



# Summer School

## In vivo and ex vivo models to study P2X receptors

Studying cancer is challenging due to tumor heterogeneity both between patients and within the tumor itself. This summer course, consisting of theoretical and practical lessons, will provide an overview of the current models (in vivo, in vitro, and ex vivo) used to study cancer, with a special focus on the purinergic checkpoint.



**Terezia Kiskova**

P.J.Safarik University in Kosice  
SLOVAKIA



**Valérie Vouret-Craviari**

Centre national de la  
recherche scientifique, Nice  
FRANCE



**Olfa Khalfallah**

Institut de Pharmacologie  
Moléculaire et Cellulaire, Nice  
FRANCE



**Lucia Slovinska**

P.J.Safarik University in Kosice  
SLOVAKIA

 **21-23 July 2025**



Louis Pasteur University Hospital,  
Faculty of Medicine,  
P. J. Safarik University in Kosice  
Rastislavova 43  
**Košice**  
**Slovakia**



**P R E S T O**  
P2X RECEPTORS as Therapeutic Opportunity



**VENUE**  
**Louis Pasteur University Hospital**  
**Faculty of Medicine**  
**P. J. Safarik University in Kosice**  
**Rastislavova 43**  
**Košice**  
**Slovakia**



**HOW TO TRAVEL TO KOSICE**



**Kosice airport:** <https://www.airportkosice.sk/en>  
**Budapest airport:** <https://www.bud.hu/en>  
**Vienna airport:** <https://www.viennaairport.com/en/passengers>



**BUD/VIE - Kosice**  
**Flixbus:** <https://www.flixbus.co.uk/>  
**Train:** <https://www.zssk.sk/en/>

**HOTELS**

**Double Tree by Hilton**  
<https://www.hilton.com/en/hotels/kscdtdi-doubletree-kosice/>  
Password: LETOUPJS25

**Students dormitory**  
<https://www.upjs.sk/pracoviska/studentske-domovy-jedalne/en/>  
Password: LETOUPJS25

another possibilities:  
**Blue Bell Penzi3n**  
**Penzion Beryl**  
**Boutique Hotel Bristol**  
**Hotel Zlat3 Košice**  
**Boutique Slovakia Residence**  
and many others (see booking or airbnb)



PROGRAM

July 21, 2025

10:00-14:00	Registration
14:00-14:15	Welcoming by the organizing committee
14:15-14:30	Rules for reimbursement (Elena Adinolfi, visio or video)
14:30-16:30	Lesson 1: Valérie VOURET-CRAVIARI: Introduction on in vitro, in vivo, and ex vivo models in oncology
16:45-18:45	Lesson 2: Olfa KHALFALLAH: Brain organoids

FREE EVENING

July 22, 2025

9:00-9:30	Invited lesson: Dr. Carmen LUDWIG-PAPST: Metabolomics meets gut-brain axis
9:30-10:30	Lesson 3: Dr Lucia SLOVINSKA: Neurospheres derived from neural progenitor cells
10:30-11:30	Practical course 1 Group 1: Tips for successful 3D culture Practical course 2 Group 2: Culture of iPSC Stem Cells
11:30-12:30	Practical course 1 Group 2: Tips for successful 3D culture Practical course 2 Group 1: Culture of iPSC Stem Cells
LUNCH BREAK 12:30-13:30	
13:30-15:00	Practical course 3: Differentiation of iPSCs into Brain Organoids
15:00-15:45	Lesson 4: Terézia KISKOVA: In vivo models in experimental oncology and neurooncology
15:45-16:45	Practical course 4 Group 1: Slicing and preparation of FFPE slices for immunohistochemical staining Practical course 5 Group 2: Hematoxylin-eosin staining
16:45-17:45	Practical course 4 Group 2: Slicing and preparation of FFPE slices for immunohistochemical staining Practical course 5 Group 1: Hematoxylin-eosin staining

AROUND THE CITY -DINER

July 23, 2025

9:00-11:00	Round table to discuss with the trainers and address specific problems posed ty the trainees.
11:00-11:30	Concluding remarks

