MSCA4Ukraine – a brief overview
Objectives of the webinar

• Explore how displaced Ukrainian researchers across Europe can contribute to the strengthening of the Ukrainian higher education and research sector.

• Share concrete cases of how MSCA4Ukraine fellows continue their academic work between their host and home institutions.
Speakers

– Dominik Kalweit, Programme Manager, SAR Europe
– Artem Nazarko, MSCA4Ukraine fellow, University of Bergen, Norway
  – Home institution: National University Odesa Law Academy Ukraine
– Ohla Karaman, MSCA4Ukraine fellow, National Cancer Institute, Lithuania
  – Home institution: Institute of Experimental Pathology and Ecology and Biology, National Academy of Science of Ukraine
– Oksana Chukova, MSCA4Ukraine fellow, Deutsches Elektronen-Synchrotron (DESY), Germany
  – Home institution: Taras Shevchenko National University of Kyiv
– Chaired by Michael Gaebel, Director – Higher Education Policy, European University Association
MSCA4Ukraine – a brief overview
Activities

(1) Fellowships

(2) Helpdesk & matchmaking

(3) Career development & networking

(4) Support for reintegration
Fellowships

Applicant: Host organisations in EU member states & Horizon Europe associated countries

Duration: Six months, up to a maximum of 24 months

Rates: Marie Skłodowska-Curie Actions (MSCA) Doctoral & Postdoctoral Fellowships

Number of fellowships: At least 120

Disciplines: All domains of research and innovation

Secondments: Up to one-third of fellowship duration
Eligibility Criteria

✓ Ukrainian nationals, stateless persons and third country nationals with primary residence in Ukraine on 24 February 2022
✓ Displaced on or after 24 February 2022 or ready to relocate from Ukraine
✓ PhD holders or doctoral candidates
✓ Language skills required to successfully conduct their research activities
Results (announced 23 February 2023) (i)

✓ Over 400 applications by 11 November 2022, plus 198 by 25 November

✓ Pool of over 450 independent reviewers from over 45 countries and a broad range of disciplines was recruited

✓ Selection Committee comprised of established scholars and representatives of organisations assisting scholars at risk
Results (announced 23 February 2023) (ii)
Results (announced 23 February 2023)

- Female candidates: 71% (29% male)
- Female awardees: 65%
- Male awardees: 35%

8 Research Areas

- Life Sciences: 33
- Social Sciences and Humanities: 31
- Chemistry: 20
- Physics: 14
- Information Science and Engineering: 11
- Economic Sciences: 6
- Mathematics: 5
- Environment and Geosciences: 4
Current and upcoming activities

✓ Implementation of fellowships

✓ Assisting eligible, unfunded applicant candidates in seeking alternative funding opportunities
  • Liaison with National Contact Points and other relevant entities
  • Individual engagement with researchers from Ukraine

✓ Career development and networking activities
  • Next opportunity: Webinar on Open Science principles and practices (25th October / 11-12.30h)
More information

www.sareurope.eu/msca4ukraine

msca4ukraine@mu.ie

#MSCA4Ukraine
My MSCA4Ukraine journey

by Artem Nazarko

Strengthening the Ukrainian higher education and research sector: the role of displaced Ukrainian researchers
19 September 2023
What made me apply for MSCA4Ukraine?

• Desire to finish my project and obtain PhD degree
• Fruitful environment
• Experience exchange
• Global audience
• Work with the best
• Networking opportunities
• Collaboration
My background and research area

- International Criminal Law (ICL)
- International Humanitarian Law (IHL)
- Legal practice

My project title: Issues of the domestic prosecution of war crimes in Ukraine during the Russian-Ukrainian War
**My path**

UA ➔ CZ ➔ AT ➔ GB ➔ NO

**MSCA4Ukraine advantages from my perspective**

- Long-term fellowship
- Secondment options
- Full access to multiply resources
- Descent rewards
- Mobility
- Diversity
How is my fellowship so far?

- Productive
- Welcoming
- Supportive
- Encourage
- Beneficial
- Inclusive
Current collaboration activities

• Collective research contributions
• Cross-country collaboration
• Teaching
• Mentoring & Consulting
• Proofreading
Future collaboration plans

Legal conference in Bergen, Norway in February 2024
Thank you for your attention!

