



European Society for
Clinical Neuropharmacology



16TH

MEETING *of the*
EUROPEAN SOCIETY *for*
CLINICAL NEUROPHARMACOLOGY

25th MARCH 2018, PINE MEETING ROOM, DOUBLE TREE BY
HILTON HOTEL & CONFERENCE CENTRE WARSAW, WARSAW, POLAND



We are pleased to continue the tradition of bringing together clinicians and scientist of basic and applied scientific interest. The exchange of ideas and information and the opportunity to make contancts for European cooperation and scientific collaboration are the main goals for this meeting. Clinical Neuopharmacology is devoted to integrate basic sciences into clinical demands; therefore, a fruitful interdisciplinary discussion is expected to result in this stimulating event.

Prof. dr. Dafin F. Mureșanu

FACULTY

(IN ALPHABETICAL ORDER)

Leontino Battistin /Italy

Ovidiu Băjenaru /Romania

Anca Buzoianu /Romania

Mihail Gavriluc /Rep. Moldova

Volker Hömberg /Germany

Amos Korczyn /Israel

Vladimir Kostić /Serbia

Vitalie Lisnic /Rep. Moldova

Dafin F. Mureșanu /Romania

Bogdan O. Popescu /Romania

László Vécsei /Hungary

GENERAL INFORMATION

CONGRESS VENUE:

Pine Meeting Room,
Double Tree by
Hilton Hotel &
Conference Centre Warsaw

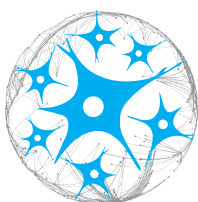
Address:
Skalnicowa Street 21,
Warsaw, 04-797, Poland



REGISTRATION DESK

All materials and documentation will be available at the registration desk located at SSNN booth. The staff will be pleased to help you with all enquiries regarding registration, materials and program. Please do not hesitate to contact the staff members if there is something they can do to make your stay more enjoyable.

LOGISTIC PARTNER:



SYNAPSE
T R A V E L

Synapse Travel

37 Calea Motilor, Ap 6
Cluj Napoca, Romania
office@synapsetravel.ro
synapsetravel.ro

SCIENTIFIC SECRETARIAT

Foundation of the
Society for the Study of
Neuroprotection and
Neuroplasticity
71E Meteor Street, 400492,
Cluj-Napoca, Romania

Mr. Ovidiu Selejan: +40745255311
E-mail:office@ssnn.ro
Contact Details

Mrs. Doria Constantinescu,
mobile: +40757096111
doria@synapsetravel.ro

LANGUAGE

The official language is English. Simultaneous translation will not be provided.

CHANGES IN PROGRAM

The organizers cannot assume liability for any changes in the program due to external or unforeseen circumstances.

NAME BADGES

Participants are kindly requested to wear their name badge at all times. The badge enables admission to the scientific sessions and dinners.

FINAL PROGRAM & ABSTRACT BOOK

The participants documents include the program and abstract book which will be handed out at the registration counter.

COFFEE BREAKS

Coffee, tea and mineral water are served during morning coffee breaks and are free of charge to all registered participants.

MOBILE PHONES

Participants are kindly requested to keep their mobile phones turned off while attending the scientific sessions in the meeting rooms.

CURRENCY

The official currency in Poland is PLN.

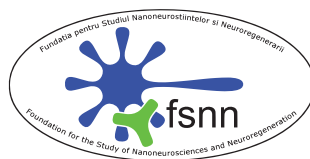
ELECTRICITY

Electrical power is 220 volts, 50 Hz. Two-prong plugs are standard.

TIME

The time in Poland is Eastern European Time (GMT+2)

ORGANIZERS





SCIENTIFIC PROGRAM

SCIENTIFIC PROGRAM

MARCH 25, 2018

13:50 - 14:00

Welcome Address: Dafin Mureşanu (Romania), Amos Korczyn (Israel),
László Vécsei (Hungary), Ovidiu Băjenaru (Romania)

SESSION 1

Chairmen: Ovidiu Băjenaru (Romania), László Vécsei (Hungary)

14:00 – 14:20

Dafin Mureşanu /Romania
Biological versus chemical drugs in brain protection and recovery

14:20 – 14:40

László Vécsei /Hungary
CGRP, PACAP, kynurenines and migraine:
future therapeutic perspectives

14:40 – 15:00

Amos Korczyn /Israel
Medically unexplained disease

15:00 – 15:20

Volker Hömberg /Germany
Practical aspects of pharmacology in neurorehabilitation

15:20 – 15:50

Coffee Break

Session 2

Chairmen: Amos Korczyn (Israel), Volker Hömberg (Germany)

15:50 – 16:10

Leontino Battistin /Italy
Neurorehabilitation: new therapeutic avenues and
pharmacology of recovery

16:10 – 16:30

Ovidiu Băjenaru /Romania
mTOR pathway – a potential pharmacodynamic approach in many
different neurologic diseases

16:30 – 16:50

Bogdan O. Popescu /Romania
Microbiota - does it matter for neurodegeneration?

SCIENTIFIC PROGRAM

MARCH 25, 2018

Session 3

Chairmen: Leontino Battistin (Italy), Bogdan O. Popescu (Romania)

16:50 – 17:10

Vladimir Kostic /Serbia

Impulsive and compulsive behaviors in Parkinson's disease

17:10 – 17:30

Vitalie Lisnic /Rep. of Moldova

Sensory chronic inflammatory demyelinating polyneuropathy:
diagnosis and pharmacological treatment

17:30 – 17:50

Mihail Gavriiliuc /Rep. of Moldova

Spinal cord, ischemia and intermittent claudication:
need to be treated?

