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RĪGA STRADIŅŠ  
UNIVERSITY

Reducing networking gaps between Rīga Stradiņš University (RSU) and internationally - leading counterparts in viral infection-induced autoimmunity research

Project number - 952376 – VirA

### **Deliverable D6.3**

#### **Report on the participation in international conference**

Project funded by the European Union		
Dissemination Level		
PU	Public	X
PP	Restricted to other program participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

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## Summary

Attendance of international conferences was planned to execute within the framework of the project “Reducing networking gaps between Rīga Stradiņš University (RSU) and internationally leading counterparts in viral infection-induced autoimmunity research (VirA)” that is supported by the EC Horizon 2020 research and innovation programme. In summary 22 conferences were attended by 28 participants, 116 presentations were presented (92 in conferences, 24 in Friday Mosaic of Autoimmunity International ZOOM Meetings, 13 in International conference Autoimmune diseases: main problems and solutions). The participants, included 13 early/mid-career researchers.

Task 6.4 was dedicated to provide information to the research community on topical issues in the field of autoimmune diseases, finding of new contacts and coordination of grants for conference attendance. Duration of the task was month 1- 36 of the project lifespan. The task leader was RSU team. Sixteen grants for conference attendance (each 2000 EUR) was confirmed in the project for participation in international conferences. The aim was to increase the visibility of the project further increasing the global recognition of RSU via presentations at major autoimmune disease events.

The main objectives of the task were to enhance the reputation and attractiveness of RSU, the coordinating institution of VirA project, to ensure information base for successful collaboration in research, highlighting the activities of H2020 and to increase social and political acceptance of EU programs and positive attitude towards sustainability of the results.

Deliverable 6.3. Report on the participation in international conferences, which due date was 36<sup>th</sup> month of the VirA project covers overview of the conferences attended, list of

conference attendance grantees, details about representative/s who attended conferences and digital formats of the final booth/ poster designs.

## Overview of the conferences

In total VirA project researchers and related persons attended 22 international conferences (22 International conferences, 24 Friday Mosaic of Autoimmunity and International conference, 13 Autoimmune diseases: main problems and solutions). In total 116 presentations: 92 in conferences, 12 in Friday Mosaic of Autoimmunity International ZOOM Meetings, 13 in International conference Autoimmune diseases: main problems and solutions were presented by 26 presenting authors (10 early/mid-career researchers).

### I. 1st LATVIA - ISRAEL On-line Symposium of Autoimmunity, Zoom Platform, 16.03.2021

<https://vira-twinning.eu/events/1st-latvia-israel-line-symposium-autoimmunity>

(Total - 8 oral presentations, including 2 early/mid-career researchers):

- 1) Liba Sokolovska. HHV-6 and thyroid autoimmunity: findings and questions;
- 2) Maksims Cistjakovs. COVID-19: the third wave of coronavirus infection outbreak;
- 3) Irina Holodnuka. Inflammatory chemokine receptors in EBV infection;
- 4) Modra Murovska. European Network on Myalgic Encephalomyelitis/Chronic Fatigue Syndrome;
- 5) Zaiga Nora-Krukle. Fibromyalgia - what we have done and what we plan to do;
- 6) Valerija Groma. Interaction between local tissue damage and immune system in arthritis;
- 7) Modra Murovska. Involvement of persistent viral infections in the development of nervous system diseases;
- 8) Angelika Krumina. Human activin B in patients with chronic fatigue syndrome/myalgic encephalomyelitis.

### II. RSU Research week 2021: Knowledge for Use in Practice, Riga, Latvia 24.03.2021. - 26.03.2021

<https://rw2021.rsu.lv/conferences/knowledge-use-practice>

(Total 16 oral/poster presentations, including 6 early/mid-career researchers)

- 1) Skuja, S., Groma, V., Garnizone, M., Svirskis, Š., & Murovska, M. (2021). Activation of microglia in cortical lobes and possible associations with human herpesvirus 6 and 7 infection. 308.
- 2) Nora-Krūkļe, Z., Vilmane, A., Ustinova, M., Ansonē, L., Murovska, M., & Klovins, J. (2021). Cytokine storm and COVID-19 severity. 291.
- 3) Kadiša, A., Nora-Krūkļe, Z., Sokolovska, L., Grāvelsiņa, S., Vecvagare, K., Svirskis, S., Lejnieks, A., & Murovska, M. (2021). Disease aggressiveness indices association with fatigue in rheumatoid arthritis patients. 310.
- 4) Kadiša, A., Nora-Krūkļe, Z., Sokolovska, L., Grāvelsiņa, S., Vecvagare, K., Svirskis, S., Lejnieks, A., & Murovska, M. (2021). Do cytokines affect development of fatigue in rheumatoid arthritis patients? 495.

- 5) Čistjakovs, M., Sokolovska, L., Strojēva, S., & Murovska, M. (2021). Evaluation of possible SARS-CoV-2 fecal-oral transmission route in Latvian COVID-19 patients. 294.
- 6) Strojēva, S., Cistjakovs, M., Sokolovska, L., Nora-Krūkle, Z., Gravelšina, S., & Murovska, M. (2021). Formation of SARS-CoV-2 specific antibodies in dynamics. 295.
- 7) Gravelšina, S., Vilmane, A., Nora-Krūkle, Z., Krūmiņa, A., & Murovska, M. (2021). Human activin B in patients with chronic fatigue syndrome/myalgic encephalomyelitis. 312.
- 8) Vilmane, A., Nora-Krūkle, Z., Gravelšina, S., & Murovska, M. (2021). Identification of bacterial lung infections and pre-existing persistent/chronic viral infections in COVID-19 patients. 296.
- 9) Groma, V., Tarasovs, M., Skuja, S., Semenistaja, S., Svirskis, S., Nora-Krūkle, Z., & Murovska, M. (2021). Morphological and laboratory cytokine indices in osteoarthritis patients demonstrated in the presence of human herpesvirus 7 infection. 314.
- 10) Sokolovska, L., Cistjakovs, M., Sultanova, A., Murovska, M., & Cunskis, E. (2021). Possible involvement of human herpesvirus-6 U12 and U51 gene coded proteins in the development of autoimmunity – an immunological investigation. 315.
- 11) Gravelšina, S., Caselli, E., Nora-Krūkle, Z., Svirskis, S., Vilmane, A., & Murovska, M. (2021). Prevalence of KIR2DL2/DS2 and KIR2DL3 and presence of B19V in patients with thyroid disorders. 316.
- 12) Araja, D., Berkis, U., Lunga, A., Rovite, V., & Murovska, M. (2021). Shadow burden of undiagnosed chronic fatigue syndrome on society. 317.
- 13) Berkis, U., Araja, D., & Murovska, M. (2021). The burden of infection associated diseases on society and the economy. 318.
- 14) Murovska, M., Berkis, U., Krūmiņa, A., Ivanovs, A., Lunga, A., Araja, D., Nora-Krūkle, Z., Rasa-Dzelzkaleja, S., & Svirskis, S. (2021). European network on myalgic encephalomyelitis/chronic fatigue syndrome – EUROMENE. 311.
- 15) Vilmane, A., Terentjeva, A., Suna, N., Rasa-Dzelzkalēja, S., Murovska, M., & Nora-Krūkle, Z. (2021). Whether parvoviruses are significant players in meningitis/meningoencephalitis? 264.
- 16) Tarasovs, M., Lejnieks, A., Vikmanis, A., Skuja, S., & Groma, V. (2021). Synovial osteoarthritis inflammation and its correlation with the level of radiologically assessed. 525.