UA  SLAVA UKRAINE!  UA

Strengthening the Ukrainian higher education and research sector: the role of displaced Ukrainian researchers
19 September 2023
until February 24, 2022

R.E. Kavetsky Institute of Experimental Pathology, Oncology and Radiobiology, NAS of Ukraine (Kyiv, Ukraine)

Olha Karaman
PhD, Senior Research Scientist

National Cancer Institute (Vilnius, Lithuania)

after February 24, 2022

Senior Researcher of Laboratory of Oncoimmunology and Cancer Vaccines Designing

Senior Researcher of Laboratory Immunology
I am a MSCA4Ukraine fellow (AvH ID# 1232689) of the MSCA4Ukraine grant awarded by the Alexander von Humboldt Foundation on behalf of the MSCA4Ukraine Consortium

Project title: "Bacterial Lectins and Cytokine-Induced Killer Cells as a Way to Improve Cancer Immunotherapy”
(fellowship period: April 1, 2023 - March 31, 2025 (24 months)

Before the war, my research involved studying the effects of cancer vaccines on the antitumor resistance system (antitumor immunity). We also studied how the Bacillus subtilis bacterial lectin can affect macrophages and prevent these cells from switching to tumor-associated cells.

My current research concerns improving the manufacturing protocol for obtaining cytokine-induced killer cells (CIK). The cells can kill tumor cells. In our research, we select optimal conditions for growing CIK cells, use bacterial lectin.
Michael I. Nishimura is a Professor in the Department of Surgery with a secondary appointment in Cancer Biology. His current research is the study of the genetics and biology of T cell receptor (TCR) genes and TCR gene modified T cells. Prof. Nishimura studies TCRs by developing the TCR gene transfer approach for generating anti-cancer T cells for adoptive cell therapy in cancer patients. The last 35+ years of studying T cells and tumor immunology has led to three clinical trials and 28 patients treated with gene modified T cells.

Professor Nishimura invited me to the CIMT Annual Meeting 2022 held by Association for Cancer Immunotherapy (Mainz, Germany)

After the meeting and discussions with Dr. Nishimura, it became necessary to master the methods of
- constructing viral vectors for TCR modification
- obtaining lymphocytes with chimeric antigens (CART)
- obtaining gene modified lymphocytes and CIK
What made you apply for MSCA4Ukraine?

The MSCA4Ukraine grant entails the following:

✓ a **monthly living allowance** in line with MSCA Doctoral Networks and MSCA Postdoctoral Fellowships;
✓ a country correction coefficient (applicable to the country of the primary host organisation) will be applied to the monthly living allowance in order to ensure equal treatment and purchasing power parity across countries for all researchers,
✓ a **mobility allowance**, 
✓ if applicable, a **family allowance** and/or a special needs allowance, as outlined in the MSCA work programme,
✓ a monthly contribution towards institutional management and research, networking and training costs
How is my fellowship so far (academic and social aspects)

Project title: "Bacterial Lectins and Cytokine-Induced Killer Cells as a Way to Improve Cancer Immunotherapy"
Fellowship period: April 1, 2023 - March 31, 2025 (24 months)

Academic mentor: Prof. Vita PASUKONIENE
Host organisation: National Cancer Institute (Vilnius, Lithuania)

Secondment mentor: Prof. Michael I. NISHIMURA
Secondment organisation: Loyola University Chicago (Chicago, the USA)

My secondment started on August 3rd and will last until November 27th, 2023
Completion of the internship will allow me:

- to generate T cells and CIKs with specific antitumor activity and possibly increase their resistance to the immunosuppressive effects of the tumor microenvironment
- to continue research using in vivo systems and for the development of a new approaches for cellular antitumor immunotherapy aimed at improving the outcomes for patients with breast cancer, pancreatic cancer and melanoma.
- to improve my theoretical and practical skills of generating recombinant CAR and TCR retroviral and lentiviral vectors and use them to construct and validate retrovirus and lentiviral producer cell lines.
- to rapidly transfer these gene therapy T technologies to Ukrainian and Lithuanian scientists for preclinical and clinical studies.

Presentation of the obtained data at the laboratory meetings will allow me to establish connections for cooperation with colleagues who also work in the field of antitumor immunotherapy.
Completion of the internship will allow me to have a great time in Chicago and the United States.