17:50 – 18:10

Anca Buzoianu /Romania

The role of N-PEP type peptides as an add on intervention
in neurocognitive impairment



ABSTRACTS

NEUROREHABILITATION: NEW THERAPEUTIC AVENUES AND PHARMACOLOGY OF RECOVERY



**LEONTINO
BATTISTIN**

Department of
Neurosciences,
University of Padova,
Padova, Italy

Research Hospital in
Neurorehabilitation,
IRCCS, Venezia, Italy

Recent advances of studies in CNS functions and in the mechanisms of recovery after stroke forecast the development of scientifically based restorative therapies, more effective than the current ones. The newly proposed therapeutic strategies include Constraint-Induced Movement Therapy for correcting the learned non-use of the compromised arm, Treadmill Training with Partial Body-Weight Support to favor gait by means of retraining locomotor pattern generator(s), and Virtual Reality Based Rehabilitation which may provide subjects with artificially augmented feedback that facilitates the reinstatement of the compromised motor skills. An additional cutting-edge approach exploits the use of drugs that may enhance the natural mechanisms of recovery. The most widely investigated drugs, both in animal model of brain lesion and in small group of post stroke patients, are those that increase noradrenergic and serotonergic neurotransmission such d-amphetamine and antidepressant. Both monoamines favour recovery exploiting multifold mechanisms. Noradrenaline might play an important role in cortical reorganization and motor learning. In addition, noradrenergic drugs restore the stroke- induced noradrenergic hypoactivity in the locus coeruleus- cerebellum- rubro, reticulo- and vestibulo-spinal circuits. Serotonin stimulates new synaptic contacts, long-term facilitation in sensory motor synapses, and it favors finalistic motor responses in rats. Moreover, serotonergic drugs may correct stroke- related serotonergic hypofunction. Other neurotransmitter including GABA and dopamine may be harmful to recovery. Post-stroke patients who chronically receive benzodiazepines, antiepileptics, and phenothiazines improve from disability less than those that are not taking such medicaments. Drugs acting on glutamatergic and cholinergic systems may also be helpful in restorative medicine. However, animal studies indicated that their positive or negative effects on recovery is strictly dependent upon the time of administration after brain injury. Therefore more experimental data are needed before using these medicaments in patients. Different classes of drugs that enhances the trophic input in the brain may be relevant to recovery, Namely, growth factors may stimulate neurogenesis, neural repair and rewiring. However, the clinical application of such therapy, still in its infancy, represents an attracting but very far strategy for the management of post-stroke lesions.

mTOR PATHWAY – A POTENTIAL PHARMACODYNAMIC APPROACH IN MANY DIFFERENT NEUROLOGIC DISEASES



**OVIDIU
BĂJENARU**

University of Medicine
and Pharmacy “Carol
Davila” Bucharest,
Romania

mTOR is a serin-threonine protein kinase present in different animal organisms, and highly conserved also in human beings. This enzymatic pathway is a key-mechanism in numerous cellular functions, related to cellular growth, survival and homeostasis. Its activity is regulated by more other pathways triggered by different extra- or intracellular signals, and in turn it mediates mechanisms involved in cellular growth, metabolism and survival. Due to its central position in these mechanisms, dysregulation of mTOR has been implicated in the pathophysiology of numerous neoplastic diseases, but also in other general and some neurologic diseases such as some neurodegenerative disorders and particular forms of epilepsy, as in tuberous sclerosis. Based on the identification of its pathologic involvement in such disorders, mTOR inhibitors have been the target of an increasing number of clinical trials for some of these disorders, including in particular types of brain tumors and in some forms of epilepsy - as an antiepileptogenic approach.

THE ROLE OF N-PEP TYPE PEPTIDES AS AN ADD ON INTERVENTION IN NEUROCOGNITIVE IMPAIRMENT

Cognitive impairment is a common finding in patients with stroke or traumatic brain injury (TBI), regardless of severity, and it has an important impact on quality of life. Vascular cognitive impairment (VCI) describes a spectrum of cognitive disorders ranging from mild cognitive impairment (MCI) to dementia, with consequences for all cognitive domains and behavior. In patients with TBI, cognitive deficits appear in approximately 65% of moderate to severe cases and in 15% of mild cases. This is a pilot study to investigate the effects N-Pep-12 treatment on the neurorecovery of patients with post-stroke and post-TBI cognitive impairment. N-Pep-12 is a proprietary, peptide-based nutritional supplement that has been shown to exert neuroprotective and pro-cognitive effects in experimental studies as well as in earlier clinical studies in patients suffering from age-related cognitive deficits. This study will use a multidimensional approach that will combine neuropsychological outcome scales, neurophysiological investigations (qEEG), psychophysiological investigations (eye-tracking), and clinical parameters.



**ANCA
BUZOIANU**

Department of
Pharmacology,
Toxicology and Clinical
Pharmacology,
"Iuliu Haieganu"
University of Medicine
and Pharmacy
Cluj-Napoca,
Romania

SPINAL CORD, ISCHEMIA AND INTERMITTENT CLAUDICATION: NEED TO BE TREATED?



