



Summer School Program: VIOS - Vilnius International Oncology Summer School

Organized by: Vilnius University Faculty of Medicine, National Cancer Centre, affiliate of Vilnius University Hospital Santaros Klinikos (VUH SK)

Location: Medical Science Centre, Žaliųjų ežerų g. 2, Vilnius, Lithuania

**Dates: 28 July – 1 August 2025** 

## **Program Overview**

Target Audience: First- and second-year PhD students or those planning to pursue a PhD in

oncology or related fields

**Duration**: 5 Days (Monday to Friday)

ECTS: 5 credits (recommended, based on participation, assignments, and project work)

Each day will consist of:

- 2 Theoretical Sessions: Key topics in oncology and research methodologies.
- 1 Experience Session: Hospital visits or hands-on activities related to oncology practice.
- 1 Teamwork Session: Collaborative work on PhD research ideas, with feedback from peers and mentors.

#### **Day-by-Day Program**

### Day 1: Monday, 28 July - Introduction to Oncology & Research Methodologies

### Morning:

- 9:00 9:30: Registration & Welcome Coffee
- 9:30 10:00: Opening Ceremony
  - Welcome by the organisers from Vilnius University, the National Cancer Centre and VUH Santaros Klinikos
  - Overview of the week's objectives, goals, and project expectations
- 10:00 11:45: Session 1: Introduction to Oncology Research: Challenges and Opportunities
  - Key advances in palliative care and oncology, current research gaps, and trends in the field
    - Speaker: Prof. Stein Kaasa, University of Oslo, Norway (online)
  - Research Focus in Palliative Care
  - Speaker: Prof. Maria Grazia De Marinis, Campus Bio Medico University of Rome, Italy
  - Bridging Bench to Bedside: Integration of Clinical Care and Research in Comprehensive Cancer Centres
  - Speaker: Dr Valdas Pečeliūnas, the National Cancer Centre, Lithuania

#### **Lunch Break**

• 11:45 – 12:30: Lunch (at the venue or local restaurants)

#### Afternoon:

- 12:30 13:15: Session 2: Research Methodologies in Oncology
  - o Speaker: Dr. Kasandra Musovič, University of Maribor, Slovenia
  - Topic: Advanced approaches to literature reviews in evidence-based research: utilising PICOT frameworks for systematic inquiry
- 13:15 14:00 Critical Appraisal of Evidence in Clinical Research
  - Speaker: Assoc. Professor Dr Karolis Ažukaitis, Vilnius University, Lithuania
  - Topics: Evidence-informed medicine, interpreting scientific evidence, research waste, and predatory journals
- **14:00 15:00**: Experience session: Hospital Tour at VUH Santaros Klinikos and the National Cancer Centre (cell therapy, biobank)
  - Overview of oncology departments and research labs at the National Cancer Centre/ VUH Santaros Klinikos
  - Opportunity to observe clinical practices and ongoing research in oncology
- 15:00 16:30: Teamwork Session: Introduction to group project
  - Divide into teams. Each team will brainstorm ideas for their PhD research project based on the topics discussed
  - Teams will begin outlining their research questions and methodologies

## **Evening**

- 17:00 19:00: Meet & Greet Dinner
  - Networking dinner for all participants and faculty. Informal discussions about research interests and collaboration opportunities

## Day 2: Tuesday, 29 July - Molecular Oncology & Cancer Genomics

# **Morning:**

- 9:00 10:30: Session 1: Molecular Mechanisms in Cancer: Understanding Tumour Biology
  - Speaker: Prof. Sonata Jarmalaitė, National Cancer Centre, Lithuania
  - Topics: Genetic mutations, signalling pathways, tumour microenvironment, and resistance mechanisms
- 10:30 11:15: Session 2: Cancer Genomics: Big Data in Cancer Research
  - Speaker: Dr Tadas Žvirblis, Vilnius University, Lithuania
  - o Topic: Next-generation sequencing, bioinformatics tools, and personalised medicine
- 11.15 12.00 Qualitative and quantitative approaches
  - Speaker: Dr Giorgia Petrucci, Campus Bio Medico University of Rome, Italy
  - Topic: Distinguishing between qualitative and quantitative research: philosophical foundations, methodological approaches, and research integrity

