

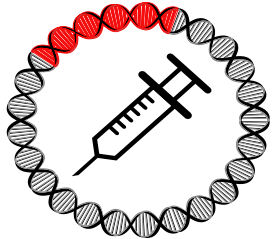
External dissemination activities

Participation in organization and attendance of the international conference

“TOOLKITS FOR DNA VACCINE DESIGN, AN UPDATE”

Moscow, November 17–20, 2016

<http://onlinereg.ru/DNAvaccTOOLS>



CONFERENCE FIELD

This conference covered the whole area of DNA vaccine design starting from gene design, defining of transcription and translational signals, packaging, delivery, induction of innate immune response and role of adjuvants, induction and expansion of adaptive immune response, prime and boost strategies, success of DNA vaccines in cancer and infectious diseases, comparison of DNA vaccines to other vaccine modalities. We also invited the representatives of R&D companies and national agencies involved in the development, production and distribution of vaccines to discuss the business models for DNA vaccines, public perception of the vaccines and their perspectives for human and veterinarian use.

Each thematic block was opened with an introductory lecture introducing the basics and the main achievements in the given area. In the end of the introductory key-note lecture, the lecturers shared their views on properties of DNA vaccines and their pros and cons connected to the area covered.

Conference sponsors



External dissemination activities

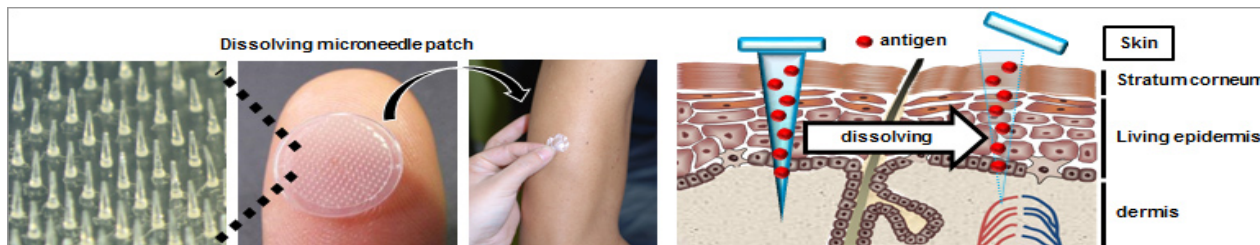
The 4th International SKIN VACCINATION SUMMIT Leiden, the Netherlands, May 22-24, 2017

The joint activity of projects VACTRAIN and INNOVIMMUNE (Swedish Institute) was the attendance with presentations of the SKIN VACCINATION SUMMIT (SVS2017). SVS is an international forum for researchers, both academic and industrial, which involves also ethical regulators and skin delivery technologists who meet and discuss current state of the field, technology trends and future directions of development of the dynamically developing field of skin-mediated vaccination.



VACTRAIN members made following presentations:

- ✓ Maria Issagouliantis (RSU) "HIV enzyme interactions in combined intradermal DNA immunization in mice";
- ✓ Juris Jansons (RSU, and BMC) "Role of alternative reading frame protein in the immune response to HCV core, evaluation by intradermal DNA-immunization in mice";
- ✓ Laura Hippe (RSU) "Alternative reporters for monitoring the success of intradermal DNA delivery and expression in a mouse model";
- ✓ Iliia Gordeychuk (MTC/KI, INNOVIMMUNE) "Experimental vaccine protects against hepatitis E virus genotypes 1 and 3 in non-human primate model";
- ✓ Ekaterina Pankova (Gamaleya Research Center, Moscow, INNOVIMMUNE) "Stable expression of HIV reverse transcriptase by murine adenocarcinoma cells enhances growth rate of primary tumors in a mouse model designed to test the therapeutic efficacy of HIV DNA vaccines"



Outcomes: Participants made successful presentations which aroused a fruitful discussion. New research connections with vaccinologists in USA, France, the Netherlands were made. The activity had the synergetic effect for the both of projects in term of dissemination of the scientific results

External dissemination activities

ANNUAL CONGRESS OF THE INTERNATIONAL SOCIETY FOR VACCINES Paris, Institute Pasteur in Paris, October 5th – 7th 2017.

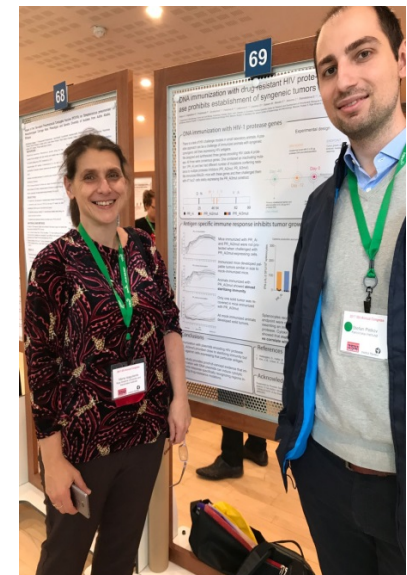
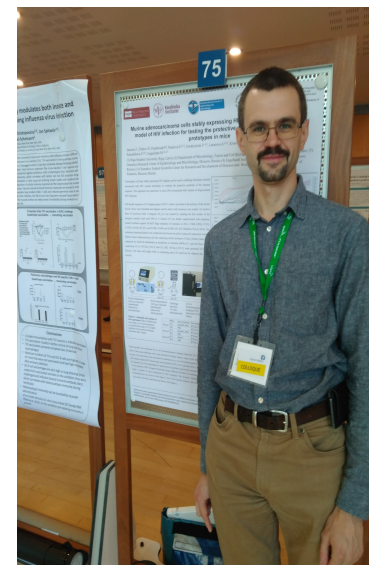