**MIHAIL
GAVRILIUC**

Department of
Neurology, Nicolae
Testemitanu State
University of Medicine
and Pharmacy of the
Republic of Moldova

According to the knowledge that were accumulated in the field of morphology, physiology, and pathological physiology the regulation of spinal cord's blood circulation is made concurrently by action of various mechanisms: humoral, of nervous origin, and metabolic. These factors perform the modification of dorsal arteries diameter, in other words, determine vascular resistance of the spinal cord. Anoxia and hypercapnia intensify the spinal cord's blood supply. In the case of hypocapnia the opposite effect arise. Sensitivity to hypoxia of different spinal cord's structures was studied in a large number of experiments. Some authors attribute the highest sensitivity to hypoxia to motor neurons. The disturbance of lower motor neurons functions inside of the spinal cord appear chronologically primarily, before the dysregulation of interneuronal connections. This circumstance can serve as a background for explaining of clinical manifestations in intermittent spinal cord claudication in man.

Up to our days does not exist forcible arguments related to the role of constriction of spinal cord arteries, and medullary vasospasm in the pathogenesis of spinal cord's ischemia. It's believed that increased irritation of a nervous cells is accompanied by local intensification of blood circulation. The activity of some muscle groups, as well as peripheral afferent sensory stimulation, produce the growth of circulation of the blood in corresponding segments of the spinal cord. This phenomenon introduce its contribution for understanding of intermittent claudication: adequate blood supply at rest does not meet the requirements in the case of increased motor activity, and transitory spinal cord ischemia occurs. Sometimes the appearance of spinal cord's infarct is preceded by transitory symptoms of ischemia like paresthesias, sphincter disturbances or disorders of motor activity. The "classic" manifestation of temporary spinal cord ischemia is intermittent claudication. Transient weakness in the inferior limbs, which occurs during walking, may be the only manifestation of the spinal cord ischemic disease for many years.

Intermittent claudication of the spinal cord has been described in patients with syphilitic arteritis, atherosclerotic or thrombotic stenosis of the distal aorta, lumbar spondylosis, intervertebral disk herniation in the lower thoracic spine, arterio-venous malformations of the spinal cord. A separate manifestation of intermittent claudication of the spinal cord are painful spasms of the calf muscles: cramps. During the moment of intermittent claudication of the spinal cord by the patients can be observed increased tendon-periosteal reflexes and even a positive symptom of Babinsky. In conclusion, in the case of intermittent claudication of the spinal cord, it is necessary to take the necessary diagnostic and therapeutic measures that would identify and eliminate the main etiologic factor, if possible. Claudication means limping. Limping of the spinal cord is a valuable clinical manifestation which, if taken into account in time, can prevent paraplegia.

PRACTICAL ASPECTS OF PHARMACOLOGY IN NEUROREHABILITATION



VOLKER HÖMBERG

Head of Neurology
SRH_GBW Bad
Wimpfen and
Neurology Coordinator
for the SRH
group of hospitals and
clinics, Germany

Secretary General
WFNR, Vice President
EFNR

Beside the use of training techniques and other behavioral interventions neurological rehabilitation can be augmented significantly by the use of pharmacological agents: Beside the necessary pharmacological treatments for risk factors such as hypertension and hyperlipidemia and secondary prevention,, drugs can also be used to facilitate brain recovery and reduce the level of impairment.

On the other hand certain drugs have to be avoided because they are known to impair brain repair mechanism.

This lecture will address the following issues:

1. A general pharmacological survey of substances impairing or facilitating brain recovery in animal experimentation
2. It is of critical importance to avoid so called "detrimental" drugs defined from animal experimental as well as from clinical catamnestic studies to interfere with brain plasticity. In contrast amphetamines L-dopa ,reboxetin and antidepressants may facilitate the effect of rehabilitative techniques.
3. The impact of the use of antidepressant drugs (SSRIs) in not depressed patient after stroke is exemplified by data from FLAME, TALOS and other not yet published trials in the pipeline
4. A survey of the current status of drugs to influence states of diminished consciousness will be given
5. The progress in use of multimodal action drugs especially Cerebrolysin in reducing impairment in the immediate postacute phase in combination with neuromotor training is demonstrated in the light of recent trials and meta analyses.

SENSORY CHRONIC INFLAMMATORY DEMYELINATING POLYNEUROPATHY: DIAGNOSIS AND PHARMACOLOGICAL TREATMENT



VITALIE LISNIC

EUGENIU GAVRILIUC

Department of
Neurology, Nicolae
Testemitanu State
University of Medicine
and Pharmacy,
Chisinau,
Rep. of Moldova

Chronic inflammatory demyelinating polyneuropathy (CIDP) is an acquired disorder of the peripheral nerves and nerve roots. Typical clinical form of CIDP is symmetrical peripheral nerve damage involving motor fibers more than the sensitive ones. Atypical forms of CIDP are more difficult to be identified because of the lack of unified diagnostic criteria. Often the clinical picture of an atypical CIDP can simulate idiopathic axonal polyneuropathy, losing opportunity of proper immunomodulation treatment with subsequent resolution of symptoms. Among atypical CIDP the sensory chronic inflammatory demyelinating polyneuropathy is the most frequent form and often under-recognized entity.

Material and methods.