#### **Lunch Break**

• 12:00 - 13:00: Lunch

#### Afternoon:

- 13:00 14:30: Experience session: Genomics Lab Tour and Hands-On Activity
  - Visit a lab working with genomic data, followed by a hands-on demonstration using bioinformatics tools for cancer mutation analysis
- 14:30 16:00: Teamwork Session
  - Continue working on a research project. Begin refining research questions and discuss how genomic data might apply to their projects

### **Evening**

Free evening for participants to explore Vilnius

# Day 3: Wednesday, 30 July - Immunotherapy & Clinical Trials

# Morning:

- 9:00 10:30: Session 1: Phylogenetics to the rescue, the RNA virus perspective
  - o Speaker: Dr Gytis Dūdas, Vilnius University Life Sciences Centre, Lithuania
- 10:30 12:00: Session 2: Clinical Immunotherapy: Transforming Cancer Treatment
  - Speaker: Dr Skirmantė Černauskienė, Vilnius University, Lithuania
  - o Topic: CAR-T Therapy
  - Speaker: Dr Adomas Bukauskas, VUH Santaros Klinikos, Lithuania
  - Topic: Mesenchymal Stromal Cell and Virus-Specific T Cell Therapies
  - Speaker: Assist. Professor Dr Andrius Žučenka, Vilnius University, Lithuania
  - o Topic: Acute Myeloid Leukaemia and Bone Marrow Transplantation

# **Lunch Break**

• 12:00 - 13:00: Lunch

### Afternoon:

- 13:00 14:30: Experience session: Clinical Oncology Experience at VUH Santaros Klinikos
  - Meet oncology specialists and observe patient care in action, focusing on immunotherapy treatments and clinical trial implementation
- 14:30 -15:00 How to Present and Publish Your Results? Introduction to Academic Writing and Presenting
  - o Speaker: Assoc. Professor Dr Karolis Ažukaitis, Vilnius University, Lithuania
- 15:00 17:00 Teamwork Session
  - Continue working on the research project. Discuss the incorporation of immunotherapy strategies into research ideas
  - Finalise research project proposals. Prepare for presentations and feedback sessions
  - Practice your research project pitches with Dr Karolis Ažukaitis

## **Evening**

• Free evening for students to explore Vilnius

# Day 4: Thursday, 31 July - Cancer Prevention & Early Detection

## Morning:

- 9:00 10:30: Session 1: Environmental Exposure and Risk of Oncological Diseases
- o Speaker: Dr Aušvydas Patašius, National Cancer Centre, Lithuania
- Topics: Prevention strategies, screening programs, and global cancer burden
- 10:30 12:00: Session 2: Digital Pathology
  - o Speaker: Prof. Dr Arvydas Laurinavičius, Vilnius University, Lithuania
  - o Topics: Biomarkers, imaging technologies, and diagnostic innovations

#### **Lunch Break**

• 12:00 - 13:00: Lunch

#### Afternoon:

- 13:00 14:00: Experience session: Visit to National Centre of Pathology
  - Observe early detection techniques, diagnostic tools, and screening programs at VUH Santaros Klinikos or National Cancer Centre
- 14:00 16:00: Project Presentations & Voting
  - o Each team presents their project to the group
  - Voting by participants to choose the most innovative or promising research idea

## Day 5: Friday, 1 August - Final Presentations & Closing Ceremony

# **Morning:**

- 9:30 10:15: Session 1: Long-Term Survivorship in Paediatric Onco-Haematology: Clinical Outcomes, Biomarkers, and Quality of Life in Healed Children
  - o Speaker: Prof. Dr Jelena Rascon, Vilnius University, Lithuania
  - Topics: Survival Statistics & Prognostic Indicators; Psychosocial Recovery & Quality of Life; Future Directions; Management of Late Effects
- **10:30 12:00:** Session 2: From Primary Findings to Product in Action: Translating from Bench to Bedside in Oncology
  - Speaker: Prof. Jukka Westermarck, University of Turku, Finland
  - o Topic: How to move research from the laboratory to clinical applications

### **Lunch Break**

• 12:00 - 13:00: Lunch

## Afternoon:

- 13:00 14:00: Closing Ceremony
  - Announcing the winning project. Awards and certificates of participation.

# **ECTS Credits & Evaluation**

- **5 ECTS credits**: Based on full attendance, participation in discussions, practical sessions, team project, and final presentation.
- Students will be evaluated on:
  - o Active participation in sessions
  - Contribution to team project
  - o Quality and feasibility of research ideas presented.