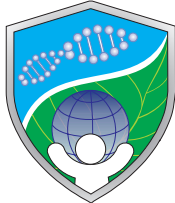




Center for Strategic Planning  
Russian Ministry of Health



120



**POLYTECH**

Peter the Great  
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# St. Petersburg 2019 November 5-7<sup>th</sup>



# ARBIDOL®

THE TREATMENT AND PROPHYLAXIS OF  
INFLUENZA AND ACUTE RESPIRATORY VIRAL  
INFECTIONS IN ADULTS AND CHILDREN

-  Inhibits virus reproduction
-  Reduces the duration of illness by three days<sup>1,4</sup>
-  Reduces the risk of pneumonia by 99%<sup>2,4</sup>
-  Reduces the risk of infection 7 times<sup>3,4</sup>



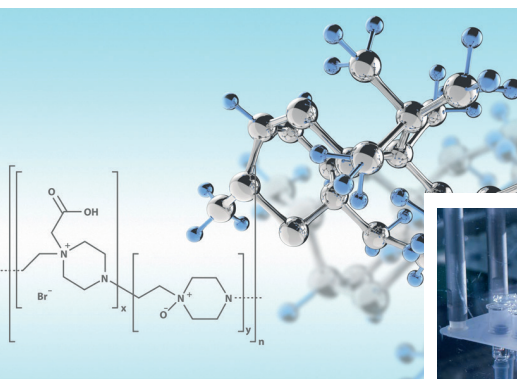
1. Uchaikin v.F., Shamsheva o.V., Molochkova o.V., Bulgakova v.A. Pharmacological and epidemiological study of the course of influenza and other arvi in the season 2010/11 in children under the age of 18. Detskiye infektsii. 2011 vol. 11 p. 9-16. [in russian]  
2. Maileyev v.V., Sel'kova e.P., Prostyakov i.V., Osipova e.A. Pharmacoepidemiological study of the course of influenza and other arvi in the season 2010/11. Infektsionnye bolezni. 2012. №3 p. 15-23. [in russian]  
3. Leneva i.A. Guskova t.A. Arbidol - an effective drug for the treatment and prevention of influenza and arvi: a review of clinical trial. Rmj. 2008. Vol 16. № 29. P. 3-7. [in russian]  
4. the beginning of the treatment within the first 48 hours. compared with patients without antiviral therapy.



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## **WELCOME**

Welcome to Virology Days International Scientific Conference in Saint Petersburg that unites science, education, technology and industry. This event has been co-organised by Smorodintsev Research Institute of Influenza, Center for Strategic Planning and Management of Medical and Biological Health Risks and Peter the Great St. Petersburg Polytechnic University. Virology Days aim to emphasize the importance of research in the field of virology globally and to unite virologists from all over Russia with their foreign colleagues.

The programme addresses the scientific basis for improved vaccines, development of a wider range of antivirals and improving preparedness to biological hazards. The speakers include many of those who contributed significantly to our better understanding of viral pathogenesis as well as young scientists.

We thank all who have contributed to the organization of Virology Days International Scientific Conference and are grateful to the generous support of our sponsors. We believe you will enjoy Virology Days International Scientific Conference and have stimulating experience.

### **SECOND INTERAGENCY ROUND TABLE “IMPROVEMENT OF THE NATIONAL STRATEGY FOR COMBATING INFLUENZA”**

Despite significant progress in the development of vaccines and antiviral drugs for the treatment of patients, influenza infection maintains a leading position in both the Russian and global infectious disease epidemiological structures. Influenza has an important medical and social significance; every year, seasonal influenza epidemics generate significant economic impacts. In addition, influenza is an infection with high pandemic potential. Pandemics occur several times a century and, to date, it is still impossible to predict the time and place of a new pandemic strain's occurrence. Given the suddenness and unpredictability with which new influenza pandemic pathogens emerge, laboratory surveillance of influenza (unlike other infections) needs to be constantly updated and improved due to high pathogen variability. In this regard, ongoing strengthening and expansion of continuous etiological monitoring of influenza viruses and other acute respiratory viral infections, through the development of a multiplex surveillance system (routine, sentinel, hospital), remain priority tasks in the country.

To reduce influenza impacts, the WHO recommends annual vaccination of people at risk for developing severe acute respiratory infections (SARI) or fatal influenza complications. In recent years, more and more attention has been paid in developed countries, not only to vaccination coverage, but also to vaccination strategies, including evaluation of their effectiveness. The development and improvement of domestic vaccines, antiviral drugs, and diagnostic systems are of particular importance given Russia's geographical situation, namely: an extended border with China, as well as mass tourism to Southeast Asia. Currently, Asia is clearly the center of diversity for all circulating influenza viruses that can infect humans. Over the past 20 years, potentially pandemic influenza A strains of subtypes A(H5N1), A(H7N9), A(H9N2), A(H10N8), A(H5N6), and others have come from Asia.

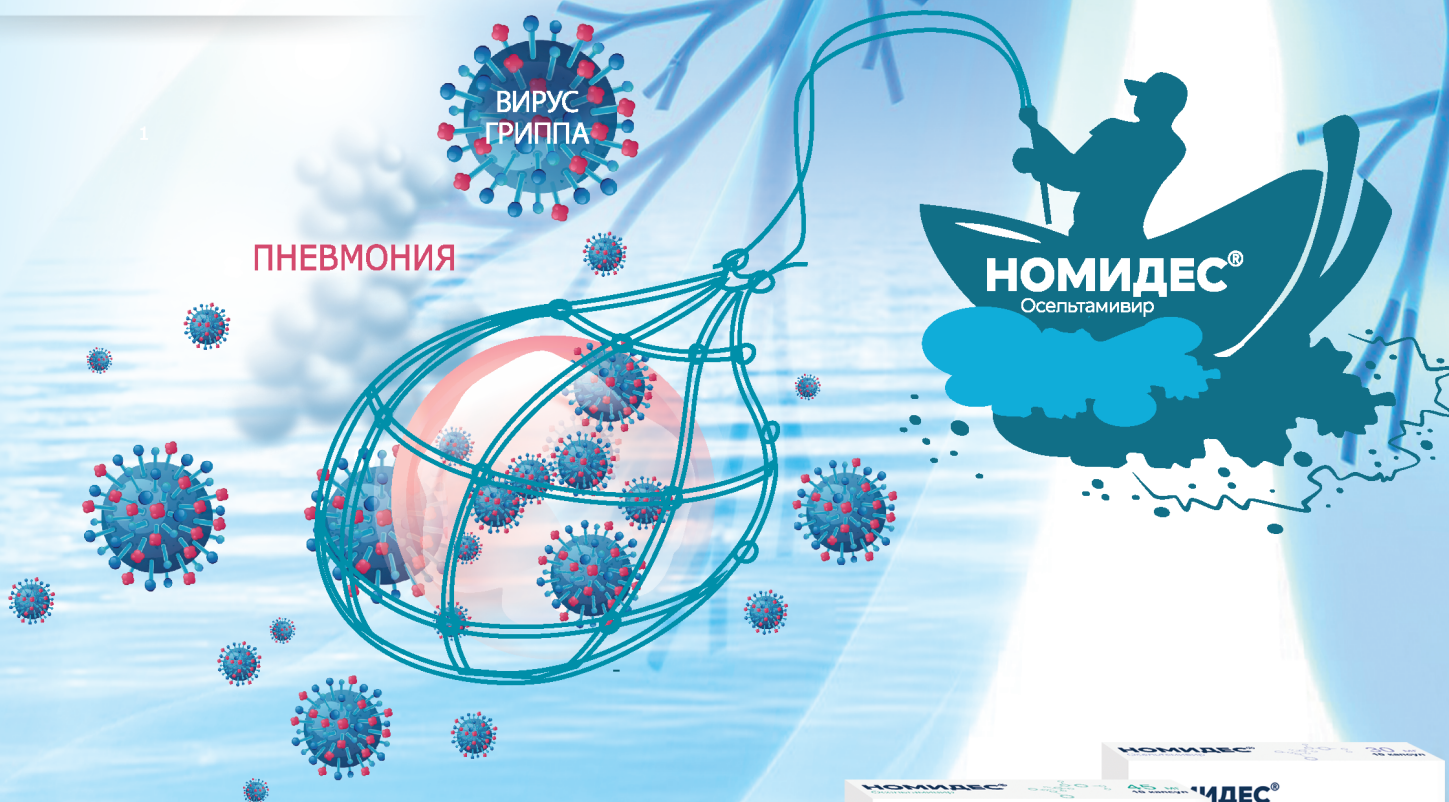
The Round Table aims to discuss key aspects related to the optimization of vaccine-based influenza prevention, such as: vaccine strain selection; formation of a National Commission for vaccine strains; introduction of quadrivalent vaccines; modern approaches to vaccine-based prevention for people over 60; compliance of domestic vaccines with international standards; effectiveness of vaccination against influenza and possible ways to increase it; as well as the creation of next-generation influenza vaccines.

Resolutions of the Round Table will be sent to the Russian Ministry of Health.

# НОМИДЕС®

## ЛОВУШКА ДЛЯ ВИРУСА ГРИППА

- ЭТИОТРОПНОЕ ПРОТИВОВИРУСНОЕ СРЕДСТВО, СНИЖАЮЩЕЕ ОСЛОЖНЕНИЯ ГРИППА НА **55%**



- ЛЕЧЕНИЕ И ПРОФИЛАКТИКА ГРИППА У ВЗРОСЛЫХ И ДЕТЕЙ<sup>2</sup>
- ДОЗИРОВКИ ОТ ГОДА И СТАРШЕ<sup>2</sup>



Информация для специалистов Здравоохранения. Перед применением ознакомьтесь с полной Инструкцией по применению лекарственного препарата Номидес.

Список литературы:

1. Kaiser et al. Impact of oseltamivir treatment on influenza-related lower respiratory tract complications and hospitalizations. Arch Intern Med 2003; 163(14):1667-1672

2. Инструкция по применению

RU.NOM.18.09.02

АО «ФАРМАСИНТЕЗ» 664007, г. Иркутск, ул. Красногвардейская, д.23, оф.3 тел. (3952) 538503, [www.nomides.ru](http://www.nomides.ru)

Second  
Russian-Chinese  
symposium  
on infectious diseases

## November 6<sup>th</sup>

### Opening ceremony

09-30 – 10-00 Representative from the MoH, representative from Centre of Strategic planning (MoH), representative from the Polytechnic University, representative from Smorodintsev Research Institute of influenza, representative from Chinese delegation (5 min each)

### Influenza session

(Large conference Hall)

#### Surveillance and evolution of the virus

**Session Chairs:** Alexander Shestopalov, Jinhua Liu

- 10-00 – 10-30 Plenary Talk: Anna Sominina  
Age structure and other risk factors for SARI determined in Global Influenza Hospital Surveillance Network
- 10-30 – 10-50 Artem Fadeev A decade of pandemic influenza A(H1N1)pdm09 circulation in Russia: epidemiology, virology and possible outcomes
- 10-50 – 11-10 Liu Jinhua Evolution and risk assessment of swine influenza virus in China
- 11-10 – 11-30 COFFEE BREAK (Cafe “Winter Garden”)
- 11-30 – 11-50 Zhu Wenfei Human infection with zoonotic influenza
- 11-50 – 12-10 Alexander Shestopalov Avian influenza in Russia
- 12-10 – 12-30 Jiang Taijiao Bioinformatic approaches to influenza viruses
- 12-30 – 12-50 Vasiliy Leonenko Mathematic modelling in influenza epidemics
- 13-00 – 14-00 LUNCH (Cafe on the 1st floor)

#### Diagnostics, treatment and prophylaxis of influenza

**Session Chairs:** German Shipulin, Jun Liu

- 14-00 – 14-30 Plenary Talk: German Shipulin MDx – a key technology in diagnostics of infectious diseases
- 14-30 – 14-50 Liu Jun The seroepidemiology of avian influenza A viruses in occupationally-exposed population of China
- 14-50 – 15-10 Andrey Vasin RNA-based vector vaccines for influenza and other ARI
- 15-10 – 15-30 Aleksei Matveichev, Vladimir Talayev Polyoxidonium adjuvant in low-dosed vaccines
- 15-30 – 16-00 COFFEE BREAK (Cafe “Winter Garden”)



## November 6<sup>th</sup>

### MAIN SYMPOSIUM (Large conference Hall)

**Session Chairs:** German Shipulin, Liu Jun  
(session continues)

**16-00 – 16-20** Yuri Vasiliev  
Vaccines for the control  
of influenza as viewed  
by different stakeholders

**16-20 – 16-40** Igor Krasilnikov, Victor Truhin  
Development of seasonal influenza  
vaccines in Russia

**16-40 – 17-00** Anna Shtro  
Recent advances  
in the development  
of antiviral agents

**17-40 – 20-00** WELCOME RECEPTION (Cafe “Winter Garden”)

### SATELLITE SYMPOSIUM (Small conference Hall)

The role of antivirals  
in the control of influenza  
and post-influenza complications