The study included 30 patients with atypical CIDP and 30 patients with typical CIDP. All patients underwent nerves conduction studies (NCS). Electromyography was completed by the registration of the somatosensory evoked potentials (SSEP). Blood was drawn for biochemical tests, also electrophoresis and serum protein immunofixation. In several cases the biopsy of the peroneal nerve was performed. Overall Neuropathy Limitation Scale questionnaire (ONLS) was used for the assessment of functional disability in all patients.

Results:

Among atypical CIDP forms the most frequent form was the sensory one – 14 patients (46,7% cases). These patients presented with sensory ataxia, generalised areflexia, upper limb onset or rapid upper limb involvement. The mean value ONLS within atypical CIDP was 2.43 ± 0.29 points, lower compared to typical CIDP - 4.17 ± 0.24 points. NCS was not a sensitive test to diagnose sensory CIDP, in 10 from 14 patients motor conduction velocities were not affected, but SSEP were abnormal in all the cases. Most of the patients responded to immunotherapy (corticosteroids, azathioprine, IVIG etc.)

Conclusions.

Sensory CIDP could be misdiagnosed with a chronic axonal neuropathy. NCS is not a sensitive test to diagnose sensory CIDP. SSEPs should be carried out in all cases of atypical sensory polyneuropathy to demonstrate the proximal demyelination not accessible for conventional NCS. Immunomodulatory treatment is indicated.

IMPULSIVE AND COMPULSIVE BEHAVIORS IN PARKINSON'S DISEASE



**VLADIMIR
KOSTIĆ**

Institute of Neurology,
School of Medicine,
Belgrade, Serbia

Impulsive and compulsive behaviors (ICBs) comprise heterogeneous conditions that may be caused by long-term dopaminergic replacement therapy (DRT) of Parkinson's disease (PD) and include dopamine dysregulation syndrome (DDS; compulsive PD medication overuse), punding (stereotyped, repetitive, purposeless behaviors), and impulse control disorders (ICDs; compulsive gambling, buying, sexual behavior, eating). The prevalence of ICBs in PD patients is approximately 3-4% for DDS, 0.34-4.2% for punding, and 6-14% for ICDs. ICDs are markedly associated with dopamine agonists. Risk factors include male gender, higher levodopa equivalent daily dose, younger age at PD onset, history of alcoholism, impulsive, or novelty-seeking personality. Discontinuation of the offending agent or readjustment of DRT are considered as the first line of treatment, but pharmacological treatment should be individualized (atypical antipsychotics, antidepressants, amantadine, psychosocial interventions, and even DBS-STN). A dysfunction of reward circuits is considered the main underlying mechanism, with an increased dopamine release and reduced dopamine transporter activity as consistent features of ICDs in PD. Beyond the striatum, alterations of prefrontal cortical function may also impact an individuals' propensity for impulsivity. In our recent study that assessed brain structural and functional alterations in PD patients with ICDs, we have suggested that they resulted from a disconnection between sensorimotor, associative and cognitive networks with increasing motor impairment, psychiatric symptoms, and ICB duration. Also, we have recently observed a breakdown of the connectivity among the crucial nodes of the reward circuit (i.e., habenula, amygdala, basal ganglia, frontal cortex) as a contributory factor to punding in PD.

BIOLOGICAL VERSUS CHEMICAL DRUGS IN BRAIN PROTECTION AND RECOVERY



**DAFIN F.
MUREȘANU**

Chairman Department
of Clinical
Neurosciences,
University of Medicine
and Pharmacy "Iuliu
Hatieganu",
Cluj-Napoca, Romania

Nowadays, it is still difficult to find the correct therapeutic approach for brain protection and recovery in stroke, especially because we do not fully understand all of the endogenous neurobiological processes, the complete nature of the pathophysiological mechanisms and the links between these two categories.

Endogenous neurobiological processes, such as neurotrophicity, neuroprotection, neuroplasticity and neurogenesis, are central to protection and recovery and represent the background of endogenous defence activity (EDA).

Stroke pathological cascades contain a limited number of pathophysiological processes. It is characterized mainly by excitotoxicity, oxidative stress, inflammation, apoptotic-like processes and important metabolic disturbances.

Pathophysiological processes share some common mechanisms with EDA (e.g. excitotoxicity and neurotrophicity together with neuroplasticity have, as a common important driver, the NMDAR activity; inflammation has an important contribution for neuroregeneration, stimulating neuroplasticity, via trophic factors).

Postlesional brain regulation is currently better understood. Every lesion in the nervous system triggers in the first minute an endogenous neuroprotective reaction. An endogenous repair process, combining neuroplasticity and neurogenesis follow this as a second answer. All these processes are initiated and regulated by endogenous biological molecules.

The biological reality of the nervous system is far more complex. In fact, there is an endogenous holistic process of neuroprotection and neurorecovery that should be approached therapeutically in an integrated way.

The current tendency to exclusively frame drug activity in terms of single mechanisms and single focus effect might distract from other paradigms with greater explanatory power and hinder the development of more effective treatment strategies.

A change of concept is required in pharmacological brain protection and recovery in stroke therapy.

It is getting clearer that multimodal drugs may play an important role in pharmacological support of neurorehabilitation after stroke.

The results of recently published large and well-controlled clinical studies show a positive effect of Cerebrolysin on neurological recovery after acute ischemic stroke. The newly published CARS study assessed the efficacy and safety of Cerebrolysin in combination with a standardized rehabilitation program. The primary study endpoint

was the Action Research Arm Test (ARAT) at day 90, assessing upper-limb motor functions. Cerebrolysin was administered for 21 days, starting within 48-72 hours after ischemic stroke.

