

Curriculum vitae

Yuri Borisovich Lebedev, D. Sc.

Head of Laboratory of Comparative and Functional Genomics,
Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, Russ. Acad. Sci.
Miklukho-Maklaya 16/10, Moscow 117997, Russia

Phone: +7(495) 330 4288

Fax: +7(495) 330 4288

E-mail: lebedev_yb@ibch.ru
<http://humgen.siobc.ras.ru/research/evol.html>
<http://labcfg.ibch.ru>

Education and degrees:

1978: B.Sc. in Microbiology and Biochemistry, Moscow State University;
1987: Ph.D. in Bioorganic Chemistry, Thesis title: "Rearrangements of *c-fos* and *c-myc* protooncogenes in human tumours";
1989-90 Post-doctoral training as Visiting Scientist at Memorial Sloan-Kettering Cancer Center, New-York, USA;
2004 D.Sc. in Molecular Biology, Thesis title: "Human endogenous retroviruses: structure-evolutional analysis"

Academic and research positions:

1978-81 Research Fellow at the Institute of Bioorganic Chemistry, Russian Academy of Sciences, Moscow, Russia
1982-87 Junior Researcher, *ibid*
1987-89 Researcher, *ibid*
1989-90 Visiting Scientist at Memorial Sloan-Kettering Cancer Center, New-York, USA
1990-92 Group Leader at Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, Russian Academy of Sciences, Moscow, Russia
1992-2006 Senior Scientist at Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, Russian Academy of Sciences, Moscow, Russia
1993-1997 Short-lived Visiting Scientist BBRP LLNL, Livermore CA, USA
2006-present Head of the laboratory at Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, Russian Academy of Sciences, Moscow, Russia

Other affiliations:

Member, Russian Society of Biochemistry, 1989 - present
Member, Federation of European Biochemistry Societies, 1980-1987
Member, Human Genome Organization (HUGO), 1993-present

Publications:

1. Lebedev YB, Amosova AL, Mamedov IZ, Fisunov GY, Sverdlov ED. 2007 Most recent AluY insertions in human gene introns reduce the content of the primary transcripts in a cell type specific manner. *Gene*.390:122-129.
2. Ustyugova SV, Lebedev YB, Sverdlov ED. 2006. Long L1 insertions in human gene introns specifically reduce the content of corresponding primary transcripts. *Genetica* 128(1-3):261-272.
3. S.V. Ustyugova, A.L. Amosova, Yu.B. Lebedev, E.D. Sverdlov, 2006, A Tissue-Specific Decrease in the Pre-mRNA Level of L1- and Alu-Containing Alleles of Human Genes. ISSN 1068-1620, Russian Journal of Bioorganic Chemistry, 2006, Vol. 32, No. 1, pp. 93–95.
4. Buzdin A, Vinogradova T, Lebedev Y, Sverdlov E. 2005 Genome-wide experimental identification and functional analysis of human specific retroelements. *Cytogenet Genome Res.*;110(1-4):468-474. Review.
5. Ustyugova SV, Amosova AL, Lebedev YB, Sverdlov ED. 2005. Cell line fingerprinting using retroelement insertion polymorphism. *Biotechniques*. 38(4):561-565
6. Kutuev I, Khusainova R, Karunas A, Yunusbayev B, Fedorova S, Lebedev Y, Hunsmann G, Khusnutdinova E. 2006. From East to West: Patterns of Genetic Diversity of Populations Living in Four Eurasian Regions. *Hum Hered.*;61(1):1-9.
7. Mamedov IZ, Arzumanyan ES, Amosova AL, Lebedev YB, Sverdlov ED. 2005 Whole-genome experimental identification of insertion/deletion polymorphisms of interspersed repeats by a new general approach. *Nucleic Acids Res.*, 33(2):e16
8. Mamedov I, Lebedev Y, Hunsmann G, Khusnutdinova E, Sverdlov E. 2004 A rare event of insertion polymorphism of a HERV-K LTR in the human genome. *Genomics*. 84: 596-599
9. Khodosevich K, Lebedev Y, Sverdlov ED. 2004 [The Tissue-Specific Methylation of Human-Specific Endogenous Retroviral LTRs] *Russian Journal of Bioorganic Chemistry*, Vol. 30, No. 5, , pp. 441–445.
10. Mamedov I, Lebedev Y, Sverdlov E. 2004. Unusually long Target Site Duplications flanking some of HERV-K LTRs in the human genome. *J Gen Virol*. 85(6):1485-1488
11. Lebedev Y. 2004 Genome-wide search for human specific retroelements. In: Sverdlov ED (editor). *Retroviruses and primate genome evolution*. Eurekah.com/ Landes Bioscience Georgetown, TX, USA, 2005. p 144-161
12. Khodosevich K, Lebedev Y, Sverdlov ED. 2004 Large-scale determination of the methylation status of retrotransposons in different tissues using a methylation tags approach. *Nucleic Acids Res.*;32(3):E31.
13. Stauffer Y, Theiler G, Sperisen P, Lebedev Y, Jongeneel CV. 2004 Digital expression profiles of human endogenous retroviral families in normal and cancerous tissues. *Cancer Immun.*;4:2.
14. Khusainova RI, Akhmetova VL, Kutuev IA, Salimova AZ, Korshunova TI, Lebedev IuB, Khusnutdinova EK. 2004 [Genetic structure of people from the Volga-Ural region and Central Asia from data of Alu-polymorphism] *Genetika.*;40(4):552-9. Russian.
15. Glazkova DV, Nadezhdin EV, Vinogradova TV, Lebedev IuB, Bronholdt D, Grzheschik KX, Arman IP, Sverdlov ED. 2003 [Nucleotide sequences of long terminal repeats of the human endogenous retrovirus (LTR HERV-K) on the short arm of chromosome 7: identification, analysis and evaluation of transcriptional activity] *Genetika*;39(5):702-708. Russian.
16. Buzdin A, Ustyugova S, Gogvadze E, Lebedev Y, Hunsmann G, Sverdlov E. 2003 Genome-wide targeted search for human specific and polymorphic L1 integrations. *Hum Genet.*;112(5-6):527-33.
17. Buzdin A, Ustyugova S, Khodosevich K, Mamedov I, Lebedev Y, Hunsmann G, Sverdlov E. 2003 Human-specific subfamilies of HERV-K (HML-2) long terminal repeats: three master genes were active simultaneously during branching of hominoid lineages. *Genomics.*;81(2):149-156.
18. Buzdin AA, Lebedev IuB, Sverdlov ED. 2003 [Human genome-specific HERV-K intron LTR genes have a random orientation relative to the direction of transcription, and, possibly, participated in antisense gene expression regulation] *Bioorg Khim.*;29(1):103-6. Russian.
19. Lebedev IuB, Bolorma V, Kzhishkovska IuG, Ostashkin AS, Il'in KV, Miandina GI, Piagai PE, Itkes AV. 2002 [Integration of the type D Mason-Pfizer monkey virus into the human chromosome] *Mol Biol (Mosk).*;36(6):1012-1014. Russian.
20. Khodosevich K, Lebedev Y, Sverdlov E. Endogenous retroviruses and human evolution. *Comparative and Functional Genomics*, 2002, 3:494-498
21. Buzdin A, Ustyugova S, Gogvadze E, Vinogradova T, Lebedev Y, Sverdlov E. 2002 A new family of chimeric retrotranscripts formed by a full copy of U6 small nuclear RNA fused to the 3' terminus of L1. *Genomics.*, 80:402-406.