**Session Chairs:** Xuezhong Yu, Artem Poromov

**16-00 – 16-20** Irina Leneva  
Arbidol History - From Bench  
to Bedside

**16-20 – 16-40** Zifeng Yang  
The progress of clinical  
management of human avian  
influenza in southern China

**16-40 – 17-00** Vasiliy Vlassov  
Arbidol in seasonal and  
pandemic influenza: a review  
of clinical trials and 30-years  
experience in Russia

**17-00 – 17-20** Yeming Wang  
STAR trial: Oseltamivir and  
Arbidol combination antiviral  
therapy versus oseltamivir  
monotherapy for the treatment  
of severe influenza:  
a multicentre, double-blind,  
randomised phase 3 clinical  
trial

**17-20 – 17-40** DISCUSSION:  
Arbidol in Russia and China

## November 7<sup>th</sup>

### TB session (Large conference Hall)

**Session Chairs:** Viacheslav Zhuravlev, Haican Liu

- 09-30 – 10-00 Plenary Talk: Petr Yablonskiy, Viacheslav Zhuravlev  
Tuberculosis in the third millennium. Reality and perspectives
- 10-00 – 10-20 Chen Wei Introduction of TB Surveillance System and TB Epidemic in China
- 10-20 – 10-40 Zhang Hui Strategy and Progress on Tuberculosis Control in China
- 10-40 – 11-00 Mikhail Sinitsyn Tuberculosis and HIV/TB co-infection in Moscow
- 11-00 – 11-20 COFFEE BREAK (Cafe “Winter Garden”)
- 11-20 – 11-40 Zhao Yanlin Big Data analysis of TB epidemic and transmission in China
- 11-40 – 12-00 Marina Stukova Mucosal influenza vectored tuberculosis vaccines
- 12-00 – 12-20 Haican Liu Current Status of Tuberculosis Vaccine Research in China
- 12-20 – 12-40 Valentin Makarov Novel approaches based on genome editing technology for creation of the new anti-tuberculosis vaccines
- 12-50 – 14-00 LUNCH (Cafe on the 1st floor)

### HIV session (Large conference Hall)

**Session Chairs:** Xiaoping Dong, Andrei Kozlov

- 14-00 – 14-30 Plenary Talk: Dong Xiaoping Belt & Road, Public Health Development & Collaboration
- 14-30 – 14-50 Andrei Kozlov The overview of HIV research in Russia: from first cases of HIV infection to HIV vaccine trials
- 14-50 – 15-10 Dina Glazkova Intracellular immunization as one of the approaches to HIV infection treatment
- 15-10 – 15-30 Eduard Karamov HIV/TB coinfection in Russia
- 15-30 – 15-50 Wu Zunyou Towards ending HIV epidemic among people who inject drugs in China
- 15-50 – 16-10 COFFEE BREAK (Cafe «Winter Garden»)
- 16-10 – 16-30 Zhang Linqi Envelope changes during HIV transmission and adaptation: implications for vaccine development
- 16-30 – 16-50 Oksana Stanevich Features of CDR3-junctions in broadly neutralizing antibodies in HIVinfected patients
- 16-50 – 17-10 Han Menglie The Progress & Challenge to Achieve Three 90% in China
- 17-10 – 17-30 Anastasiia Kholodnaya Illicit opioids, bacterial translocation and systemic inflammation in HIVinfected patients. Interconnection

## CLOSING REMARKS



## **Wei Chen**

Organization: NCTB, ChinaCDC

Current position: Vice-director of the Division

### Education experience:

- 1988.09–1993.07 Tongji Medical University MD
- 1998.09–2001.07 Tongji College of Medicine, Huazhong University of Science and Technology, MS in Epidemiology
- 2001.09–2004.07 China CDC, PhD in Epidemiology

### Professional experience:

- 2004.07 – Present: Researcher, Division of Surveillance, National Center for Tuberculosis Control and Prevention, China CDC, working on construction of the TB information management system, assessment of the surveillance data quality control, Field epidemiology of Tuberculosis, research program on TB/HIV coinfection control, immigrant TB control, surveillance and prediction et.
- 1993.07–1998.09: Attending Doctor, Institute of Parasite Diseases Control, Hubei Provincial Academy of Medicine, working on the diagnosis and control of parasite diseases.

### Publications:

1. Wei Chen, Wen Sh, Min Wang, et, Pulmonary Tuberculosis Incidence and Risk Factors in Rural Areas of China: A Cohort Study. PLoS ONE, 2013, 8(3): e58171
2. Wei Chen, Yinyin Xia, Xinxu Li et. A Tuberculosis Outbreak Among Senior High School Students in China in 2011. JIMR, 2012, 40(4): 1830-1839
3. Hoa N B, Chen W, Chay S, et. Completeness and consistency in recording information in the tuberculosis case register, Cambodia, China, and Viet Nam. Int J Tuberc Lung Dis 2010;14:1303-9

### Research interests include

Surveillance and evaluation of TB, TB/HIV coinfection control.



### **Xiaoping Dong**

Current position: Center for Global Public Health, China CDC

Current position: Director

MD & PhD, Professor of Virology. He is Director of Center for Global Public Health, China CDC; Deputy Director of State Key Lab for Infectious Disease Prevention and Control; Director of the Department of Prion Disease, IVDC. He got Bachelor of medicine from Xi'an Medical University in 1982, Master of Medicine, from Xi'an Medical University in 1988, and Doctor of Medicine from Erlangen-Nuernburg University, Germany in 1994. During 1995-1998, he worked as PostDoc and research scientist in Institute of Virology, Cologne University, Germany.

In 2003, he was honored as the outstanding overseas scholar issued by national ministry of personal and other five ministries. In 2006, he was selected as the national person with ability for new century. He is the syndic of Chinese Society of Microbiology and the Head of the Group of Medical Virology; the syndic of Chinese Society of Preventive Medicine and the members of Organization Committee and Scientific Committee. He is the scientific member of more than ten special committees of national Ministries of Health, Agriculture, AQSIQ, SFDA and Chinese Society of Science. He is also the member of science board of more than ten international and Chinese scientific journals. Since 2000, he worked as PI of more than 30 research projects, including national 973, 863, Science and Technology Task Force, National Natural Science Foundation, Institution Technique R&D Grant and China Mega-Project for Infectious Disease. He worked as PI and co-PI of international collaborating projects, including NIH-CIPRA and EU Project.

#### Publications:

1. Gao C, Shi Q, Wei J, Zhou W, Xiao K, Wang J, Shi Q, Dong XP. The associations of two SNPs in miRNA-146a and one SNP in ZBTB38-RASA2 with the disease susceptibility and the clinical features of the Chinese patients of sCJD and FFI. *Prion*, doi: 10.1080/19336896.2017.1405885
2. Shi Q, Sun H, Chen C, Zhang BY, Zhou W, Gao C, Dong XP. Treatment of redox process induces diverse effects on the recombinant human wild-type PrP and the mutated PrP with inserted or deleted octarepeats. *Int J Mol Med*
3. Ma Y, Qi Shi Q, Jing Wang J, Xiao K, Jing Sun J, Lv Y, Guo M, Zhou W, Cao Chen C, Gao C, Zhang BY, Dong XP. Reduction of NF- $\kappa$ B (p65) in scrapie-infected cultured cells and in the brains of scrapie-infected rodents. *ACS Chemical Neuroscience*, 2017, 8:2535-2848

#### Research interests include:

His major research fields cover prion, human papillomavirus, emerging viral infectious diseases and R&D of vaccine. Up to the end of March 2018, he has published more than 300 scientific papers, including 176 SCI-cited English papers (157 papers as the corresponding author), including *Lancet*, *Autophagy*, *EMBO J*, *Clin Infect Dis*, *Mol Cell Proteomics*, *MolNeurobiol*, *JNNP*, etc.



### **Mengjie Han**

Organization: National Center for AIDS & STD Control and Prevention, China CDC

Current position: Director of the Center

#### Education:

- August 1999 – September 2001, Master of Public Policy and Management, University of Southern California, USA.
- September 1989 – July 1992, Master of Public Health, Beijing Medical University, China.
- August 1982 – July 1987, Bachelor of Medical Science, Bethune Medical University, China.

#### Grants and Awards:

Awarded the 2010 and 2012 Chinese Medical Science and Technology Award for Health Management. Awarded the 2018 Huaxia Medical Science and Technology Award for Second Prize.

#### Professional Experience:

Over the past 15 years, the work focused on delivering a comprehensive response to HIV/AIDS, holding a variety of responsibilities in the fields of policy and program development, project management and monitoring and evaluation, and multi-sector engagement and Community-Based Organization participation. Relevant work experiences include: Assistant Director of the AIDS State Council Office in China, Executive Director of the China Comprehensive AIDS Response program, Director of the China-UK CHARTS project, Focal Point of the Technological Network on HIV/AIDs in 8 countries, Leading Researcher on China-Africa Health Cooperation on HIV/AIDS, Worked as Scientist in the HIV/AIDS department at WHO on guideline development for prevention and treatment of HIV/AIDS among key populations.

#### Publications:

1. Design and Implementation of a China Comprehensive AIDS Response Programme (China CARES), 2003–08, *International Journal of Epidemiology*, 2010,39 S2(6):ii47-ii55.
2. Study on Performance Indicators for Non-Government Organizations who awarded the National NGO Fund. *Journal of Chinese AIDS & STD Association*, 2017, 23(4), 303-306.
3. Monitoring and Evaluation for HIV Prevention and Control- Theory and Practice. 2011, People's Medical Publishing House.

#### Research interests include:

HIV/AIDS Prevention and Treatment, Policy and Program Development , Monitoring & Evaluation, Multi-Sector Engagement and NGO Involvement.



## Taijiao Jiang

Organization: Chinese Academy of Medical Sciences & Peking Union Medical College

Current position: Professor

Dr. Taijiao Jiang is the distinguished Professor of computational and systems biology, Institute of Basic Medical Sciences, Chinese Academy of Medical Sciences & Peking Union Medical College. Principal investigator of Suzhou Institute of System Medicine, He is one of the Standing Council Members of Biophysical Society of China and the Director of the Bioinformatics Branch and has been awarded NSFC Outstanding Youth Award, Hundred Talents Project Award and Distinguished Professor of Peking Union Medical College, etc. Jiang Lab is mainly focused on computational biology and systems medicine. The lab is now undertaking or has completed over 10 national and provincial level scientific research projects including those of national “973” project and the Natural Science Foundation of China.

- 1990–1994 B.S. Biology Hunan Normal University, Changsha, China
- 1994–1999 Ph.D. Molecular Biology and Biochemistry Shanghai Institute of Biochemistry, Chinese Academy of Sciences, Shanghai, China.
- 2001–2002 Master of computer science Department of Computer Science, Yale.

### Publications:

1. Cell Research. 2015 Jun; 25(6):753-6.
2. Cell Host & Microbe. 2013 Oct 16; 14(4):446-52.
3. Nature Communications, 28 Feb 2012; 3:709.

### Research interests include:

- Development of novel computational methods for protein structure prediction, genomic co-evolution analysis, bio-medical data mining and complex network modeling.
- Development of artificial intelligent systems for medical text mining and medical image data processing.
- Discovery of disease bio-markers for diseases classification, early diagnosis and precision medication.



## Haican Liu

Organization: National Institute for Communicable Disease Control and Prevention, Chinese Center for Disease Control and Prevention.

Current position: Deputy Director of Tuberculosis Laboratory / Associate Researcher

### Education:

- 2003.09–2008.07 College of Public Health, Zhengzhou University, Henan, China (Bachelor's Degree of Medicine).
- 2008.9–2011.07 Chinese Center for Disease Control and Prevention, Beijing, China (Master Degree of Medicine).
- 2011.08–2014.07 Chinese Center for Disease Control and Prevention, Beijing, China (Doctor Degree of Medicine).

### Professional experience:

2014.07– National Institute for Communicable Disease Control and Prevention, Chinese Center for Disease Control and Prevention.