### **III. 12th International Congress on Autoimmunity, live online interaction, 28.05.2021. – 1.06.2021**

(Total 1 -oral, 2 poster presentations, including 2 early/mid-career researcher)

- 1) Murovska M., Rasa-Dzelzkalēja S., Gravelšina S., Krumina A., Svirskis S. Involvement of human parvovirus B19 infection in the development of myalgic encephalomyelitis/chronic fatigue syndrome,
- 2) Skuja S., Groma V., Tarasovs M., Murovska M. Structural and ultrastructural morphology of synovial joints in rheumatoid arthritis: association with HHV-6 infection,

- 3) Sokolovska, L., Čistjakovs, M., Sultanova, A., Murovska, M., Cunskis, E. Implications of RANTES in the development of autoimmune thyroiditis via chemokine production down-regulation by HHV-6.

**IV. The first conference of the World Society for Virology: Tackling Global Viral Epidemics Conference 2021. Virtual, 16.06.2021. - 18.06.2021.**

<https://wsv2021.com/wp-content/uploads/2021/07/Abstract-Booklet-Complete-1.pdf>

(Total 2 oral presentations, including 2 early/mid-career researcher)

- 1) Strojēva, S., Grāvelsiņa, S., Sokolovska, L., Nora-Krūkle, Z., Cistjakovs, M., & Murovska, M. (2021). Characterization of Antibody Responses To SARS-CoV-2 Infection in Covid-19 Patients in Latvia. 34.,
- 2) Sokolovska, L., Cistjakovs, M., Gravelcina, S., Nora-Krukke, Z., & Murovska, M. (2021). Detection Of SARS-CoV-2 In Various Clinical Specimens of Hospitalized Latvian COVID-19 Patients. 28.

**V. E-Congress: 15th Biennial Congress European Association of Oral Medicine 24.09.2021. -25.09. 2021.**

(1 presentation, including 1 early/mid-career researcher)

- 1) Kakar, J., Rispoli, N., Murovska, M., & Čēma, I. (2021). The role of herpes group viruses in the pathogenesis of aphthous stomatitis. ID 4975.

**VI. XXVIII Congress of Polish Society of Physiology, 15.09.2021. -17.09.2021., Gdansk , Poland**

<https://science.rsu.lv/en/activities/fatigue-and-neurological-impairment-in-long-haul-covid-19-2>

(1 oral presentation)

- 1) Murovska M. Fatigue and neurological impairment in long haul Covid-19. Journal of Physiology and Pharmacology (formerly Acta Physiologica Polonica). An Official Journal of the Polish Physiological Society, Vol. 72 , Supplement 1, September 2021. S4. L2; p.50.

**VII. Autoimmunity, COVID and Post-COVID International Congress: Updates on Autoimmune Clinical Conditions, COVID-19 and Post-COVID Syndrome, 27.11.2021. - 28.11.2021., Saint Petersburg, Russia.**

(1 oral presentation)

- 1) Murovska M. Fatigue and neurological impairment in long-haul COVID-19. Autoimmunity, COVID and Post-COVID International Congress: Updates on Autoimmune Clinical Conditions, COVID-19 and Post-COVID Syndrome, 27.11.2021. - 28.11.2021

**VIII. ISPOR (Professional Society for Health Economics and Outcomes Research)**

<https://thevalueinitiative.org/event/ispor-2022-the-future-of-heor-in-patient-driven-digital-healthcare-systems/Conference 2022: The Future of HEOR in Patient-Driven Digital Healthcare Systems, United States, Washington, 16.05.2022. – 18.05.2022>

<https://thevalueinitiative.org/event/ispor-2022-the-future-of-heor-in-patient-driven-digital-healthcare-systems/>

(2 poster presentations)

- 1) Arāja, D., Berķis, U., Murovska, M. Health Related Quality of Life reported by patients of Myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS).
- 2) Arāja, D., Berķis, U., Murovska, M. COVID-19 pandemic indirect impact on mortality rates.

**IX. 2nd ISRAEL – LATVIA – ITALY Symposium of Autoimmunity, Nazareth, Israel, 20.05.2022. – 22.05.2022.**

(6 oral presentations, including 2 early/mid-career researcher)

- 1) Modra Murovska “Involvement of persistent viral infections in the development of nervous system diseases (ME/CFS)”,
- 2) Zaiga Nora-Krukle “Scientific core of the Institute of Microbiology and Virology and research in noncommunicable diseases”,
- 3) Mihails Tarasovs “Current understanding of the role of inflammation in arthritis”,
- 4) Šimons Svirskis “ME/CFS and autoantibodies – multivariate and cluster analysis using lesser known modern data processing tools”
- 5) Anda Kadiša “Involvement of latent/persistent parvovirus B19, HHV-6 and HHV-7 infections in etiopathogenesis of rheumatoid arthritis”,
- 6) Maksims Cistjakovs “Human herpesvirus-6 (HHV-6) and autoimmune thyroiditis”

**X. 8th National Conference with International Participation “Morphological Days” Sofia, Bulgaria. 10.06.2022. -12.06.2022.**

(2 oral presentations, 3 posters, including 1 early/mid-career researcher)

- 1) M. Murovska. Involvement of viral infections in the development of non-communicable diseases.
- 2) A. Kadiša, Z. Nora-Krukle, L. Sokolovska, S. Grāvelsiņa, K. Vecvagare, S. Svirskis, A. Lejnicks, M. Murovska. What promotes development of fatigue in rheumatoid arthritis patients?
- 3) M. Cistjakovs, L. Sokolovska, A. Sultanova, M. Murovska - Human herpesvirus-6 (HHV-6) involvement in thyroid autoimmunity - features of the study.
- 4) S. Semenistaja, M. Tarasovs, R. N. Goldiņš, V. Groma - A modern education programme for patients with osteoarthritis.
- 5) S. Semenistaja, M. Tarasovs, S. Skuja, V. Groma - Anatomical compartments of the synovial membrane: role in arthritis.

**XI. 13th International Congress on Autoimmunity, Athens, Greece, 10.06.2022. – 13.06.2022.**

<https://vira-twinning.eu/events/13th-international-congress-autoimmunity>

(3 posters presentations, including 3 early/mid-career researcher)

- 1) Grāvelsiņa, S., Rasa-Dzelzkalēja, S., Vilmane, A., Murovska, M. Potential Serum Biomarkers for Diagnostic Purposes of Myalgic Encephalomyelitis/Chronic Fatigue Syndrome.
- 2) Vilmane, A., Grāvelsiņa, S., Svirskis, Š., Rasa-Dzelzkalēja, S., Nora-Krūkle, Z., Murovska, M., Levels of anti-human immunoglobulin class antibodies in ME/CFS patients.
- 3) Sokolovska, L., Čistjakovs, M., Murovska, M., Egils Cunsks, Sultanova, A. Presence of HHV-6 G-protein-coupled receptor antibodies and the possible cross-reactivity with human homologs in patients with autoimmune thyroiditis.

