



PAN-EUROPEAN NETWORK FOR NEUROSCIENCE RESEARCH INFRASTRUCTURE  
AND STRENGTHENING OF SUPPORT CAPACITIES (PANERIS)

# PANERIS Winter School

## Addiction: underlying mechanisms and search for novel therapies

at the **Maj Institute of Pharmacology Polish Academy of Sciences**

3<sup>rd</sup> – 7<sup>th</sup> March 2025  
Krakow, Poland



Maj Institute of Pharmacology  
Polish Academy of Sciences

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Vilniaus  
universitetas



Funded by  
the European Union

PANERIS project is funded under the HORIZON Europe call HORIZON-WIDERA-2023-ACCESS-04-01 - Pathways to Synergies, as a HORIZON Coordination and Support Action under the title "Pan-European Network for Neuroscience Research Infrastructure and Strengthening of Support capacities" (project no 101160180).

# Welcome to the IP PAS



Maj Institute of Pharmacology  
Polish Academy of Sciences



The **Maj Institute of Pharmacology of the Polish Academy of Sciences (IP PAS)** in Krakow is a research institute specialized in **pharmacology, drug discovery**, and related fields within the domain of life sciences. The Institute is focused on advancing scientific knowledge, promoting innovation, and contributing to the development of pharmaceutical and medical sciences. IP PAS has extensive **research infrastructure** supporting all areas of investigation in **neuropsychopharmacology**, from **medicinal chemistry** to high-throughput **in vitro** and **in vivo preclinical testing**, including comprehensive experience in **analysis of cellular and molecular mechanisms of drug action**. The Institute's research priorities include studies on the **etiology and treatment of depression, anxiety, schizophrenia, chronic pain, neurodegenerative disorders and addiction** as well as basic investigation in the field of **neuroscience**.

In 2024, the Institute has established the Center for Development of New Pharmacotherapies of Central Nervous System Disorders (**CEPHARES**), which expands capacity for advanced high-throughput **preclinical testing of novel candidate drugs and therapies**. Consisting of 5 laboratory modules Center was created as a result of project co-financing under the European Regional Development Fund within the framework of Task 4.2 of Smart Growth Operational Program 2014-2020 (POIR.04.02.00-00-D007/20-00).

The **PANERIS** Project is funded through HORIZON Europe call HORIZON-WIDERA-2023- ACCESS-04-01 - Pathways to Synergies, as a HORIZON Coordination and Support Action under the title "Pan-European Network for Neuroscience Research Infrastructure and Strengthening of Support capacities" (project no 101160180). The project's duration is 24 months, with a start date of 1<sup>st</sup> May 2024 and an expected end date of 30 April 2026. IP PAS is one of the four PANERIS consortium members. PANERIS project encompasses a variety of training opportunities such as online courses, site visits, or Winter/Summer Schools. PANERIS schools gather top-notch experts in different scientific fields, together with a series of soft skills sessions designed to provide a broad perspective on key topics, promoting altogether the development of multidisciplinary knowledge and skills among participants.

# Winter School Framework Program

	Day 1	Day 2	Day 3	Day 4	Day 5
<b>Morning</b> 9.00 – 12.30		Lecture 3	Lecture 5	Lecture 7	Lecture 8
		Lecture 4	Lecture 6		
		Coffee break	Coffee break	Coffee break	Coffee break
		Practical part	Practical part	Practical part	Lecture 9
<b>Lunchtime</b> 12.30 – 14.00	Registration & Lunch	Lunch	Lunch	Lunch	Summary & Closing
					Lunch & Sightseeing tour – Old Town of Krakow
<b>Afternoon</b> 14.00 – 18.00	Opening & Foreword	Practical part	Practical part	Participant presentations	
	Lecture 1				
	Coffee break	Coffee break	Coffee break	Coffee break	
	Lecture 2	Practical part	Practical part	Participant presentations	
	17:00 - Welcome gathering & snacks			19:00 Dinner	

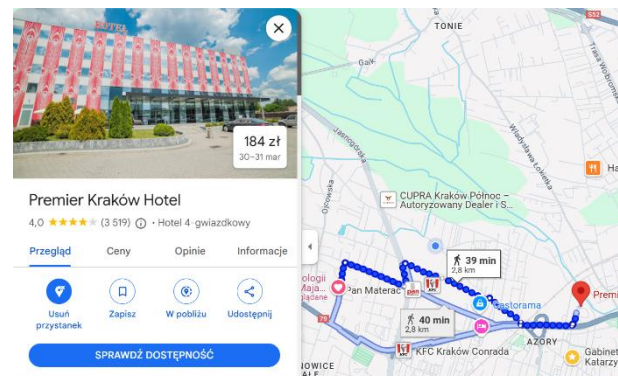
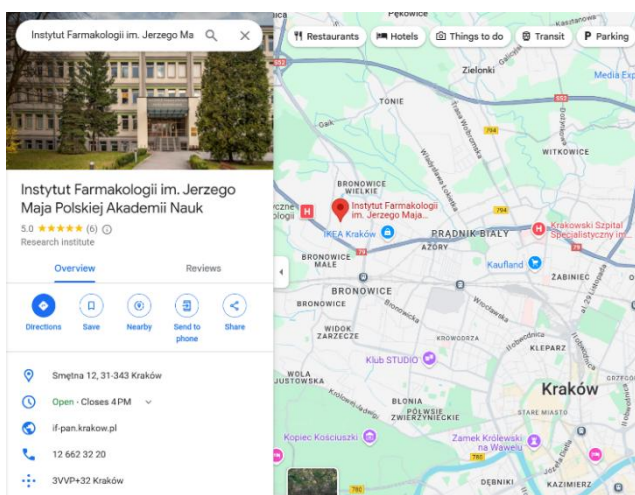
## Location & Additional Information

Meeting address:

**Maj Institute of Pharmacology  
Polish Academy of Sciences**  
12 Smętna Street  
PL 31-343 Kraków, Poland

Hotel address:

**Premier Kraków Hotel**  
14a, Opolska Street,  
PL 31-323 Kraków, Poland  
[www.premierkrakowhotel.pl](http://www.premierkrakowhotel.pl)



The **PANERIS Winter School**, organized by IP PAS in Krakow, offers a unique opportunity to explore the latest advancements in **addiction research**. The program features seven scientific lectures (also available online) delivered by distinguished experts from leading European institutions specializing in the field. These lectures will provide insights into the current state of research and the challenges facing science today, including discussions on the ethics of animal research.