### Publications:

1. Liu, H., Y. Jiang, X. Dou, H. Wang, X. Zhao, W. Zhang, L. Wan, Z. Zhang, C. Chen and K. Wan (2013). "pstS1 polymorphisms of Mycobacterium tuberculosis strains may reflect ongoing immune evasion." *Tuberculosis (Edinb)* 93(5): 475-481.
2. Liu, H., Y. Zhang, Z. Liu, J. Liu, Y. Hauck, J. Liu, H. Dong, J. Liu, X. Zhao, B. Lu, Y. Jiang, G. Vergnaud, C. Pourcel and K. Wan (2018). "Associations between Mycobacterium tuberculosis Beijing genotype and drug resistance to four first-line drugs: a survey in China." *Front Med* 12(1): 92-97.
3. Liu, H., L. Lian, Y. Jiang, M. Huang, Y. Tan, X. Zhao, J. Zhang, Q. Yu, J. Liu, H. Dong, B. Lu, Y. Wu and K. Wan (2016). "Identification of Species of Nontuberculous Mycobacteria Clinical Isolates from 8 Provinces of China." *Biomed Res Int* 2016: 2153910.

### Research interests include:

M. tuberculosis genotyping, drug resistant, genomics and proteomics, and new TB vaccine.



### Jinhua Liu

Organization: China Agricultural University, College of Veterinary Medicine, China Agricultural University

Current position: Professor

Dr. Liu received his DVM in 1985 and his PhD in 1997 from China Agricultural University (CAU) and had the post-doctoral training at Hokkaido University in Japan during 2000-2002. He is chair of department of preventive veterinary medicine, distinguished professor of CAU, recipient of National Science Foundation for Distinguished Young Scholars of China. He is a director of China Veterinary Poultry Association.

#### Publications:

1. Pu J, Wang S, Yin Y, Zhang G, Carter RA, Wang J, Xu G, Sun H, Wang M, Wen C, Wei Y, Wang D, Zhu B, Lemmon G, Jiao Y, Duan S, Wang Q, Du Q, Sun M, Bao J, Sun Y, Zhao J, Zhang H, Wu G, Liu JH, Webster RG. Evolution of the H9N2 influenza genotype that facilitated the genesis of the novel H7N9 virus. *Proc Natl Acad Sci USA*. 2015, 112(2):548-553.
2. Sun Y, Qin K, Wang J, Pu J, Tang Q, Hu Y, Bi Y, Zhao X, Yang H, Shu Y, Liu JH. High genetic compatibility and increased pathogenicity of reassortants derived from avian H9N2 and pandemic H1N1/2009 influenza viruses. *Proc Natl Acad Sci USA*. 2011, 108(10):4164-9.
3. Liu L, Wang T, Wang M, Tong Q, Sun Y, Pu J, Sun H, Liu JH. Recombinant turkey herpesvirus expressing H9 hemagglutinin providing protection against H9N2 avian influenza. *Virology*. 2019 Mar; 529:7-15.

#### Research interests include:

Dr. Liu interests include influenza at animal human interface, in particular the viral epidemiology, pathogenicity mechanism, and recombinant turkey herpesvirus-vector vaccine developments.





## William J. Liu

Organization: National Institute for Viral Disease Control and Prevention, Chinese Center for Disease Control and Prevention

Current position: Professor; Deputy Director of the Chinese National Influenza Center.

- 2000–2005 Bachelor Degree, Public Health Peking University, Health Science Center
- 2005–2010 PhD, Institute of Microbiology, Chinese Academy of Sciences
- 2010–2011 PostDoc. Institute of Biophysics, Chinese Academy of Sciences
- 2011–2012 PostDoc. Yale University, CT, US
- 2012–2013 Associate Professor, Institute of Microbiology, Chinese Academy of Sciences
- 2013–Present Professor, National Institute for Viral Disease Control and Prevention, China CDC

### Awards:

- 2010 Excellent Young Professionals from Chinese Association of Immunology.
- 2017 The Top-notch Young Professionals from Organization Department, CCCPC
- 2017 The “Science and technology nova” from Beijing Science and Technology Commission
- 2017 The “Outstanding Alumni” from Alumni Association of Beijing Medical University
- 2018 Excellent Young Scholar from Natural Science Foundation of China

### Publications:

1. Dan Lu, Kefang Liu, Di Zhang, Can Yue, Qiong Lu, Hao Cheng, Liang Wang, Yan Chai, Jianxun Qi, Lin-Fa Wang, George F. Gao\*, William J. Liu\*. Peptide presentation by bat MHC class I provides new insight into the antiviral immunity of bats. PLoS Biology. 2019; in press.
2. Min Zhao, Kefang Liu, Jiejian Luo#, Shuguang Tan, Chuansong Quan, Shuijun Zhang, Yan Chai, Jianxun Qi, Yan Li, Yuhai Bi, Haixia Xiao, Jianfang Zhou, Taijiao Jiang, Wenjun Liu, Hongjie Yu, Jinghua Yan, Yingxia Liu, Yuelong Shu, Guizhen Wu, Aiping Wu#, George F. Gao\*, William J. Liu\*. Heterosubtypic protections against human-infecting avian influenza viruses correlate to biased cross-T-cell responses. MBio. 2018; 9(4). pii: e01408-18.
3. Shuguang Tan, Shihong Zhang, Bin Wu, Yingze Zhao, Wei Zhang, Min Han, Ying Wu, Guoli Shi, Yingxia Liu, Jinghua Yan, Guizhen Wu, Hua Wang, George F. Gao, Fengcai Zhu\*, William J. Liu\*. Hemagglutinin-specific CD4+ T-cell responses following 2009-pH1N1 inactivated split-vaccine inoculation in humans. Vaccine. 2017; 35:5644-5652.

### Research interests include:

1. Prevention and control of influenza;
2. T-cell immunity to emerging and re-emerging viruses.



## Yeming Wang

Organization: China-Japan Friendship Hospital

Current position: Physician of Department of Pulmonary and Critical Care Medicine  
PhD degree at Capital Medical University, respiratory and critical medicine

### Work Experience:

Sep, 2015-Jun, 2016

Sun yat-sen memorial hospital, sun yat-sen university,

Location: Guangzhou

Title: Resident

Duties: To treat patients, offering medical advices

### Academic exchange:

- Aug–Sep, 2017 Welcome Trust Centre for Human Genetics, University of Oxford
- June–July, 2019 Welcome Trust Centre for Human Genetics, University of Oxford

### Grants:

National Science and Technology Major Project (2017ZX10204401004), Emergency Special Project of the Ministry of Science and Technology (10600100000015001206)

### Publications:

1. Wang Y, Cao B\*. Factors Associated with Prolonged Viral Shedding in Patients with Avian Influenza A(H7N9) Virus Infection. *Journal of infectious disease. J Infect Dis.* 2018 May 5;217(11):1708-1717
2. Yeming Wang, Guohui Fan, Peter Horby, Fredrick Hayden, Qian Li, Qiaoling Wu, Xiaohui Zou, Hui Li, Qingyuan Zhan, Chen Wang, Bin Cao\* for the CAP-China Network. Comparative outcomes of adults hospitalized with seasonal influenza A or B virus infection: application of the seven-category ordinal scale. *Open Forum Infectious Diseases*, <https://doi.org/10.1093/ofid/ofz053>
3. Zou X, Chang K, Wang Y, Li M, Zhang W, Wang C, Lu B, Xiong Z, Han J, Zhang Y, Zhao J, Cao B; for CAP-China Network. Comparison of the Cepheid Xpert Xpress Flu/RSV assay and commercial real-time PCR for the detection of influenza A and influenza B in a prospective cohort from China. *Int J Infect Dis.* 2019 Jan 8;80:92-97.



## Zunyou Wu

Organization: National Center for AIDS/STD Control and Prevention, China CDC  
Current position: Chief Epidemiologist China CDC Director, Division of HIV Prevention, NCAIDS/China CDC

### Education:

- PhD, Epidemiology, UCLA School of Public Health (1995)
- MPH, Public Health, UCLA School of Public Health (1992)
- MS, Epidemiology, Anhui Medical University (1988)
- MD, Medicine, Anhui Medical University (1985)

### Grants and Awards:

- Grant number 2018ZX10721102, Grant title “Precision targeted intervention studies among high risk groups for HIV prevention in China”
- The Chinese Preventive Medicine Science and Technology Award, 2<sup>nd</sup> Class Award, Chinese Preventive Medicine Association, 2015
- The China National Award for Outstanding Contribution in Epidemiology, Chinese Preventive Medicine Association, 2014
- The Chinese Medical Science and Technology Award, 1<sup>st</sup> Class Award, Chinese Medical Association, Beijing, China, 2008
- The UNAIDS Gold Medal, 2008
- UCLA School of Public Health’s Alumni Hall of Fame, 2006
- International Rolleston Award, 2005

### Professional experience:

His research findings have also been published in over 450 academic papers, and 252 of them have been in international scientific journals, including Science, Lancet. He also wrote 32 chapters including for Oxford Textbook for Public Health. Dr. Wu is active in promoting more supportive policies and environments for controlling HIV/AIDS in China. He is a leader in the field of HIV prevention strategies.

### Publications:

1. Nationwide Cohort Study of Antiretroviral Therapy Timing: Treatment Dropout and Virological Failure in China, 2011–2015. Zhao Y, Wu Z, McGoogan JM, Sha Y, Zhao D, Ma Y, Brookmeyer R, Detels R, Montaner JSG. Clin Infect Dis. 2019 Jan 1;68(1):43-50. Prioritisation of subgroups for immediate antiretroviral therapy
2. Prioritisation of subgroups for immediate antiretroviral therapy. Wu Z, Zhao Y, McGoogan J. Lancet HIV. 2018 May;5(5):e206.
3. Testing and linkage to HIV care in China: a cluster-randomised trial. Wu Z, Tang Z, Mao Y, Van Veldhuisen P, Ling W, Liu D, Shen Z, Detels R, Lan G, Erinoff L, Lindblad R, Gu D, Tang H, Hu L, Zhu Q, Lu L, Oden N, Hasson AL, Zhao Y, McGoogan JM, Ge X, Zhang N, Rou K, Zhu J, Wei H, Shi CX, Jin X, Li J, Montaner JSG. Lancet HIV. 2017 Dec;4(12):e555-e565.



## Zifeng Yang

Organization: Guangzhou Institute of Respiratory Health

Current position: Professor

### Education:

- July. 2009 – February. 2013 Ph.D. Integrative Medicine Macau University of Science and Technology, China.
- March. 2003 – July. 2006 M.Sc Integrative Medicine Guangzhou University of Traditional Chinese Medicine, PR China.
- September. 1996 – July. 2001 B.Sc. Clinical Medicine Department of clinical medicine, Guangzhou Medical College, Guangzhou, PR China.

### Awards:

The First Prize of Guangdong Province Science and Technology Progress (2019)

### Professional experience:

- November. 2011 – present Professor Guangzhou Institute of Respiratory Health (SKLRD) The First Affiliated Hospital of Guangzhou Medical University
- July. 2006- October. 2011 Assistant researcher. Guangzhou Institute of Respiratory Disease (SKLRD) The First affiliated Hospital of Guangzhou Medical College
- July. 2001- June. 2006 Internship, Assistant researcher. Institute of Tropical Medicine, Guangzhou University of Traditional Chinese Medicine.

### Publications:

1. Yang Z.-F. Human Infection with a Novel Avian Influenza A(H5N6) Virus. // N. Engl. J. Med. – 2015. – T. 373. – № 5. – 487–489c.
2. Yang ZF; Leung ELH; Liu L; Jiang ZH; Zhong NS. Developing influenza treatments using traditional Chinese medicine, Science, 2015, 347:S35~S37
3. Mok, CKP; Guan WD; Liu XQ; Lamers MM; Li XB; Wang M; Zhang TJS; Zhang QL; Li ZT; Huang JC; Lin JY; Zhang YH; Zhao P; Lee, HHY; Chen L; Li YM; Peiris JSM; Chen RC; Zhong NS; Yang ZF. Genetic Characterization of Highly Pathogenic Avian Influenza A(H5N6) Virus, Guangdong, China, Emerg. Infect. Dis., 2015, 21(12): 2268~2271.



### **Hui Zhang**

Organization: National Center for TB Control, China CDC

Current position: Assistant Director

- 2006.7– present, Research Fellow, Assistant Director of National center for TB Prevention and Control, China CDC.
- 2003.9–2006.6, Doctor of Epidemiology of Statistics, Peking union medical college.
- 2000.9–2003.6, Master of Child and Adolescent Health, School of Public Health, Harbin medical university.
- 1997.7–2000.7, Assistant, Department of Preventive Medicine, Baotou Medical College.
- 1992.9–1997.6, Bachelor of Medicine, Department of Preventive Medicine, Baotou Medical College.

