



Venue: Auditorium Maximum, 33 Krupnicza Street, Kraków, Poland

Monday, May 29, 2023

9.00 a.m. - 5.00 p.m.	Registration	
9.30 - 10.30 a.m. - Medium Hall A + B	<p>Plenary lecture</p> <p>Professor Gustavo Turecki PhD, MD</p> <p>Douglas Hospital Research Centre, McGill Group for Suicide Studies, Montreal, Quebec, Canada</p> <p><i>Molecular Mediators of Antidepressant Response</i></p> <p>Chairpersons: Professor Marta Dziedzicka-Wasylewska, PhD; Agata Faron-Górecka, PhD</p>	
10.30 - 11.15 a.m. - Medium Hall A + B	<p>Center for New Pharmacotherapies of the Central Nervous System Diseases – CEPHARES - a new R&D division of the Maj Institute of Pharmacology</p> <p><i>Mission, opportunities, perspectives</i></p> <p>Grzegorz Kreiner, PhD, Professor Andrzej Bojarski, PhD</p> <p>Maj Institute of Pharmacology, Polish Academy of Sciences, Kraków, Poland</p> <p>KAWA.SK presentation</p> <p>Jarosław Korczyński, PhD</p>	
11.15 - 11.45 a.m. - Exhibition Room	Coffee break	
11.45 - 1.15 p.m. - Medium Hall A or B	<p>Session 1: Blood-brain barrier dysfunction in CNS disorders</p> <p>Chairpersons: Professor Marta Dziedzicka-Wasylewska, PhD; Agata Faron-Górecka, PhD</p>	<p>Session 2: Mass spectrometry in medical sciences</p> <p>Chairperson: Przemysław Mielczarek, PhD</p>
	<p>S. 01-1</p> <p>Professor Marta Dziedzicka-Wasylewska, PhD</p> <p>Maj Institute of Pharmacology, Polish Academy of Sciences, Kraków, Poland</p> <p><i>Potential role of blood-brain barrier in stress resilience</i></p>	<p>S. 02-1</p> <p>Professor Giuseppe Grasso, PhD</p> <p>University of Catania, Catania, Italy</p> <p><i>The use of mass spectrometry in conformational diseases</i></p>
	<p>S. 01-2</p> <p>Agnieszka Chocyk, PhD</p> <p>Maj Institute of Pharmacology, Polish Academy of Sciences, Kraków, Poland</p> <p><i>Sex-specific effects of early-life stress on blood-brain barrier function and response to immune challenge in rats</i></p>	<p>S. 02-2</p> <p>Professor Vladimir Havlicek, PhD</p> <p>Institute of Microbiology, Czech Academy of Sciences, Prague, Czech Republic</p> <p><i>Next generation infection diagnostics</i></p>
	<p>S. 01-3</p> <p>Barbara Błasiak, PhD</p> <p>Institute of Nuclear Physics, Polish Academy of Sciences, Kraków, Poland</p> <p><i>MRI Contrast Agents Crossing Blood-Brain Barrier</i></p>	<p>S. 02-3</p> <p>Professor Anna Bodzon-Kulakowska, PhD</p> <p>AGH University of Science and Technology, Kraków, Poland</p> <p><i>Cholesterol and glucose analysis using the mass spectrometry imaging approach</i></p>
		<p>S. 02-4</p> <p>Marta Gawin, PhD</p> <p>Maria Skłodowska-Curie National Research Institute of Oncology, Gliwice, Poland</p> <p><i>Possibilities and challenges of MALDI mass spectrometry imaging in cancer research</i></p>

	<p>Session 3: Theranostic nanocarriers for drug delivery in central nervous system disorders</p> <p>Chairpersons: Professor Władysław Lasoń, PhD; Professor Piotr Warszyński, PhD</p>	<p>Session 4: Modern approaches in immunodiagnostics and immunotherapy</p> <p>Chairperson: Professor Maciej Siedlar, PhD</p>
1.15 - 2.45 p.m. - Medium Hall A or B	<p>S. 03-1</p> <p>Juan Yang, PhD</p> <p>Process Chemistry and Functional Materials, SINTEF, Oslo, Norway</p> <p><i>Progress of Engineered nanoparticles as theranostic nanocarriers</i></p>	<p>S. 04-1</p> <p>Professor Gabriela Kania, PhD</p> <p>University of Zurich, Center of Experimental Rheumatology, Zurich, Switzerland</p> <p><i>Tale of two tubes exploring pathological mechanisms in systemic sclerosis - focus on monocytes and macrophages</i></p>
