



# 1<sup>st</sup> International Conference on Neuroscience, Neuroinformatics, Neurotechnology and Neuro- Psycho- Pharmacology



November 15-17, 2018

Bucharest, Romania

# 1<sup>ST</sup> INTERNATIONAL CONFERENCE ON NEUROSCIENCE, NEUROINFORMATICS, NEUROTECHNOLOGY AND NEURO- PSYCHO-PHARMACOLOGY

*We kindly invite you to participate in the*

*1<sup>st</sup> International Conference on  
Neuroscience, Neuroinformatics, Neurotechnology and  
Neuro-Psycho-Pharmacology*

*organized by the Romanian Academy - Romanian Group for  
Brain Research, Romanian Society of Neurology, the  
Foundation of the Romanian Society of Neurology, the National  
Neuroscience Society of Romania and the Romanian Society for  
Automation and Technical Informatics.*

*The aim of the conference is to bring together experts from  
various areas of brain science, neuroscience, clinical neurology,  
psychology, pharmacology with engineers in systems science,  
neuroinformatics, computer science and technology in order to  
debate aspects of the brain and mind, to identify efficient  
theories, models and tools that will contribute to a better  
understanding of the brain and its functioning. The conference  
will be organized in Bucharest on 15-17 November 2018.*

*The opening ceremony and the invited papers will be  
presented in the main Hall of the Romanian Academy.*

# CONFERENCE COMMITTEE

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Ioan Dumitrache

Romanian Academy

University Politehnica of Bucharest

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Romania

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Romanian Academy - Romanian Group for Brain Research

Romanian Society of Neurology

Foundation of the Romanian Society of Neurology

Romanian Society for Automation and Technical Informatics

National Neuroscience Society of Romania

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Mircea Dumitru, University of Bucharest, Romania

Jon H. Kaas, Vanderbilt University School of Medicine

Mikhail Lebedev, Duke University, USA

Hidehiro Mizusawa, National Center of Neurology and Psychiatry, Japan

Mihai Moldovan, University of Copenhagen, Denmark

Dafin Muresan, University of Medicine and Pharmacy Iuliu Hatieganu, Cluj-Napoca, Romania

Nobuyuki Nukina, Ph.D., M.D. Laboratory of Structural Neuropathology, Doshisha University

Ioan Opris, University of Miami, Miller School of Medicine, Florida, USA

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Razvan Radu, University of Medicine and Pharmacy Carol Davila, Bucharest, Romania

Beatrice Radu, Faculty of Biology University of Bucharest, Romania

# KEYNOTE SPEAKERS

## **Jon H. Kaas**

The organization of parietal-frontal sensorimotor networks in primate brains

## **Karl J. Friston**

I am therefore I think

## **Nobuyuki Nukina**

Insoluble proteins and neurodegeneration: deposition and transmission

## **Hidehiro Mizusawa**

Prism adaptation test (PAT) - A new quantitative test of cerebellar motor learning

## **Vance P. Lemmon**

Using machine learning, phenotypic assays and biochemical profiling to identify drug targets and anti-targets to promote axonal sprouting and regeneration.

## **Javier DeFelipe**

Brain connectomics: From Cajal to present

## **Mavi Sanchez-Vives**

Impact of Virtual Embodiment on Sensory and Motor Processing

## **Mikhail Lebedev**

Repairing the brain with brain-machine interfaces

## **Ioan Opris**

The Emergence of the Mind

## **Hari Shanker Sharma**

Novel therapeutic strategies using nanomedicine

## **Mihai Moldovan**

Probing awareness using EEG reactivity measures

## **Dafin Mureșan**

Could brain regeneration be better understood by using anticorrelated processes model?