Furthermore, CARS 1 and CAR 2 meta-analysis provides evidence that Cerebrolysin has a beneficial effect on motor function recovery in early rehabilitation patients after stroke. All pre-planned primary meta-analytic results were statistically significant.

This presentation aims to highlight the limitations of the classic models in brain protection and recovery. Beside these aspects, the new principles related to anticorrelated processes can explain and account for the complexity of brain function and open avenues to new therapeutic interventions.

This presentation also reviews the current and future considerations in this therapeutic strategy, including an integrated pharmacological approach, focusing on drugs with multimodal activity rather than single mechanism drugs, which usually are chemical drugs.

MICROBIOTA - DOES IT MATTER FOR NEURODEGENERATION?

Neurodegenerative diseases have still no elucidated etiology and no disease-modifying treatment. Their personal, social and even political impact is huge, considering the life span increase and the frightening epidemiological previsions. Human beings are populated by trillions of bacteria, used to live in a mutually advantageous symbiosis with our bodies. However, studies from recent years suggest that this microbiota could influence triggers for different human pathologies, including neurodegeneration. In the present work I will try to evaluate the most recent data regarding neurodegenerative disorders and microbiota.



**BOGDAN O.
POPESCU**

‘Carol Davila’
University of Medicine
and Pharmacy
Bucharest, Romania

Colentina Clinical
Hospital, Bucharest,
Romania

‘Victor Babes’ National
Institute of Pathology,
Bucharest, Romania

CGRP, PACAP, KYNURENINES AND MIGRAINE: FUTURE THERAPEUTIC PERSPECTIVES.



LÁSZLÓ VÉCSEI

Department of
Neurology, and MTA-
SZTE Neuroscience
Research Group,
University of Szeged,
Szeged, Hungary

Despite the well-established role of glutamatergic transmission in migraine pathogenesis, the contribution and possible therapeutic potential of the endogenous regulatory system –the kynurenine pathway – has not been well investigated. Kynurenic acid (KYNAC) and its analogues have antinociceptive effects in primary and secondary sensory neurons. Electrical stimulation of the trigeminal ganglia (which is a reasonably effective model for trigeminal activation in migraine) results in decreased kynurenine-aminotransferase (KAT) immunoreactivity in dural macrophages, Schwann cells and mast cells, which is parallel by an increase in the number of neuronal nitric oxide synthesis (nNOS)-immunoreactive nerve fibers in the dura mater (Vécsei et al. 2013). Recent studies on migraineurs and our own animal experiments have revealed that pituitary adenylate cyclase-activating polypeptide-38 (PACAP-38) has an important role in activation of the trigeminovascular system. The aim of our experiment was to determine the PACAP-38-like immunoreactivity (LI) in the plasma of healthy subjects, and parallel with the calcitonin gene-related peptide (CGRP)-LI in migraine patients in the ictal and interictal periods. A significantly lower PACAP-38-LI was measured in the interictal plasma of the migraineurs as compared with the healthy control group. In contrast, elevated peptide levels were detected in the ictal period relative to the attack-free period in the migraineurs. This was the first study that has provided evidence of a clear association between migraine phases (ictal and interictal) and plasma PACAP-38-LI alterations (Tuka et al. 2013, Vécsei et al. 2014) In our very recent study we found that KYNAC inhibits the electrical stimulation induced PACAP expression in the trigeminal nucleus caudalis (TNC). This is the first study to provide evidence for a direct link between PACAP and the kynurenine system during TS stimulation (Körtési et al. 2018).

References

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Vécsei, L., Szalárdy, L., Fülöp, F., Toldi, J.: Kynurenines in the CNS: recent advances and new questions. *Nature Reviews Drug Discovery* 12:64-82, 2013.

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SPEAKERS

LEONTINO BATTISTIN

/ITALY

Graduated in Medicine at the University of Padova Medical School in 1963; Specialist in Neurology in 1967. During the years 1967-1970 he was Research Fellow at the Institute for Neurochemistry, Columbia University, New York, USA.

Full Professor of Neurology from 1980 and then Director of the Department of Neurosciences of the Medical School of the University of Padova from 1989 to 2009. He is the Scientific Director of the Research Hospital for Neurorehabilitation, IRCCS San Camillo, Venice, from 2005.

He has been member of the Executive Council of the Italian Society of Neurology and the President of the Italian Society for Parkinson's Disease; he is member of the Executive Committee on Extrapiramidal Disorders and of the one on Dementia of the World Federation of Neurology and Chairman of the Research Group for Organization and Delivery of Neurological Services; he has been Vice-President for Europe of the World Federation of Neurology during the years 2001-2005, and he is the President of the European Society for Clinical Neuropharmacology during the years 2000-2008; he is a member of numerous International Scientific Societies, and Fellow of the American Academy of Neurology. He is also a member of the Editorial Board of international journals of neuroscience and clinical neurology.

He has organized various International Symposia on specific themes of neuroscience; he was also the President of the 11th World Congress on Parkinson's Disease that was held for the first time in Italy in 1994.

He has published more than 250 papers in various international and national journals and edited ten volumes on specific arguments of neurology; his main scientific interests have always been cerebral metabolism and function especially in degenerative diseases of the nervous system, like Parkinson's and Alzheimer's disease, as well as in cerebrovascular diseases and in neurorehabilitation.