	<p>S. 03-2 (recorded lecture)</p> <p>William Louch, PhD</p> <p>Oslo University Hospital, Oslo, Norway</p> <p><i>Understanding cellular structure: function relationships with super-resolution microscopy</i></p>	<p>S. 04-2</p> <p>Professor Marcin Majka, PhD</p> <p>Institute of Paediatrics, Jagiellonian University Medical College, Kraków, Poland</p> <p><i>Future of cell-based therapeutics in the light of today's developments</i></p>
	<p>S. 03-3</p> <p>Krzysztof Szczepanowicz, PhD</p> <p>Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences, Kraków, Poland</p> <p><i>Synthesis and characterization of polymer-based theranostic nanoparticles containing carnosis acid</i></p>	<p>S. 04-3 (recorded lecture)</p> <p>Professor Radosław Zagożdżon, PhD</p> <p>Department of Clinical Immunology, Medical University of Warsaw, Poland</p> <p><i>New directions in chimeric antigen receptor (CAR)-based immunotherapies</i></p>
	<p>S. 03-4</p> <p>Danuta Jantas, PhD</p> <p>Maj Institute of Pharmacology, Polish Academy of Sciences, Kraków, Poland</p> <p><i>Biosafety and neuroprotective potency of polymer-based theranostic nanoparticles containing carnosis acid</i></p>	
	<p>S. 03-5</p> <p>Rugmani Meenambal, PhD</p> <p>Maj Institute of Pharmacology, Polish Academy of Sciences, Kraków, Poland</p> <p><i>Polyacrylic acid (PAA) conjugated cerium oxide nanoparticles as efficient neuroprotectants against oxidative stress-induced cell damage in human neuronal-like cells</i></p>	
2.45 - 3.15 p.m. - Exhibition Room	Coffee break	
3.15 - 3.30 p.m. - Large Hall A	<p>Welcome ceremony</p> <p>Chairpersons: Honorary Committee & Organizing Committee</p>	
3.30 - 4.30 p.m. - Large Hall A	<p>Inaugural lecture</p> <p>Professor Véronique Deroche Gamonet PhD, HDR</p> <p>Neurocentre Magendie, University of Bordeaux, Bordeaux, France</p> <p><i>Re-conceptualizing the modeling of drug addiction in animals – a translational perspective</i></p> <p>Chairperson: Jan Rodriguez-Parkitna, PhD</p>	
4.30 - 4.45 p.m. - Large Hall A	<p>Promotion of the city of Kraków and the Maj Institute of Pharmacology Polish Academy of Sciences</p>	
4.45 - 5.45 p.m. - Large Hall A	<p>Cellostrada Quintet concert</p>	
5.45 - 9.00 p.m. - Exhibition Room	<p>Welcome party</p>	

9.00 a.m. - 5.00 p.m.	Registration	
9.00 - 10.30 a.m. - Medium Hall A or B	<p>Session 5: The burden of neurodegenerative and psychiatric disorders: trends and future treatment Chairperson: Professor Katarzyna Starowicz-Bubak, PhD</p> <p>S. 05-1 Professor Aron H. Lichtman, PhD Virginia Commonwealth University, Richmond, VA, USA <i>Turning over a new leaf: investigation of endocannabinoid regulating Enzymes in a mouse model of chemotherapy-induced pain</i></p>	<p>Session 6: Sphingolipids in health and brain diseases Chairperson: Professor Christian P. Muller, PhD</p> <p>S. 06-1 Professor Christian P. Muller, PhD Friedrich-Alexander University Erlangen-Nuremberg, Erlangen, Germany <i>Sphingolipids in the brain: from memory control to psychiatric disorders</i></p>
	<p>S. 05-2 Professor Danilo De Gregorio, PhD Vita-Salute University and San Raffaele Scientific Institute, Milan, Italy <i>Therapeutic use of psychedelics in mental health</i></p>	<p>S. 06-2 Alessandro Prinetti, PhD University of Milano, Italy <i>Sphingolipids orchestrating the cross-talk between different cell populations in the formation of myelin and in the repair of damaged myelin</i></p>
	<p>S. 05-3 Iskra Pollak Dorocic, PhD SciLifeLab, Stockholm University, Stockholm, Sweden <i>Transcriptional effects of SSRI administration on brain networks</i></p>	<p>S. 06-3 Vittorio Maglione, PhD Neuromed, Pozzilli, Italy <i>Sphingolipid alterations in Huntington's disease: new insights into molecular mechanisms and potential therapies</i></p>
10.30 - 11.00 a.m. - Exhibition Room	Coffee break	
11.00 - 11.30 a.m. - Medium Hall A + B	<p>Polonium Fundation presentation Agnieszka Gawda</p>	