22. Mamedov I, Batrak A, Buzdin A, Arzumanyan E, Lebedev Y, Sverdlov ED. Genome-wide comparison of differences in the integration sites of interspersed repeats between closely related genomes. *Nucleic Acids Res.* 2002 Jul 15;30(14):e71.
23. Buzdin A, Khodosevich K, Mamedov I, Vinogradova T, Lebedev Y, Hunsmann G, Sverdlov E. (2002) A Technique for Genome-Wide Identification of Differences in the Interspersed Repeats Integrations between Closely Related Genomes and Its Application to Detection of Human-Specific Integrations of HERV-K LTRs. *Genomics* 79:413-422.
24. Domanskii AN, Akopov SB, Lebedev IuB, Nikolaev LG, Sverdlov ED. 2002 [Enhancer activity of solitary long terminal repeat of the human endogenous retrovirus of the HERV-K family] *Bioorg Khim.*;28(4):341-345. Russian.
25. Kurdyukov SG, Lebedev YB, Artamonova II, Gorodentseva TN, Batrak AV, Mamedov IZ, Azhikina TL, Legchilina SP, Efimenko IG, Gardiner K, Sverdlov ED. (2001) Full-sized HERV-K (HML-2) human endogenous retroviral LTR sequences on human chromosome 21: map locations and evolutionary history. *Gene* 273:51-61
26. Nadezhdin EV, Lebedev YB, Glazkova DV, Bornholdt D, Arman IP, Grzeschik K-H, Hunsmann G, Sverdlov ED. (2001) Identification of paralogous HERV-K LTRs on human chromosomes 3, 4, 7 and 11 in regions containing clusters of olfactory receptor genes. *Mol Genet Genomics.* 265:820-825
27. Lebedev IuB. (2000) Endogenous Retroviruses: A possible role in human cell function. *Molecular Biology (Moscow)* 34:544-553 Review. Russian
28. Lapuk AV, Lebedev YuB, Sverdlov ED. 2000 Human endogenous retrovirus HERV-K/HERV-H evolution in the genome of primates. *Dokl Biochem.*; 373(1-6):150-152.
29. Artamonova II, Gorodentseva TN, Lebedev YuB, Sverdlov ED. 2000 Nonrandom distribution of the endogenous retroviral regulatory elements HERV-K LTR on human chromosome 22. *Dokl Biochem.*; 372(1-6):87-89.
30. Domansky AN, Kopantzev EP, Snezhkov EV, Lebedev YB, Leib-Mosch C, Sverdlov ED. (2000) Solitary HERV-K LTRs possess bi-directional promoter activity and contain a negative regulatory element in the U5 region. *FEBS Lett.* 472:191-195.
31. Lebedev YB, Belonovitch OS, Zybrowa NV, Khil PP, Kurdyukov SG, Vinogradova TV, Hunsmann G, Sverdlov ED. (2000) Differences in HERV-K LTR insertions in orthologous loci of humans and great apes. *Gene* 247:265-272.
32. Belyaeva OV, Balanovsky OP, Ashworth LK, Lebedev YB, Spitsyn VA, Guseva NA, Erdes S, Mikulich AI, Khusnutdinova EK, Limborska SA. 1999 Fine mapping of a polymorphic CA repeat marker on human chromosome 19 and its use in population studies. *Gene.* 16;230(2):259-66.
33. Lapuk AV, Khil PP, Lavrentieva IV, Lebedev YB, Sverdlov ED. (1999) A human endogenous retrovirus-like (HERV) LTR formed more than 10 million years ago due to an insertion of HERV-H LTR into the 5' LTR of HERV-K is situated on human chromosomes 10, 19 and Y. *J Gen Virol.* 80 (Pt 4):835-839.
34. 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.* 443:341-347.
35. 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.* Dec;262(4-5):721-9.
36. Klinov DV, Lagutina IV, Prokhorov VV, Neretina T, Khil PP, Lebedev YB, Cherny DI, Demin VV, Sverdlov ED. 1998 High resolution mapping DNAs by R-loop atomic force microscopy. *Nucleic Acids Res.* ;26(20):4603-10.
37. Lavrentieva I, Khil P, Vinogradova T, Akhmedov A, Lapuk A, Shakhova O, Lebedev Y, Monastyrskaya G, Sverdlov ED. (1998) Subfamilies and nearest-neighbour dendrogram for the LTRs of human endogenous retroviruses HERV-K mapped on human chromosome 19: physical neighbourhood does not correlate with identity level. *Hum Genet.* 102:107-116.
38. Akopov SB, Nikolaev LG, Khil PP, Lebedev YB, Sverdlov ED. (1998) Long terminal repeats of human endogenous retrovirus K family (HERV-K) specifically bind host cell nuclear proteins. *FEBS Lett.* 421:229-233.
39. Khil PP, Lebedev IuB, Sverdlov ED. 1998 [Long terminal repeat of the human endogenous retrovirus HERV-K in the intron of the ZNF91 gene] *Bioorg Khim.*, 24(2):126-131. Russian
40. Khil' PP, Lebedev IuB, Sverdlov ED. 1998 [New putative gene from human retrovirus-containing locus on chromosome 19] *Bioorg Khim.* ;24(1):72-74.