The ISV Annual Congress is the world's largest scientific conference in the field of vaccines and covers a broad range of topics related to vaccines and immunotherapies. ISV2017 Congress brought together individuals from all sectors of the global vaccine community to hear about the latest advances in the field, discuss challenges and opportunities, and network. The Congress featured international leading experts as keynote and symposium speakers as well as a high percentage of oral presentations selected from abstracts submitted by the global vaccine community.



Presentations of VACTRAIN members made on ISV2017 Congress

- Petkov S, Kilpeläinen A, Podshwadt P, Gordeychuk I, Pankova E, Latanova A, Latyshev O, Saleem M, Mezale D, Jansons J, Starodubova E, Isaguliants M. DNA immunization with drug resistant HIV protease gene protects mice from the establishment of syngenic tumors expressing this, but not the homologous HIV proteases (poster)
- Jansons J, Petkov S, Podshwadt P, Pankova E, Gordeychuk I, Latanova A, Krotova O, Mezale D, Saleem M, Latyshev O, Starodubova E, Isaguliants M. Murine adenocarcinoma cells stably expressing HIV antigens as a surrogate model of HIV infection for testing the protective efficacy of DNA vaccine prototypes in mice (poster)
- Starodubova E, Petkov S, Pankova E, Jansons J, Latanova A, Saleem M, Isaguliants M. Gene immunization inhibits mammary carcinoma growth in mice (poster);
- Starodubova E, Petkov S, Latanova A, Kilpeläinen A, Krotova O, Jansons J, Podshwadt P, Sasinovich S, Warholm P, Pankova E, Saleem M, Mezale D, Latyshev O, Tukhvatulina N1, Gorodnicheva T, Logunov DY, Gordeychuk I, Isaguliants M. Efficacy of consensus DNA-immunization against drug resistance in HIV infection evaluated in a murine tumor model (oral).



Poster presentation by S Petkov et al got award of International Society for Vaccines.



External dissemination activities

International Conference "VACCINES & VACCINATION" together with BAN Network of the Swedish Institute, and Russian Science Fund, Moscow, September 27-October 1, 2017

www.onlinereg.ru/VAC&VAC2017

Presentations of VACTRAIN members made VAC&VAC conference
11 ABSTRACTS; 9 ORALS, 2 POSTERS. Four presentations were by VACTRAIN trainees:

- Britta Wahren (Karolinska Institutet, Stockholm, Sweden) Immunotherapeutic targeting of carcinoembryonic antigen (oral)
- Isaguliants M et al Tumor models in experimental testing of efficacy of consensus DNA-vaccines against drug-resistant HIV (oral)
- Isaguliants M. Vaccines against human papilloma viruses, an overview (oral)
- Maxim Ionov & Sylwia Michlewska (Lodz University, Lodz, Poland) Dendrimers in anti-cancer drug delivery
- Petkov S et al (Karolinska Institutet, Stockholm, Sweden) Enhancing cellular immune responses to HIV vaccines using multi-gene, multi-site injections" (oral)
- Podshwadt P et al (Karolinska Institutet, Stockholm, Sweden) Method for rapid in vitro assessment of metastatic potential of primary tumors in mice" (oral)
- Jansons J et al (RSU, Riga, Latvia) Intradermal DNA immunization with experimental HCV DNA vaccines" (trainee; oral)
- Anita Berzina & Maxim Ionov (Riga Stradins University, Riga, Latvia, and Lodz University, Lodz, Poland) Dendrimers in in vitro and in vivo DNA transfection (trainee; oral)
- Laura Hippe (A. Kirichenstein Institute of Microbiology and Virology, Riga Stradiņš University, Latvia). Applications of near-infrared reporters to monitor the success of intradermal DNA delivery and expression in a mouse model (trainee; oral)
- Jansons J et al ((RSU, Riga, Latvia) Fork-plate electrodes of different configuration demonstrate similar performance in vivo transfection and induction of immune response in DNA-immunized mice" (trainee; poster)
- Saleem M et al (Karolinska Institutet, Stockholm, Sweden) The effect of plasmid mixing on antibody response of DNA-immunized mice against HIV-1 reverse transcriptase, protease and integrase" (co-authorship; poster).