OVIDIU BĂJENARU

/ROMANIA

Corresponding Member of the Romanian Academy (since 2016).

Graduated of the University of Medicine and Pharmacy "Carol Davila" Bucharest in 1983. Board certified neurologist accredited by the Romanian Ministry of Health in 1989. Postgraduate specialisations in Neurology (Movement disorders and Sleep disturbances) during 1993-1994, at the University "Rene Descartes" Paris (France). Full Professor of Neurology since 1999 (untill present) at the University of Medicine and Pharmacy "Carolo Davila" Bucharest and since 2011 Director of the University Department of Clinical Neurosciences (same University). Chairman of the Department of Neurology – University Emergency Hospital Bucharest, Romania. Founder President (in 2000), President (2000-2013), and Honorary President ad vitam of the Romanian Society of Neurology (since 2013). Member of the Romanian Academy of Medical Sciences (since 2013). Member of more prestigious international scientific societies and organizations (AAN, ENS, EAN, MDS, UEMS-Section Board of Neurology, others). Initiator and leader of all national programs for treatment of neurological diseases in Romania (since 1999).

One of the leaders of the Romanian Group for the Study of Brain of the Romanian Academy.

Doctor Honoris Causa of the University "Ovidius" Constanta.

President of the consultative comission of the Ministry of Health for neurology for 10 years (until 2015). Initiator and leader of the national programs for treatment of neurological diseases since 1999 until 2015 (multiple sclerosis, neuroimmunological diseases, rare neurological diseases, treatment resistant-epilepsy, Parkinson's disease, dystonia, reperfusion in acute stroke treatment, enovascular treatment in neurovascular diseases). Initiator of the organization and development of the stroke units in Romania and their implementation in the regulatory documents of the Ministry of Health. Initiator and coordinator of the national program for treatment by deep brain stimulation (DBS) in Parkinson's disease, and for treatment of dystonia by botulinum toxin and DBS and coordinator of these training educational programs for neurologists in Romania.

Initiator and national coordinator for the guidelines of diagnosis and treatment of neurological disorders in Romania.

More national and international awards for excellency in medicine and the "Sts. Constantin & Elena" Order of the Romanian Christian-Orthodox Patriarchy.

Particular scientific interests in: stroke, neurocognitive disorders, movement disorders, multiple sclerosis.

ANCA BUZOIANU

/ROMANIA

Anca Dana Buzoianu, MD, PhD, is Professor of Clinical Pharmacology, Senior Clinical Pharmacologist, Senior Pediatrician, Dean of the Faculty of Medicine, University of Medicine and Pharmacy "Iuliu Hatieganu" Cluj-Napoca, President of the Romanian Association of the Medical School's Deans, General Executive Secretary of the Romanian Society for Pharmacology, Therapeutics and Clinical Toxicology. She is also member of 8 scientific international Societies, and 4 national one.

Postgraduate specialization. Professor Anca Buzoianu is senior clinical pharmacologist and also senior pediatrician. She is the Head of the Department of Pharmacology at Medical Faculty of Cluj, and the leader of a dynamic research team of the department, and member of the Neuroscience Research Center of the Iuliu Hatieganu University of Cluj-Napoca. Professor Anca Buzoianu and her colleagues are actually involved in Pharmacogenetics studies regarding the metabolizing status of some drugs such the oral anticoagulants, antiepileptic drugs, biologic products etc. Other research themes are the therapeutic approach of multiple sclerosis and stroke, pharmacogenetics of the drugs used in dermatological diseases, the effects of some new compounds in pain and inflammation etc. Professor Buzoianu has conducted 8 national grants, 1 international educational project and participated in the research team in another 16 research projects.

Professor Buzoianu has a valuable expertise in Academic Leadership and Management, also in the Management of the Health Care System (Master in the Health Care Management 2009), and in the Quality Assurance evaluation process, being evaluator for the Higher Education for several years. She is President of the Clinical Pharmacology and Toxicology Committee of the Romanian Health Ministry, President of the Pharmacology Committee of the Romanian Physician College, member of the Institutional Evaluation Committee of the Romanian Agency for Quality Assurance in Higher Education.

Scientific and professional societies

- CIDMEF – Conference Internationale de Doyens et de Facultes de Medicine d'Expression Francaise - member de Bureau Permanent,
- European Association of Clinical Pharmacology and Therapeutics,
- International Association for Medical Education,
- International Association of Medical School,
- The Society for the Study of Neuroprotection and Neuroplasticity
- European College of Neuropsychopharmacology
- International Advisory Board - European Society of Clinical Neuropharmacology
- Balkan Medical Union.
- Romanian Association of the Medical Faculties Deans - president
- General Executive Secretary of the Romanian Society for Pharmacology, Therapeutics and Clinical Toxicology
- Romanian Association for the Study of Pain
- Romanian Society of Addiction and Pharmacovigilance,

Scientific activity

- Articles and studies - 80 papers indexed ISI and in other international data bases
- Books and chapter in books - 12

Prizes

Professor Anca Dana Buzoianu has been honored with the "Victor Papilian" prize of the Cluj Medical Faculty in 2006 for her first volume of "Pharmacology" textbook. In 2007 she received the great "Iuliu Hatieganu" Award for her contribution to the development of a novel domain of academic learning in the frame of the Doctoral School.

