

Igor MOKROUSOV, Ph.D., D.Sc.



Permanent affiliation and position:

Head, Laboratory of Molecular Epidemiology and Evolutionary Genetics (former Laboratory of Molecular Microbiology), St. Petersburg Pasteur Institute  
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Birthday: May 1, 1967

Nationality: Russian

Foreign Languages: speak, read, write: English, French, Bulgarian, Polish; read: Swedish.

EDUCATION AND DEGREES

<b>2009, Dec.</b>	<b>D.Sc. in Biology/Microbiology (~Docteur d'etat es sciences/HDR or Doctor Habilitatus)</b> (D.Sc. Thesis: "Genetic diversity and evolution of <i>Mycobacterium tuberculosis</i> ", defended at Institute of Experimental Medicine, Russian Academy of Medical Sciences)
2004, Sept.	10 <sup>th</sup> International Workshop on virus evolution and molecular epidemiology (Drs A. Vandamme, M. Salemi, M. Salminen), Advanced module, KTL, Helsinki, Finland
2002, Sept.	Cours "Molecular tools and epidemiology of tuberculosis" (Director Dr V. Vincent). Institut Pasteur, Paris, France
2000, Jan-Jul.	Postdoc fellowship, Unite de Tuberculose (Dr. Nalin Rastogi), Institut Pasteur of Guadeloupe
1998, May	Workshop "PFGE typing and lysotyping of <i>C. diphtheriae</i> ", Institute Cantacuzino, Bucharest, Romania
1997, Dec.	Course "Modern methods in mycobacteriology", National Reference Mycobacterial Laboratory (Dr. Matti Viljanen), Turku, Finland.
1994	Fellowship (3 months) "Molecular typing of corynebacteria", Unite des Enterobacteries (Prof. P.A.D. Grimont), Institut Pasteur, Paris, France.
<b>1993, June</b>	<b>Ph.D. in Biology/Microbiology</b> (Ph.D. Thesis "Genetical differentiation of <i>Aureobasidium pullulans</i> fungus by PCR" (supervisors: Prof N.P. Elinov, Dr. S.A. Bulat), defended in St.Petersburg Chemical Pharmaceutical University).
1990-1993	Postgraduate Course, Laboratory of Eucaryotes' Genetics, Nuclear Physics Institute and Dept. of Microbiology, Chemical Pharmaceutical University, St.Petersburg, Russia.
<b>1989, June</b>	<b>M.S. in Biotechnology, cum laude</b> (Biotechnology Faculty, St.Petersburg Chemical Pharmaceutical University)

EMPLOYMENT:

2015-present:	Head of laboratory (since Dec. 1, 2015)
2010-2015:	Principal Investigator (Leading Researcher)
1994 – 2010:	Senior Researcher
1993 - 1994:	Researcher
2013, Feb; 2014, Nov	Invited Professor, Universite de Toulouse III (Paul Sabatier), AMIS laboratory
2005, 2006, 2010, 2012, 2013, 2016	Visiting Researcher/Professor, Beijing's Children Hospital, Capital University of Medical Sciences, Beijing, P.R. China
2007, 2008, 2009 (16 months)	Visiting Scientist/Marie Curie Fellow, Unite de la Tuberculose et des Mycobacteries, Institut Pasteur de Guadeloupe
2008 (2 months)	Visiting Scientist, Unite de Pathogenomique Mycobacterienne Integree, IP-Paris
2005, 2011 (5 months):	FEMS Visiting Researcher, The Stephan Angeloff Institute of Microbiology, Bulgarian Academy of Sciences, Sofia, Bulgaria

OTHER ACTIVITIES.

Member of Expert Council of Russian Science Foundation (since 2020)  
 Member of Steering Committee of European Society of Mycobacteriology (2018-2021)  
 Member of Scientific Council of St. Petersburg Pasteur Institute (2010-)  
 Member of High level group of Russian Ministry of Health on development of new standard of molecular epidemiological control of tuberculosis in Russia (2010-2012).  
 Member of International Scientific Council of The Stephan Angeloff Institute of Microbiology, Sofia, Bulgaria (2011-2013, 2017-2020).

**EDITOR:** PLoS ONE (Academic Editor since Dec. 2008: 290 articles); BMC Microbiology (Associate Editor since Dec. 2009 to Jan. 2014: 58 articles; Section Editor since Jan. 2014: 306 articles); Infection, Genetics and Evolution (Editor since Aug. 2010: 367 articles) – as of July 2020.

Guest Editor (with Nalin Rastogi and Stefan Niemann) of Special Issue “Molecular evolution, epidemiology and pathogenesis of *Mycobacterium tuberculosis* and other mycobacteria” by Infection Genetics and Evolution (June, 2012): <http://www.sciencedirect.com/science/journal/15671348/12/4>

Guest Editor (with Tomasz Jagielski) of Special Issue “Molecular aspects of mycobacterial infections” by Infection Genetics and Evolution (August, 2019): <https://www.sciencedirect.com/science/journal/infection-genetics-and-evolution/vol/72/suppl/C>

Guest Editor of Virtual Special Issue “St.Petersburg Symposium on Tuberculosis and Mycobacteria: Molecular Approach” by Infection Genetics and Evolution (2020). <https://www.sciencedirect.com/science/journal/infection-genetics-and-evolution/special-issue/10WPCGRNBLF>

Editorial Board member:

International Journal of Mycobacteriology (Elsevier)– since 2015.

