

Curriculum vitae: Yuri Lebedev

Address

Shemyakin–Ovchinnikov Institute of bioorganic chemistry RAS, Moscow, Russia

Contacts

<https://www.ibch.ru/en/users/25>

Education

1973–1978	Moscow	Moscow state university
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IBCh positions

2018–to date	Principal research fellow
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IBCh memberships

Dissertation council

Scientific council

Scientific interests

Dr. Lebedev is one of the leading Russian scientists working in the field of mammalian genome structure, functioning and evolution. He started research in the field in the early nineties. Since establishing Russian State program “Human Genome”, Dr. Lebedev with other young scientists from Eugene Sverdlov’s lab joined the program among the first participants. In these years Yuri Lebedev’s research was focused on functional mapping of distinct human chromosomes.

Scientific societies’ membership

Dr. Lebedev became HUGO member in 1996.

Titles

Professor

Doctor of Science (Biological sciences)

Grants and projects

2020–2022	Genotype T cells’ repertoire interaction during development of antiviral immune response
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2015–2019	-Изучение динамики системы клеточного адаптивного иммунитета при флавивирусной инфекции
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2017–2020	-
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Publications

- 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)
- 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)
3. 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+ 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)
 4. Sycheva AL, Komech EA, Pogorelyy MV, Minervina AA, Urazbakhtin SZ, Salnikova MA, Vorovitch MF, Kopantzev EP, Zvyagin IV, Komkov AY, Mamedov IZ, **Lebedev YB** (2022). Inactivated tick-borne encephalitis vaccine elicits several overlapping waves of T cell response. *Front Immunol* 13, 970285, [10.3389/fimmu.2022.970285](https://doi.org/10.3389/fimmu.2022.970285)
 5. Urazbakhtin S, Smirnova A, Volakhava A, Zerkalnikova E, Salyutina M, Doubek M, Jelinkova H, Khudainazarova N, Volchkov E, Belyaeva L, Komech E, Pavlova S, **Lebedev Y**, Plevova K, Olshanskaya Y, Komkov A, Mamedov I (2022). The Absence of Retroelement Activity Is Characteristic for Childhood Acute Leukemias and Adult Acute Lymphoblastic Leukemia. *Int J Mol Sci* 23 (3), , [10.3390/ijms23031756](https://doi.org/10.3390/ijms23031756)
 6. **(conference)** Sycheva AL, Pogorelyy MV, Komech EA, Urazbakhtin SZ, Minervina AA, Kopancev EP, Vorovitch MF, Zvyagin IV, Mamedov IZ, **Lebedev YB** (2021). Features of T-cell immune response to tick-borne encephalitis vaccine. *Eur J Immunol* 51 (S1), 1–448, <https://doi.org/10.1002/eji.202170200>
 7. **(conference)** Zvyagin IV, Blagov S, Fomchenkova V, Fadeeva M, Komech EA, Zhogov V, Barinova AA, Mikelov AI, Sycheva AL, **Lebedev YB**, Maschan MA (2021). T cell repertoire sequencing to study the contribution of different donor T cell subsets to patient repertoire at the early stage after $\alpha\beta$ T/CD19-depleted allogeneic hematopoietic stem cell transplantation. *Eur J Immunol* 51 (S1), 1–448, <https://doi.org/10.1002/eji.202170200>
 8. **(conference)** Комеч ЕА, Звягин ИВ, **Лебедев ЮБ**, Сальникова МА, , Минервина АА (2021). T-CELL REPERTOIRE OF SYNOVIAL FLUID IN SPONDYLOARTHROPATHIES EXHIBITS HALLMARKS OF HLA-DEPENDENT CLONAL EXPANSIONS AND REMAINS STABLE OVER 1.5 YEARS. *Ann Rheum Dis* (80), 204, [10.1136/annrheumdis-2021-eular.3498](https://doi.org/10.1136/annrheumdis-2021-eular.3498)
 9. Kovalenko EI, Zvyagin IV, Streltsova MA, Mikelov AI, Erokhina SA, Telford G, Sapozhnikov AM, **Lebedev YB** (2021). Surface NKG2C identifies differentiated $\alpha\beta$ T-cell clones expanded in peripheral blood. *Front Immunol* 11, 613882, [10.3389/fimmu.2020.613882](https://doi.org/10.3389/fimmu.2020.613882)