**XII. 8th Annual International Conference on Public Health, Athens, Greece, 20.06.2022.**

[https://www.allconferencealerts.com/conference\\_details/114373/8th-annual-international-conference-on-public-health-20-23-june-2022-athens-greece](https://www.allconferencealerts.com/conference_details/114373/8th-annual-international-conference-on-public-health-20-23-june-2022-athens-greece)

(1 oral presentation)

- 1) Arāja, D., Berķis, U., Murovska, M., Post-COVID-19 consequences to public health.

**XIII. 15th Medical and Scientific Conference of the International Association for Chronic Fatigue Syndrome/ Myalgic Encephalomyelitis (IACFS/ME), United States, 27.07.2022. – 30.07.2022.**

<https://iacfsme.growthzoneapp.com/ap/Events/Register/nLvD5xgp?mode=Attendee>

(1 poster presentation, 1 participant)

- 1) Arāja, D., Krūmiņa, A., Berķis, U., Nora-Krūkle, Z., Murovska, M., Coaching Approach in Integrative Primary Healthcare of ME/CFS and post-COVID-19 Patients.

**XIV. 4th POLYTHEMATIC Panhellenic Congress of Autoimmune Diseases, Rheumatology and Clinical Immunology. 9.09.2022 - 11.09.2022. Online.**

<https://www.irad2023.gr/en/greetings/>

(1 oral presentation, including 1 early/mid-career researcher)

- 1) Rasa-Dzelzkalēja, S., Persistent viral infections in myalgic encephalomyelitis/chronic fatigue syndrome.

**XV. International Consortium for Health Outcomes Measurement (ICHOM) Conference: Outcomes Driving Positive Change: The New Era of Healthcare, Boston, United States, 02.11.2022.**

<https://www.facebook.com/ichomteam/>

(1 poster presentation, 1 participant)

- 1) Arāja, D., Krūmiņa, A., Berķis, U., Nora-Krūkle, Z., Murovska, M. Long-COVID-19 and ME/CFS Patients-Reported Outcomes: Example of the Coaching Sessions Evaluation.

**XVI. ISPOR (Professional Society for Health Economics and Outcomes Research) Europe Conference 2022: Collaborating Across Borders: Building & Using Evidence to Enable Access. Vienna, Austria, 8.11.2022.**

<https://www.ispor.org/conferences-education/conferences/past-conferences/ispor-europe-2022>

(1 poster presentation)

- 1) Arāja, D., Krūmiņa, A., Berķis, U., Nora-Krūkle, Z., Murovska, M., The Case Studies of an Integrative Approach in Primary Healthcare of Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) and Post-COVID-19 Patients.

**XVII. 7th International Congress on Controversies in Rheumatology and Autoimmunity (CORA 2023) Turin, Italy, March 16.03.2023. -18.03.2023**

<https://www.immunology.org/events/7th-international-congress-controversies-rheumatology-and-autoimmunity>

(1 oral presentation, 2 posters, including 2 early/mid-career researchers)

- 1) Grāvelsiņa, S., Vilmane, A., Svirskis, Š., Rasa-Dzelzkalēja, S., Nora-Krūkle, Z., Krūmiņa, A., Murovska, M. Cytokines' Levels in Plasma of Patients with Myalgic Encephalomyelitis / Chronic Fatigue Syndrome.
- 2) Kadiša, A., Nora-Krūkle, Z., Grāvelsiņa, S., Sokolovska, L., Svirskis, Š., Lejnīeks, A., Murovska, M. The effect of disease aggressiveness and activity on the development of fatigue in patients with rheumatoid arthritis.
- 3) Sokolovska, L., Čistjakovs, M., Murovska, M., Sultanova, A. HHV-6 Encoded GPCRs U12 and U51 and thyroid autoimmunity.

**XVIII. RSU Research Week 2023, Conference "Knowledge for Use in Practice", Riga, Latvia, 27.03.2023. – 31.03.2023.**

<https://rw2023.rsu.lv/conferences/knowledge-use-practice>

(12 presentations, including 7 early/mid-career researcher)

- 1) Rasa-Dzelzkalēja, S., Grāvelsiņa, S., Lauma Ieviņa, Nora-Krūkle, Z. Epstein-Barr Virus in Multiple Sclerosis. Medicina (Kaunas), 2023, 59, Suppl.2: 571.
- 2) Groma, V., Skuja, S., Tarasovs, M., Svirskis, Š., Semenistaja, S. Osteoarthritis – the Entire Joint Disease. Medicina (Kaunas), 2023, 59, Suppl.2: 585.
- 3) Semenistaja, S., Skuja, S., Tarasovs, M., Groma, V., Kadiša, A., Studers, P. Interrelationship of Inflammation and Remodelling-Related Factors in Osteoarthritis. Medicina (Kaunas), 2023, 59, Suppl.2: 391.
- 4) Arāja, D., Krūmiņa, A., Nora-Krūkle, Z., Berķis, U., Murovska, M. Predominant Groups of Medical Conditions, Including Autoimmune Reactions, Represented in the Reporting of Suspected Adverse Reactions to COVID-19 Vaccines in the Eudravigilance Database. Medicina (Kaunas), 2023, 59, Suppl.2: 391.
- 5) Sokolovska, L., Čistjakovs, M., Sultanova, A. Human herpesvirus 6 – a virus of autoimmunity? Medicina (Kaunas), 2023, 59, Suppl.2: 373.
- 6) Vilmane, A., Ieviņa, L., Terentjeva-Decuka, A., Vecvagare, K., Grāvelsiņa, S., Sokolovska, L., Cistjakovs, M., Svirskis, Š., Nora-Krūkle, Z., Murovska, M.



Latency and reactivation of with autoimmunity associated human herpesviruses in COVID-19 patients. *Medicina (Kaunas)*, 2023, 59, Suppl.2: 383.

7) Holodnuka Kholodnyuk, I., Kozireva, S., Rivkina, A., Zvejniece, L., Kornilova, O., Pavlova, J., Murovska, M., Lejniece, S. EBV infection and disease progression cell-surface markers in Latvian cohort of untreated patients with chronic lymphocytic leukemia. *Medicina (Kaunas)*, 2023, 59, Suppl.2: 363.

8) Kakar, J., Sokolovska, L., Murovska, M., Cema, I. Role of Epstein-Barr virus in pathogenesis of oral lichen planus. *Medicina (Kaunas)*, 2023, 59, Suppl.2: 486.

9) Berkis, U., Arāja, D., Krūmiņa, A., Nora-Krūkle, Z., Svirskis, Š., Murovska, M. Towards digital ontology of ME/CFS in selfmanagement and assistance applications.

10) Soffritti, I., Grāvelsiņa, S., Rasa-Dzelzkalēja, S., Nora-Krūkle, Z., Caselli, E., Murovska M. MicroRNAs as potential biomarkers in myalgic encephalomyelitis/chronic fatigue syndrome. *Medicina (Kaunas)*, 2023, 59, Suppl.2: 385.

11) Kadiša, A. Resistant systemic sclerosis with multiorgan damage. *Medicina (Kaunas)*, 2023, 59, Suppl.2: 397.

