



PROGRAM OF THE INTERNATIONAL CONFERENCE

"VACCINES AND VACCINATION"

MOSCOW, SEPTEMBER 27-OCTOBER 1, 2017

www.onlinereg.ru/VAC&VAC2017

Day 1, Wednesday September 27

Venue: Hotel "Spectr Khamovniki" Hotel Spektr Usacheva Street 35 Bld.1, <http://eng.spektr-hotel.ru/>

12.00-13.00 Registration

13.00 **Opening**

WELCOME WORDS: AIDAR ISHMUKHAMEDOV, the Director of the Chumakov Federal Scientific Center for Research and Development of Immune-and- Biological Products of the Russian Academy of Sciences (Chumakov Center RAS) (10 min)

KEY-NOTE LECTURE: MARGARET LIU (ProTherImmune, University of California, San Francisco, USA, and Karolinska Institutet, Stockholm, Sweden) Challenges of providing vaccines for global health (30 min)

13.40-15.00 **Session I: IMMUNE THERAPY AND IMMUNE PREVENTION OF CANCER**

Chair: ANDREY ZAMYATNIN (*Institute of Molecular Medicine, Sechenov First Moscow State Medical University, Moscow, Russia*)

ALEXANDER ILYICHEV (SRC VB VECTOR, Koltsovo, Novosibirsk region, Russia) DNA vaccines against melanoma: design and investigation of antigenic properties (30 min)

BRITTA WAHREN (Karolinska Institutet, Stockholm, Sweden) Immunotherapeutic targeting of carcinoembryonic antigen (30 min)

ALEXANDER M SHNEIDER (Cure Lab, Boston, USA) Multiple application of p62/SQSTM1 encoding plasmid: prevention and treatment of cancer and inflammation-related diseases (30 min)

15.15-15.45 **COFFEE BREAK**

15.45-18.00 **Session I (continued)**

Chair: ALEXANDER M SHNEIDER (*Cure Lab, Boston, USA*)

ANDREY ZAMYATNIN (Institute of Molecular Medicine, Sechenov First Moscow State Medical University, Moscow, Russia) Cancer retina antigens in kidney cancer (30 min)

JON AMUND KYTE (Department of Oncology, Oslo University Hospital, Oslo, Norway) T helper cell receptors from long term survivors after telomerase cancer vaccination for use in adoptive cell therapy (30 min)

MAXIM IONOV & SYLWIA MICHLEWSKA (Lodz University, Lodz, Poland) Dendrimers in anti-cancer drug delivery (30 min)

PHILIP PODSCHWADT (Karolinska Institutet, Stockholm, Sweden, and Ulm University, Ulm, Germany).
Method for rapid in vitro assessment of metastatic potential of primary tumors in mice (20 min)

18:00 WELCOME MINGLE

Day 2, Thursday September 28

Venue Chumakov Federal Scientific Center for Research and Development of Immune-and-Biological Products of Russian Academy of Sciences, Moscow, settlement Moskovsky, poselok "Institute of poliomyelitis", building block 8 <http://www.chumakovs.ru/contacts>

Synchronous translation from Russian into English will be provided for registered conference participants for this day. Lectors at the Chumakov Federal Center wishing to present in Russian, please, provide to the Organizing Committee your extended Power Point presentations with slides in English and lecture text (in comments) in Russian at least one week before the event, the latest September 21, 2017. You are welcome to forward your presentations to Natalia Petrakova nvpetrakova@hotmail.com

Buss transport from hotel "Yunost" 07.00

Registration at the Chumakov Center 08.00-08.30

08.30-10.15 **Session II: APPROACHES TO IMMUNE PREVENTION AND IMMUNE THERAPY**

Chair: ALEXEY M EGOROV M (Scientific Center for Research and Development of Immunobiological Preparations, Moscow)

AIDAR ISHMUKHAMETOV (Scientific Center for Research and Development of Immunobiological Preparations, Moscow; Sechenov FMSMU, Moscow, Russia) Program for research and development of the Chumakov Federal Scientific Center for Research and Development of Immune-and-Biological Products (15 min)

PETR APARIN, RAKHIM KHAITOV (National Research Centre-Institute of Immunology, Moscow, Russia) Carbohydrate-based vaccines against bacterial infections: development and clinical application (30 min)

ANDREY LISITSA (Institute of Biomedical Chemistry, Moscow) Atomic chips for the detection of pathogens (30 min)