 10. 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)
 11. Komkov AY, Urazbakhtin SZ, Saliutina MV, Komech EA, Shelygin YA, Nugmanov GA, Shubin VP, Smirnova AO, Bobrov MY, Tsukanov AS, Snezhkina AV, Kudryavtseva AV, **Lebedev YB**, Mamedov IZ (2020). SeqURE – a new copy-capture based method for sequencing of unknown Retroposition events. *Mob DNA* 11 (1), 33, [10.1186/s13100-020-00228-6](https://doi.org/10.1186/s13100-020-00228-6)
 12. **(conference)** Mikelov AI, Komech EA, **Lebedev YB**, Zvyagin IV (2020). In- and off- season peripheral blood T cell repertoire profiling of patients with birch pollen allergy. *Allergy* 75 (S109), 188, [10.1111/all.14506](https://doi.org/10.1111/all.14506)
 13. **(conference)** Комков АЮ, Мамедов ИЗ, **Лебедев ЮБ**, Атапина Е (2020). A cost-effective quasi single-cell assay for deciphering of clonal architecture of leukemic cells. *Klin Padiatr* 232 (3), e7, [10.1055/s-0040-1709799](https://doi.org/10.1055/s-0040-1709799)
 14. 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)
 15. Rosati E, Pogorelyy MV, Dowds CM, Moller FT, Sorensen SB, **Lebedev YB**, Frey N, Schreiber S, Spehlmann ME, Andersen V, Mamedov IZ, Franke A (2019). Identification of disease-associated traits and clonotypes in the T-cell receptor repertoire of monozygotic twins affected by inflammatory bowel diseases. *J Crohns Colitis* 14 (6), 778–790, [10.1093/ecco-jcc/ijz179](https://doi.org/10.1093/ecco-jcc/ijz179)
 16. 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)
 17. 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)
18. (conference) 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.
 19. 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)
 20. Nugmanov GA, Komkov AY, Saliutina MV, Minervina AA, **Lebedev YB**, Mamedov IZ (2019). [A Pipeline for the Error-free Identification of Somatic Alu Insertions in High-throughput Sequencing Data]. *Mol Biol (Mosk)* 53 (1), 154–165, [10.1134/S0026898419010117](https://doi.org/10.1134/S0026898419010117)
 21. Nugmanov GA, Komkov AY, Saliutina MV, Minervina AA, **Lebedev YB**, Mamedov IZ (2019). A Pipeline for the Error-Free Identification of Somatic Alu Insertions in High-Throughput Sequencing Data. *Mol Biol* 53 (1), 138–146, [10.1134/S0026893319010114](https://doi.org/10.1134/S0026893319010114)
 22. 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)
 23. Komkov AY, Minervina AA, Nugmanov GA, Saliutina MV, **Lebedev YB**, Mamedov IZ, Khodosevich KV (2018). An advanced enrichment method for rare somatic retroelement insertions sequencing. *Mob DNA* 9 (1), 31, [10.1186/s13100-018-0136-1](https://doi.org/10.1186/s13100-018-0136-1)
 24. (conference) Комеч ЕА, Колтакова АД, Мясоутова АА, Коротаева ТВ, Шмидт НИ, Шостак НА, **Лебедев ЮБ**, Звягин ИВ (2018). Клональная характеристика Т-лимфоцитов очага воспаления у больных со спондилоартропатиями. *Nauchno-Prakticheskaya Revmatologiya* 56 (3), 91.
 25. (conference) Звягин ИВ, **Лебедев ЮБ**, Мясоутова АА, Комеч ЕА (2018). TCRbeta CDR3 motif is detected in synovial fluid of patients with different spondyloarthropathies. *FEBS Open Bio* 8, 489.
 26. (conference) 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/αβT cell depletion and donor lymphocyte infusion. *FEBS Open Bio* 8 (S1), 281: P.09–230–Tue.
 27. 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)
 28. Komech EA, Zvyagin IV, Pogorelyy MV, Mamedov IZ, Fedorenko DA, **Lebedev YB** (2018). Characterization of the T-cell repertoire after autologous HSCT in patients with ankylosing spondylitis. *Acta Naturae* 10 (2), 48–57, [10.32607/2075851-2018-10-2-48-57](https://doi.org/10.32607/2075851-2018-10-2-48-57)
 29. 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)
 30. 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)