#### Publications:

1. Tuberculosis prevalence in China, 1990–2010; a longitudinal analysis of national survey data. *Lancet*. 2014. (Joint first authors)
2. Added value of comprehensive program to provide universal access to care for sputum smear–negative drug-resistant tuberculosis, China. *EID*. 2019. (Correspondent author)
3. Are free antituberculosis drugs enough? An empirical study from three cities in China. *Infect Dis Poverty*. 2015. (Correspondent author)

#### Research interests include:

Tuberculosis control strategy and measures; Tuberculosis epidemiology and risk factors; Tuberculosis Surveillance.



### Linqi Zhang

Organization: Tsinghua University

Current position: Professor and Director Comprehensive AIDS Research Center  
Tsinghua University, Beijing, China.

Professor Zhang has devoted 30 years to studying HIV-1 pathogenesis and vaccine development, and recently expanded his research into emerging and re-emerging human viral pathogens such as highly pathogenic avian influenza virus (HPAI), Middle East respiratory syndrome coronavirus (MERS-CoV), Ebola and Zika virus. Using cutting-edge antibody and combinatorial antigen library techniques, Professor Zhang's team aims to characterize protective antibody immunity in infected humans and rationally design of effective vaccines and therapeutics against the viral infection. Professor Zhang is the Director of Comprehensive AIDS Research Center and Global Health and Infectious Diseases Research Center at Tsinghua University. He is a graduate of University of Edinburgh and holds associate professorship at the Aaron Diamond AIDS Research Center of Rockefeller University in New York before joining Tsinghua University in 2007. Professor Zhang is the recipient of National Outstanding Young Scientist Award and privileged Changjiang Professorship. He has published extensively and ranked No. 1 among the most cited Chinese Researchers in the field of microbiology and immunology surveyed by Elsevier in 2014, 2015 and 2016. Professor Zhang has also been serving as the member of national expert and advisory board to the Chinese government and several international organizations on HIV/AIDS and infectious diseases and recently been elected to the foreign fellow of African Academy of Sciences.

#### Publications:

1. Zhou P, Wang H, Fang M, Li Y, Wang H, Shi S, Li Z, Wu J, Han X, Shi X, Shang H, Zhou T, Zhang L. 2019. Broadly resistant HIV-1 against CD4-binding site neutralizing antibodies. *PLoS Pathog* 15:e1007819.
2. Wang Q, Liu L, Ren W, Gettie A, Wang H, Liang Q, Shi X, Montefiori DC, Zhou T, Zhang L. 2019. A Single Substitution in gp41 Modulates the Neutralization Profile of SHIV during In Vivo Adaptation. *Cell Rep* 27:2593-2607.e5
3. Wang L, Wang R, Wang L, Ben H, Yu L, Gao F, Shi X, Yin C, Zhang F, Xiang Y, Zhang L. 2019. Structural Basis for Neutralization and Protection by a Zika Virus-Specific Human Antibody. *Cell Rep* 26:3360-3368.e5.

#### Research interests include:

HIV-1 pathogenesis and vaccine development, and emerging human viral pathogens such as Middle East respiratory syndrome coronavirus (MERS-CoV), Ebola and Zika virus.



### **Yanlin Zhao**

Organization: Chinese center for disease control and prevention

Current position: The director of National Tuberculosis Reference Laboratory of China CDC, and vice director of National Tuberculosis Control and Prevention Center, China CDC.

Dr. Zhao Yan-Lin, Ph.D & MD, a full professor of Chinese Centers for Disease Control and Prevention P. R. China. He is appointed as visiting professor of medical health school of Harvard medical university. He is the Chairperson of research branch of the Chinese Anti-TB Association from 2009 to now, and the head of TB research branch of Chinese Medical Association since 2010. Dr. Zhao is responsible for technical management of Chinese tuberculosis laboratory network capacity building-up and nationwide anti-TB drug resistance surveillance. He has published more than one hundred publications in international journals, such as NEJM, LANCET and so on.

#### Publications:

1. Zhao Y, Xu S, Wang L, et al. National survey of drug-resistant tuberculosis in China. *N Engl J Med* 2012;366:2161-70.
2. Hicks ND, Yang J, Zhang X, Zhao B, Grad YH, Liu L, Ou X, Chang Z, Xia H, Zhou Y, Wang S, Dong J, Sun L, Zhu Y, Zhao Y, Jin Q, Fortune SM. Clinically prevalent mutations in *Mycobacterium tuberculosis* alter propionate metabolism and mediate multidrug tolerance. *Nat Microbiol.* 2018 Sep;3(9):1032-1042.
3. Tan Y, Li Q, Wang Q, Sun H, Chen J, Cai X, Yao Y, Bao X, Wang C, Liu Y, Wu X, Pang Y, Zhao Y. Evaluation of the MTBDRplus 2.0 assay for the detection of multidrug resistance among persons with presumptive pulmonary TB in China. *Sci Rep.* 2017 Jun 13;7(1):3364.

#### Research interests include:

Molecular epidemiology, epigenetics of tuberculosis mycobacterium, Drug resistance surveillance, New diagnostics.



**Wenfei Zhu**

Organization: National Institute for Viral Disease Control and Prevention, China CDC

- Aug 2018 – Present, National Institute for Viral Disease Control and Prevention, China CDC, Beijing, China. associate professor.
- Aug 2015 – Jul 2018, National Institute for Viral Disease Control and Prevention, China CDC, Beijing, China. research associate.
- Sep 2012 – Jul 2015, Chinese Center for Disease Control and Prevention, Beijing, China. Ph.D Student.

### Publications:

1. Wenfei Zhu, et al., Mammalian-adaptive mutation NP-Q357K in Eurasian H1N1 Swine Influenza viruses determines the virulence phenotype in mice. *Emerg Microbes Infect*, 2019. 8(1): p. 989-999
2. Wenfei Zhu, et al., A gene constellation in avian influenza A (H7N9) viruses may have facilitated the fifth wave outbreak in China. *Cell reports*.2018.
3. Wenfei Zhu, et al., Biological characterisation of the emerged highly pathogenic avian influenza (HPAI) A(H7N9) viruses in humans, in mainland China, 2016 to 2017. *Euro Surveill*, 2017, 22.

### Research interests include:

Dr. Wenfei Zhu works in the Chinese National Influenza Center, National Institute for Viral Disease Control and Prevention, China CDC. Her research interests include evolutionary analysis and pathogenicity mechanism study of zoonotic influenza viruses.





### **Artem Fadeev**

Organization: Smorodintsev Research Institute of Influenza

Current position: Researcher

Mr. Artem Fadeev studied biophysics in Saint Petersburg Polytechnic University. Since 2012 he has been working in Laboratory of Molecular virology of Smorodintsev Research Institute of Influenza.

#### Publications:

1. Komissarov, A., Fadeev, A. et al. Rapid spread of influenza A(H1N1)pdm09 viruses with a new set of specific mutations in the internal genes in the beginning of 2015/2016 epidemic season in Moscow and Saint Petersburg (Russian Federation). *Influenza Other Respir Viruses*. 2016 Jul;10(4):247-53
2. Marchenko, V.Y, Susloparov, I.M., Komissarov, A.B. Fadeev, A. et al. Reintroduction of highly pathogenic avian influenza A/H5N8 virus of clade 2.3.4.4. in Russia. *Arch Virol*. 2017 May;162(5):1381-1385
3. Puig-Barbera, J., Natividad-Sancho, A., Trushakova, S., Sominina, A., Pisareva, M., Fadeev A et al. Genetic characterization of influenza viruses from influenza-related hospital admissions in the St. Petersburg and Valencia sites of the Global Influenza Hospital Surveillance Network during the 2013/14 influenza season. *J Clin Virol*. 2016 Nov;84:32-38.

#### Research interests include:

Mr. Artem Fadeev is a virologist whose research focuses on genetics of Influenza and other respiratory viruses.



### **Dina Glazkova**

Organization: Center for Strategic Planning and Management of Biomedical Health Risks of the Ministry of Health of the Russian Federation

Current position: Senior researcher

Doctor of Philosophy in Molecular Biology, Department of Molecular Genetics of Yeast, Institute of Molecular Genetics, Russian Academy of Sciences

High education: Moscow Institute of Physics and Technology, Department of Physical and Chemical Biology, Moscow, Russia

- 2008 – Present – Research project – Gene therapy drug development for treatment of HIV infection
- 2003 – 2005 – Research project – Regulation of genes within the catecholamenergic system

#### Publications:

1. Omelchenko D. O., Glazkova D. V., Bogoslovskaya E. V., Urusov F. A., Zhogina Y. A., Tsyganova G. M., Shipulin G. A. Protection of Lymphocytes from HIV by Lentiviral Vector Carrying Gene Combination of TRIM5 $\alpha$ -HRH and microRNAs against CCR5. //Molecular Biology. 2018. T. 52. № 2.
2. Urusov F., Glazkova D., Omelchenko D., Bogoslovskaya E., Tsyganova G., Kersting K., Shipulin G., Pokrovsky V. Optimization of Polycistronic Anti-CCR5 Artificial microRNA Leads to Improved Accuracy of Its Lentiviral Vector Transfer and More Potent Inhibition of HIV-1 in CD4<sup>+</sup> T-Cells // Cells. 2018. 7(2)
3. Downregulation of human CCR5 gene expression with artificial microRNAs Glazkova D.V., Vetchinova A.S., Bogoslovskaya E.V., Zhogina Y.A., Shipulin G.A., Markelov M.L.//Molecular Biology. 2013. T. 47. № 3. C. 419-428

#### Research interests include:

Human immunodeficiency virus, retroviruses, gene therapy, viral vectors, vaccines.



### **Eduard Karamov**

Current position: Head, Laboratory of Immunochemistry of the Gamaleya National Research Center of Epidemiology and Microbiology of the Russian Ministry of Health Principal Researcher, National Medical Research Center of Phthisiopulmonology and Infectious Diseases of the Russian Ministry of Health.

Eduard Karamov, PhD., DrSc, is involved in retrovirology research since 1985. The first Russian HIV strain was isolated in his laboratory. He supervised the development of first diagnostic tests for HIV, which were widely used in USSR and Russia, and antivirals used for AIDS treatment. He published over 150 articles in scientific journals and made over 200 presentations at international conferences and symposia. Professor Karamov authored four monographs and a textbook on virology. He was a supervisor in sixteen Ph.D. and Dr.Sci. fellowships. His lab served as a probation site for many scientists of the former USSR and Eastern Europe. He was a WHO expert (1988–2016), a member of the Vaccine Advisory Committee (VAC) of WHO, and a member of the editorial boards of AIDS and Lancet HIV. He is a UNAIDS scientific expert panellist, an academic editor of Medicine, and a member of editorial boards of several Russian peer-reviewed journals.

He served as a Chairman of the Biomedical Commission of the Committee for Science and Innovation of the State Duma of the Russian Federation (2002-2016). His honours and awards include: Award of the USSR Council of Ministers 1981, USSR Exhibition of Economic Achievements Medals (Silver 1986, Gold 1988), Science Award of the Government of the Russian Federation, 2008, Zhdanov Award of the Russian Academy of Medical Sciences, 2009, and Gold Cross of the Federal Medico-Biological Agency of Russia, 2012.

### Publications:

1. Kornilaeva GV, Siniavin AE, Schultz A, Germann A, Moog C, von Briesen H, Turgiev AS, Karamov EV. "The Differential Anti-HIV Effect of a New Humic Substance-Derived Preparation in Diverse Cells of the Immune System". *Acta Naturae*. 2019 Apr-Jun; 11(2):68-76.
2. Moskaleychik FF, Laga VY, Delgado E, Vega Y, Fernandez-Garcia A, Perez-Alvarez, Kornilaeva GV, Pronin AY, Zhernov YV, Thomson MM, Bobkova MR, Karamov EV "Rapid spread of the HIV-1 circular recombinant CRF02-AG in Russia and neighboring countries" *Vopr Virusol*. 2015; 60(6):14-9.



### **Anastasiia Kholodnaia**

Organization: FSBEI HE I.P. Pavlov SPbSMU MOH Russ

Current position: Assistant Professor, Department of Infectious Diseases and Epidemiology

- 2012 – graduated from First Pavlov State Medical University, Russia – Medical Doctor.
- 2013–2015 – specialization in infectious diseases – Department of Infectious Diseases and Epidemiology First Pavlov State Medical University, Russia.
- 2015–2018 – PhD course, research theme “Clinical and Pathogenetic Aspects of Illicit Opioid’ Exposure on Bacterial Translocation in HIV-infected People”, supervisor prof. D.A. Lioznov, Department of Infectious Diseases and Epidemiology First Pavlov State Medical University, Russia.
- Since 2017 – Assistant Professor, Department of Infectious Diseases and Epidemiology, First Pavlov State Medical University, Russia; co-investigator in RFBR-NIH project “St. PETER HIV – Alcohol, Protein Biomarkers and Cardiovascular Disease Risk”.