12) Tarasovs, M., Vikmanis, A., Semenistaja, S., Lejnicks, A., Groma V. impairment in patients with osteoarthritis. *Medicina (Kaunas)*, 2023, 59, Suppl.2: 589.

**XIX. 2nd Conference of the World Society for Virology (WSV): One Health - One World-One Virology. 15.06.2023. – 17.06.2023. Riga, Latvia.**  
**Conference Co-Chairman Prof. Modra Murovska, Local organization**  
**Committee member leading researcher Zaiga Nora-Krūkle.**  
<https://www.wsv-conferences.com/>

(5 oral presentations, 4 posters, including 4 early/mid-career researcher)

1) Santa Rasa-Dzelzkalēja, Angelika Krumina, Zaiga Nora-Krukule, Sabine Gravelisina, Anda Vilmane, Lauma Ievina, Modra Murovska, on behalf of the VirA project. OCCURRENCE OF HUMAN HERPESVIRUS-6A/B AND HUMAN HERPESVIRUS -7 IN MYALGIC ENCEPHALOMYELITIS/CHRONIC FATIGUE SYNDROME.  
[https://www.wsv2023.com/\\_files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/_files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

2) Angelika Krūmiņa, Evija Kovrigo, Elga Bataraga, on behalf of the VirA project Nr. 952376 - ROLE OF HUMAN PAPILLOMAVIRUS AND VACCINATION: A WEB-BASED SURVEY.  
[https://www.wsv2023.com/\\_files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/_files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

3) Anda Vilmane, Lauma Ievina, Anna Terentjeva-Decuka, Katrine Vecvagare, Sabine Gravelisina, Liba Sokolovska, Maksims Cistjakovs, Zaiga Nora-Krukule, Modra Murovska,  
On behalf of the VirA project PRESENCE OF HUMAN HERPESVIRUSES INFECTION MARKERS IN HOSPITALIZED COVID-19 PATIENTS IN LATVIA.

[https://www.wsv2023.com/files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)  
[ppt](#)

4) Irina Kholodnyuk, Svetlana Kozireva, Laura Zvejniece, Zanna Rudevica, Ainars Leonciks, Barbro Ehlin-Henriksson, Elena Kashuba, on behalf of the VirA project Nr.

952376 - EBV INFECTION PROMOTES MIGRATION OF THE HOST B CELLS VIA UP-REGULATION OF THE INFLAMMATORY CHEMOKINE RECEPTORS CCR1 AND CCR2.

[https://www.wsv2023.com/files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)  
[ppt](#)

5) Šimons Svirskis, Sabine Gravelina, Anda Vilmane, Santa Rasa-Dzelzkaleja, Zaiga NoraKrukle, Angelika Krumina, Modra Murovska, on behalf of the VirA project Nr 952376 - HHV6 A/B AND AUTOANTIBODIES TO MUSCARINIC ACETYLCHOLINE RECEPTORS AS POTENTIAL BIOMARKERS IN THE DIAGNOSTIC ALGORITHM OF MYALGIC ENCEPHALOMYELITIS CHRONIC FATIGUE SYNDROME.

[https://www.wsv2023.com/files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

6) Lība Sokolovska, Maksims Cistjakovs, Modra Murovska, Alina Sultanova, on behalf of the VirA project Nr 952376 - HUMAN HERPESVIRUS 6B INFECTION AND THYROID AUTOIMMUNITY – MOLECULAR AND IMMUNOLOGICAL INVESTIGATION OF THE ASSOCIATION.

[https://www.wsv2023.com/files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

7) Lība Sokolovska, Maksims Cistjakovs, Asnate Matroze, Alina Sultanova, on behalf of the VirA project Nr 952376 - THE PRESENCE OF COMMON HERPESVIRUSES (EBV, HHV-6, AND HHV-7) IN THE THYROID GLAND – IMPLICATIONS FOR DISEASE DEVELOPMENT.

[https://www.wsv2023.com/files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

8) Maksims Čistjakovs, Liba Sokolovska, Alina Sultanova, on behalf of the VirA project Nr 952376 - INVESTIGATION OF THE INVOLVEMENT OF HHV-6 ENCODED VIRAL CHEMOKINE RECEPTORS IN AUTOIMMUNE THYROIDITIS DEVELOPMENT.

[https://www.wsv2023.com/files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

9) Vladimirs Naumovs, Sandra Skuja, Valērija Groma, on behalf of the VirA project Nr 952376 - THE PRESENCE OF HUMAN HERPES VIRUS – 6 INFECTION MARKERS IN

THE BRAIN TISSUE OF PATIENTS WITH ALZHEIMER'S DISEASE: A PILOT STUDY.

[https://www.wsv2023.com/files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

**XX. The 5th World Congress of Latvian Scientists "Science for Latvia", Riga, Latvia, 29.06.2023.**

<https://lza.lv/en/activities/news/1152-the-5th-world-congress-of-latvian-scientists-to-take-place-in-june-2023>

(1 poster presentation, including 1 early/mid-career researcher)

- 1) Arāja, D., Berķis, U., Krūmiņa, A., Nora-Krūkle, Z., Murovska, M. Perspectives of a holistic approach to the treatment of diseases of unclear aetiology.

**XXI. International conference Autoimmune diseases: main problems and solutions, 9.11.2023. – 10.11.2023., Riga, Latvia.**

<https://www.rsu.lv/en/news/rsu-will-host-international-conference-autoimmune-diseases-main-problems-and-solutions/>

(13 presentations, including 6 early/mid-career researcher)

- 1) Santa Rasa-Dzelzkaleja, Daniel Alexander Bizjak, Simons Svirskis, Sabine Gravelisina, Jasmine-Leonike Buhl, Angelika Krumina, Zaiga Nora-Krukke, Anda Vilmane, E. Marion Schneider, Modra Murovska, on behalf of the VirA project. KYNURENINE AND HUMAN HERPESVIRUS-6B IN MYALGIC ENCEPHALOMYELITIS/CHRONIC FATIGUE SYNDROME.
- 2) Zaiga Nora-Krūkle, Lauma Ieviņa, Santa Rasa-Dzelzkalēja, Anda Vilmane, Sabīne Grāvelsiņa, Nikita Fomins, Viktorija Ķēniņa, Šimons Svirskis, Dita Gudrā, Dāvids Fridmanis. GUT MICROBIOME ANALYSIS AND EFFECT ON CYTOKINE LEVELS IN INDIVIDUALS WITH FIBROMYALGIA.
- 3) Nityanand Jain, Sandra Skuja. VASCULAR PRESENCE OF HHV-6 IN SUBSTANTIA NIGRA PARS COMPACTA OF CHRONIC ALCOHOL USERS AND CONTROLS: A HISTOPATHOLOGICAL EVALUATION.
- 4) Modra Murovska, Angelika Krūmiņa, Sabīne Grāvelsiņa, Anda Vilmane, Santa Rasa-Dzelzkalēja, Zaiga Nora-Krūkle, Diāna Arāja, Šimons Svirskis, Uldis Berķis. SELECTION OF BIOMARKERS IN ME/CFS FOR PATIENT STRATIFICATION AND TREATMENT SURVEILLANCE/OPTIMISATION.
- 5) Sabrina Rizzo, Silvia Beltrami, Giovanna Schiuma, Roberta Rizzo, Angelina Passaro, Pantaleo Greco, Roberta Gafà, Sandra Skuja, Daria Bortolotti, Valērija Groma. Gestational COVID-19: Maternal and Foetal Morphological Alterations Caused by SARS-CoV-2 Infection.
- 6) Irene Soffritti, Sabīne Grāvelsiņa, Maria D'Accolti, Francesca Bini, Eleonora Mazziga, Anda Vilmane, Santa Rasa-Dzelzkalēja, Zaiga Nora-Krūkle, Angelika Krūmiņa, Modra Murovska, Elisabetta Caselli. Circulating miRNAs Expression in Myalgic Encephalomyelitis/Chronic Fatigue Syndrome.
- 7) Mihails Tarasovs, Sofija Semenistaja, Andris Vikmanis, Dmitrijs Omeļčenko, Valērija Groma, Aivars Lejnīeks. Low-grade inflammation contribution to neuropsychiatric state in osteoarthritis patients.
- 8) Diāna Arāja, Edgars Vasiļevskis, Zaiga Nora-Krūkle, Angelika Krūmiņa, Uldis Berķis, Modra Murovska. COMPLEMENTARY DISEASE MANAGEMENT APPROACHES IN MYALGIC ENCEPHALOMYELITIS/CHRONIC FATIGUE SYNDROME PATIENTS.