## **Valentin Dragoi**

Population synchrony in cortical networks

## **Michael Chopp**

Exosomes-biological nanoparticles for the treatment of neurological disease and injury

## **Monica Baci**

Neuroplasticity of cognitive networks in patients with temporal lobe epilepsy. A multimodal and integrative approach

## **Angelo Antonini**

Neuroimaging Correlates Of Cognitive And Behavioral Dysfunction In Parkinson's Disease

## **Ovidiu Alexandru Băjenaru**

Visual perception in the neurocognitive functions of the human brain

## **Mihai Ion Oară**

Computing the Complexity of a Language Processing Unit

## **Mircea Dumitru**

What's still wrong with the "GOFAI" ?

# CONFERENCE PROGRAM

Thursday - 15.11.2018

Location: Romanian Academy - Aula of the Romanian Academy

14.30-15.00	Opening Ceremony	
14.30-17.00	Chairpersons:	Ioan Dumitrache, Ovidiu-Alexandru Băjenaru
15.00-15.30	John H. KASS	The Organization of Parietal-Frontal Sensorimotor Networks in Primate Brains
15.30-16.00	Angelo Antonini	Neuroimaging Correlates of Cognitive and Behavioral Dysfunction in Parkinson's Disease
16.00-16.30	Karl J. Friston	I am Therefore I Think
16.30-17.00	Discussions / Coffee Break	
17.00-19.00	Chairpersons:	Luiza Flonta, Dafin Mureșan
17.00-17.30	Michael Chopp	Exosomes-biological nanoparticles for the treatment of neurological disease and injury
17.30-18.00	Hidehiro Mizusawa	Prism Adaptation Test (PAT) - A New Quantitative Test of Cerebellar Motor Learning
18.00-18.30	Nobuyuki Nukina	Insoluble Proteins and Neurodegeneration: Deposition And Transmission
18.30-19.00	Discussions / Round Table	
19.00-21.00	Cocktail	

## Friday 16.11.2018 Morning session

Location: Romanian Academy – Aula of the Romanian Academy

<b>9.00-11.00</b>	<b>Chairpersons:</b>	<b>Bogdan-Ovidiu Popescu, Cristina Tiu</b>
<b>9.00-9.30</b>	<b>Vance P. Lemmon</b>	<b>Using Machine Learning, Phenotypic Assays And Biochemical Profiling To Identify Drug Targets And Anti-Targets To Promote Axonal Sprouting And Regeneration.</b>
<b>9.30-10.00</b>	<b>Javier DeFelipe</b>	<b>Brain connectomics: From Cajal to present</b>
<b>10.00-10.30</b>	<b>Ovidiu Bajenaru</b>	<b>Visual perception in the neurocognitive functions of the human brain</b>
<b>10.30-11.00</b>	<b>Discussions / Coffee Break</b>	
<b>11.00-13.00</b>	<b>Chairpersons:</b>	<b>Simona Caramihai, Leon Zagrean</b>
<b>11.00-11.30</b>	<b>Mavi Sanchez-Vives</b>	<b>Impact of Virtual Embodiment on Sensory and Motor Processing</b>
<b>11.30-12.00</b>	<b>Mikhail Lebedev</b>	<b>Repairing the brain with brain-machine interfaces</b>
<b>12.00-12.30</b>	<b>Ioan Opris</b>	<b>The Emergence of the Mind</b>
<b>12.30-13.00</b>	<b>Discussions</b>	



## Friday 16.11.2018 – Afternoon session

Location World Trade Center - New York Hall

13.00-15.00	Lunch Break	
15.00-17.00	Chairpersons:	Adina Roceanu, Athena Ribigan
15.00-15.30	Mihai Moldovan	Probing awareness using EEG reactivity measures
15.30-16.00	Ioana Mihai Oara	Computing the complexity of a language processing unit
16.00-16.30	Dafin Mureşan	Could brain regeneration be better understood by using anticorrelated processes model?
16.30-17.00	Discussions / Coffee Break	
17.00-19.00	Chairpersons:	Ioana Mandruta, Mihai Moldovan
17.00-17.30	Monica Baciu	Neuroplasticity of cognitive networks in patients with temporal lobe epilepsy. A multimodal and integrative approach
17.30-18.00	Valentin Dragoi	Population synchrony in cortical networks
18.00-18.30	Mircea Dumitru	What's still wrong with the "GOFI" ?
18.30-19.00	Discussions / Round Table	
20.00- 23.00	Gala Dinner	