The theoretical component will be complemented by three hands-on workshops:

- ✓ **High-resolution imaging of stress-induced synapsis plasticity.** An introduction to confocal microscopy.
- ✓ **Application of mass spectrometry in proteomics.** Data-independent Acquisition 4D Proteomics – the knowledge beyond protein identification.
- ✓ **Basis of rodent behavioral research.** An introduction to rodent behavioral studies' design, conduct and interpretation.

In addition, participants will take part in theoretical and practical sessions aimed at enhancing soft skills, with a focus on **open science** and the **application of artificial intelligence in grant writing**.

## Winter School Program

### Day 1. – 3<sup>rd</sup> March 2025

<b>12:30 - 14.00</b>	<b>Registration &amp; Lunch</b>	
14:00-14:15	<b>PANERIS Winter School Opening</b>  What is the PANERIS Project?	Prof. Małgorzata Filip, Ph.D.– IP PAS Director  Prof. Jan Rodriguez Parkitna, Ph.D. – IP PAS Deputy Director for Research & Co—chair
14:15-15:15	<b>Lecture 1:</b> Neurobiology of drug instrumentalization and transition to addiction  Q&A Session	<b>Keynote speaker</b> Prof. Christian P. Müller, Ph.D. - University Clinic Friedrich-Alexander-University of Erlangen-Nuremberg, Germany
<b>15:15 - 15:45</b>	<b>Coffee break</b>	
15:45-16:45	<b>Lecture 2:</b> Decoding Addiction: Lessons from Animal Models  Q&A Session	Małgorzata Frankowska, Ph.D. – Department of Drug Addiction Pharmacology, IP PAS, Poland
<b>17.00 – 19.00</b>	<b>Welcome gathering &amp; snacks</b>	

### Day 2. – 4<sup>th</sup> March 2025

08:45-09:45	<b>Lecture 3:</b> Clinical aspects of addictions and their impact on translational research  Q&A Session	Hugo López, Ph.D. – IDIBAPS, Spain
09:45-10:45	<b>Lecture 4:</b> The pharmacotherapy of drug addiction – past, present, and future  Q&A Session	Prof. Christian P. Müller, Ph.D. - University Clinic Friedrich-Alexander-University of Erlangen-Nuremberg, Germany
<b>10:45 - 11:15</b>	<b>Coffee break</b>	
11:15-12:45	Practical part	
<b>12:45 - 14.00</b>	<b>Lunch</b>	
14:00-15:30	Practical part	
<b>15:30 - 16:00</b>	<b>Coffee break</b>	
16:00-17:30	Practical part	



**Day 3. – 5<sup>th</sup> March 2025**

09:00-9:45	<b>Lecture 5:</b> A retrospective on the search for mechanisms of addiction Q&A Session	Prof. Jan Rodriguez Parkitna, Ph.D. – IP PAS, Poland
09:45-10:30	<b>Lecture 6:</b> Neuroanatomy and neurochemistry of psychoactive substances Q&A Session	Prof. Valentina Vengeliene, Ph.D. – Institute of Biosciences, Life Sciences Center, Vilnius University, Lithuania
<b>10:00 - 10:30</b>	<b>Coffee break</b>	
10:30-12:00	Practical part	
<b>12:00 - 13.30</b>	<b>Lunch</b>	
13:30-15:00	Practical part	
<b>15:00 - 15:30</b>	<b>Coffee break</b>	
15:30-17:00	Practical part	

**Day 4. – 6<sup>th</sup> March 2024**

09:00-10:30	<b>Lecture 7:</b> Challenges in animal research Q&A Session	Prof. Ana Sebastião, Ph.D. – FMUL, Portugal
<b>10:30 - 11:00</b>	<b>Coffee break</b>	
11:00-12:30	Practical part	
<b>12:30 - 14.00</b>	<b>Lunch</b>	
14:00-15:30	Participant presentations - “miniprojects” from the workshop	
<b>15:30 - 16:00</b>	<b>Coffee break</b>	
16:00-18:00	Participant presentations - “miniprojects” from the workshop	
<b>19.00 – 21.00</b>	<b>Dinner</b>	

**Day 5. – 7<sup>th</sup> March 2024**

09:00-10:45	<b>Lecture 8:</b> Open Science in Research: From Theory to Practice Theory + Practical Part	Paula Samsó, Ph.D. - IDIBAPS, Spain Carla Fantini, Ph.D. - IDIBAPS, Spain
<b>10:45 - 11:15</b>	<b>Coffee break</b>	
11:15-12:45	<b>Lecture 9:</b> Artificial Intelligence tools for grant writing Theory + Practical Part	Juan Abolafia, Ph.D. - IDIBAPS, Spain Lidia Castro, Ph.D. - IDIBAPS, Spain
12:45-13:00	<b>PANERIS Winter School Summary &amp; Closing</b>	Prof. Jan Rodriguez Parkitna, Ph.D. – IP PAS
<b>13:00 - 16:30</b>	<b>Lunch &amp; Krakow Old Town Sightseeing</b>	