- 9) Simona Doniņa, Ieva Vaiivode. IMMUNE-RELATED ADVERSE EVENTS DURING THE TREATMENT WITH ANTI PD-1 ANTIBODIES IN MELANOMA PATIENTS: LITERATURE REVIEW AND TWO YEAR EXPERIECE AT REUH.
- 10) Irina Kholodnyuk, Laura Zvejniece, Svetlana Kozireva, Olga Kornilova, Mariia Nazarenko, Zanna Rudevica, Ainars Leonciks, Alla Rivkina, Sandra Lejniece, on behalf of the VirA project Nr. 952376. THE HIGHEST EBV DNA COPY NUMBERS ARE DETECTED IN UNTREATED PATIENTS WITH THE HIGH-RISK CHRONIC LYMPHOCYTIC LEUKEMIA.
- 11) Sofija Semenistaja, Mihails Tarasovs, Sandra Skuja, Anda Kadiša, Valērija Groma, Pēteris Studers. HHV-7 PROTEIN EXPRESSION IN THE SYNOVIAL TISSUE OF OSTEOARTHRITIS PATIENTS AND ITS POSSIBLE CONTRIBUTION TO THE DEGREE OF INFLAMMATION.
- 12) Anda Kadiša, Mihails Tarasovs, Sofija Semenistaja. MITOCHONDRIAL MYOPATHY AS A MIMIC OF INFLAMMATORY MYOPATHY.
- 13) Modra Murovska, Asja Lunga, Simona Donina, Zaiga Nora-Krukle, Valerija Groma, Angelika Krumina, Santa Rasa-Dzelzkaleja. IMPLEMENTATION OF VIRA PROJECT “REDUCING NETWORKING GAPS BETWEEN RĪGA STRADIŅŠ UNIVERSITY (RSU) AND INTERNATIONALLY-LEADING COUNTERPARTS IN VIRAL INFECTION-INDUCED AUTOIMMUNITY RESEARCH”.

**XXII. International Conference "MECIC 2023 - Medicine: Innovations and Challenges 2023", Tbilisi Medical Academy, November 28-30, 2023, Tbilisi (Georgia)**

<https://doctoralschool.umed.pl/medicine-innovations-and-challenges-2023>

(1 poster presentation)

- 1) Diana Araja, Angelika Krumina, Zaiga Nora-Krukle, Uldis Berkis, Modra Murovska. Integrative approach in management of autoimmune diseases.

**XXIII Friday Mosaic of Autoimmunity International e-Meetings. Online via Zoom platform**

(12 presentations, including 6 early/mid-career researcher)

[Recorded videos](#) in VirA webpage

- 1) Čistjakovs M. “HHV-6 and thyroid autoimmunity: findings and questions” Friday Mosaic of Autoimmnity International e-Meeting #34, 11.12.2021.
- 2) Sokolovska L. “HHV-6 and thyroid autoimmunity: U12 and U51 viral chemokine receptors” Friday Mosaic of Autoimmnity International e-Meeting #35, 18.12.2021.
- 3) Nora-Krukle Z. “Association of Epstein-Barr virus serological reactivation with transitioning to systemic lupus erythematosus in at-risk individuals” Friday Mosaic of Autoimmnity International e-Meeting #37, 08.01.2021
- 4) Gravelcina S. “Searching for clinical biomarkers in Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS)” Friday Mosaic of Autoimmnity International e-Meeting #92, 04.02.2022

- 5) Jain N. “Effects of alcoholism and HHV-6 infection on microglial phenotypes” Friday Mosaic of Autoimmunity International e-Meeting #93, 11.02.2022
- 6) Nora-Krukle Z. “Longitudinal analysis reveals high prevalence of Epstein-Barr virus associated with multiple sclerosis” Friday Mosaic of Autoimmunity International e-Meeting #94, 18.02.2022
- 7) Tarasovs M. “The possible contribution of chronic low-grade inflammation to mood disorders in osteoarthritis” Friday Mosaic of Autoimmunity International e-Meeting #94, 18.02.2022
- 8) Murovska M. “Autoimmune encephalitis with multiple auto-antibodies with concomitant human herpesvirus-7 and ovarian teratoma: a case report” Friday Mosaic of Autoimmunity International e-Meeting #97, 11.03.2022.
- 9) Holodnuka, I., “A High Prevalence of Anti-EBNA1 Heteroantibodies in Systemic Lupus Erythematosus (SLE) Supports Anti-EBNA1 as an Origin for SLE Autoantibodies”. Friday Mosaic of Autoimmunity International e-Meeting #98, 18.03.2022.
- 10) Rasa-Dzelzkalēja, S. “Human herpesviruses in myalgic encephalomyelitis/chronic fatigue syndrome. Friday Mosaic of Autoimmunity International e-Meeting #100, 1.04.2022.
- 11) Krūmiņa, A., “Epstein-Barr virus-positive lymphoma-associated hemophagocytic syndrome: a retrospective, single - center study”. Friday Mosaic of Autoimmunity International e-Meeting #106, 13.05.2022.
- 12) Kadiša, A.,” An unusual case of “conjugal” polymyalgia rheumatica after SARS-COV-2 vaccination” Friday Mosaic of Autoimmunity International e-Meeting #107, 02.09.2022.
- 13) Ieviņa, L., “Clonally expanded B cells in multiple sclerosis bind EBV EBNA1 and glialcam” Friday Mosaic of Autoimmunity International e-Meeting #111, 30.09.2022.
- 14) Holodnuka, I., “Epstein-Barr virus and multiple sclerosis in a Spanish cohort: A two-years longitudinal study. Friday Mosaic of Autoimmunity International e-Meeting #112, 07.10.2022.
- 15) Tarasovs, M., “Probiotics as multifaceted oral vaccines against colon cancer”. Friday Mosaic of Autoimmunity International e-Meeting #116, 04.11.2022.
- 16) Rasa-Dzelzkalēja, S. “Centralized nociplastic pain causing fibromyalgia: an emperor with no cloths?” Friday Mosaic of Autoimmunity International e-Meeting #120, 02.12.2022.
- 17) Priedeslaipa, E., “Caffeine on cognition of chronic kidney disease patients” Friday Mosaic of Autoimmunity International e-Meeting #124, 30.12.2022.