In 2011 Professor Anca Dana Buzoianu has received the honorary medal of the National Council of the Physicians of the National Order of Doctors de France

In 2012 Professor Buzoianu Anca has been honored with the Excellence Award for Academic Management - "Dean of the year" with the occasion of the "Health Gala" - offered by the Romanian Ministry of Education and Health Ministry

In 2013 she won again the great Prize "Iuliu Hatieganu" of the University of Medicine and Pharmacy for her contribution for the obtaining of the quality certificate "Label CIDMEF" by the Medical Faculty of Cluj-Napoca.

MIHAIL GAVRILIUC

/REPUBLIC OF MOLDOVA

1987-1991:	Neurologist at the Republican Clinical Hospital, Chisinau
1991-1996:	Assistant professor of the Department of Neurology and Neurosurgery at the State University of Medicine and Pharmacy "Nicolae Testemitanu" Chisinau
1996-2001:	Docent of the Department of Neurology and Neurosurgery at the State University of Medicine and Pharmacy "Nicolae Testemitanu" Chisinau
2001-2010:	Deputy Director of the Institute of Neurology and Neurosurgery, Chisinau
2010 (since):	Professor of Neurology, Chairman of the Neurology Department at the State University of Medicine and Pharmacy "Nicolae Testemitanu" Chisinau
2010-2012:	Dean of the Faculty of Medicine 2 - State University of Medicine and Pharmacy "Nicolae Testemitanu" Chisinau
2012 (since):	Vice-rector for International Relations - State University of Medicine and Pharmacy "Nicolae Testemitanu" Chisinau

Fields of special interests: ischemic tolerance of the nervous system, vascular cerebral and spinal cord diseases, and encephalitis.

VOLKER HÖMBERG

/GERMANY

Prof. Hömberg had his medical education at the Universities of Düsseldorf, Freiburg and Boston Massachusetts. After spending electives in Neurology at Boston City Hospital and the National Hospital for Nervous Diseases Queens Square London he was a research fellow at the C. and O. Vogt Institute for Brain Research in Düsseldorf. In 1981 he started a residency in neurology with Prof. Hans Freund at Heinrich Heine University Düsseldorf. In 1987 he was appointed Director of the Neurological Therapy Centre (NTC) a newly founded Institute at Heinrich Heine University in Düsseldorf. He was also founding Director of the NTC in Cologne. He was involved in the setup of many in- and out-patient rehabilitation hospitals in Germany. In 2001 he started the St. Mauritius Therapy Clinic in Meerbusch near Düsseldorf and since 2011 he is Director of the Dept. of Neurology at the Gesundheitszentrum Bad Wimpfen and works as senior neurology group leader for the SRH-Group, one of the biggest hospital groups in Germany.

He was founder, president and vice president of the German Society for Neurorehabilitation for many years. He serves as Secretary General for the World Federation of Neurorehabilitation (WFNR) for more than 12 years and is Vice President of the European Federation of Neurorehabilitation Societies. (EFNR)

He is regular reviewer and co-editor for many international peer-reviewed journals.

He is regular (co)-programme chairman for neurorehabilitation for major international meetings as the World- and European Neurorehabilitation Congresses (WCNR, ECNR), Controversies in Neurology (CONy) and the European Stroke Congress (ESC).

He has published more than 250 articles in international peer-reviewed journals and many book chapters. His primary scientific interests are the fields of motor rehabilitation, cognition, epistemology, neurological music therapy and pharmacology in neurorehabilitation.

AMOS D. KORCZYN

/ISRAEL

Professor Korczyn graduated from the Hebrew University–Hadassah Medical School in Jerusalem in 1966 (MD), where he also received an MSc degree in pharmacology (cum laude) in 1966. He trained in neurology at Beilinson Hospital and at the National Hospital for Nervous Diseases, Queen Square, London. He was the Chairman of the Department of Neurology at the Tel-Aviv Medical Center from 1981 until 2002, and the incumbent of the Sieratzki Chair of Neurology at Tel-Aviv University, 1995-2010. Professor Korczyn has a particular interest in neurodegenerative diseases. He has authored or co-authored over 600 articles in peer-reviewed journals, as well as many chapters in books. He edited several books and Special Issues in Journals, and is Regional Editor of the Journal of Alzheimer's Disease. He is or has been an Editorial Board member of 20 international journals, and organized several neurological conferences, mainly in the field of dementia, Parkinson's disease and other degenerative brain disorders, as well as CONy – the International Congress on Controversies in Neurology, and has organized the Mental Dysfunction in Parkinson's disease congresses since 1993. Professor Korczyn served on advisory boards in several drug discovery programs. Professor Korczyn is the Chairman of the Scientific Medical Board of the Israeli Alzheimer's disease association (EMDA), member of the SAB of Alzheimer Disease International (ADI), and has been the chairman of the WFN Research Committee for Clinical Neuropharmacology.

Professor Korczyn is an honorary member of the neurological societies of Israel, Serbia, Poland and Russia. Professor Korczyn's H-index is 53.

VLADIMIR KOSTIĆ

/SERBIA

Vladimir S. Kostic (1953), Professor of Neurology at the Medical School, University of Belgrade, Member of the Serbian Academy of Science and Arts, Chairman of the Institute of Neurology, Clinical Center of Serbia, has focused his scientific interest in degenerative disorders of the central nervous system, mainly etiopathogenesis and treatment.