#### Publications:

1. Kholodnaya, A.N. Bacterial translocation and systemic inflammation under the conditions of comorbidity pathogenesis of HIV-infection and opioid abuse// Kholodnaya A.N., Lioznov D.A., Nikolaenko S.L., Blokhina E.A., Yaroslavtseva T.S., Krupitskiy E.M. // *Infectionnie Bolezni: novosti, mnenia, obuchenie*, 2019. – Vol. 8(3). – P. 7-13. (in Russian)
2. Kholodnaya, A. Assessment of monocyte activation and systemic inflammation markers in HIV-positive opioid users / A. Kholodnaya, K. So-Armah, D. Cheng, N. Gnatienko, G. Patts, G. Samet, M. Freiberg, D. Lioznov // *Journal of the International AIDS Society*. – 2018. – V.21, Issue S8 (e25187).

#### Research interests include:

HIV-infection, immune system, microbiome, addictions



### **Andrei Kozlov**

Current position: Director of the Biomedical Center, Chief, Lab of Molecular Virology, State Research Institute of Ultrapure Biologicals; Chief, Lab of Molecular Virology and Oncology, Peter the Great St. Petersburg Polytechnic University, leading scientist in Institute of General Genetics, Moscow.

In 1972 he graduated with honors from St. Petersburg State University (Department of Biochemistry). During the period 1972-1975, he completed postgraduate studies at the N.N. Petrov Research Institute of Oncology and successfully defended his Ph.D.

- 1978–1979 Fellowship of the International Agency for Research on Cancer (IARC)
- 1992–2010 Founder & Chairman of the annual international conference “AIDS, Cancer and Public Health” (19 conferences)
- 1994–1995 Member of advisory group to Russian parliament (The State Duma) on HIV legislation
- 1998–2002 Coordinator, Russian HIV Vaccine Project
- 1998–2002 Member, Advisory Board for the Committee of Science & Education of the Russian Parliament (The State Duma)
- 1999 Russian National Chumakov Award for research in the field of immunobiotechnology.
- 2002 International Paul Harris Fellowship for contribution in fighting AIDS and other infectious diseases
- 2005 Vernadsky Award (from International Academical Union)
- 2005 Mechnikov Medal for research in the field of HIV vaccine
- 2006 Member, US Institute of Medicine (IOM) Committee on the Prevention of HIV Infection among Injecting Drug Users in High Risk Countries  
Member of the Board of Experts on Diagnostics and Treatment of HIV of Ministry of Health of the Russian Federation.
- 2010– Member, Coordinating Board and Scientific Council, St. Petersburg Union of Scientists
- 2012– Expert, Scientific Research Institute – Federal Research Centre for Projects Evaluation and Consulting Services
- 2017– Expert, Russian Science Foundation

### Publications:

1. Masharsky A., Dukhovlinova E., Verevochkin S., Toussova O., Skochilov R., Anderson J., Hoffman I., Cohen M., Swanstrom R; Kozlov A.P. A substantial transmission bottleneck among newly and recently HIV-1 infected injection drug users in St. Petersburg, Russia. *The Journal of Infectious Diseases*. 2010; 201 (11): 1697-1702
2. Elena Dukhovlinova, Alexey Masharsky, Aleksandra Vasileva, Alessandro Porrello, Shuntai Zhou, Olga Toussova, Sergei Verevochkin, Ekaterina Akulova, Dmitriy Frishman, David Montefiori, Celia Labranche, Irving Hoffman, William Miller, Myron S Cohen, Andrei Kozlov, Ronald Swanstrom. Characterization of the Transmitted Virus in an Ongoing HIV-1 Epidemic Driven by Injecting Drug Use. *AIDS Res Hum Retroviruses*. 2018; 34 (10): 867-878.
3. Ekaterina Akulova, Boris Murashev, Sergey Verevochkin, Alexey Masharsky, Ruslan AlShekhat, Valeriy Poddubnyy, Olga Zozulya, Natalia Vostokova, and Andrei P. Kozlov. The Increase of the Magnitude of Spontaneous Viral Blips in Some Participants of Phase II Clinical Trial of Therapeutic Optimized HIV DNA Vaccine Candidate. *Vaccines (Basel)*. 2019; 7 (3): pii E92.



### **Igor Krasilnikov**

Organization: Saint-Petersburg Institute Vaccines and Sera, Federal Medical Biological Agency of Russia

Current position: Deputy Director, PhD, Prof.

Prof. Krasilnikov was educated at the Leningrad Polytechnic Institute, Physic-Mechanical Faculty of the specialty biophysics in 1975, defended his Ph.D. thesis (in Virology) in 1980 and the thesis of Doctor of Science (in Biotechnology) in 1999. He is an author of more than 130 publications and 27 patents, mainly in the fields of virology and production of biological substances such as vaccines and other immune biological medications including those blood-derived, bacteriophages, recombinant proteins.

In 1984 he had received an award from the Council of Ministers of the Soviet Union for the development and implementation of the vaccine against the tick-borne encephalitis. In 2018 he was the recipient of an International Eurasian award for development of corpuscular vaccines.

From 2003 to the end 2004, Prof. Krasilnikov served in Russia as a Manager General of UNDP (United Nations Development Program) project named “Development of the effective immunogenic vaccines and monitoring of their application”.

He is a Vice-President, Member of the Board of Russian Biotechnology Society named after academician Y. Ovchinnikov. Since 2003 to present time he serves as an international advisor to WHO in the field of vaccine development (the IVR program).

Research program of Prof. I. Krasilnikov focuses on:

1. basic technology of vaccines;
2. new adjuvants and their properties;
3. immunology of infectious processes.



**Irina Leneva**

Organization: Mechnikov Research Institute of Vaccines and Sera

Current position: Head of Laboratory

A broadly trained Ph.D. and Doctor of Science Virologist with extensive antiviral research and development experience. Collaboration experience with start-up through big-size biotech- and pharmaceutical companies. Proven track records in pharmaceutical research and development from antiviral drug discovery program initiation through IND, Phase 3 and 4 clinical research. Experience in both drug and vaccines areas. Hands-on experience with strategic planning, and research alliance management.

### Education:

- Postdoctoral studies in the laboratory of Genetic of RNA-Containing Viruses (Moscow Institute for Viral Preparations, Ministry of Health of USSR).
- Wellcome Trust Fellow. Virology Lab, National Institute for Medical Research, Mill Hill, London.
- Visiting Scientist. Department of Virology, St. Jude Children's Research Hospital. Memphis TN USA.

### Professional experience:

- 01/2010 – present. I.Mechnikov Research Institute for Vaccines and Sera, Russian Academy of Science, Moscow, Russia. Head of Experimental Virology Laboratory.
- 02/1990–09/2007 Centre of Drug Chemistry, Moscow, Russia. Head of Virology Laboratory, Department of Chemotherapy of Infectious.

### Publications:

1. Leneva I.A. Falynskova I.N., Makhmudova N.R., Poromov A.A., Yatsyshina S.B., Maleev V. V Umifenovir susceptibility monitoring and characterization of influenza viruses isolated during ARBITR clinical study. Journal of medical virology – 2019. – T. 91 – № 4 – C.588–597.
2. Bulgakova V.A., Poromov A.A., Grekova A.I., Pshenichnaya N.Y., Selkova E.P., Lvov N.I., Leneva I.A., Shestakova I. V., Maleev V. V.Pharmacoepidemiological study of the course of influenza and other acute respiratory viral infections in risk groups // Terapevticheskii arkhiv – 2017. – T. 89 – № 1 – C.62.
3. Leneva I.A., Russell R.J., Boriskin Y.S., Hay A.J.Characteristics of arbidol-resistant mutants of influenza virus: implications for the mechanism of anti-influenza action of arbidol. // Antiviral research – 2009. – T. 81 – № 2 – C.132–140.



### **Vasily Leonenko**

Organization: ITMO University, Russia

Current position: Associate Professor

Dr. Vasily Leonenko studied applied mathematics in Omsk State University, Russia, and received his PhD in 2012 in the same university. Since 2014, he works in ITMO University, Saint Petersburg, Russia. Having influenza dynamics modeling as his primary area of research since 2015, he has published 11 articles in peer-reviewed journals on this topic and presented his results in several major conferences in computer science, modeling and epidemiology, namely, International Conference on Computational Science (ICCS 2015), Erice MathCompEpi2015, Epidemics6 (2017) and ESCAIDE 2018. In 2017, Dr. Leonenko was awarded a Fulbright Visiting Scholar grant for his project “Urban factors and the dynamics of communicable diseases: the use of reportable influenza data”, and he conducted a joint research on that topic at Center for Data Science, RTI International, Durham, USA (January-June 2018). In August of 2019, Dr. Leonenko participated in the collaborative research on the topic “Rank dynamics of influenza epidemics” funded by UNAM, Mexico.

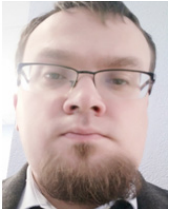
#### Publications:

1. Leonenko V., Bobashev G. Analyzing Influenza Outbreaks in Russia Using an Age-structured Dynamic Transmission Model (2019). *Epidemics*. Jul 22:100358.
2. V. Leonenko, A. Lobachev, G. Bobashev. Spatial Modeling of Influenza Outbreaks in Saint Petersburg Using Synthetic Populations (2019). *International Conference on Computational Science*, 492-505.
3. Leonenko, V.N. and Ivanov, S.V. Prediction of influenza peaks in Russian cities: Comparing the accuracy of two SEIR models (2018). *Mathematical biosciences and engineering*, 15(1), pp.209-232.

#### Research interests include:

Mathematical epidemiology, complex systems science, data science, high-performance computing.





## **Valentin Makarov**

Organization: FSBI “Center of Strategic Planning and Management of Medical and Biological Risks”

### Education:

- 2002-2007, Moscow State University, Biological faculty, Department of Virology – Master of biology;
- 2007-2010, Moscow State University, Biological faculty, Department of Virology – PhD in biology;

### Grants and Awards:

- Grant RFFR № 15-34-50986 “Molecular mechanisms of the insecticidal action of short ssDNA fragments of the antiapoptotic gene of the baculovirus”
- Russian Federation President Grant MK-2072.2014.4 “Plant viruses: from structure studies to creating new nanomaterials”
- Grant RFFR № 15-54-04004 “The study of virus diversity and virus-like genetic elements in conifers: the search of the latent infection mechanisms”

### Professional experience:

- 2010-2012, Moscow State University, Biological faculty, Department of Virology, Post-doctoral position
- 2012-2017, Moscow State University, A.N.Belosersky Institute of physico-chemical biology, Senior scientist.
- 2017-2019, FSBI “Center of Strategic Planning and Management of Medical and Biological Risks”, Deputy Head of the Department of Planning and Management of Medical and Biological Risks.

### Publications:

1. 2019. Broad Bactericidal Activity of the Myoviridae Bacteriophage Lysins LysAm24, LysECD7, and LysSi3 against Gram-Negative ESKAPE Pathogens. Antonova Nataliia P., Vasina Daria V., Lendel Anastasiya M., Usachev Evgeny V., Makarov Valentine V., Gintsburg Alexander L., Tkachuk Artem P., Gushchin Vladimir A. *Viruses*, MDPI (Basel, Switzerland, Switzerland), V.11, №3, p. 284.
2. 2017 Molecular Alliance of Lymantria dispar Multiple Nucleopolyhedrovirus and a Short Unmodified Antisense Oligonucleotide of Its Anti-Apoptotic IAP-3 Gene: A Novel Approach for Gypsy Moth Control. Oberemok V.V., Laikova K.V., Zaitsev A.S., Shumskykh M.N., Kasich I.N., Gal'chinsky N.V., Bekirova V.V., Makarov V.V., Agranovsky A.A., Gushchin V.A., Zubarev I.V., Kubyshkin A.V., Fomochkina I.I., Gorlov M.V., Skorokhod O.A., *International Journal of Molecular Sciences, Molecular Diversity Preservation International (Switzerland)*, V18, p. 2446-2461.

### Research interests include:

Microbiology, human microbiota, genome editing, gene-modified organisms.



**Aleksei Matveichev**

Organization: NPO Petrovax Pharm, LLC

Current position: Head of Preclinical research center

PhD in Clinical Immunology, Allergology.

Russian Fund of fundamental research grants participant, 2009-2017:

- 07.2019 – till now – Head of Preclinical research center, NPO Petrovax Pharm, LLC
- 08.2017 – 07.2019 – Head of immunology group, Preclinical research center, NPO Petrovax Pharm, LLC
- 11.2010 – 07.2017 – Head of immunochemistry laboratory, Immunology department, I.N. Blokhina Research institute of epidemiology and microbiology.