- 18) Arāja, D., “Medical conditions reported in EudraVigilance as adverse reactions to COVID-19 vaccines. Friday Mosaic of Autoimmunity International e-Meeting #126, 13.01.2023.
- 19) Kadiša, A., “Integrative model of fibromyalgia” Friday Mosaic of Autoimmunity International e-Meeting #130, 10.02.2023.
- 20) Tarasovs, M., “Elevated transferrin receptor impairs T cell metabolism and function in systemic lupus erythematosus” Friday Mosaic of Autoimmunity International e-Meeting #132, 24.02.2023.
- 21) Kadiša, A., “How Epstein-Barr virus infection can affect systemic lupus erythematosus?” Friday Mosaic of Autoimmunity International e-Meeting #133, 03.03.2023.
- 22) Rasa-Dzelzkalēja, S., “The persistent viral infections in the development and severity of myalgic encephalomyelitis/chronic fatigue syndrome” Friday Mosaic of Autoimmunity International e-Meeting #133, 03.03.2023.
- 21) Tarasovs, M., “Long COVID-19” and viral “fibromyalgia-ness”: suggesting a mechanistic role for fascial myofibroblasts” Friday Mosaic of Autoimmunity International e-Meeting #140, 21.04.2023.
- 24) Kadiša, A., “Switching from intravenous tocilizumab to subcutaneous administration during the COVID-19 pandemic” Friday Mosaic of Autoimmunity International e-Meeting #142, 05.05.2023

## Grants for conference attendance

Sixteen grants for conference attendance grants, each 2000 EUR, were confirm within the VirA project for participation in international conferences aiming to increase the visibility of the project and the global recognition of RSU via presentations at major autoimmune disease events. Table 1 depicts overview of grant receivers and conferences attended.

Ten grants (eight – 500 USD each, four 325 USD) were available to cover registration fee and participate in the 2nd Conference of the World Society for Virology (WSV): One Health - One World-One Virology which were held in Riga, Latvia, 15.06.2023. – 17.06.2023.

Table 1. Conference grant receivers and attended conferences

Conference	Conference attendance grantee
2nd ISRAEL – LATVIA – ITALY Symposium of Autoimmunity, Nazareth, Israel, 20.05.2022. – 22.05.2022.  2nd ISRAEL-LATVIA-ITALY	Modra Murovska, Zaiga Nora-Krūkle, Mihails Tarasovs, Šimons Svirskis, Anda Kadiša, Maksims Čistjakovs
8th National Conference with International Participation	Modra Murovska, Sofija

<p>“Morphological Days” Sofia, Bulgaria. 10.06.2022. - 12.06.2022  <a href="http://ama-journal.com/morphological-days-2022/">http://ama-journal.com/morphological-days-2022/</a></p>	Semenistaja, Anda Kadiša
<p>13th International Congress on Autoimmunity in Athens, Greece on 10 – 13 June, 2022  <a href="https://vira-twinning.eu/events/13th-international-congress-autoimmunity">https://vira-twinning.eu/events/13th-international-congress-autoimmunity</a></p>	Lība Sokolovska
<p>2nd Conference of the World Society for Virology (WSV): One Health - One World-One Virology. 15.06.2023. – 17.06.2023.  <a href="https://www.wsv2023.com/files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf">https://www.wsv2023.com/files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf</a></p>	Santa Rasa-Dzelzkalēja, Angelika Krūmiņa, Anda Vilmane, Irina Holodņuka (Kholodnyuk), Šimons Svīrskis, Lība Sokolovska, Maksims Čistjakovs, Valērija Groma, Zaiga Nora-Krūkle, Modra Murovska, Alīna Sultanova, Sabīne Grāvelsiņa.

## Details about representatives and digital formats of the final booth/ poster designs

Information on the representatives receiving conference grants and digital formats of the final booth/ poster designs are described in the following section “Details about representatives and digital formats of the final booth/ poster designs”.

**Modra Murovska**, MD, Ph.D., Leading Researcher and former Director of the Institute of Microbiology and Virology, RSU, Full Member of the Latvian Academy of Sciences, VirA project coordinator. Her scientific interests are virology, blood-borne viruses, persistent viral infections and their association with human pathologies, implication of viral infections in the pathogenesis of chronic inflammatory and autoimmune diseases (including neural diseases), role of viral infections in cancer development. In 2000 M. Murovska had got American Society for Microbiology Morrison Rogosa Award. She has strong experience in leadership of national and international (FP7 Baltinfect, COST Action CA15111) research projects and is the author and co-author of more than 150 original papers, 6 review papers and one monograph.

<https://science.rsu.lv/en/persons/modra-murovska-2>

Prof. Modra Murovska within VirA project conference grant program attended 2nd ISRAEL – LATVIA – ITALY Symposium of Autoimmunity in Nazareth, Israel during 20.05.2022. – 22.05.2022. where presented oral presentation entitled “Involvement of persistent viral infections in the development of nervous system diseases (ME/CFS)”.

Whereas in 8th National Conference with International Participation “Morphological Days” held in Sofia, Bulgaria from 10.06.2022. to 12.06.2022. professor presented presentation entitled “Involvement of viral infections in the development of non-communicable diseases”.

Modra Murovska participated the 2nd Conference of the World Society for Virology (WSV): One Health - One World-One Virology as WSV-Council Member - Conference Co-Chairman, 15.06.2023. – 17.06.2023.

**Zaiga Nora-Krūkle**, Dr. med., Director of the Institute of Microbiology and Virology, Leading Researcher, RSU. She has a strong background in Virology (herpesviruses, parvoviruses) and is currently studying the association between herpesviruses/parvoviruses and autoimmune diseases (Rheumatoid arthritis, ME/CFS) and human parvovirus B19, bocavirus and parvovirus 4 involvement in inflammatory neurological diseases using interdisciplinary approach. She has experience in the leadership of research projects and project platforms (leader of WP3 in FP7 Baltinfect project, participant in COST Action

CA15111 European Network on Myalgic Encephalomyelitis / Chronic Fatigue Syndrome (EUROMENE).

<https://science.rsu.lv/en/persons/zaiga-nora-kr%C5%ABkle-3>

Zaiga Nora-Krūkle within VirA project conference grant program attended 2nd ISRAEL – LATVIA – ITALY Symposium of Autoimmunity in Nazareth, Israel during 20.05.2022. – 22.05.2022. where presented oral presentation entitled “Scientific core of the Institute of Microbiology and Virology and research in noncommunicable diseases”.

Zaiga Nora-Krūkle participated the 2nd Conference of the World Society for Virology (WSV): One Health - One World-One Virology as Conference Local Organizing Committee Member. 15.06.2023. – 17.06.2023.