 31. 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)
 32. Komech EA, Zvyagin IV, Pogorelyy MV, Mamedov IZ, Fedorenko DA, **Lebedev YB** (2018). Characterization of the T-cell Repertoire after Autologous HSCT in Patients with Ankylosing Spondylitis. *Acta Naturae* 10 (2), 48–57, [10.32607/20758251-2018-10-2-48-57](https://doi.org/10.32607/20758251-2018-10-2-48-57)
 33. 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)
34. Komkov A, Miroshnichenkova A, Minervina A, Nugmanov G, **Lebedev Y**, Mamedov I, Olshanskaya Y, Maschan M (2017). High-throughput sequencing for diagnostics of minimal residual disease in acute lymphoblastic leukemia. *Klin Padiatr* , , [10.1055/s-0037-1602224](https://doi.org/10.1055/s-0037-1602224)
 35. (conference) 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.
 36. 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)
 37. (conference) Сычева АЛ, Погорельный МВ, Комеч ЕА, Звягин ИВ, Мамедов ИЗ, **Лебедев ЮБ** (2017). Изучение малых субпопуляций активированных Т-лимфоцитов из крови доноров, вакцинированных против вируса жёлтой лихорадки. , 98.
 38. (conference) 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.
 39. 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)
 40. (conference) 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)
 41. (conference) Погорельный МВ, Сычева АЛ, Мамедов ИЗ, Мора Т, Вальзак АМ, **Лебедев ЮБ** (2016). Клоны Т-клеток пуповинной крови обнаруживаются в репертуарах Т-клеточных рецепторов взрослых доноров. , 23.
 42. Minervina AA, Komkov AY, Mamedov IZ, **Lebedev YB** (2016). Advanced lymphoblastic clones detection in T-cell leukemia. *Dokl Biochem Biophys* 467 (1), 85–88, [10.1134/S1607672916020022](https://doi.org/10.1134/S1607672916020022)
 43. (conference) Сычева АЛ, Погорельный МВ, Комеч ЕА, Мамедов ИЗ, **Лебедев ЮБ** (2016). Динамика Т-клеточного репертуара человека в ходе противогриппозной вакцинации и ревакцинации. , 27.
 44. Komkov AY, Miroshnichenkova AM, Olshanskaya YV, Myakova NV, Diakonova YY, Minervina AL, Mamedov IZ, **Lebedev YB**, Maschan AA, Maschan MA (2016). Detection of immunoglobulin genes rearrangements in patients with acute lymphoblastic leukemia using highthroughput next generation sequencing. *Probl Gematol Pereliv Krovi* 61 (4), 200–204, [10.18821/0234-5730-2016-61-4-200-204](https://doi.org/10.18821/0234-5730-2016-61-4-200-204)
 45. 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)
 46. (conference) Pogorelyy MV, Sycheva AL, Komech EA, Marcou Q, Elhanati Y, Mora T, Walczak A, Mamedov IZ, **Lebedev YB** (2015). Deep TCR repertoire profiling after seasonal influenza vaccination. , 432.
 47. Kurnosov AA, Ustyugova SV, Nazarov VI, Minervina AA, Komkov AY, Shugay M, Pogorelyy MV, Khodosevich KV, Mamedov IZ, **Lebedev YB** (2015). The evidence for increased L1 activity in the site of human adult brain neurogenesis. *PLoS One* 10 (2), e0117854, [10.1371/journal.pone.0117854](https://doi.org/10.1371/journal.pone.0117854)
 48. Egorov ES, Merzlyak EM, Shelentov 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)
 49. Zvyagin IV, Pogorelyy MV, Ivanova ME, Komech EA, Shugay M, Bolotin DA, Shelentov 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)

50. 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)
51. 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)
52. 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)
53. Kurnosov AA, Ustyugova SV, Pogorelyy MV, Komkov AY, Bolotin DA, Khodosevich KV, Mamedov IZ, **Lebedev YB** (2013). A novel approach to identification of somatic retroelements' insertions in human genome. *Russ. J. Bioorganic Chem.* 39 (4), 417–425, [10.1134/S1068162013040110](https://doi.org/10.1134/S1068162013040110)
54. 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)
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