Publications:

1. The effect of human placenta cytotrophoblast cells on the maturation and T cell stimulating ability of dendritic cells in vitro / V.Yu. Talaev, A.V. Matveichev, M.A. Lomunova, M.V. Plekhanova, M.E. Tsaturov, I.E. Zaichenko, O.N. Babaikina // Clinical and Experimental Immunology. - 2010. - T. 162. - № 1. - P. 91-99.
2. Evaluation of autoimmune homeostasis in persons, vaccinated against bacterial and viral respiratory infections. A.V. Matveichev, M.V. Talaeva, V. Yu. Talaev, M.I. Tsiganova, Z.I. Nikitina, E.V. Mokhonova, V.N. Koptelova, A.V. Sarval, R.S. Ferman, V.A.Lapin, D.A. Melentev // Immunology. – 2016. Vol. 37. - №5. P. 256-261.
3. The effect of Helicobacter pylori on regulatory T-cells differentiation. A.V. Matveichev, M.V. Talaeva, V. Yu. Talaev, N.V. Neumoina, K.M. Perfilova, D.G. Lapaev, E.V. Mokhonova, M.I. Tsiganova, V.N. Koptelova, Z.I. Nikitina, V.A. Lapin, D.A. Melentev // - Analysis of health risks. – 2017 - №1. P. 21-29.)

Research interests include:

Cell immunology, dendritic cells, preclinical research, immune response, flow cytometry



### **Alexander Shestopalov**

Organization: Federal Research Center for Fundamental and Translational Medicine Siberian Branch of the Russian Academy of Sciences

Current position: Head of Division

#### Professional experience:

- 2019 – now – Head of Division Federal Research Center for Fundamental and Translational Medicine Siberian Branch of the Russian Academy of Sciences
- 2016–2019 – Actual Director Research Institute for Experimental and Clinical Medicine, Siberian Branch of the Russian Academy of Medical Sciences the Federal Agency of scientific organizations
- 2013–2016 – Head of Laboratory Research Centre for Clinical and Experimental Medicine, Siberian Branch of the Russian Academy of Medical Sciences, senior researcher at Novosibirsk State University
- 1991–2013 – Director, Division of Influenza and Zoonotic Infections, Federal State Research Center of Virology and Biotechnology “Vector”, Koltsovo, Novosibirsk region, 630559 Russia and Senior researcher Novosibirsk state university.

#### Education:

- M.S. 1979 Novosibirsk State University, Department of Natural Sciences
- Ph.D.:1983 Siberian Computer Center, Novosibirsk
- Awards: Diploma of the Minister of Health of Russia, Award Society for the Study Infectious Diseases (International Society for Infectious Diseases)

#### Publications:

1. Mine, J., Uchida, Y., Nakayama, M., Tanikawa, T., Tsunekuni, R., Sharshov, K., Takemae, N., Sobolev, I., Shestopalov, A., Saito, T., Genetics and pathogenicity of H5N6 highly pathogenic avian influenza viruses isolated from wild birds and a chicken in Japan during winter 2017– 2018, *Virology* (2019).
2. Junko Mine, Yuko Uchida, Kirill Sharshov, Ivan Sobolev, Alexander Shestopalov, Takehiko Saito. Phylogeographic evidence for the inter- and intracontinental dissemination of avian influenza viruses via migration flyways. *PLoS One*. 2019 Jun 26.
3. Prokopyeva EA, Zinserling VA, Bae YC, Kwon Y, Kurskaya OG, Sobolev IA, Kozhin PM, Komissarov A, Fadeev A, Petrov V, Shestopalov AM, Sharshov KA. Pathology of A(H5N8) (Clade 2.3.4.4) Virus in Experimentally Infected Chickens and Mice. *Interdiscip Perspect Infect Dis*. 2019 Jul 4.

#### Research interests include:

Virology, zoonotic infections, ecology viruses infectious diseases of humans and animals.



### **German Shipulin**

Organization: Federal State Budgetary Institution «Center for Strategic Planning and Management of Medical and Biological Health Risks» (Center for Strategic Planning, Russian Ministry of Health)

Current position: Deputy Director on Science and Production

In 1991 German Shipulin graduated from the Russian State Medical University named after N.I. Pirogov, Moscow (Department of Biochemistry, Medical-Biological faculty). In 2008 German Shipulin received his PhD degree in Epidemiology.

From 1992 up to 2018 German Shipulin had worked at the Central Research Institute for Epidemiology. He was the Head of Molecular diagnostics and epidemiology department, comprising over 1300 employees.

New diagnostic technologies based on amplification method (PCR in different formats, NASBA etc.) and sequencing method including NGS were developed and successfully implemented by German Shipulin's employees.

Manufacture of highly sensitive PCR diagnostic kits for qualitative and quantitative detection and genotyping of infectious and parasitic agents by "MultiPrime" and "Real-Time PCR" methods was organized; new diagnostic kits on the basis of innovative pyrosequencing technology (AmpliSens Pyroscreen series) were developed.

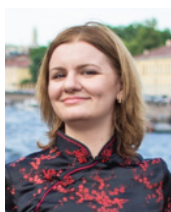
Since 2009 within the scope of the federal program "National system of chemical and biological safety" German Shipulin's department had developed a number of "Real-Time PCR" based diagnostic kits for multiplex molecular diagnosis of various special danger infections as well as test systems in planar oligonucleotide and protein biochips format.

Currently he is working as a Deputy Director on Science and Production in the Center for Strategic Planning, Russian Ministry of Health. He is managing, supervising and providing guidance to medical molecular diagnostics laboratories.

The number of scientific publications of German Shipulin exceeds 750 and he is a holder of more than 15 patents.

Research interests include:

Epidemiology and clinical course, diagnosis and prevention of new and newly emerging infections; current tendencies in epidemic process; molecular diagnostics; microbial ecology of the human body; clinical immunology, improvement of existing and development of new methods for diagnosis of infectious diseases.



### **Anna A. Shtro**

Organization: Smorodintsev Research Institute of Influenza

Current position: Head, laboratory of chemotherapy for viral for viral infections

#### Education:

- M.Sc.: December, 2008 (Characterization of circulating influenza virus strains in terms of their resistance to rimantadine, Department of Genetics, St.Petersburg State University, Russia.)
- PhD: December, 2014 (Investigation of usnic acid derivatives activity against influenza virus)

#### Grants and Awards:

- 2015–2017. RSCF project “Cellular miRNAs as a novel molecular target for the acute viral infections therapy”
- 2017–2019. RFBR project “Development of new heterocyclic compounds as inhibitors of influenza neuraminidase”

#### Publications:

1. Ilyina I.V., Korchagina D.V., Volcho K.P., Salakhutdinov N.F., Zarubaev V.V., Lavrentieva I.N., Shtro A.A., Esaulkova I.L., Borisevich S.S. Highly potent activity of isopulegol-derived substituted octahydro-2h-chromen-4-ols against influenza a and b viruses // *Bioorganic & Medicinal Chemistry Letters*. 2018. T. 28. № 11. P. 2061-2067.
2. Vasileva M.Y., Ershov A.Y., Baigildin V.A., Yakimanskii A.V., Lagoda I.V., Kuleshova L.Y., Shtro A.A., Zarubaev V.V. Synthesis of silver glyconanoparticles based on 3-thiopropionylhydrazones of mono- and disaccharides // *Russian Journal of General Chemistry*. 2018. V. 88(1), 109-113.
3. Zarubaev VV, Pushkina EA, Borisevich SS, Galochkina AV, Garshinina AV, Shtro AA, Egorova AA, Sokolova AS, Khursan SL, Yarovaya OI, Salakhutdinov NF. Selection of influenza virus resistant to the novel camphor-based antiviral camphocene results in loss of pathogenicity // *Virology*. 2018 Nov;524:69-77.

#### Research interests include:

Antivirals, Influenza, Virology, Respiratory viruses, Chemotherapy, Novel compounds



### **Mikhail Sinitsyn**

Organization: Moscow Scientific and Clinical Center for TB Control

Current position: Acting Director, Organizer of public health, TB doctor, Thoracic surgeon, MD, Ph.D.

#### Education:

- 1999–2001 Sechenov Moscow Medical Academy, Department of Phthisiopulmonology (resident). Specialization: thoracic surgeon
- 1998–1999 Sechenov Moscow Medical Academy, Department of Phthisiopulmonology (resident). Specialization: TB-doctor
- 1992–1998 Sechenov Moscow Medical Academy. Specialty: General practitioner
- Refresher courses: 2019 WHO “Implementing the WHO End TB strategy and new vision of TB elimination”
- 2017 Sechenov Moscow Medical Academy, Specialty: HIV- infection
- 2008 Sechenov Moscow Medical Academy, Specialty: Health Organization and Public Health
- Employment Record: 2018-to date Acting Director
- 2017–2018 Deputy Director for Scientific and Organizational
- 2014–2017 Moscow Scientific and Clinical Center for TB Control worked as Chief Medical Officer (for working with patients with HIV / TB co-infection)
- 2009–2014 Moscow Tubercular Clinical Hospital №3 worked as Deputy Chief Medical Officer and Head of the department of surgery.
- 2001–2009 Research Institute of Phthisiopulmonology Sechenov Moscow Medical Academy), worked as a thoracic surgeon, phthisiatrician doctor, since 2007 the Head of the department of surgery.

Field of professional activity: Organization of Health; diagnostic and differential diagnostic of tuberculosis and other lung diseases; thoracic surgery; diagnostic and treatment of tuberculosis, organization of prevention, detection, diagnosis and treatment of tuberculosis in patients with HIV infection.

#### Over 120 published works, including:

1. Sinitsyn M. V., Krivtsova O. V., Belilovsky et al. Economic efficiency of diagnosis of latent tuberculosis infection and chemoprophylaxis of tuberculosis in patients with HIV infection/Tuberculosis and socially significant diseases. 2018. No. 3. pp. 4-13 (in Russian).
2. Bogorodskaya E., Mazus A., Sinitsyn M. et al. Epidemiological effectiveness of TB prevention and early detection of tuberculosis among HIV- patients, “Tuberculosis and Socially Significant Diseases”, No. 2, 2018, pp. 4-15 (in Russian)
3. Vasilieva I. A., Belilovsky E. M., Borisov S. E., Sterlikov S. A., Sinitsyn M.V. Tuberculosis with HIV co-infection in the countries of the World and in the Russian Federation // Tuberculosis and lung diseases. 2017 - Volume 95, No. 9, pp. 8-18 (in English and in Russian).

#### Research interests include:

Research on the effectiveness of prevention, detection and treatment of tuberculosis. Assess the results of surgery for pulmonary tuberculosis.



### **Anna Sominina**

Organization: Smorodintsev Research Institute of Influenza

Current position: Professor, Head of Laboratory, Principal Investigator

Anna Sominina, Doctor of Medical Sciences degree, Honored Scientist of the Russian Federation, more than 100 publications in peer reviewed journals concerning enhancement of influenza and ORI surveillance, development of new MAb and diagnostic tests as well as long-term management of the NIC activity.

#### Project Management Experience:

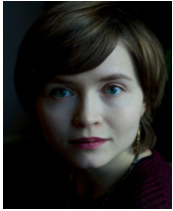
- 2015–2017, “Molecular and Epidemiological Characterization of Contemporary Influenza”, Government contract, RII, Head of Research;
- 2013–2016, FLU21-EXT “Global Influenza Hospital Surveillance Network Region: St. Petersburg, Russian Federation”, Sanofi Pasteur Grant, Principal Investigator.
- 2016–2019, CDC NU51IP000854 “Maintenance of Influenza Surveillance Capacity in Russia”, Principal Investigator.
- 2017–2019, Foundation for Influenza Epidemiology, France, Grant “Study of role of influenza viruses in development of SARI in hospitalized patients in frames of international project Global Influenza Hospital-based Surveillance Network, branch: Russian Federation, St. Petersburg, №2018 -00000007795, Principal Investigator.

#### Publications:

1. Sominina, M. Pisareva et al. (2015). Peculiarities of etiology of respiratory virus infections in hospitalized patients depending on the demographic, socio-economic factors and previous vaccination. *Epidemiology and Vaccinal Prevention* .82, 74-84.
2. Sominina, D. Danilenko, A. Komissarov et al. (2018). Results of molecular detection and characterization of influenza viruses and other respiratory pathogens in Russia, 2017-2018 season. *Infection and Immunity*, 8, 473-488.
3. Sominina, E. Smorodintseva, K. Stolyarov et al. (2017). Improving the system of influenza surveillance in the Russian Federation: the main results of sentinel surveillance for influenza and ORI. *Epidemiology and Vaccinal Prevention*, 1, 7-16

#### Research interests include:

Influenza vaccine effectiveness, hospital surveillance for SARI, genetic determinants of virus pathogenicity.