Biomedical and Biotechnology Research Journal (Wolters Kluwer) – since 2016.

Acta Microbiologica Bulgarica (Union of Scientists in Bulgaria) – since 2015

Pediatric Investigations (Wiley) – since 2016

Deputy Editor in Chief: Russian Journal of Infection and Immunity (since 2015)

**REVIEWER:** PNAS, Lancet Infectious Diseases, Clinical Microbiology Reviews, Journal of Bacteriology, Journal of Clinical Microbiology, Emerging Infectious Diseases, Molecular Ecology, Antimicrobial Agents and Chemotherapy, Journal of Antimicrobial Chemotherapy, Journal of Infectious Diseases, Microbiology, Journal of Theoretical Biology, Clinical Microbiology and Infection, FEMS Microbiology Letters, Tuberculosis, Infection Genetics and Evolution, Clinical Infectious Diseases, Journal of Medical Microbiology, International Journal of Tuberculosis and Lung Diseases, Clinical Chemistry, International Journal of Infectious Diseases, BMC Microbiology/ Evolutionary Biology/Infectious Diseases/Pulmonary Medicine/ Pediatrics, PLOS.

**EXPERT:** Russian Academy of Sciences, Russian Science Foundation, Wellcome Trust (UK), Medical Research Council England, European Respiratory Society, ANR-France, PTR program of Institut Pasteur Paris, AFSSA-France, Medical Research Scotland, Medical Research Council South Africa, National Research Foundation South Africa, FONDECYT-Chile (National Fund for Scientific and Technological Development); Czech Science Foundation (GAČR), National Science Center (Poland), Fonds National de la Recherche (Luxembourg), National Centre of Science and Technology evaluation (Kazakhstan). The Joint Programming Initiative on Antimicrobial Resistance (JPIAMR)

## AWARDS

1997, 1999, 2002 ESCMID Travel grants to attend ECCMID Congresses

2004, Annual Scientific Prize of the International Union Against Tuberculosis and Lung Disease

2005, 2009, 2013, Honor Awards from Russian Ministry of Health

2008-2009, Marie Curie Fellow (Institut Pasteur de Guadeloupe)

2012, Honor Award from Russian Federal Sanitary and Epidemiological Service

## PROJECTS (since 2006)

- NATO Science for Peace program, project SFP-982319 «Detect Drug-Resistant TB», 2006-2010 (with Institut Pasteur of Guadeloupe/France and Institute of Microbiology, Bulgaria);
- Marie Curie International Fellowship to Igor Mokrousov from European Commission MIF1-CT-2007-039389 "Multidrug-resistant and hypervirulent tuberculosis: integral approach to rapid detection and evolution", 12-months research project done in Pasteur Institute of Guadeloupe in 2008-2009.
- Joint Russian Foundation for Basic Research and National Science Foundation of China project №11-04-91172 «Interaction and co-adaptation of human and *Mycobacterium tuberculosis* populations at genetic level», 2011-2012. (with Beijing Children's Hospital);
- European Union FP7 program FP7-HEALTH-2010-single-stage, project #261378 «Open Collaborative Model for Tuberculosis Lead Optimisation», 2011-2015. (consortium of 12 partners, coordinated by GSK-Spain);

- Project supported by Russian Ministry of Science “Development of express method to detect major Russian M. tuberculosis MDR/XDR genotypes”, 2012-2013. (consortium coordinated by Institute of Physico-Chemical Medicine, Moscow);
- Russian Foundation for Basic Research project 13-04-91445 «Driving forces of HIV/MDR-TB epidemics: role of Mycobacterium tuberculosis genotypes and changes in the pharmacokinetics of antiretroviral and anti-tuberculosis drugs in patients of East Siberia», 2013-2014. (coordinated by Scientific Centre for Family Health and Human Reproduction Problems (Irkutsk, Russia), project PI - Dr Ogarkov)
- Russian Science Foundation Project 14-15-00689 «Specific features of proteins expressed by Mycobacterium tuberculosis Beijing B0 cluster in vitro and in vivo» (coordinated by Institute of Physico-Chemical Medicine, Moscow), 2014-2016.
- Russian Foundation for Basic Research project №17-54-30020 «A personalized approach to fight the HIV and drug resistant TB epidemic in Irkutsk, Siberia» (coordinated by Scientific Centre for Family Health and Human Reproduction Problems, Irkutsk, Russia; project PI - Dr Ogarkov). 2017-2019.
- Russian Science Foundation Project #14-14-00292 «Evolution of pathogenetic potential of phylogenetic lineages of Mycobacterium tuberculosis», 2014-2015 (PI – Dr Mokrousov). New grant received for extension in 2017-2018.
- Russian Foundation for Basic Research project 17-04-00367 "Population of Mycobacterium tuberculosis in the Western Siberia region: current molecular epidemiology in the context of macroevolutionary reconstruction" (PI – Dr Mokrousov) 2017-2018.
- Russian Foundation for Basic Research project 18-04-01035 "Investigation of the role of the repeat element IS6110 in the micro- and macroevolution of Mycobacterium tuberculosis phylogenetic lineage 2" (PI - E. Shitikov, Center of Physico-Chemical Medicine, Moscow), 2018-2019
- Russian Foundation for Basic Research project 19-04-00263 "Pathogenomic features and epidemic potential of highly resistant strains of ancient sublineage of Mycobacterium tuberculosis Beijing genotype" (PI – I. Mokrousov), 2019-2020.
- Joint project with National Institute for Public Health and Environment (RIVM, Bilthoven, Netherlands) on drug resistant tuberculosis, 2018-2020 (co-PI: I. Mokrousov and R. Anthony). 2018-2021
- Russian Science Foundation Project 19-14-00013 (“Uneven evolutionary and epidemic trajectory of the paradoxical ancient subtype of the East Asian lineage of Mycobacterium tuberculosis: stochastic fluctuations or causative correlations?” PI – Igor Mokrousov), 2019-2021.
- Project supported by PTR program of Institut Pasteur Paris “Transcriptional Response for Antimicrobial Resistance detection in TB” (Coordinator An van den Bossche, Belgium; Russian PI- Igor Mokrousov). 2019-2021
- Russian Foundation for Basic Research project 20-04-00686 “Deep machine learning methods in Mycobacterium tuberculosis genomics for the building of an open platform for the analysis of the pathogen’s evolutionary signatures” (PI - E. Shitikov, Center of Physico-Chemical Medicine, Moscow), 2020-2022
- Russian Foundation for Basic Research 19-515-55009 (joint project cofounded by National Natural Science Foundation China) “Integral insight into development of drug resistant tuberculosis in adults versus children: impact of bacterial strain and surrounding microbiome” (PI - Dr Zhdanova Scientific Centre for Family Health and Human Reproduction Problems, Irkutsk, Russia), 2020-2022
- RFBR BRICS project 2021-2022