11.30 - 12.30 p.m. - Medium Hall A + B	<p>Plenary lecture Professor Kathryn A. Cunningham, PhD University of Texas Medical Branch at Galveston, USA <i>Defining the Path to Maximize Therapeutics for Substance Use Disorders</i> Chairperson: Professor Władysław Lasoń, PhD</p>	
12.30 - 1.30 p.m. - Exhibition Room	Poster session 1	
12.30 - 1.30 p.m. - Exhibition Room	Lunch break	
1.30 - 3.00 p.m. - Medium Hall A or B	<p>Session 7: Innovative nanocarriers and treatment modalities in antitumor therapy Chairperson: Professor Bożena Kamińska-Kaczmarek, PhD</p> <p>S. 07-1 Professor Bożena Kamińska-Kaczmarek, PhD Nencki Institute of Experimental Biology, Polish Academy of Sciences, Warsaw, Poland <i>Reinvigorating antitumor immunity in brain tumors with short peptides and siRNA-nanocarriers targeting the tumor microenvironment</i></p>	<p>Session 8: New targets, new ligands, new drugs: a novel approach for the treatment of the CNS pathologies Chairpersons: Professor Malgorzata Kajta, PhD; Agnieszka Wnuk, PhD</p> <p>S. 08-1 Adib Zendedel, PhD Institute of Neuroanatomy, Medical Faculty, RWTH Aachen University, Aachen, Germany <i>The role of microglial-derived extracellular vesicles in the pathogenesis of traumatic spinal cord injury: implication of exosomal microRNAs</i></p>
	<p>S. 07-2 Professor Ling Peng, PhD Aix-Marseille University, Marseille, France <i>Modular and adaptive dendrimer nanosystems in cancer treatment</i></p>	<p>S. 08-2 Professor Joanna Śliwowska, PhD Poznań University of Life Sciences, Poznań, Poland <i>Metabolic and reproductive dysfunctions associated with obesity and diabetes: From the womb to adulthood</i></p>
	<p>S. 07-3 Professor Tambet Teesalu, PhD University of Tartu, Tartu, Estonia <i>Targeting of nanoparticles with homing peptides</i></p>	<p>S. 08-3 Agnieszka Wnuk, PhD Maj Institute of Pharmacology, Polish Academy of Sciences, Kraków, Poland <i>Emerging evidence for triclocarban as a neurodevelopmental risk factor: disruption of epigenetic status and dysregulation of neurogenesis-related genes</i></p>
		<p>S. 08-4 Professor Malgorzata Kajta, PhD Maj Institute of Pharmacology, Polish Academy of Sciences, Kraków, Poland <i>New treatment strategies against neural degenerations based on selective targeting of membrane estrogen receptors and PPARγ</i></p>

3.00 - 3.30 p.m. - Exhibition Room	Coffee break	
3.30 - 5.00 p.m. - Medium Hall A or B	Session 9: Chaperons in Gaucher's disease Chairperson: Professor Beata Kieć-Wilk, PhD S. 09-1 Christine Serraticce, PhD, MD Department of Internal Medicine, Geneva University Hospital, Geneva, Switzerland <i>Current treatment options and novel strategies for lysosomal storage disorder, like Gaucher disease</i>	Session 10: Tracking brain projections and cell signaling involved in neuroadaptations triggered by cocaine, stress, or neurodegeneration Chairpersons: Grzegorz Kreiner, PhD; Agnieszka Zelek-Molik, PhD S. 10-1 Rachel J. Smith, PhD (recorded lecture) Texas A&M University, USA <i>Investigating the link between habitual cocaine seeking and punishment resistance in rat models of addiction</i>
	S. 09-2 Professor Mia Horowitz, PhD Schmunis School of Biomedicine and Cancer Research, Tel Aviv University, Tel Aviv, Israel <i>Chaperone as a therapeutic modality in Gaucher disease</i>	S. 10-2 Yonatan Kupchik, PhD The Institute for Medical Research Israel-Canada (IMRIC), The Hebrew University of Jerusalem, Israel <i>Multimodal differences between projections of the ventral pallidum and relevance to cocaine reward</i>