## **Oksana Stanevich**

Organization: Smorodintsev Research Institute of Influenza

Current position: PhD Student

### Education:

- First State Pavlov University, Saint-Petersburg, general medicine (2009 – 2015), medical doctor degree
- First State Pavlov University, Saint-Petersburg, internship at Infectious Diseases Department (2015–2016), physician, infectious diseases specialist degree
- Smorodintsev Research Institute of Influenza (Sept. 2018– up to present), PhD student

### Additional education:

Bioinformatics Institute, educational program “Bioinformatics for biologists” (Sept. 2016 –Sept. 2017)

### Grants:

Grant 14298GU/2019 from Foundation for Assistance to Small Innovative Enterprises (FASIE)

### Publications:

Gazizova, A., Zolotarev, A.A., Myrov, V., Vinogradova, A., Cheblokov, A., Bakin, E., Stanevich, O.: Open-source tool for VH-replacement products discovery and analysis. ROCEEDING OF THE 22ND CONFERENCE OF FRUCT ASSOCIATION (2018). doi:10.23919/FRUCT.2018.8468299

### Research interests include:

Infectious diseases, immunology, bioinformatics





**Marina A. Stukova**

Organization: Smorodintsev Research Institute of Influenza

Current position: Head of the Laboratory of Vectored Vaccine

Education:

- MD: Pavlov First Saint Petersburg State Medical University, Saint Petersburg, 1988
- PhD: Research Institute of Influenza, Saint Petersburg

2007 Grants and Awards:

Honorary diploma of the Ministry of Health of Russia for merits in the field of healthcare and many years of conscientious work dated 02.28.2019

Professional experience:

Coordinator and Investigator of more than 30 clinical trials of influenza vaccines (Phases I - III). Pre-clinical and clinical trials of influenza vectored vaccines against tuberculosis, RSV infection, universal Flu vaccine

Publications:

1. M.A. Stukova, S. Sereinig, N.V. Zabolotnyh, B. Ferko, C. Kittel, J. Romanova, T.I. Vinogradova, H. Katinger, O.I. Kiselev, A. Egorov "Vaccine potential of influenza vectors expressing Mycobacterium tuberculosis ESAT-6 protein" Tuberculosis (Edinb.) 2006, 86: 236-246.
2. Rudenko L, Isakova-Sivak I, Naykhin A, Kiseleva I, Stukova M, Erofeeva M, Korenkov D, Matyushenko V, Sparrow E, Kieny MP. H7N9 live attenuated influenza vaccine in healthy adults: a randomised, double-blind, placebo-controlled, phase 1 trial. Lancet Infect Dis. 2016 Mar; 16(3):303-10.

Research interests include:

Virology (influenza virus, RSV), molecular biology, vaccines (influenza virus based vector vaccines), immunology (virus-host interactions, post vaccination immunity), pre-clinical and clinical studies



### **Yuri Vasiliev**

Organization: SPbSRIVS, Russia

Current position: Adviser

Dr. Yuri Vasiliev has received PhD in virology from the Research Institute of Vaccines and Sera in Moscow in 2010, and since then has been working in the field of vaccinology with a focus on influenza. Most recent projects include next-generation influenza vaccines, alternative potency assays, as well as strategic frameworks on influenza control.

Dr. Yuri Vasiliev serves in various international workgroups and taskforces including WHO, GAVI, PATH and IFPMA.

He now works as an adviser for the St. Petersburg Research Institute of Vaccines and Sera (an IFPMA and DCVMN member), as well as an acting director of the Research Institute of Ultrapure Biologicals.

He has more than 100 published papers including those indexed in the WoS CC.

#### Publications:

1. Y.M. Vasiliev. Interdisciplinary and strategic problems of influenza control with vaccines (2019). *Infectology Journal*. 1:32.
2. Y.M. Vasiliev. Strain selection for seasonal influenza vaccines in the recent years (2019). *Russian Immunology Journal*. 22:1006-9.

#### Research interests include:

Influenza vaccines, effectiveness, immunogenicity, potency, correlates for protection, eradication.



### **Andrey Vasin**

Organization: Smorodintsev Research Institute of Influenza

Current position: Head of WHO National Influenza Centre of Russia, Head of the Molecular Biology of Viruses Department

Organization: Peter the Great St.Petersburg Polytechnic University, Institute of Biomedical Systems and Biotechnologies

Current position: Professor, acting Director

In 2003 Andrey Vasin graduated from the Peter the Great St. Petersburg Polytechnic University (Department of Biophysics), MSc. 2005 – PhD (biochemistry), 2019 – D.Sc (biochemistry).

2019– to present – Professor, acting Director of the Institute of Biomedical Systems and Biotechnologies in Peter the Great St.Petersburg Polytechnic University;

2016– to present – Head of the Department of Molecular Biology of Viruses in Smorodintsev Research Institute of Influenza under the Ministry of Health of the Russian Federation;

2016–2019 – Director, Smorodintsev Research Institute of Influenza;

Scientific and administrative activities:

Head of the WHO National Influenza Center; member of WHO Working Group on Influenza Preparedness and Response, Director of the Global Virus Network Center in St-Petersburg, member of the Russian Society of Biochemists

Dr. Vasin is the author of more than 60 published works and PI and/or manager of more than 15 research projects and pre-clinical trials

Publications:

1. Vasin, A. V., Temkina, O. A., Egorov, V. V., Klotchenko, S. A., Plotnikova, M. A., & Kiselev, O. I. (2014). Molecular mechanisms enhancing the proteome of influenza A viruses: an overview of recently discovered proteins. *Virus research*, 185, 53-63.
2. Brodskaya, A. V., Timin, A. S., Gorshkov, A. N., Muslimov, A. R., Bondarenko, A. B., Tarakanichikova, Y. V.,... & Vasin, A. V. (2018). Inhibition of influenza A virus by mixed siRNAs, targeting the PA, NP, and NS genes, delivered by hybrid microcarriers. *Antiviral research*, 158, 147-160.
3. Ksenofontova, O. I., Vasin, A. V., Egorov, V. V., Soldatenkov, F. Y., Terukov, E. I., Ulin, V. P.,... & Kiselev, O. I. (2014). Porous silicon and its applications in biology and medicine. *Technical Physics*, 59(1), 66-77.

Research interests include:

Molecular virology, vaccinology, antiviral drugs development, molecular diagnostic, molecular biology and biotechnology.



## **Vasily V. Vlassov**

Organization: Center for Health Policy, National Research University Higher School of Economics, Moscow

Current position: Distinguished professor.

### Education:

Military Medical Academy, SPb, Russia (Main field Epidemiology)

2010 Doctor of Sciences in Internal Diseases

### Awards and Accomplishments:

- Member, Steering group, Evidence-informed Policy Network (EVIPNet, WHO Europe) 2007–2017
- Expert for Russian Academy of Science
- Civic Council at the Ministry of Health, Russian Federation
- Society for Evidence Based Medicine (osdm.org), president
- International Epidemiological Association

### Professional experience:

- 2014– Leading Scientist, Center for Health Policy, Higher School of Economics, Moscow, Russia
- 1998–2007 Director, Russian Branch, The Nordic Cochrane Centre
- Editorial Board Member: Clinical Epidemiology, European Journal of Public Health,
- Reviewer: BMJ, Journal of the Epidemiology and Community Health, Public Health Reviews, Kardiologija, Lancet, PLOS One, Vaccine

### Publications:

1. Vlassov V.V. Russia: Thirty years of transition. Eur J Public Health. 2018 Aug 1;28(4):588-589. doi: 10.1093/eurpub/cky097
2. Vlassov VV, Bates K, McKee M. Quality improvement in hospitals in the Russian Federation, 2000-2016: a systematic review. Health Econ Policy Law. 2019:1-11
3. Starodubov V. I., Marczak L. B., Varavikova E. [et al.] The burden of disease in Russia from 1980 to 2016: a systematic analysis for the Global Burden of Disease Study 2016 // The Lancet. 10.1016/S0140-6736(18)31485-5



### **Viacheslav Zhuravlev**

Organization: St. Petersburg Federal Research Institute of Phthisiopulmonology, Russia.

Current position: MD., PhD. Associate Professor Head of the Laboratory Research Department

#### Degrees:

- 1999, PhD in phthysiology, FSBI “Saint-Petersburg Research Institute of Phthisiopulmonology” of the MoH of the RF,
- 1988, MD. Perm State Medical Institute, Faculty of Hygiene, Sanitation and Epidemiology.

#### Projects national:

- Project supported by 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 2019–2020
- Project supported by Russian Science Foundation 19-15-00028 Development of new efficient compounds against drug resistant *Mycobacterium tuberculosis* taking into account the population structure of the pathogen. 2019-2021
- Project supported by Russian Science Foundation 14-14-00292 Evolution of pathogenic potential of phylogenetic lineages of *Mycobacterium tuberculosis*. 2014–2015

#### Publications:

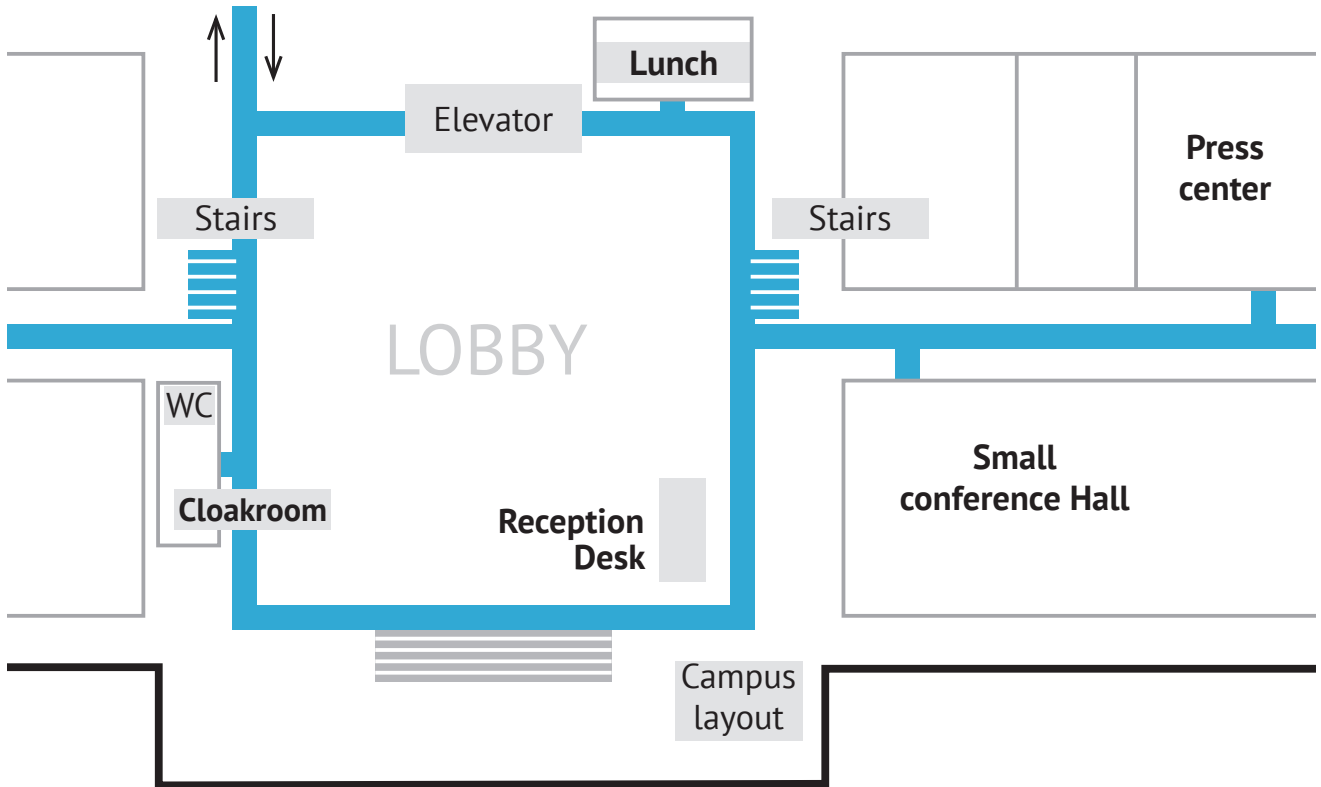
1. Chernyaeva E., Rotkevich M., Krashenninnikova K., Vyazovaya A., Mokrousov I., Solovieva N., Zhuravlev V., Yablonsky P., O'Brien S.J. Whole genome analysis of *Mycobacterium tuberculosis* from patients with tuberculous spondylitis, Russia. *Emerging Infectious Diseases*. 2018. T. 24. № 3. C.579-583.
2. Vyazovaya A., Levina K., Zhuravlev V., Viiklepp P., Kutt M., Mokrousov I. Emerging resistant clones of *Mycobacterium tuberculosis* in a spatiotemporal context. *Journal of Antimicrobial Chemotherapy*. 2018. T. 73. № 2. C.325-331.
3. 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., Kutt M., Aitkhozhina N., Shen A.D., Narvskaya O., Zhuravlev V. Rapid assay for detection of the epidemiologically important central Asian/Russian strain of the *Mycobacterium tuberculosis* Beijing genotype. *Journal of Clinical Microbiology*. 2018. T. 56. № 2.