**Mihails Tarasovs** – MD, Rheumatologist, Internist, PhD Candidate. In 2014 graduated from Riga Stradiņš University – obtaining a medical degree. 2017 obtained the qualification of a specialist in internal medicine from Riga Stradiņš University. In 2020 obtained the qualification of a specialist in rheumatology from Riga Stradiņš University. Since 2013 is a volunteer work in the Interdepartmental Electron Microscopy Laboratory of the Institute of Anatomy and Anthropology, participation in several scientific projects. Also, he is a lecturer at the Department of Internal Medicine, RSU and works in Riga East University Hospital. He consults patients with rheumatological diseases, diagnoses and treats various bone, joint and soft tissue diseases in adults, deals with dynamic monitoring of these diseases. Regularly improves knowledge in various courses, seminars and conferences, focusing on disease prevention.

<https://science.rsu.lv/en/persons/mihails-tarasovs-3>

Using the VirA project conference grant program Mihails Tarasovs attended 2nd ISRAEL – LATVIA – ITALY Symposium of Autoimmunity in Nazareth, Israel during 20.05.2022. – 22.05.2022. where presented oral presentation entitled “Current understanding of the role of inflammation in arthritis”. [Program](#) and [presentation](#).

**Šimons Svirskis**, MD, Ph.D., is an experienced researcher in the field of data management, Leading Researcher at RSU. Conducts research in biostatistics, carries out statistical modeling of infectious diseases. Previous project was Search for new neuroprotective drugs. Currently, the role of human herpesviruses 6 and 7 (HHV6, HHV7) in neuroinflammation, Myalgic Encephalomyelitis/Chronic Fatigue Syndrome, as well as in development and progression of rheumatoid arthritis and endocarditis is being studied.

<https://science.rsu.lv/en/persons/%C5%A1imons-svirskis-2>

Šimons Svirskis within VirA project conference grant program attended 2nd ISRAEL – LATVIA – ITALY Symposium of Autoimmunity in Nazareth, Israel during 20.05.2022. – 22.05.2022. where presented oral presentation entitled “ME/CFS and autoantibodies – multivariate and cluster analysis using lesser known modern data processing tools”.

In 2nd Conference of the World Society for Virology (WSV): One Health - One World-One Virology during 15.06.2023 – 17.06.2023 he presented presentation of abstract: Šimons Svirskis, Sabine Gravelina, Anda Vilmane, Santa Rasa-Dzelzkaleja, Zaiga NoraKrukle, Angelika Krumina, Modra Murovska, on behalf of the VirA project Nr 952376 - HHV6 A/B AND AUTOANTIBODIES TO MUSCARINIC ACETYLCHOLINE RECEPTORS AS POTENTIAL BIOMARKERS IN THE DIAGNOSTIC ALGORITHM OF MYALGIC ENCEPHALOMYELITIS CHRONIC FATIGUE SYNDROME. [https://www.wsv2023.com/files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

**Anda Kadiša**, MD, Ph.D., rheumatologist at Riga East University Hospital, assistant at Rīga Stradiņš University Department of Internal Diseases, Leading Researcher at Riga Stradiņš University Institute of Microbiology and Virology. She conducts training cycles in rheumatology for residents of various specialties, as well as regular lectures for general practitioners and physicians of other specialties on different topics in rheumatology. She has been involved in international clinical trials for almost 15 years both as a sub-



investigator and more than 10 last years as a principal investigator. Member of the Latvian Adult Rheumatologists Association and the Certification Board of the Latvian Adult Rheumatologists Association.

<https://science.rsu.lv/en/persons/anda-kadi%C5%A1a-3>

Anda Kadiša within VirA project conference grant program attended 2nd ISRAEL – LATVIA – ITALY Symposium of Autoimmunity in Nazareth, Israel during 20.05.2022. – 22.05.2022. where presented oral presentation entitled “Involvement of latent/persistent parvovirus B19, HHV-6 and HHV-7 infections in etiopathogenesis of rheumatoid arthritis”. And in 8th National Conference with International Participation “Morphological Days” held in Sofia, Bulgaria from 10.06.2022. to 12.06.2022. Dr. Kadiša presented presentation entitled “What promotes development of fatigue in rheumatoid arthritis patients?”.

**Maksims Čistjakovs** – MSc, Ph.D. candidate, is an experienced researcher in the field of clinical virology (human herpes viruses – CMV, HHV-6, -7), immunology, molecular biology and autoimmune diseases. He has been working as a research assistant in the ESF project (Creation of a new interdisciplinary group for the development of nanotechnology-based approach in cell biology with application in medicine Nr. 2009/0221/1DP/1.1.1.2.0/09/APIA/VIAA/074) and FP7 Baltinfect project.

<https://science.rsu.lv/en/persons/maksims-%C4%8Distjakovs-3>

Within VirA project conference grant program he attended 2nd ISRAEL – LATVIA – ITALY Symposium of Autoimmunity in Nazareth, Israel during 20.05.2022. – 22.05.2022. where presented presentation entitled “Human herpesvirus-6 (HHV-6) and autoimmune thyroiditis”.

In 2nd Conference of the World Society for Virology (WSV): One Health - One World-One Virology during 15.06.2023 – 17.06.2023 he presented presentation of abstract: Maksims Čistjakovs, Lība Sokolovska, Alina Sultanova, on behalf of the VirA project Nr 952376 - INVESTIGATION OF THE INVOLVEMENT OF HHV-6 ENCODED VIRAL CHEMOKINE RECEPTORS IN AUTOIMMUNE THYROIDITIS DEVELOPMENT.

[https://www.wsv2023.com/\\_files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/_files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

**Sofija Semenistaja** – MD, Rheumatologist, PhD student, works at Institute of Anatomy and Anthropology, Department of Morphology, Rīga Stradiņš University. Her h-index is 1 and she has 3 documents within SCOPUS with 5 citations.

<https://science.rsu.lv/en/persons/sofija-semenistaja>

Sofija Semenistaja within VirA project conference grant program attended 8th National Conference with International Participation “Morphological Days” held in Sofia, Bulgaria from 10.06.2022. to 12.06.2022. where presented poster presentation entitled “Anatomical compartments of the synovial membrane: role in arthritis”.

**Lība Sokolovska** – MSc.biol., Ph.D. candidate, Research assistant, Institute of Microbiology and Virology. Her h-index is 2 and she has 10 documents within SCOPUS with 367 citations. Lība Sokolovska is a winner of best oral presentation in the session "Free Communications: Pearls in Autoimmunity" for the presentation "HHV-6 Encoded GPCRs U12 and U51 and thyroid autoimmunity" at 7th International Congress on Controversies in Rheumatology & Autoimmunity in Turin, Italy during 16.03.2023 - 18.03.2023.

<https://science.rsu.lv/en/persons/l%C4%Bba-sokolovska-2>

Within the VirA project conference grant program Lība Sokolovska attended 13th International Congress on Autoimmunity in Athens, Greece on 10 – 13 June, 2022. She presented “Presence of HHV-6 G-protein-coupled receptor antibodies and the possible cross-reactivity with human homologs in patients with autoimmune thyroiditis”.