**Projects before 2006: International projects: Leading scientist in the projects funded by:**  
ACIP (1996-98), French Academy of Sciences (2000-2001), INTAS, IAEA (1999-2002).

**TEACHING.** International Workshop ‘Methods for DNA fingerprinting and genotypic detection of drug resistance of *Mycobacterium tuberculosis*’. The Stephan Angeloff Institute of Microbiology, Sofia, 25-31/10/2004

#### PhD STUDENT SUPERVISION RECORD.

##### **PhD student at St. Petersburg Pasteur Institute:**

Alena Gerasimova – 2020 (scheduled) - Characterization of Mycobacterium tuberculosis strains in patients with HIV infection and central nervous system tuberculosis

##### **PhD students at Capital Medical University, Beijing, China**

Wang Ting – 2017 - Clinical and drug-resistant properties of the new cases of Mycobacterium tuberculosis in children in northern China.

Qin-jing Li - 2017 - The role of rpoA/C mutations in the occurrence and transmission of Rifampicin resistant Mycobacterium tuberculosis

Qing-qin Yin - 2016 -Characteristics of *Mycobacterium tuberculosis* Clinical Strains from Inpatients and Beijing Strains evolution links to Drug-resistance

Wei-wei Jiao - 2014 - Characteristics of Mycobacterium tuberculosis clinical strains from children in China and strains with different ethambutol resistance level

Xi-rong Wu - 2013 - Pediatric tuberculosis at Beijing Children’s Hospital and the association of gene (*TNFRSF1B IFITM3*) for pediatric tuberculosis

Wei-xing Feng - 2011 - Association analysis between the genes polymorphisms and tuberculosis susceptibility in Chinese Han children

## **PhD student at Institute of Microbiology, Bulgarian Academy of Science**

Violeta Valcheva – 2009 - Molecular genetic characteristics of *Mycobacterium tuberculosis* from different regions of Bulgaria.

**MEMBERSHIP** in scientific societies: Russian Society of Epidemiologists and Microbiologists, Russian Association for Clinical Microbiology and Antimicrobial Chemotherapy (FEMS associated member), European Society of Mycobacteriology, International Union Against Tuberculosis and Lung Disease (member CU-0643622), American Society for Microbiology.