My mentors and me at the Museum of Science and Technology (Chicago, 2023)

I am at the Museum of Science and Technology (Chicago, 2023)

American football (Cleveland, 2023)
Research is ongoing

Thank you!
Strengthening the Ukrainian higher education and research sector: the role of displaced Ukrainian researchers

On the MSCA4Ukraine program contribution to the strengthening of the Ukrainian university and research sector

Oksana Chukova
MSCA4Ukraine fellow,
Deutsches Elektronen-Synchrotron DESY,
Hamburg 22607, Germany
Around 30 years as student, PhD, researcher at Taras Shevchenko National University of Kyiv
The leading University in Ukraine

Previous work and MSCA4Ukraine application

March 15, 2022 – June 14, 2022
Visiting Scientist, Institute of Physics, Polish Academy of Sciences, Warsaw, Poland

June 22, 2022 – December 21, 2022
Visiting Scientist, Beamline P66 SUPERLUMI, Deutsches Elektronen-Synchrotron (DESY) Hamburg, Germany

Since April 1, 2023 – MSCA4Ukraine fellowship
=> 24 months for research with clear planning

Then journey in unclear direction like cat from Kherson region in June
01 Design of new luminescent materials for various applications

Application of several methods for synthesis. Development of new compositions. Multicomponent hybrid composites

Adaptation of the created materials to possible applications for practical tasks. E.g. light converting materials for luminescent monitoring, lightening, energy conversion.

02 Development luminescent methods of monitoring and sensing

From forensic testing and remote monitoring to temperature and pressure sensors, biological probes and ionizing radiation registration.

03 Physics models describing electronic processes responsible for luminescence spectra formation

Understanding the main mechanisms and characteristics of formation of emission centers provides researchers worldwide with a powerful tool for predictive modeling and manufacturing of new luminescent materials of various types.
The current scientific activity in the MSCA4Ukraine fellow is immediately devoted to development of previous research efforts started at TSNUK university before.

The MSCA4Ukraine application proposal is directed on design of previous ideas and realization of unfinished plans as well as on creation of new ideas decisions in the field of study.

This gives possibility to use previous experience and accumulated potential.

Methods of research are the same, but their realization and instrumentation are completely different to those that we have in Ukraine. And the difference is considerable.

DESY is the largest synchrotron in Germany. Now I use synchrotron excitation for investigation of materials those were investigated using laboratory equipment with lasers and lamps.

Formerly, I have been a DESY user since 2004 and have visited DESY as user of experimental facilities. Now I have reached the DESY research group that I have collaborated with before as a user of the facility.

The DESY hosts a great international research community that give new friends and more possibilities.

Despite of this we strongly feel a lack of communication with previous research partners and collaborators. It is especially important if the current work is a continuation of a previous research.

This problem is expected and solved in the MSCA4Ukraine Program, that is also its great advantage.
Academic and social aspects of the MSCA4Ukraine fellow

MSCA4Ukraine fellow have costs for financing conference trips, collaborative visits, especially it is important to have visits to Ukrainian partners and collaborators. The first MSCA4Ukraine visit to Ukrainian home university for consultations with research partners is planned at December, 2023.

Conference reports:
DESY NanoMat Science Day (Hamburg, May 24)
E-MRS Spring Meeting (Invited Talk) (Strasbourg, May 28 – June 2)
20th International Conference on Luminescence (Paris, August 27 - September 1)
E-MRS Fall Meeting (Invited Talk) (Warsaw, September 18 – 22)

Also, the DESY working group members, staff in general and colleagues and co-workers are very friendly.
We have got a lot of support from administration, European office, other groups (Greta Facile, Susanne Hummel).

We have German language courses, carrier development support, information support, psychological help. International research environment gives new friends and more possibilities for personal development.
Current collaboration activities between host and home institutions

August 16, 2023 TSNUK users in DESY

Many thanks DESY User Office for financial support (hostel+travel)

Dariia Breus  Tetiana Voitenko  Tetaina Busko

Other group of Ukrainian researches will come to DESY

Beamtime schedule for beamline P66

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<tr>
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<td>22-Feb-2023</td>
<td>01-Mar-2023</td>
<td>Chukova/Nediiko</td>
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<td>Voloshinovskii/Demkiv</td>
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Future collaboration plans between home and host institutions

Some of TSNUK building were damaged after russian attacks (especially on October 17th and December 31st, 2022).

About of half of the TSNUK personnel is working remotely, but men under 60 cannot leave Ukraine. Difficulties in communications and reduced budgets of the research projects.

Despite of this: EURIZON ptoposal (waiting for results)

Green synthesis of luminescent Zinc Oxide nanoparticles by using plant extracts as reducing agent

Project leader: Igor Fesych
associated professor of Faculty of Chemistry, TSNUK, Ukraine
Collaborator: Aleksei Kotlov P66 Beamline manager, DESY, Hamburg, Germany

In future plans:
- Application for common research projects on a regular basis
- Secondment to Ukraine home University (December, 2023)

Thanks for attention!
Upcoming events

• Webinar on Open Science | 25 October 2023 | 11.00-12.30 CEST
Thank you for attending!

Don’t forget to fill out the evaluation survey.