In 2nd Conference of the World Society for Virology (WSV): One Health - One World-One Virology during 15.06.2023 – 17.06.2023 she presented presentation of abstract: Lība Sokolovska, Maksims Cistjakovs, Modra Murovska, Alina Sultanova, on behalf of the

VirA project Nr 952376 - HUMAN HERPESVIRUS 6B INFECTION AND THYROID AUTOIMMUNITY – MOLECULAR AND IMMUNOLOGICAL INVESTIGATION OF THE ASSOCIATION.  
[https://www.wsv2023.com/files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

**Santa Rasa-Dzelzkalēja** – Ph.D., young scientist, Leading Researcher at the Institute of Microbiology and Virology, RSU, has extensive experience in studies of viral – HHV-6A/B, HHV-7 and parvovirus B19 in particular, involvement in ME/CFS pathogenesis. Participated in several research projects, among them also COST Action CA15111 European Network on Myalgic Encephalomyelitis/ Chronic Fatigue Syndrome (EUROMENE) and FP7 Capacity project Baltinfect (Unlocking infectious diseases research potential at Rīga Stradiņš University). In 2nd Conference of the World Society for Virology (WSV): One Health - One World-One Virology during 15.06.2023 – 17.06.2023 she presented oral presentation of abstract: Santa Rasa-Dzelzkalēja, Angelika Krumina, Zaiga Nora-Krukle, Sabine Gravelina, Anda Vilmane, Lauma Ievina, Modra Murovska, on behalf of the VirA project. OCCURRENCE OF HUMAN HERPESVIRUS-6A/B AND HUMAN HERPESVIRUS -7 IN MYALGIC ENCEPHALOMYELITIS/CHRONIC FATIGUE SYNDROME.  
[https://www.wsv2023.com/files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

**Angelika Krūmiņa** – Professor, MD, Ph.D., since 2016 Professor of Medical Faculty, Rīga Stradiņš University. Leading Researcher of the Institute of Food Safety, Animal Health and Environment BIOR and since 2019 member of Scientific Council in Institute of Microbiology and Virology, Rīga Stradiņš University. Scientific interests are: herpesviruses, retroviruses, tick-borne diseases, chronic fatigue syndrome – laboratory diagnostic, clinical outcomes, treatment variations. She has experience in participation in national and international research grants. Board member of Latvian Medical Society, vice president of the Society of Infectology and Hepatology in Latvia. In 2nd Conference of the World Society for Virology (WSV): One Health - One World-One Virology during 15.06.2023 – 17.06.2023 professor presented oral presentation of abstract: Angelika Krūmiņa, Evija Kovrigo, Elga Bataraga, on behalf of the VirA project Nr. 952376 - ROLE OF HUMAN PAPILLOMAVIRUS AND VACCINATION: A WEB-BASED SURVEY.  
[https://www.wsv2023.com/files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

**Anda Vilmane** – MSc, Ph.D. candidate, Researcher at Rīga Stradiņš University Institute of Microbiology and Virology. She focused her work on studying parvovirus B19, human bocaviruses, parvovirus 4 and human herpes viruses. She is working on her Ph.D. thesis titled Involvement of human parvovirus B19 and human bocavirus in pathogenesis of non-demyelinating neurological diseases in adults. In 2nd Conference of the World Society for Virology (WSV): One Health - One World-One Virology during 15.06.2023 – 17.06.2023 she presented oral presentation of abstract: Anda Vilmane, Lauma Ievina, Anna Terentjeva-Decuka, Katrine Vecvagare, Sabine Gravelina, Liba Sokolovska, Maksims Cistjakovs, Zaiga Nora-Krukle, Modra Murovska, On behalf of the VirA project PRESENCE OF HUMAN HERPESVIRUSES INFECTION MARKERS IN HOSPITALIZED COVID-19 PATIENTS IN LATVIA.  
[https://www.wsv2023.com/files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

**Irina Holodņuka** – Ph.D., Leading Researcher at the Institute of Microbiology and Virology, RSU, has great experience in the field of immunology, cell biology and virology. Her scientific interests are: virology (EBV, HHV-6); immunology (peripheral blood immune state in rheumatoid arthritis and B-cell hematological malignancies); B-cell hematological malignancy / B-cell lymphoproliferative disease; cancer cell molecular biology; epigenetics and functional genomics of cancer cell. Has experience in coordination

of ESF and Latvian Council of Science projects. She is the author and co-author of 28 original papers.

In 2nd Conference of the World Society for Virology (WSV): One Health - One World-One Virology during 15.06.2023 – 17.06.2023 she presented oral presentation of abstract: Irina Holodnuka Kholodnyuk, Svetlana Kozireva, Laura Zvejniece, Zanna Rudevica, Ainars Leonciks, Barbro Ehlin-Henriksson, Elena Kashuba, on behalf of the VirA project Nr. 952376 - EBV INFECTION PROMOTES MIGRATION OF THE HOST B CELLS VIA UP-REGULATION OF THE INFLAMMATORY CHEMOKINE RECEPTORS CCR1 AND CCR2. [https://www.wsv2023.com/\\_files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/_files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

**Alīna Sultanova** – Ph.D., Leading Researcher at the Institute of Microbiology and Virology, RSU. She is an experienced researcher in the field of clinical virology (human herpes viruses – CMV, HHV-6, -7) and immunology, has been working as a researcher in the ESF project (Creation of a new interdisciplinary group for the development of nanotechnology-based approach in cell biology with application in medicine, Nr. 2009/0221/1DP/1.1.1.2.0/09/APIA/VIAA/074) and FP7 Baltinfect project.

In 2nd Conference of the World Society for Virology (WSV): One Health - One World-One Virology during 15.06.2023 – 17.06.2023 she presented oral presentation of abstract: Lība Sokolovska, Maksims Cistjakovs, Asnate Matroze, Alina Sultanova, on behalf of the VirA project Nr 952376 - THE PRESENCE OF COMMON HERPESVIRUSES (EBV, HHV-6, AND HHV-7) IN THE THYROID GLAND – IMPLICATIONS FOR DISEASE DEVELOPMENT.

[https://www.wsv2023.com/\\_files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/_files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

**Vladimirs Naumovs** in 2nd Conference of the World Society for Virology (WSV): One Health - One World-One Virology during 15.06.2023 – 17.06.2023 presented presentation of abstract:

Vladimirs Naumovs, Sandra Skuja, Valērija Groma, on behalf of the VirA project Nr 952376 - THE PRESENCE OF HUMAN HERPES VIRUS – 6 INFECTION MARKERS IN THE BRAIN TISSUE OF PATIENTS WITH ALZHEIMER'S DISEASE: A PILOT STUDY. Conference of the World Society for Virology (WSV): One Health - One World-One Virology. 15.06.2023. – 17.06.2023.

[https://www.wsv2023.com/\\_files/ugd/f55488\\_c3ca203a67034b83aa4abe0b2b342541.pdf](https://www.wsv2023.com/_files/ugd/f55488_c3ca203a67034b83aa4abe0b2b342541.pdf)

## Conclusions

The 22 attended conferences with 116 presentations enhanced the recognition and reputation Rīga Stradiņš University, the coordinating institution of VirA project, ensured information base for successful collaboration in research, highlighted the activities of H2020 and increased social and political acceptance of EU programs and positive attitude towards sustainability of the results.