	S. 09-3 Professor Ari Zimran, PhD, MD Gaucher Unit, Shaare Zedek Medical Center, Jerusalem, Israel; Faculty of Medicine, Hebrew University, Jerusalem, Israel <i>Chaperone treatment option in neuronopathic GD and GBA related Parkinson</i>	S. 10-3 Agnieszka Zelek-Molik, PhD Maj Institute of Pharmacology, Polish Academy of Sciences, Kraków <i>Psychosocial crowding stress affects neuroplasticity-related signalling pathways within rats' frontal cortex in a region-dependent manner</i>
		S.10-4 Justyna Barut, MSc Maj Institute of Pharmacology, Polish Academy of Sciences, Kraków, Poland <i>Utilization of conditional single lentivirus CRISPR/Cas9 vector for efficient gene knockout generation in adult neurons in vivo and in vitro as potential new model for study prodromal phase of Parkinson's disease</i>
Wednesday, 31 May 2023		
9.00 a.m. - 5.00 p.m.	Registration	
9.00 - 10.30 a.m. - Medium Hall A or B	Session 11: Medical biotechnology in disease modelling, drug research and therapy Chairpersons: Professor Józef Dulak, PhD; Professor Agnieszka Łoboda, PhD S. 11-1 Professor Józef Dulak, PhD Faculty of Biochemistry, Biophysics and Biotechnology, Jagiellonian University, Kraków, Poland <i>Stem cells in neurological diseases modelling and therapies: possibilities, hopes and hypes</i>	Session 12: Novel rapid-acting antidepressants Chairpersons: Bernadeta Szewczyk, PhD; Professor Andrzej Pilc, PhD S. 12-1 Professor Jeffrey M Witkin, PhD University of Wisconsin - Milwaukee, USA <i>New age antidepressants create new ways to think about treatment</i>
	S. 11-2 Florence Rage, PhD Institute de Genetique Moleculaire, CNRS, Montpellier, France <i>From NMJ on a single chip to a Simplified Miniature Arrays (SMA) for drugs screening</i>	S. 12-2 Professor Laura Musazzi, PhD School of Medicine and Surgery, University of Milano-Bicocca, Milan, Italy <i>Molecular signature of ketamine - response/non-response in a preclinical model of depression</i>
	S. 11-3 Sifeng Chen, PhD Department of Physiology and Pathophysiology, School of Basic Medical Sciences, Fudan University, Shanghai, People's Republic of China <i>The therapeutic effects of induced pluripotent stem cells and their exosomes on cardiovascular diseases</i>	S. 12-3 Professor Shigeyuki Chaki, PhD Taisho Pharmaceutical, Japan <i>Ketamine-like antidepressant potential of mGlu2/3 receptor antagonists and progress of other candidates targeting the glutamatergic system</i>
10.30 - 11.00 a.m. - Exhibition Room	Coffee break	

11.00 - 11.30 a.m. - Medium Hall A + B	CELON PHARMA S.A. presentation Mikołaj Matłoka, PhD	
11.30 - 12.30 p.m. - Medium Hall A + B	Plenary lecture Professor Stefan Chłopicki, PhD, MD Jagiellonian Centre for Experimental Therapeutics (JCET), Jagiellonian University, Kraków, Poland <i>Endothelial biomedicine and experimental pharmacology of endothelial dysfunction; a call for endothelium-guided diagnosis and therapy</i> Chairperson: Professor Joanna Pera, MD, PhD	
12.30 - 1.30 p.m. - Exhibition Room	Poster session 2	
12.30 - 1.30 p.m. - Exhibition Room	Lunch break	
1.30 - 3.00 p.m. - Medium Hall A or B	Session 13: Digital medicine - beyond diagnostics Chairperson: Klaudia Proniewska, PhD	Session 14: Duchenne muscular dystrophy and its complications – new tools and mechanisms for possible treatments Chairpersons: Professor Agnieszka Łoboda, PhD; Professor Józef Dulak, PhD
	S. 13-1 Klaudia Proniewska, PhD Jagiellonian University Medical College, Kraków, Poland <i>Medical 3D cardiac anatomy supported by Mixed Reality</i>	S. 14-1 Maurilio Sampaolesi, PhD KU Leuven, Leuven, Belgium <i>Harnessing novel 3D stem cell-based models to challenge dystrophic cardiomyopathy</i>
	S. 13-2 Danila Potyagaylo, PhD EPIQure GmbH, Nuremberg, Germany <i>Novel Ways of Bringing Non-Invasive ECG Imaging into Clinical Practice</i>	S. 14-2 Jacek Stępniewski, PhD Faculty of Biochemistry, Biophysics and Biotechnology, Jagiellonian University, Kraków, Poland <i>Human induced pluripotent stem cells and gene editing for modelling of Duchenne muscular dystrophy-associated cardiomyopathy</i>