### **PATENTS.**

1. Patent RU 2287586 (Mokrousov I, Otten T, Narvskaya O, Vishnevsky B. Method of genotypic detection of rifampin resistant *Mycobacterium tuberculosis*). Priority: 27.05.2003, registered in State Register of Inventions of Russian Federation: 20.11.2006.
2. Patent RU 2339040 (Mokrousov I, Otten T, Narvskaya O, Vishnevsky B. Method of genotypic detection of isoniazid resistant *Mycobacterium tuberculosis*). Priority: 08.02.2006, registered in State Register of Inventions of Russian Federation: 20.11.2008.
3. Patent RU 2405836 (Mokrousov I, Narvskaya O, Vyazovaya A., Otten T, Vishnevsky B. Method of genotypic detection of *Mycobacterium tuberculosis* Beijing genotype strain). Priority 12.05.2008, registered in State Register of Inventions of Russian Federation: 10.12.2010.
4. Patent RU 2528866 (Mokrousov I., Vyazovaya A., Otten T., Vishnevsky B., Rastogi N., Narvskaya O., Method of detection of *Mycobacterium tuberculosis* Beijing genotype by real-time PCR). Priority 15.07.2011, registered in State Register of Inventions of Russian Federation: 25.07.2014.
5. Patent RU 2684314 (Mokrousov I., Vyazovaya A., Zhuravlev V., Solovieva N., Vishnevsky B., Narvskaya O., Method of detection of *Mycobacterium tuberculosis* Beijing genotype B0-cluster by real-time PCR). Registered in State Register of Inventions of Russian Federation: 05.04.2019. Priority: 30.06.2017.
6. Patent RU 2689800 (Mokrousov I., Vyazovaya A., Chernyaeva E., Solovieva N., Narvskaya O., Zhuravlev V., Method of detection of *Mycobacterium tuberculosis* Beijing genotype 94-32-cluster by real-time PCR). Registered in State Register of Inventions of Russian Federation: 29.05.2019. Priority: 11.12.2017.
7. Patent RU 2689801 (Mokrousov I., Vyazovaya A., Solovieva N., Mushkin A.Y., Vishnevsky B.I., Narvskaya O., Zhuravlev V., Method of detection of *Mycobacterium bovis* BCG strains by real-time PCR). Registered in State Register of Inventions of Russian Federation: 29.05.2019. Priority: 06.06.2018.
8. Patent RU 2735415 “Method for detecting *Mycobacterium tuberculosis* of the Central Asian epidemic cluster of the Beijing genotype” (authors: Mokrousov I.V., Shitikov E.A., Vyazovaya A.A., Skiba Yu.A., Malakhova M.V., Bespyatykh Yu.A., Solovieva N.S., Zhuravlev V.Yu.) Registered in State Register of Inventions of Russian Federation: 02.11.2020. Priority: 15.11.2019.
9. Patent approved 10.12.2020. Mokrousov I., Vyazovaya A., Gerasimova A., Solovieva N., Zhuravlev V. “Method for detection of phylogenetic sublineages of the *Mycobacterium tuberculosis* Beijing genotype by real-time PCR” Priority: 12.05.2020, Application N 2020116755.

### **RESEARCH INTERESTS**

- *In silico* and experimental analysis of bacterial genomes, search for location and function of tandem and interspersed repeats; insertion sequences; development of molecular methods for subtyping bacterial species (*Mycobacterium tuberculosis*, *Corynebacterium diphtheriae*).
- Molecular basis of drug resistance and development of genotypic tools for its detection (*Mycobacterium tuberculosis*).
- Molecular epidemiology and diagnostics of bacterial infections.
- Molecular phylogenetics and evolution of microorganisms
- Human phylogeography, co-evolution of *H. sapiens* and *M. tuberculosis*
- Genetic basis of human susceptibility to tuberculosis

### **PUBLICATIONS (30 Sept. 2021)**

167 full-text articles in Pubmed/ISI indexed journals (127, English [81– first and/or corresponding author]; and 36, Russian); 11 chapters in 9 books (English). 1 book (Russian).

### **Hirsch index = 36 (WoS core), 38 (WoS, Scopus)**

**Number of citations:** : 4944 (Web of Science core collection 9.10.2021), 5367 (Scopus, 4.10.2021)

Scopus: 172 publications (9.10.2021)

Publons: 190 publications with 4804 citations from the Web of Science Core collection (9.10.2021)

**Google Scholar** (4 Oct 2021):

	All	Since 2016
<u>Citations</u>	8651	3469
<u>h-index</u>	48	30
<u>i10-index</u>	93	70

## Web of Science Researcher ID [J-3640-2014](#)

Complete list in Pubmed: <https://pubmed.ncbi.nlm.nih.gov/?term=mokrousov+is+NOT+mokrousov+is&sort=date>

Recent and main publications (\*-corresponding author).