10:15-11:15 **COFFEE BREAK** with
Viewing of posters presented by the Scientific Center for Research and Development of Immunobiological Preparations on the research meetings during 2015-2017

11.15-13.15 **Session II (continued)**

Chair: ALEXANDER LUKASHEV (Scientific Center for Research and Development of Immunobiological Preparations, Moscow)

JOEL PALEFSKY (University of California, San Francisco, San Francisco, USA) Approaches to immunotherapy of HPV-related cancer (30 min)

DENNIS Yu LOGUNOV & ALEXANDER L GINZBURG (Gamaleya Research Center of Epidemiology and Microbiology, Moscow, Russia) Development of new Ebola vaccine (30 min)

JOON RHEE (Clinical Vaccine R&D Center, Natl. Research Laboratory of Molecular Microbial Pathogenesis, and Research Institute for Vibrio Infections, Chonnam National University Medical School, Gwangju, South Korea) Flagellin, the TLR5 Ligand, Serves an Effective Adjuvant for Mucosal Vaccines (30 min)

JOAN JOSEPH (Medicine University of Barcelona, Barcelona, Spain) Pre-clinical development of recombinant BCG based HIV vaccine, challenges and failures (30 min)

LUNCH 13.15-14.15

14.15-15.35 Session III: VACCINES AGAINST EMERGING VIRAL THREATS

Chair: RANJIT RAY (St Louis University, St Louise, USA)

ALEXANDEER LUKASHEV (Scientific Center for Research and Development of Immunobiological Preparations, Moscow, Russia) Immune escape poliovirus variants in polio endgame (30 min)

ANDERS WIDELL (Lund University, Lund, Sweden) Past and future of hepatitis A vaccination programs (30 min)

KAREN KYUREGYAN (Scientific Center for Research and Development of Immunobiological Preparations, and Mechnikov Institute of Vaccine and Sera, Moscow, Russia) Experimental vaccine protects against hepatitis E virus (20 min)

COFFEE BREAK

16.00-18.20 Session III /Flavivirus section

Chair: MARIA ISAGULIANTS (Scientific Center for Research and Development of Immunobiological Preparations, Moscow, Gamaleya Research Center for Epidemiology and Microbiology, Moscow, Russia, and Riga Stradins University, Riga, Latvia)

BIRKE BARTOSCH (Cancer Center, Lyon, France) Tumor-like glutamine metabolism and immune response in hepatitis C virus infection (30 min)

ALEXANDER IVANOV (Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia). Biogenic polyamines in hepatitis C virus infection (10 min)

RANJIT RAY (St Louis University, St Louise, USA). Progress in HCV vaccine development (30 min)

JURIS JANSONS & IRINA SOMINSKAYA (Biomedical Research and Study Center, and Riga Stradins University, Riga, Latvia) Intradermal DNA immunization with experimental HCV DNA vaccines (15 min)

LIUBOV KOZLOVSKAYA (Chumakov Federal Scientific Center, Moscow). Protectivity of TBE vaccines against viral strains circulating in Eurasia (20 min)

GALINA KARGANOVA (Chumakov Federal Scientific Center, Moscow). New TBE vaccines versus inactivated classics (20 min)

STARODUBOVA ELIZAVETA (Engelhardt Institute of Molecular Biology; Chumakov FSC R&D IBP RAS, Moscow). Modification of nonstructural protein 1 of tick-borne encephalitis virus as a DNA vaccine antigen (15 min)

18:40 - Buss transport from the Chumakov Federal Scientific Center for Research and Development of Immune-and-Biological Products of Russian Academy of Sciences to Hotel "Yunost", stop at the hotel;

19:40 Buss transportation from the hotel "Yunost" to the restaurant venue.

20:00 BUFFE DINNER 20:00

Restaurant "My Cousine" <http://cousine.ru/english> Moscow, Vorotnikovskiy pereulok, 11/1

For registered participants. *Buffé.*

Please, make sure with meeting management that you are signed in VAC@onlinereg.ru by September 28, 2017. Without written confirmation to meeting the management, the service will not be guaranteed.

