**Practical methods in oncological research – theoretical part (online)**

**AGENDA**

**Day 1 April 7, 20022, 9:00 – 12:00**

**Session: Microfluidic system and advanced *in vitro* models**

* Microfluidic components and systems for cell applications
* Biodegrable nanoparticles for medical applications
* Stem cells: Sources, cultivation, differentiation, application

**Day 2 April 8, 2022, 9:00 – 12:00**

**Session: Basic and translational research**

* Translational research: from bench to bedside and back
* Cancer and senescence
* How Genetic engineering can affect Cancer Research and Treatment: CRISPR Technique

**Day 3 April 21, 2022, 9:00 – 12:00**

**Session:** **Clinical oncology research**

* The fundamentals of translational research: Ethics, Informed consent, sample and data collection, and storage
* Liquid Biopsy methods: Analysis of circulating free nucleic acids
* *In vitro* Tumor Models: From monolayer cultures to 3D and organoid cultures

**Day 4 April 22, 2022, 9:00 – 12:00**

**Session:** **Nanosafety research in regulatory context: Challenges and opportunities**

* Hazard and risk assessment of nanomaterials: Historical perspective and current status
* Smart, safe and sustainable by design approach in nanotechnology
* Implementation of new advanced approaches into the regulatory landscape