- Mokrousov I. Major Impact of Massive Migration on Spread of Mycobacterium tuberculosis Strains. In: Human Migration Biocultural Perspectives (Eds M de Lourdes Moreno and M.H. Crawford) Oxford University Press. 2021. pp. 255-267
- Vinogradova T, Dogonadze M, Zabolotnykh N, Badleeva M, Yarusova I, Vyazovaya A, Gerasimova A, Zhdanova S, Vitovskaya M, Solovieva N, Pasechnik O, Ogarkov O, Mokrousov I.\* Extremely lethal and hypervirulent Mycobacterium tuberculosis strain cluster emerging in Far East, Russia. *Emerg Microbes Infect.* 2021 Dec;10(1):1691-1701. **IF 7.1**
- Mokrousov I. Ubiquitous and multifaceted: SIT53 spoligotype does not correlate with any particular family of Mycobacterium tuberculosis. *Tuberculosis (Edinb).* 2020 Nov 19;126:102024.
- Mokrousov I.\*, Akhmedova G, Molchanov V, Fundovnaya E, Kozlova E, Ostankova Y, Semenov A, Maslennikova N, Leontev D, Zhuravlev V, Turkin E, Vyazovaya A. Frequent acquisition of bedaquiline resistance by epidemic XDR Mycobacterium tuberculosis strains in Russia during long-term treatment. *Clin Microbiol Infect.* 2020 Sep 3:S1198-743X(20)30513-9. doi: 10.1016/j.cmi.2020.08.030. Online ahead of print. **IF 7.1**
- Mokrousov I.\*, Vyazovaya A, Levina K, Gerasimova A, Zhuravlev A, Viiklepp P, Kütt M. Spatiotemporal dynamics of drug-resistant Mycobacterium tuberculosis: contrasting trends and implications for tuberculosis control in EU high-priority country. *Transbound Emerg Dis.* 2020 Jul 31. doi: 10.1111/tbed.13758. Online ahead of print. **IF 4.2**
- Mokrousov I.\*, Vyazovaya A, Akhmedova G, Solovieva N, Turkin E, Zhuravlev V. Genetic Variation Putatively Associated with Mycobacterium tuberculosis Resistance to Perchlozone, a New Thiosemicarbazone: Clues from Whole Genome Sequencing and Implications for Treatment of Multidrug-Resistant Tuberculosis. *Antibiotics (Basel).* 2020 Oct 3;9(10):669. doi: 10.3390/antibiotics9100669. **IF 3.9**
- Mokrousov I.\*, Sinkov V, Vyazovaya A, Pasechnik O, Solovieva N, Khromova P, Zhuravlev V, Ogarkov O. Genomic signatures of drug resistance in highly resistant Mycobacterium tuberculosis strains of the early ancient sublineage of Beijing genotype in Russia. *Int J Antimicrob Agents.* 2020 Aug;56(2):106036. **IF 4.6**
- Perdigão J, Silva C, Maltez F, Machado D, Miranda A, Couto I, Rabna P, Florez de Sessions P, Phelan J, Pain A, McNerney R, Hibberd ML, Mokrousov I., Clark TG, Viveiros M, Portugal I. Emergence of multidrug-resistant Mycobacterium tuberculosis of the Beijing lineage in Portugal and Guinea-Bissau: a snapshot of moving clones by whole-genome sequencing. *Emerg Microbes Infect.* 2020 Dec;9(1):1342-1353. **IF 6.2**
- Tafaj S\*, Mokrousov I.\*, Borroni E, Trovato A, Kapisyzi P, Bardhi D, Hafizi H, Bala S, Bulo A, Bino S, Rastogi N, Cirillo D. Peculiar features of the Mycobacterium tuberculosis population structure in Albania. *Infect Genet Evol.* 2020. 78: 104136
- Sharma NC, Efstratiou A, Mokrousov I, Mutreja A, Das B, Ramamurthy T. Diphtheria // Nature Reviews Disease Primers. 2019. 5:81. DOI 10.1038/s41572-019-0131-y. **IF 32.4**
- Mokrousov I.\*, Akhmedova G, Polev D, Molchanov V, Vyazovaya A. Acquisition of bedaquiline resistance by extensively drug-resistant Mycobacterium tuberculosis strain of Central Asian Outbreak clade. *Clin Microbiol Infect.* 2019 Jun 20. pii: S1198-743X(19)30339-8. doi: 10.1016/j.cmi.2019.06.014. [Epub ahead of print]. **IF 6.4**
- Mokrousov I. Current topics of molecular mycobacteriology. *Infect Genet Evol.* 2019 Sep;73:132-138. doi: 10.1016/j.meegid.2019.04.027. Epub 2019 May 4.
- Shitikov E, Vyazovaya A, Malakhova M, Guliaev A, Bespyatykh J, Proshina E, Pasechnik O, Mokrousov I.\*. Simple Assay for Detection of the Central Asia Outbreak Clade of the Mycobacterium tuberculosis Beijing Genotype. *J Clin Microbiol.* 2019 Jun 25;57(7). pii: e00215-19. **IF 4.8**
- Jagielski T, Mokrousov I.\*. Special Issue on Molecular aspects of mycobacterial infections. *Infect Genet Evol.* 2019 Aug;72:1-3.
- Skiba Y, Mokrousov I.\*, Nabirova D, Vyazovaya A, Maltseva E, Malakhova N, et al. *Mycobacterium tuberculosis* RD-Rio strain in Kazakhstan. *Emerg Infect Dis.* 2019 Mar;25(3):604-606 **IF 7.2**
- Mokrousov I.\*, Vyazovaya A, Pasechnik O, Gerasimova A, Dymova M, Chernyaeva E, Tatarintseva M, Stasenko V. Early ancient sublineages of Mycobacterium tuberculosis Beijing genotype: unexpected clues from phylogenomics of the pathogen and human history. *Clin Microbiol Infect.* 2019 Aug;25(8):1039.e1-1039.e6. **IF 5.4**
- Mokrousov I. On sunspots, click science and molecular iconography. *Tuberculosis (Edinb.)* 2018; 110: 91-95