Day 3, Friday September 29

Open Vaccine Lecture Course

Venue: Venue: Business Hotel "Spectr Khamovniki" Hotel Spektr Usacheva Street 35 Bld.1, Moscow

Attendance free, separate registration with course organizers

Contact mails: Maria.issagouliantis@rsu.lv; nvpetrakova@hotmail.com

Synchronous translation from Russian into English will be provided the registered conference participants not speaking Russian. Course lectors wishing to present in Russian, please, provide the Organizing Committee with your extended Power Point presentations with slides in English and lecture text (in comments) ASAP. Please, forward your presentations to Dr Natalia Petrakova nvpetrakova@hotmail.com. Quality of translation without the materials is not guaranteed.

09.30-11.30

1. MIKHAIL MIKHAILOV (Russian Medical Academy of Postgraduate Education, Moscow, Russia) Anti-vaccination campaign, how to counteract it
2. MARGARET LIU (University of St Francisco, ProTherImmune, USA, and Karolinska Institutet, Stockholm, Sweden) Gene-based vaccines for prevention, therapy, and immunomodulation (Part I)
3. MARGARET LIU (University of St Francisco, ProTherImmune, USA, and Karolinska Institutet, Stockholm, Sweden) Emerging Diseases: challenges and gene-based vaccine solutions (Part II)

Coffee (for purchase)

12:00-13.30

4. DEINEKO ELENA (Institute of Cytology and Genetics, Novosibirsk, Russia) Plant vaccines.
5. SERGEI BAZHAN, DENIS ANTONETS (SRC VB VECTOR, Koltsovo, Novosibirsk region, Russia) Design of novel immunogens in vaccine development.
6. JON AMUND KYTE (Department of Oncology, Oslo University Hospital, Oslo, Norway) Peptide based vaccines against cancer

Lunch (for purchase)

15.00-16.20

7. GORDEYCHUK ILYA (Chumakov Federal Scientific Center, Moscow, Russia, and Karolinska Institutet, Stockholm, Sweden) Ethical issues of preclinical vaccine testing

8. TROFIMOV DENIS M, KALININ SERGEY P (Mikrogen, Moscow, Russia) Conduct of clinical trials of new vaccines, example of five-valent vaccine (diphtheria, tetanus, pertussis, hepatitis B and haemophilus influenza)

Coffee (for purchase)

16.50-18.30

9. BIRKE BARTOSCH (Cancer Center, Lyon, France) Metabolic regulation of immune response in health and in cancer

10. JOON RHEE (Clinical Vaccine R&D Center, Natl. Research Laboratory of Molecular Microbial Pathogenesis, and Research Institute for Vibrio Infections, Chonnam National University Medical School, Gwangju, South Korea) Novel adjuvant solutions in tilting the profiles of innate and adaptive immune response

11. BEHAZINE COMBADIÈRE (Centre d'Immunologie et des Maladies Infectieuses CIMI-Paris, Paris, France) Routes of immunization from animal to human studies

Day 4, Saturday September 30

Venue: Conference hall, IM Sechenov First Moscow State Medical University, Trubetskaya street, 8, building 2.

08.30-10.30 **Session IV: BIOINFORMATICS IN VACCINE DEVELOPMENT**

Chair: MARGARET LIU (University of St Francisco, ProTherImmune, USA, and Karolinska Institutet, Stockholm, Sweden)

VLADIMIR LUKASHOV (University of Amsterdam, Amsterdam, the Netherlands) (Phylo)genetic analysis in studying the natural history of epidemiologically significant HIV-1 strains for potential vaccine development (30 min)

DENIS ANTONETS, SERGEI BAZHAN (SRC VB VECTOR, Koltsovo, Novosibirsk region, Russia) Design and applications of string of beads/polyepitope immunogens in vaccine development (30 min)

ALEXANDER M SHNEIDER (Cure Lab, Boston, USA) *In silico* analysis of RNA structured regions: lessons for vaccine development and other fields of bio-medicine (30 min)

VERA KICHATOVA (Chumakov Federal Scientific Center for Research and Development of Immune-and-Biological Products of Russian Academy of Sciences, Moscow, Russia). Frequency of interferon-resistance conferring mutations in amino acid positions 70 and 91 of the core protein of Russian HCV 1b isolates analyzed in the T-cell epitopic context (20 min)

COFFEE BREAK

11.00-13.30 Session V: DELIVERY AND ADJUVANTS

Chair: JOON RHEE (Clinical Vaccine R&D Center, Natl. Research Laboratory of Molecular Microbial Pathogenesis, and Research Institute for Vibrio Infections, Chonnam National University Medical School, Gwangju, South Korea)