**Saturday- 17.11.2018**

**Location World Trade Center - New York Hall**

<b>09:00-11:00</b>	Parallel Session 1	Parallel Session 2	
<b>11.00-11.30</b>	Coffee Break		
<b>11.30-12.00</b>	Hari Shanker Sharma: Novel therapeutic strategies using nanomedicine		
<b>12:00-14:00</b>	Parallel Session 3	Parallel Session 4	
<b>14.00- 15.00</b>	Closing ceremony		

### **Parallel Session 1**

<b>09:00-10:40</b>	<b>Chairpersons: Ioan Dumitrache, Simona Caramihai</b>
09:00-09:20	Reading into the mind's eye: Automatic recognition of visual classes from EEG brain signals Authors: <b>Nicolae Cudlenco</b> , Nirvana Popescu, Marius Leordeanu
09:20-09:40	Hybrid system for deep learning Authors: <b>Mihaela Maliță, Gheorghe M. Stefan</b>
09:40-10:00	Modelling natural neural structures and processes with artificial neural networks Author: <b>Horia-Nicolai Teodorescu</b>
10:00-10:20	In-tool explorer, a new interactive exploratory data analysis tool in neuroscience Authors: <b>D. Furcila</b> , N.C. Toader, M. García, J. Morales, A. Rodriguez, L. Pastor, J. DeFelipe, L. Alonso-Nanclares
10:20-10:40	A new Framework for human perception modelling Authors: <b>Ioan Dumitrache</b> , Simona Caramihai, Octavian Arsene, Mihnea Moiescu, Ioan Sacala
10:40-11:00	Discutions
11:00-11:30	Coffe Break
11:30-12:00	Special invited lecture Hari Shanker Sharma: Novel therapeutic strategies using nanomedicine

## Parallel Session 2

<b>09:00-12:00</b>	<b>Chairpersons: Ioana Mindruta, Florina Antochi</b>
09:00-09:20	Neurobiological mechanisms of neuropathic pain Authors: <b>Mihai Vasile</b> , Mihai Radu Ionescu, Ovidiu Alexandru Bajenaru
09:20-09:40	Neurovascular coupling – from bench to bed, and backwards Authors: <b>Cristina Tiu</b> , Florina Antochi, Ovidiu Bajenaru
09:40-10:00	FollowMe - The Use of Digital Technology as a Tool for Monitoring Patients with Multiple Sclerosis Authors: <b>Florina Antochi</b> , Athena Ribigan, Raluca Badea
10:00-10:20	The use of digital technology as a tool for monitoring patients with Multiple Sclerosis Authors: <b>Athena Cristina Ribigan</b> , Florina Anca Antochi, Ovidiu Alexandru Băjenaru
10:20-10:40	Impact of intracellular chloride on neuronal viability in in-vitro and in-vivo ischemia/asphyxia and reoxygenation models in rat Authors: <b>Ana-Maria Zagrean</b> , Mihai Ceanga, Ioana Florentina Grigoras, Mara Ioana Ilesanu, Diana Maria Chitimus, Bogdan Ianosi, Rosana-Bristena Ionescu, Robert Mihai Haret, Anca Maria Panaitescu, Andrei Ilie, Leon Zagrean
10:40-11:00	Brain cleaning systems and neurodegeneration Author: <b>Bogdan Ovidiu Popescu</b>
11.30-12.00	<b>Special invited lecture-Hari Shanker Sharma: Novel therapeutic strategies using nanomedicine</b>