- Vyazovaya A., Levina K., Zhuravlev V., Viiklepp P., Kütt M., Mokrousov I\*. **2018.** Emerging resistant clones of *Mycobacterium tuberculosis* in spatiotemporal context. *Journal of Antimicrobial Chemotherapy*. 2018; 73(2):325-331. IF 5.1
- Mokrousov I\*, Chernyaeva E., Vyazovaya A., Skiba Y., Solovieva N., Valcheva V., Levina K., Malakhova N., Jiao W.W., Gomes L.L., Suffys P.N., Kütt M., Aitkhozhina N., Shen A.D., Narvskaya O., Zhuravlev V. **2018.** A rapid assay for detection of the epidemiologically important Central Asian/Russian strain of the *Mycobacterium tuberculosis* Beijing genotype. *Journal of Clinical Microbiology*. 2018; 56(2). pii: e01551-17.
- Pasechnik O., Vyazovaya A., Vitriv S., Tatarintseva M., Blokh A., Stasenko V., Mokrousov I\*. **2018.** Major genotype families and epidemic clones of *Mycobacterium tuberculosis* in Omsk region, Western Siberia, Russia, marked by a high burden of tuberculosis-HIV coinfection. *Tuberculosis (Edinb.)*. 108: 163–168.
- Mokrousov I\*, Shitikov E., Skiba Y., Kolchenko S., Chernyaeva E., Vyazovaya A. **2017.** Emerging peak on the phylogeographic landscape of *Mycobacterium tuberculosis* in West Asia: Definitely smoke, likely fire. *Molecular Phylogenetics and Evolution* 2017. 116:202-212 IF 4.4
- Ioannidis P., van Soolingen D., Mokrousov I\*, Papaventis D., Karabela S., Konstantinidou E., Marinou I., Nikolaou S., Kanavaki S., Mantadakis E., Samonis G., Anthony R., Vogiatzakis E. **2017.** MDR/XDR tuberculosis in Greece: predominance of *Mycobacterium tuberculosis* genotypes endemic in the Former Soviet Union countries. *Clinical Microbiology and Infection*. 23(12): 1002-1004. IF 5.3
- Mokrousov I. Revisiting the Hunter Gaston discriminatory index: Note of caution and courses of change. **2017.** *Tuberculosis (Edinb.)* 104: 20-23.
- Li QJ, Jiao WW, Yin QQ, Li YJ, Li JQ, Xu F, Sun L, Xiao J, Qi H, Wang T, Mokrousov I\*, Huang HR, Shen AD. **2017.** Positive epistasis of major low-cost drug resistance mutations rpoB531-TTG and katG315-ACC depends on phylogenetic background of *M. tuberculosis* strain. *International Journal of Antimicrobial Agents*. 49:757-762. IF 4.1
- Mokrousov I. **2016.** Emerging resistant clone of *Mycobacterium tuberculosis* in West Asia. *Lancet Infect Dis*. 16 (12): 1326-1327. IF 21.37
- Yin QQ, Liu HC, Jiao WW, Li QJ, Han R, Tian JL, Liu ZG, Zhao XQ, Li YJ, Wan KL\*, Shen AD\*, Mokrousov I\*. **2016.** Evolutionary History and Ongoing Transmission of Phylogenetic Sublineages of *Mycobacterium tuberculosis* Beijing Genotype in China. *Sci Rep*. 6:34353. IF 5.22
- Mokrousov I\*, E. Chernyaeva, A. Vyazovaya, V. Sinkov, V. Zhuravlev , O. Narvskaya. **2016.** Next generation sequencing of *Mycobacterium tuberculosis*. *Emerg Infect Dis*. 22(6):1127-9. IF 6.99.
- Mokrousov I\*, Vyazovaya A, Iwamoto T, Skiba Y, Pole I, Zhdanova S, Arikawa K, Sinkov V, Umpeleva T, Valcheva V, Alvarez Figueroa M, Ranka R, Jansone I, Ogarkov O, Zhuravlev V, Narvskaya O. **2016.** Latin-American-Mediterranean lineage of *Mycobacterium tuberculosis*: Human traces across pathogen's phylogeography. *Mol Phylogenet Evol*. 99:133-143. IF 3.92
- Mokrousov I\*, Vyazovaya I., Solovieva N., Sunchalina T., Markelov Y., Chernyaeva E., Melnikova N., Dogonadze M., Starkova D., Vasilieva N., Gerasimova A., Kononenko Y., Zhuravlev V., Narvskaya O. **2015.** Trends in molecular epidemiology of drug-resistant tuberculosis in Republic of Karelia, Russian Federation. *BMC Microbiology*. 15:279. doi: 10.1186/s12866-015-0613-3.
- Mokrousov I\*, Rastogi N. **2015.** Spacer-Based Macroarrays for CRISPR Genotyping. Chapter in "CRISPR: Methods and Protocols" (Eds. Lundgren M. et al.) Springer/Humana Press. *Methods Mol Biol*. 1311:111-131.
- Skiba Y.\*., Mokrousov I\*, Ismagulova G., Maltseva E., Yurkevich N., Bismilda V., Chingissova L., Abildaev T., Aitkhozhina N. **2015.** Molecular snapshot of *Mycobacterium tuberculosis* population in Kazakhstan: a country-wide study. *Tuberculosis*. 95(5):538-46doi:10.1016/j.tube.2015.04.012.
- Mokrousov I\*. **2015.** *Mycobacterium tuberculosis* phylogeography in the context of human migration and pathogen's pathobiology: insights from Beijing and Ural families. *Tuberculosis (Edinb.)*. 95 Suppl 1:S167-76.
- Vyazovaya A\*, Mokrousov I\*, Solovieva N, Mushkin A, Manicheva O, Vishnevsky B, Zhuravlev V, Narvskaya O. **2015.** Tuberculous spondylitis in Russia and prominent role of multidrug-resistant clone *Mycobacterium tuberculosis* Beijing B0/W148. *Antimicrob. Agents Chemother*. 59(4):2349-2357. IF 4.5
- Merker M, Blin C, Mona S, Duforet-Frebourg N, Lecher S, Willery E, Blum M, Rüsch-Gerdes S, Mokrousov I, Beijing genotype study group, Supply P, Niemann S, Wirth T. **2015.** Evolutionary history and global spread of the *Mycobacterium tuberculosis* Beijing lineage. *Nat Genet*. 47(3):242-9. IF 29.6.
- Mokrousov I. **2014.** Resolution threshold of current molecular epidemiology of diphtheria. *Emerg Infect Dis*. 20: 1937-1938. IF 7.3.
- Mokrousov I\*, Jiao WW, Wan K, Shen A. **2014.** Stranger in a strange land: Ibero-American strain of *Mycobacterium tuberculosis* in Tibet, China. *Infect. Genet. Evol*. 26: 323-326.
- Mokrousov I. 2014. Widely-used laboratory and clinical *Mycobacterium tuberculosis* strains: to what extent they are representative of their phylogenetic lineages? *Tuberculosis (Edinb.)* 94: 355-356.
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### **Participation in international scientific meetings: 57 oral presentations, 15 session co-chair, 3 symposium co-chair.**