41. Vinogradova T, Volik S, Lebedev Y, Shevchenko Y, Lavrentyeva I, Khil P, Grzeschik KH, Ashworth LK, Sverdlov E. 1997 Positioning of 72 potentially full size LTRs of human endogenous retroviruses HERV-K on the human chromosome 19 map. Occurrences of the LTRs in human gene sites. *Gene.*;199(1-2):255-264.
42. Khil' PP, Lebedev IuB, Sverdlov ED. 1997 [Subfamilies of long terminal repeats (LTR) of human endogenous retroviruses of the HERV-K type] *Dokl Akad Nauk.* Oct;356(6):833-7. Russian.
43. Khil' PP, Kostina MB, Azhikina TL, Kolesnik TB, Lebedev IuB, Sverdlov ED. 1997 [Structural characteristics of four long terminal repeats (LTR) of human endogenous retroviruses and features of their integration sites] *Bioorg Khim.*;23(5):434-40. Russian.
44. Lebedev Y, Akopyants N, Azhikina T, Shevchenko Y, Potapov V, Stecenko D, Berg D, Sverdlov E. 1996 Oligonucleotides containing 2-aminoadenine and 5-methylcytosine are more effective as primers for PCR amplification than their nonmodified counterparts. *Genet Anal.*;13(1):15-21.
45. Lebedev YB, Volik SV, Obradovic D, Ermolaeva OD, Ashworth LK, Lennon GG, Sverdlov ED. 1995 Physical mapping of sequences homologous to an endogenous retrovirus LTR on human chromosome 19. *Mol Gen Genet.*;247(6):742-8.
46. Borodin A, Kopatnjev E, Wagner L, Volik S, Ermolaeva O, Lebedev Y, Monastyrskaya G, Kunz J, Grzeschik KH, Sverdlov E. 1995 An arrayed library enriched in hncDNA corresponding to transcribed sequences of human chromosome 19: preparation and analysis. *Genet Anal.*;12(1):23-31.
47. Volik S, Lebedev Y, Nikolaev L, Shevchenko Y, Vinogradova T, Kopantzev E, Kolesnik T, Monastyrskaya G, Kunz U, Grzeschik KH, Ashworth LK, Lennon G, Sverdlov E. 1995 Mapping of transcribed sequences on human chromosome 19. *DNA Seq.*;6(1):13-26.
48. Obradovich D, Borodin AM, Kopantzev EP, Vagner LL, Volik SV, Ermolaeva OD, Lebedev IuB, Monastyrskaya GS, Sverdlov ED. 1994 [Isolation and characteristics of an ordered library of transcribed sequences of human chromosome 19 from hybrid human-hamster cells] *Bioorg Khim.*;20(8-9):919-31. Russian.
49. Lebedev IuB, Shevchenko Iu, Potapov VK, Miasnikov VA, Veselovskaia SV, Brikun I, Berg D, Sverdlov ED. 1994 [Comparison of genomes by polymerase chain reaction using random priming with oligonucleotides analogs, forming strong duplexes] *Dokl Akad Nauk.*;335(6):799-801. Russian..
50. Azhikina TL, Shevchenko IuO, Lebedev IuB, Veselovskaia SV, Miasnikov VA, Potapov VK, Sverdlov ED. 1993 [Oligonucleotides forming highly stable, specific duplexes, their use as primers in sequencing and in the polymerase chain reaction] *Dokl Akad Nauk.*;330(5):642-645. Russian.
51. Michaeli J, Lebedev YB, Richon VM, Chen ZX, Marks PA, Rifkind RA. 1990 Conversion of differentiation inducer resistance to differentiation inducer sensitivity in erythroleukemia cells. *Mol Cell Biol.*;10(7):3535-40.
52. Lebedev IuB, Frolova EI, Revazova ES, Sverdlov ED. 1987 [Structural rearrangement of the c-fos proto-oncogene locus in human melanoma M-1 cells] *Dokl Akad Nauk SSSR.*;297(6):1476-1479. Russian.
53. Ninkina NN, Samarina OP, Revazova ES, Lebedev IuB, Chumakov PM. 1985 [Changes in the gene of the cellular T-antigen (p53) in human tumors] *Dokl Akad Nauk SSSR.*;281(4):958-60. Russian.
54. Gubanov VV, Lebedev IuB, Monastyrskaya GS, Rubtsov PM, Skriabin KG. 1984 [Primary structure of the E. coli DNA region preceding the tryptophan operon genes] *Bioorg Khim.* Mar;10(3):415-417. Russian.
55. Balakhovskii IS, Lebedev IuB. 1982 [Simultaneous determination of the cholesterol and triglyceride content of the blood plasma by infrared spectroscopy] *Lab Delo.*;5(5):281-285. Russian.