## Parallel Session 3

<b>12:00-14:00</b>	<b>Chairpersons: Ana Maria Zagrean, Aurel Popa Wagner</b>
12:00-12:20	Brain connectivity during wakefulness and sleep studied through direct electrical stimulation in patients with focal epilepsy Authors: <b>Anca Adriana Arbune</b> , Andrei Barborica, Ioana Mindruta, Irina Popa, Mihai Dragos Maliia, Andrei Daneasa, Jean Ciurea, Alin Rasina, Cristian Donos, Ovidiu Alexandru Bajenaru
12:20-12:40	Human brain networks underlying illusory own body perceptions during high frequency stimulations of the cingulate gyrus – a SEEG study Authors: <b>Irina Popa</b> , Andrei Barborica, Julia Scholly, Cristian Donos, Fabrice Bartolomei, Stanislas Lagarde, Edouard Hirsch, Maria-Paola Valenti-Hirsch, Mihai Dragos Maliia, Anca Adriana Arbune, Andrei Daneasa, Jean Ciurea, Ovidiu-Alexandru Bajenaru, Ioana Mindruta
12:40-13:00	Intracerebral high frequency stimulation for the mapping of brain functions and connectivity Authors: <b>Ioana Mindruta</b> , Andrei Barborica, Jean Ciurea, Irina Popa, Mihai Malaia, Andrei Daneasa, Anca Arbune, Ovidiu Bajenaru
13:00-13:20	Stem cell therapy of stroke. Is the aged brain microenvironment refractory to tissue repair and functional re-organization? Author: <b>Aurel Popa Wagner</b>
13:20-13:40	Towards direct and precise measurement of neurochemicals in psychiatry and neuroscience: Simultaneous spectral editing of GABA and glutathione with Hermes Authors: <b>Diana G. Rotaru</b> , David J. Lythgoe

## Parallel Session 4

<b>12:00-14:00</b>	<b>Chairpersons: Alexandru Babes, Violeta Ristoiu</b>
12:00-12:20	Controlling microglia mobility via interactions with the cytoskeleton Author: <b><i>Violeta Ristoiu</i></b>
12:20-12:40	Temperature sensitive Transient Receptor Potential channels and human painful photosensitivity Author: <b><i>Alexandru Babes</i></b>
12:40-13:00	The mechanosensitive Piezo1 ion channel is expressed in peripheral glial cells Authors: <b><i>Tudor Selescu</i></b> , Roxana Gheorghe, Dan Domocos, Violeta Maria Caragea, Earl Carstens and Alexandru Babes
13:00-13:20	Blood brain barrier permeabilization in epileptogenesis is due to cytoskeleton remodelling and adhesion molecules upregulation Authors: <b><i>Antonia Teona Deftu</i></b> , Calin Mircea Rusu, Roberta Stoica, Monica Ioana Tudor, Mihaela Bacalum, Cosmin Catalin Mustaciosu, Flavia Merigo, Mihai Radu, Paolo Francesco Fabene and Beatrice Mihaela Radu
13:20-13:40	The Object Space Task for Mice Authors: <b><i>Violeta Maria Caragea</i></b> , Violeta Ristoiu and Lisa Genzel
13:40-14:00	Consciousness, as an emergent process Authors: <b><i>Gabriel Cumprei</i></b> , Alina Gavriluț, Maricel Agop
<b>14:00-15:00</b>	<b>Closing Ceremony</b>

# Conference Venue

The opening ceremony will be organized in the  
Aula of the Romanian Academy

The session on Thursday - 15.11.2018 and the morning session on  
Friday - 16.11.2018 will be organized in the  
Aula of the Romanian Academy

Romanian Academy - Calea Victoriei 125, Bucharest, Romania



The afternoon session on Friday - 16.11.2018 and the sessions on  
Saturday- 17.11.2018 will be organized at  
World Trade Center - New Yourk Hall

World Trade Center Montreal square 10, București 011469



For travel arrangements and hotel booking please contact:

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