- 3<sup>rd</sup> Asian African Congress of Mycobacteriology, online, 27-29.02.2021. invited speaker, session co-chair
- 51st World Conference on Lung Health, 20-24 October 2020 online event. Oral talk
- European Respiratory Society International Congress, Virtual event. 7-9 Sept. 2020. Oral talk
- 50th World Conference on Lung Health. The annual conference of the International Union against Tuberculosis and Pulmonary Diseases, Hyderabad, India 30 October to 2 November 2019. (oral)
- 5th International congress of Moroccan Association of Microbiology. 16-18.10.2019, Ifran, Marocco (plenary)
- VIII Congress of National Association of Phthisiatrists. 25-27.11.2019, St. Petersburg (plenary)
- International workshop “Next generation sequencing and bioinformatics tools for Mycobacterium tuberculosis drug resistance detection and epidemiological analysis” St. Petersburg, 9-10.09.2019. Oral talk and Co-chair of workshop
- 2<sup>nd</sup> St. Petersburg Symposium on Tuberculosis and Mycobacteria, 5-6 Dec 2018. Symposium Chairman; keynote talk.
- 4<sup>th</sup> Institut Pasteur International Network Symposium 2018, Paris, France, 15-16 November 2018. Oral talk, session co-chair.
- 14th Conference of molecular epidemiology and evolutionary genetics of infectious diseases (MEEGID XIV), Sitges, Spain, 6-9 November 2018. Plenary lecture.
- 39<sup>th</sup> Annual Congress of European Society of Mycobacteriology, Dresden, Germany, July 1-4, 2018, oral presentation
- All-Russian scientific and practical conference of phthisiatricians with international participation "Topical issues of TB care in the Russian Federation: consolidation of efforts in the fight against tuberculosis". 31.05.2018, Moscow. Oral presentation.
- Invited lecture at School for Life Science at Nazarbaev University, Astana, Kazakhstan, 3<sup>rd</sup> May 2018
- International Conference "New Approaches to the Elimination of the Epidemic of Tuberculosis", dedicated to the 85th anniversary of the National Research Center for Phthisiopulmonology of the Ministry of Health of the Republic of Kazakhstan, Almaty, 26-27.04.2018. Oral talk.
- 10th Balkan Congress of Microbiology / Microbiologia Balkanica'2017, София, Болгария, 16-18.11.2017. Plenary talk.
- 2nd International conference of human migration "What can Genomic Diversity studies tell us about migration?" Mexico-City, Mexico, 17-21.10.2017. Plenary talk.
- 7th Congress of European Microbiologists (FEMS 2017), Valencia, Spain, 9-13.07.2017. Poster.
- 27<sup>th</sup> ECCMID, 22-25 April 2017, Vienna, Austria. Symposium co-chair.
- IX Congress on molecular diagnostics, Moscow, 18-20.04.2017 Co-chair; oral talk
- Scientific Session dedicated to the 70<sup>th</sup> Anniversary of the Institute of Microbiology, Bulgarian Academy of Sciences. Sofia, Bulgaria, 14-15.03.2017. Plenary talk.
- 2<sup>nd</sup> Asian African Congress of Mycobacteriology, Isfahan, Iran 25-28.02.2017; invited talk, session co-chair.
- 21st European meeting of Paleopathology association. Moscow, 15-19.08.2016. Plenary lecture.
- 37th Annual Congress of European Society of Mycobacteriology, Catania, Italy, 3-6.07.2016 Oral presentation
- MEEGID XIII, Antwerpen, Belgium, 10-12/05/2016. Oral talk, 2 sessions co-chair.
- 89<sup>th</sup> Congress of Japan Society of Bacteriology, Osaka, Japan, 23-28/03/2016. Invited speaker.
- 36<sup>th</sup> Annual Congress of European Society of Mycobacteriology Riga, Latvia **2015** oral talk, session co-chair
- Russian-Chinese Conference (Kashkin Readings) St. Petersburg **2015** invited talk
- 1<sup>st</sup> Asian-African Congress of Mycobacteriology - Isfahan, Iran **2015** invited talk
- Seminar «Santé Environnement Carrefour des Sciences» at Pasteur Institute of Guadeloupe, 04.12.2014 Invited lecture
- 3rd Congress of National Association of Phthisiatrists, St Petersburg, Russia, 27-29.11.2014: section co-chair, oral talk
- Meeting on ongoing global initiative “Whole genome sequencing and data sharing” Organized/supported by FIND, NDWG and BMGF. Barcelona, Spain. 28.10.2014. Oral talk.

