. J. Bioorganic Chem.* 22 (1), 43–47.
195. Siebert PD, Chenchik A, Kellogg DE, Lukyanov KA, **Lukyanov SA** (1995). An improved PCR method for walking in uncloned genomic DNA. *Nucleic Acids Res* 23 (6), 1087–1088, [10.1093/nar/23.6.1087](https://doi.org/10.1093/nar/23.6.1087)
196. Lukyanov KA, Launer GA, Tarabykin VS, Zارايسкий AG, **Lukyanov SA** (1995). Inverted terminal repeats permit the average length of amplified dna fragments to be regulated during preparation of cdna libraries by polymerase chain reaction. *Anal Biochem* 229 (2), 198–202, [10.1006/abio.1995.1402](https://doi.org/10.1006/abio.1995.1402)
197. Zارايسкий AG, Ecochard V, Kazanskaya OV, **Lukyanov SA**, Fesenko IV, Duprat AM (1995). The homeobox-containing gene XANF-1 may control development of the Spemann organizer. *Development* 121 (11), 3839–3847.
198. Launer GA, Lukyanov KA, Tarabykin VS, **Lukyanov SA** (1994). Simple method for cDNA amplification starting from small amount of total RNA. *Mol Gen Mikrobiol Virusol* (6), 38–41.
199. Zارايسкий AG, **Lukyanov SA**, Vasiliev OL, Smirnov YV, Belyavsky AV, Kazanskaya OV (1992). A novel homeobox gene expressed in the anterior neural plate of the Xenopus embryo. *Dev Biol* 152 (2), 373–382, [10.1016/0012-1606\(92\)90144-6](https://doi.org/10.1016/0012-1606(92)90144-6)
200. **Lukyanov SA**, Zارايسкий AG (1990). Methodological approaches to the detection of mRNA in histological sections. *Ontogenez* 21 (5), 455–465.