BEHAZINE COMBADIÈRE (Centre d'Immunologie et des Maladies Infectieuses CIMI-Paris, Paris, France) Science behind epidermal and dermal & novel approaches in vaccination against infectious diseases (30 min)

ALEXEI IHNATSYEU-KACHAN (Institute of Biophysics and Cell Engineering, Minsk, Belarus) Novel dendrimers as delivery platform for gene-based drugs: *in vitro* examination (20 min)

ANITA BERZINA & MAXIM IONOV (Riga Stradins University, Riga, Latvia, and Lodz University, Lodz, Poland) Dendrimers in *in vitro* and *in vivo* DNA transfection (15 min)

MAXIM ABAKUMOV (Pirogov Medical University, Moscow, Russia) Nanoparticles in therapy and immunotherapy of cancer (30 min)

AMIR TUKHVATULLIN (Gamaleya Research Center of Epidemiology and Microbiology, Moscow, Russia) Evaluation of adjuvant activity of syk-coupled c-type lectin agonists in head-to-head experiments (20 min)

LAURA HIPPE (A. Kirichenstein Institute of Microbiology and Virology, Riga Stradiņš University, Latvia). Near-infrared reporters to monitor the success of intradermal DNA delivery and expression in a mouse model (15 min)

LUNCH 13.30-14.30

14.30-16.40 Session VI: VACCINES IN HIV-1 INFECTION

Chair: BRITTA WAHREN (Karolinska Institutet, Stockholm, Sweden)

SAULIUS CAPLINSKAS (Center for Communicable Diseases and Health, Vilnius, Lithuania) Vaccinations in HIV infected individuals (20 min)

ANDREY KOZLOV (The Biomedical Center, Peter the Great St. Petersburg Polytechnic University and Research Institute of Pure Biochemicals, St Petersburg, Russia). Therapeutic HIV DNA vaccines (20 min)

LARISA KARPENKO (SRC VB VECTOR, Koltsovo, Novosibirsk region, Russia) Peptide mimics of HIV-1 epitopes recognized by broadly neutralizing antibodies (20 min)

LATANOVA ANASTASIA (Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, Russia). Design and delivery of plasmids encoding wild-type and drug-resistant HIV-1 reverse transcriptase insure their efficient performance in mice (15 min)

MARIA ISAGULIANTS (Chumakov Federal Scientific Center, Moscow; and Riga Stradins University, Riga) Tumor models in experimental testing of efficacy of consensus DNA immunization against drug resistance in HIV infection (15 min)

STEFAN PETKOV (Department of Microbiology, Tumor and Cell Biology, Karolinska Institutet, Stockholm, Sweden). Enhancing cellular immune responses to HIV vaccines using multi-gene, multi-site injections (15 min)

KILPLELÄINEN ATHINA (AIDS Research Group, Hospital Clínic/IDIBAPS-HIVACAT, School of Medicine, University of Barcelona, Barcelona, Catalonia, Spain). Pre-clinical development of recombinant BCG.HIVCONSV12AUXO.INT and BCG.HIVCONSV22AUXO.INT based HIV vaccines (15 min)

COFFEE BREAK

17.10-18.30 **Session VII: Authors present their posters – 5 min talk with slides.**

Chair: MARIA ISAGULIANTS

ALEXEY BALDIN (Sechenov First Moscow State Medical University, Institute of Molecular Medicine, Moscow, Russia; Lomonosov Moscow State University, Department of Cell Signaling, Belozersky Institute of Physico-Chemical Biology, Moscow, Russia). Evaluation of visual arrestin as a novel cancer-retinal antigen in renal tumors

ANASTASIA KARLSEN (FSBS Institution Chumakov Federal Scientific Center for Research and Development of Immune-and- Biological Products of Russian Academy of Sciences, Moscow, Russia). Impact of universal childhood vaccination against hepatitis B on the prevalence of hepatitis D in endemic region (Tyva Republic)

ASTA SKRICKIENE (Centre for Communicable Diseases and AIDS, Lithuania; Mykolas Romeris University, Faculty of Social Politics, Lithuania). The epidemiology of invasive meningococcal disease 2006-2016 in Lithuania

KRISTINA ZUKAUSKAITE (Centre for Communicable Diseases and AIDS, Vilnius, Lithuania). Overview of side reactions to vaccines in Lithuania 2016