#### Research interests include:

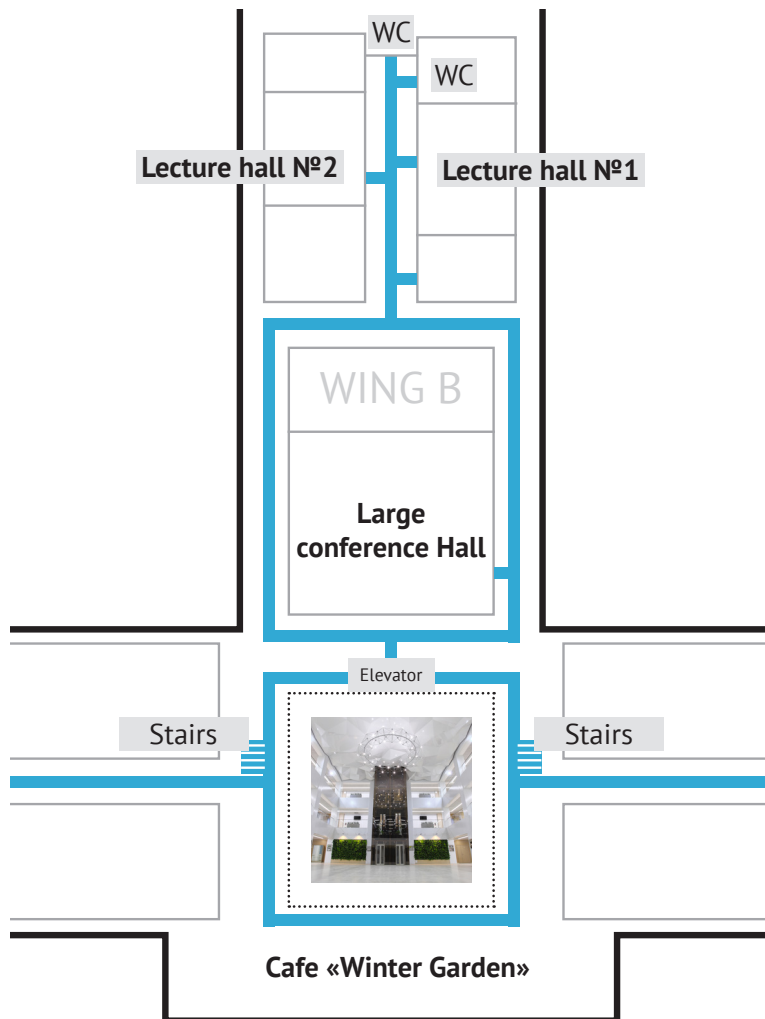
Certified specialist in pulmonology, phthysiology, clinical laboratory diagnostics and laboratory genetics. Scientific interest includes the study of clinical and laboratory manifestations of pulmonary tuberculosis and extra pulmonary tuberculosis in the context of HIV infection and diagnosis of MDR/XDR of *Mycobacterium tuberculosis*.

# Schemes

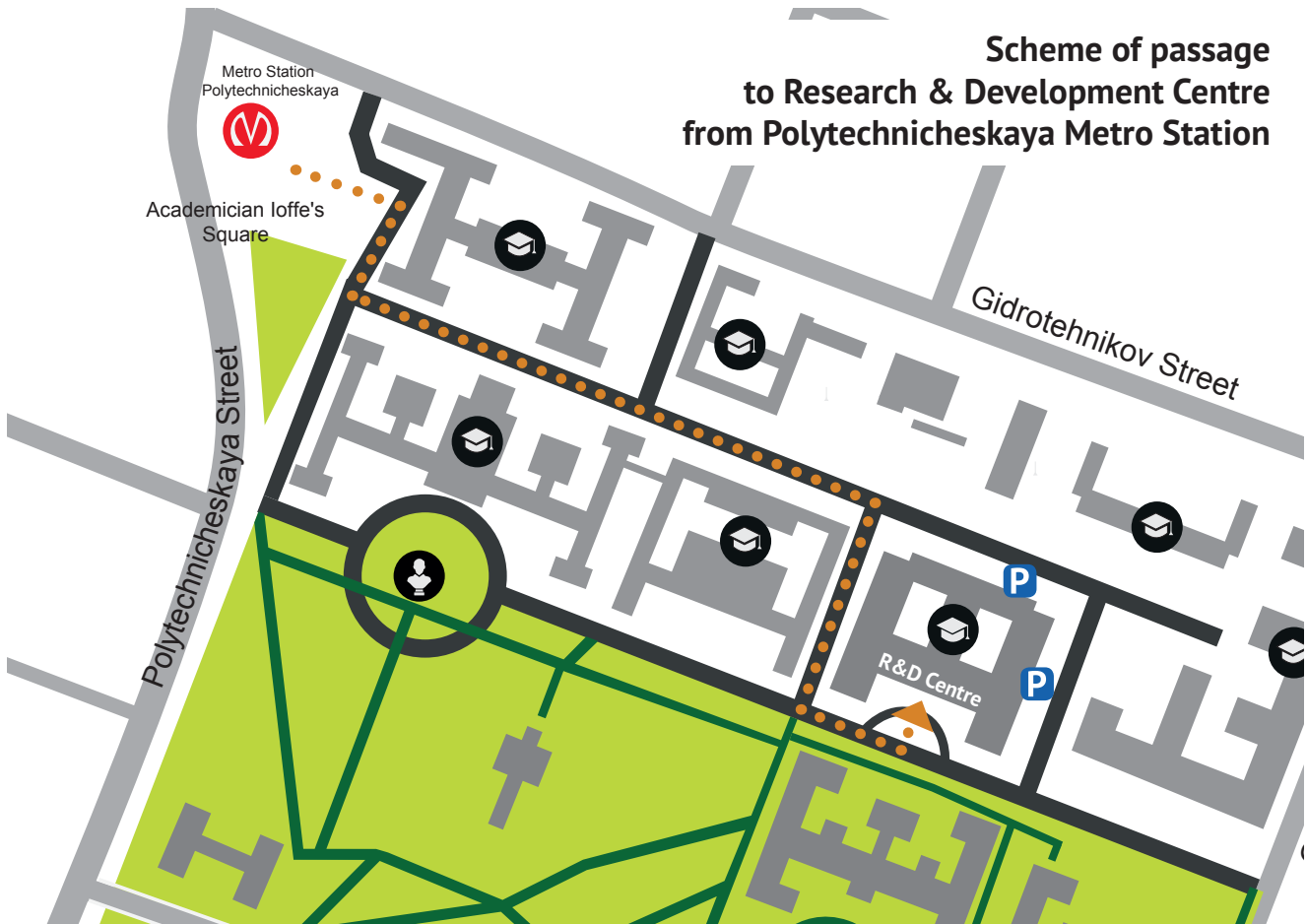
## Research & Development Centre, 1st floor plan



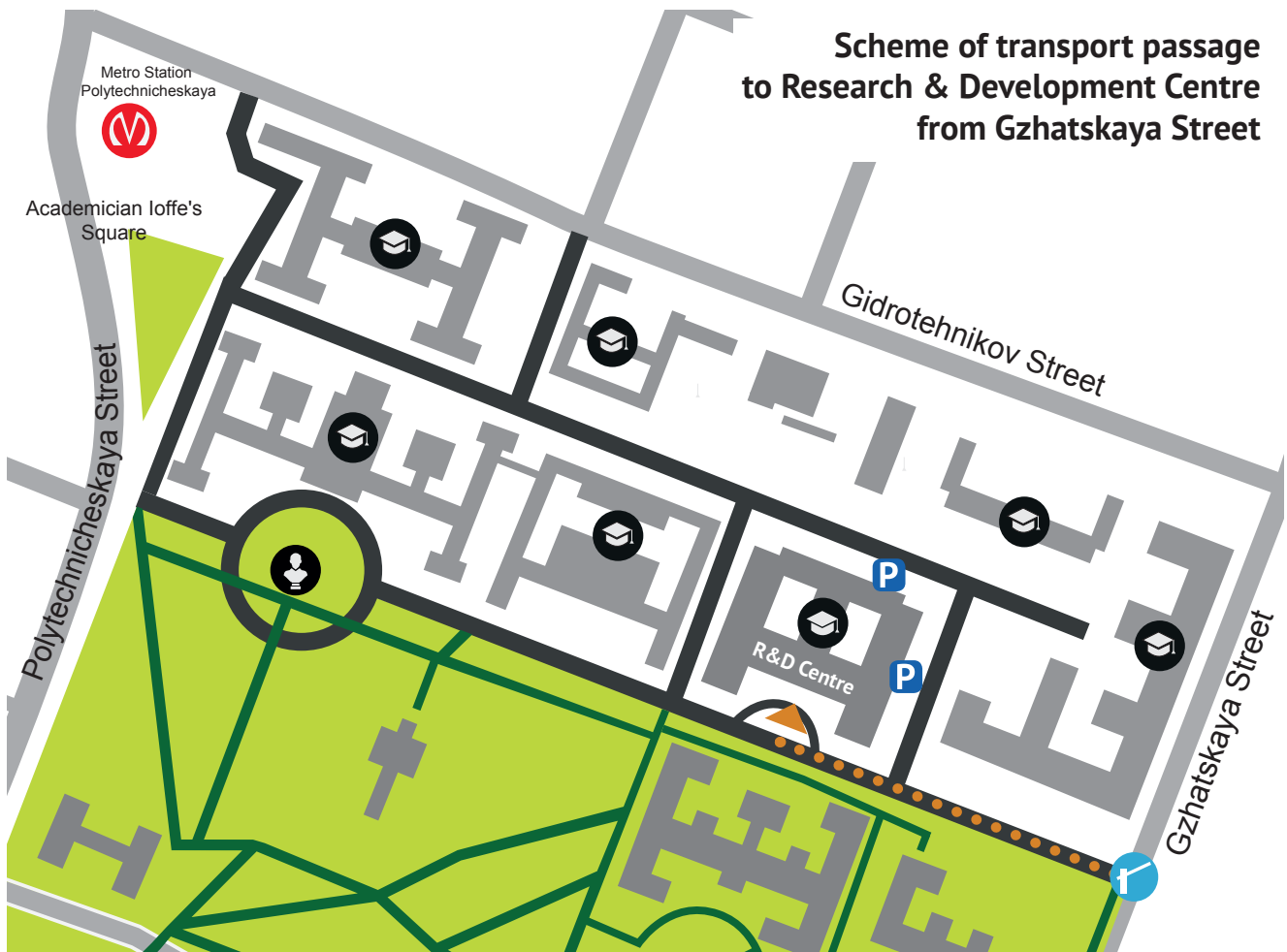
## Research & Development Centre, 2nd floor plan



**Scheme of passage to Research & Development Centre from Polytechnicheskaya Metro Station**



**Scheme of transport passage to Research & Development Centre from Gzhatskaya Street**













# EFFECTIVE MEASURE FOR PROTECTION AGAINST INFLUENZA AND ITS COMPLICATIONS IS VACCINATION

Ultrix® | Quadri | FORT

STATE REGISTRATION LP-005594 OF JUNE 19, 2019

## QUADRIVALENT SPLIT-VIRION INACTIVATED INFLUENZA VACCINE



### PRODUCTION

Russian full-cycle production according to GMP standards  
The active substances - influenza virus antigens - are obtained from purified type A and B influenza viruses grown separately in developing chicken embryos



### STRUCTURE

The first Russian quadrivalent vaccine for the prevention of seasonal influenza, which meets all the WHO recommendations on the composition and amount of hemagglutinin of an influenza virus strain, contains 15 mcg of the influenza virus hemagglutinin of each strain (A /H1N1, A /H3N2, B line Yamagata, B line Victoria), just one dose of the vaccine contains 60 mcg  
The vaccine does not contain preservatives, stabilizers and adjuvants



### RESULT

Meets the immunogenicity criteria for inactivated influenza vaccines adopted in the European Union and the Russian Federation



### APPLICATION

A single dose of Ultrix® Quadri vaccine forms a long-lasting immunity

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