	S. 13-3 Peter van Dam, PhD UMC Utrecht, Utrecht, the Netherlands <i>The ventricular cineECG during acute Ischemia</i>	S. 14-3 Professor Agnieszka Łoboda, PhD Faculty of Biochemistry, Biophysics and Biotechnology, Jagiellonian University, Kraków, Poland <i>Hydrogen sulfide donors: therapeutic potential in Duchenne muscular dystrophy</i>
	S. 13-4 Professor Wiesław Nowiński, PhD Sano Centre for Computational Personalised Medicine, Kraków, Poland <i>Future trends in human brain atlas</i>	
3.00 - 3.30 p.m. - Exhibition Room	Coffee break	
3.30 - 5.00 p.m. - Medium Hall A + B	Session 15: Future therapies with psychedelics Chairperson: Professor Krystyna Golembiowska, PhD	
	S. 15-1 Professor Charles Nichols, PhD LSU Health Sciences Center, New Orleans, LA, USA <i>Psychedelics can produce persistent antidepressant-like effects, and changes in functional plasticity across several types of depression models</i>	
	S. 15-2 Urszula Kozłowska, PhD Institute of Bioorganic Chemistry, Polish Academy of Sciences, Poznań, Poland <i>Psychedelics immunomodulatory effect on microglia and its prospect meaning for neurodegenerative diseases treatment</i>	
8.00 - 11.00 p.m.	Congress dinner - Kościuszko Mound in Kraków, 1 Washington Avenue	

9.00 a.m. - 2.00 p.m.	Registration
9.00 - 10.00 a.m. - Medium Hall A + B	<p>Plenary lecture</p> <p>Professor Stéphane Oliet, PhD</p> <p>Neurocentre Magendie, University of Bordeaux, Bordeaux, France</p> <p><i>Astroglial contribution to NMDA receptor activity</i></p> <p>Chairperson: Katarzyna Głombik, PhD</p>
10.00 - 11.00 a.m. - Medium Hall A + B	<p>Session 16: ERC presentation - A way to consolidate your research independence – presentations from successful ERC grant applicants</p> <p>Chairperson: Janka Matrai, PhD</p> <p>European Research Council Executive Agency, Brussels, Belgium</p> <p>S. 16-1</p> <p>Professor Ewa Chrostek, PhD</p> <p>Jagiellonian University, Kraków, Poland</p> <p>S. 16-2</p> <p>Krzysztof Szade, PhD</p> <p>Jagiellonian University, Kraków, Poland</p>
11.00 - 11.30 a.m. - Exhibition Room	Coffee break
11.30 - 1.00 p.m. - Medium Hall A + B	<p>Session 17: Magnificent Seven: on the role of the 5-HT7 receptor in the brain</p> <p>Chairpersons: Monika Bijata, PhD, Professor Paweł Zajdel, PhD</p> <p>S. 17-1</p> <p>Séverine Morisset-Lopez, PhD</p> <p>Center for Molecular Biophysics, CNRS, Orléans, France</p> <p><i>Discovery of biased ligands of 5-HT7R to illuminate the receptor biology</i></p> <p>S. 17-2</p> <p>Professor Evgeni Ponimaskin, PhD</p> <p>Hannover Medical School, Hannover, Germany</p> <p><i>Targeting the serotonin receptor 7 (5-HT7R) ameliorates Tau pathology and memory deficits</i></p> <p>S. 17-3</p> <p>Professor Jakub Włodarczyk, PhD</p> <p>Nencki Institute of Experimental Biology of Polish Academy of Science, Warsaw, Poland</p> <p><i>The molecular fingerprint of stress resilience</i></p>
1.00 - 1.30 p.m. - Exhibition Room	Coffee break
1.30 - 2.45 p.m. - Medium Hall A + B	<p>Session 18: Young scientific investigators' session</p> <p>Chairperson: Professor Agnieszka Łobodo, PhD, Professor Rafał Ryguła, PhD</p>
2:45 - 3.15 p.m. - Medium Hall A + B	<p>Centre for the Development of Therapies for Civilization and Age-Related Diseases (CDT-CARD) - a new R&D division of the Jagiellonian University Medical College</p> <p><i>Mission, opportunities, perspectives</i></p> <p>Bartosz Pomierny, PhD, Paweł Link-Lenczowski, PhD, Agata Siwek, PhD, Marta Głuch-Litwin, PhD</p> <p>Jagiellonian University Medical College, Kraków, Poland</p>
3.15 - 3.30 p.m. - Medium Hall A + B	Closing & Award ceremony - Medium Hall