IRINA SOMINSKAYA (Latvian Biomedical Research and Study Center, Riga, Latvia) Detection of antibodies against HCV core and its alternative reading frame protein in patients' sera

DARIA PODCUFAROVA (N. F. Gamaleya Federal Research Center for Epidemiology & Microbiology, Moscow, Russia). The distribution of HPV types among HIV-infected women in the Moscow Region

NATALIA PETRAKOVA (N. F. Gamaleya Federal Research Center for Epidemiology & Microbiology, Moscow, Russia). Efficient protocol of obtaining antiviral antibodies in rabbits by low-dose repeated immunizations with HCV, HDV and HIV antigens

JURIS JANSONS (Riga Stradins University, Riga, Latvia). Fork-plate electrodes of different configuration demonstrate similar performance in vivo transfection and induction of immune response in DNA-immunized mice

MINA SALEEM (Karolinska Institutet, Stockholm, Sweden). The effect of plasmid mixing on antibody response of DNA-immunized mice against HIV-1 reverse transcriptase, protease and integrase

EKATERINA PANKOVA (Gamaleya Research Center of Epidemiology and Microbiology, Moscow, Russia) Enhanced in vitro and in vivo growth and tumorigenicity of murine adenocarcinoma 4T1 cells expressing HIV-1 reverse transcriptase

SCIENTIFIC COMMITTEE ANNOUNCES THE DECISION ON THE BEST ORAL AND POSTER PRESENTATIONS WITH AWARDS TO THE WINNERS.

Day 5, October 1

Workshop “START-UP AND RUNNING OF CROSS-BORDER PROJECTS ON VACCINES AND VACCINATIONS”(Meeting actual and prospective collaborators)

Venue: Hotel “Spectr Khamovniki” Hotel Spekttr Usacheva Street 35 Bld.1, <http://eng.spektr-hotel.ru/>

09.00 Coffee, get together, team presentations

09.30 – 11.30 Discussions

11.30-12.30 Lunch discussion

Attendance for pre-registered conference participants. All who had signed, are kindly requested to confirm their attendance to Maria Isagouliantis maria.issagouliantis@rsu.lv by September 28, 2017.

13:00-16:00 Guided Moscow tours with routes at your choice (not included in the registration fee)

All wishing to go for Moscow round-trip excursion 13.00-16.00 (with return to the hotel). Several routes can be included depending on your interests. Excursions will be done at the cost of the guests, total cost of one excursion is 300 euro, cost per person depends on the number of participants. The fee is to be paid to the guide in cash. Please, inform Organizing Committee if you want to join by September 28, 2017. No extra tours can be arranged after that date.

Day 6, October 2

Satellite Symposium

“HIV-1 INFECTION AND COMORBIDITIES, APPROACHES TO IMMUNE PREVENTION AND IMMUNE THERAPY”

Venue: Conference hall of Ivanovsky Institute of Virology, Gamaleja Research Center for Epidemiology and Microbiology, Gamaleja str 16.

Attendance free. Separate registration with the Organizing Committee (maria.issagouliantis@rsu.lv) is required for participation.

10.00-12.00 OPEN PART:

- Opening
- MARINA BOBKOVA (Gamaleya Research Center for Epidemiology and Microbiology, Moscow) “Molecular epidemiology of HIV infection in the former USSR”
- KONSTANTIN GROMOV (Gamaleya Research Center for Epidemiology and Microbiology, Moscow) “Analysis of polymorphisms of tat and rev proteins of HIV-1 A6 sub-subtype widespread in Russia”
- FRANCESCA CHIODI (Karolinska Institutet, Stockholm, Sweden) “Persistent immunological problems in the ART era”
- BRITTA WAHREN (Karolinska Institutet, Stockholm, Sweden) “Are there options to cure HIV-1 infection”
- MARIA ISAGULIANTS (Gamaleya Research Center for Epidemiology and Microbiology, Moscow, Riga Stradins University, and Chumakov Federal Scientific Center) “Development of therapeutic vaccines against human papilloma viruses, an overview”
- JOEL PALEFSKY (University of San Francisco, USA) “HPV related cancer in HIV infected individuals”

LUNCH (catering)

13.00-17.0 CLOSED PART Progress on RFBR-NIH grant “New therapeutic HPV vaccines for HIV infected men and women” (for project participants) – individual reports of Russian and US grant participants.