Invited lecture at T. Dobzhansky Center of Genome Bioinformatics (St. Petersburg University), St. Petersburg, Russia, 20.10.2014: invited lecture.

13<sup>th</sup> Congress of Microbiologists in Bulgaria, Tryavna, Bulgaria. 7-10.10.2014: invited speaker

3<sup>rd</sup> St. Petersburg Ecological Forum/ Tuberculosis and Mycobacteriosis International Symposium, St. Petersburg, Russia. 23.09.2014: symposium co-chair, oral talk.

Scientific Symposium of Pasteur Institutes, Paris, 10-13.09.2014. Oral talk.

35<sup>th</sup> Annual Congress of European Society of Mycobacteriology, Vienna, Austria, 29.06-2.07.2014. oral talk, session co-chair

VIII Congress on molecular diagnostics, Moscow, 18-20/03/2014: oral presentation, section co-chair.

1<sup>st</sup> International Congress on Pediatric Development, Beijing, China, 8-10.11.2013: invited lecture.

2<sup>nd</sup> meeting of the European Laboratory Initiative on Tuberculosis, European regional office of WHO, Copenhagen, Denmark, 7-8.10.2013: invited speaker

34<sup>th</sup> Annual Congress of European Society of Mycobacteriology, Florence, Italy, 30.06-03.07.2013: oral presentation

Invited lecture, University of Toulouse, 15.03.2013. Toulouse, France (lecture)

1<sup>st</sup> Congress of National Association of Phthisiatrists, St Petersburg, Russia, 18-20.10.2012: oral talk

Scientific Conference with International participation on occasion of 100<sup>th</sup> anniversary of Institute of Epidemiology and Microbiology. Irkutsk, Russia, 27-28.09.2012. Plenary talk.

All-Russian Conference on Medical Microbiology and Mycology, Saint-Petersburg. 28.06.2012: lecture, session co-chair.

Seminar on environmental microbiology, Osaka, Japan: co-presentation 19 March 2012

Tuberculosis Evolution conference, Szeged, Hungary, 03'2012: oral lecture and session co-chair 25 March 2012

Invited lecture, Seminar at Institute of Physico-Chemical Medicine, Moscow, Dec. 2011.

International Workshop “Global phylogeny and host-pathogen compatibility in *Mycobacterium tuberculosis*”, within Eumednet (European Mediterranean network against tuberculosis) FP7 project, Sofia, Bulgaria, 18-20.09.2011: invited speaker.

4<sup>th</sup> Congress of European Microbiologists (FEMS), Geneva, 27-30.06.2011. invited speaker and workshop co-chair.

VII Congress on molecular diagnostics, Moscow, 24-26/11/2010: oral presentation.

30<sup>th</sup> Congress of European Society of Mycobacteriology (Porto, Portugal, 5-8.07.2009), oral presentation

VI Congress on molecular diagnostics, Moscow, 28-30/11/2007: oral presentation.

Annual Scientific Symposium of the International Network of Pasteur Institutes, Teheran, Iran, 17-19.11.2004 1 oral presentation, 1 poster

10<sup>th</sup> International Workshop on virus evolution and molecular epidemiology, Helsinki, Finland, 30.08.-05.09.2004 1 oral presentation

25<sup>th</sup> Congress of European Society of Mycobacteriology Alghero-Sardinia, Italy, 26-30.06.2004 1 oral presentation

Meeting of Mycobacteria and Tuberculosis Study Group of Pasteur Institutes, Paris, France, 16-18.02.2004 1 oral presentation

4<sup>th</sup> International Conference ‘Infectious diseases in the Barents region’. Petrozavodsk, Russia, 2003: co-chair, 1 oral presentation

24<sup>th</sup> Congress of European Society of Mycobacteriology, Tartu, Estonia, 07.2003, 2 oral presentations

International Conference “Tuberculosis: old problem in new millennium”, Novosibirsk, Russia, 07.2002 1 oral presentation

4<sup>th</sup> Nordic Baltic Congress on Infectious Diseases, St. Petersburg, Russia, 05.2002: 1 oral presentation

12<sup>th</sup> European Congress on Clinical Microbiology and Infectious Diseases, Milan, Italy, 04.2002: co-chair of session, 1 oral presentation, 1 poster

3<sup>rd</sup> International Conference ‘Infectious diseases in the Barents region’. Arkhangelsk, Russia, 09.2001: co-chair, 1 oral presentation

Meeting of IAEA Multicenter Project, Delhi, India, 03.2001: 1 oral presentation

Meeting of Mycobacteria and Tuberculosis Study Group of Pasteur Institutes, Alger, 02.2001: 1 oral presentation

Scientific Symposium of the International Network of Pasteur Institutes, XXV Council of Directors of Pasteur Institutes, Bucharest, Romania, 18-21.09.1996: 1 oral presentation, 1 poster

8<sup>th</sup> International Congress “Molecular Plant-Microbe Interactions” Knoxville TN, USA, 14-19.07.1996: 2 posters

International Symposium of the Year Louis Pasteur “Epidemiology and Public Health”, Hanoi, Vietnam, 1995: 1 poster

International Meeting on Diphtheria Epidemic in Europe, St. Petersburg 06/1993: 1 oral presentation

International Symposium on Yeasts, Riga, Latvia, 10/1991: 1 poster