In the course of his training and subsequent academic carrier he spent two months at the Middlesex Hospital in London (UK) (1987), as a Fulbright Fellow and visiting-professor 15 months (1989/1990) in the Neurological Institute of the Columbia Univesity (New York; USA), and finally, in the same institution as a visiting research scientist 13 more months (1995/1996).

He was awarded the October Prize of the City of Belgrade for scientific achievements in 1988 and 1994. Also, he got Annual Research Award of the Serbian Medical Society in 1997. Since 2000 he has been a Member of the Serbian Academy of Science and Arts. He is the author of 5 textbooks and editor of 12 monographs. He is also the author or co-author of >100 original peer-reviewed papers and 12 chapters in international books.

He is heading several scientific projects mainly devoted to the genetic background of neurodegenerative disorders.

VITALIE LISNIC

/REPUBLIC OF MOLDOVA

Dr. Vitalie Lisnic is a Professor of Neurology at Department of Neurology of the State University of Medicine and Pharmacy „Nicolae Testemitanu”, Chisinau, Republic of Moldova. He is a consultant in the Department of Vertebro-neurology and Neuropathies, responsible for electromyographic examinations at the Institute of Neurology and Neurosurgery in Chisinau.

Dr. Lisnic graduated the Faculty of General Medicine of the Chisinau State Medical Institute in 1989. He passed internships in Neurology and Neurophysiology in Moscow, Russian Federation, 1993; Charles University, Pilsen, Czech Republic, 1994; Landesnervenklinik of Salzburg, Austria, 1999; Emory University, Atlanta, USA, 2002 - 2003, Vienna University, Austria, 2008. In 2003 obtained a clinical attachment in neuropathies at the National Institute of Neurology, Queen's Square, London, UK. In 2003-2004 he was the Principal Investigator of the Moldovan team of the grant of the Moldovan Research and Development Association and U.S. Civilian Research and Development Foundation. In 2015 - principal investigator of a clinical trial on post herpetic neuralgia.

Dr. Lisnic other important responsibilities include the following:

- President of the Society of Neurologists of the Republic of Moldova
- Member of the Education Committee of the European Academy of Neurology
- Delegate of the Republic of Moldova in World Federation of Neurology and European Academy of Neurology

Memberships

- European Academy of neurology
- American Academy of Neurology
- Movement Disorders Society
- European Stroke Organization

Vitalie Lisnic is the author of more than 150 scientific publications in Moldovan and International biomedical journals. He is member of editorial board of 2 Moldovan and 2 Ukrainian medical journals. Under his guidance were defended 4 Ph.D theses.

DAFIN F. MUREȘANU

/ROMANIA

Dafin F. Muresanu, MD, PhD, MBA, FANA. Professor of Neurology, Senior Neurologist, Chairman of the Neurosciences Department, Faculty of Medicine, "Iuliu Hatieganu" University of Medicine and Pharmacy Cluj-Napoca, Past President of the Romanian Society of Neurology, President of the Society for the Study of Neuroprotection and Neuroplasticity (SSNN), member of the Academy of Medical Sciences, Romania, secretary of its Cluj Branch. He is member of 16 scientific international societies (being member of the American Neurological Association (ANA) - Fellow of ANA (FANA) since 2012) and 10 national ones, being part of the executive board of most of these societies.

Professor Dafin F. Muresanu is a specialist in Leadership and Management of Research and Health Care Systems (specialization in Management and Leadership, Arthur Anderson Institute, Illinois, USA, 1998 and several international courses and training stages in Neurology, research, management and leadership). Professor Dafin F. Muresanu is coordinator in international educational programs of European Master (i.e. European Master in Stroke Medicine, University of Krems), organizer and co-organizer of many educational projects: European and international schools and courses (International School of Neurology, European Stroke Organisation summer School, Danubian Neurological Society Teaching Courses, Seminars - Department of Neurosciences, European Teaching Courses on Neurorehabilitation) and scientific events: congresses, conferences, symposia (International Congresses of the Society for the Study of Neuroprotection and Neuroplasticity (SSNN), International Association of Neurorestoratology (IANR) & Global College for Neuroprotection and Neuroregeneration (GCNN) Conferences, Vascular Dementia Congresses (VaD), World Congresses on Controversies in Neurology (CONy), Danube Society Neurology Congresses, World Academy for Multidisciplinary Neurotraumatology (AMN) Congresses, Congresses of European Society for Clinical Neuropharmacology, European Congresses of Neurorehabilitation).

His activity includes involvement in many national and international clinical studies and research projects, over 400 scientific participations as "invited speaker" in national and international scientific events, a significant portfolio of scientific articles (166 papers indexed on Web of Science-ISI, H-index: 18) as well as contributions in monographs and books published by prestigious international publishing houses. Prof. Dr. Dafin F. Muresanu has been honoured with the: Ana Aslan Award 2018 - "Performance in the study of active aging and neuroscience", for the contribution to the development of Romanian medicine, National Order "Faithful Service" awarded by the President of Romania in 2017; "Iuliu Hatieganu" University of Medicine and Pharmacy Cluj-Napoca, Faculty of Medicine, the "Iuliu Hatieganu Great Award 2016" for the best educational project in the last five years; the Academy of Romanian Scientists, "Carol Davila Award for Medical Sciences / 2011", for the contribution to the Neurosurgery book "Tratat de Neurochirurgie" (vol.2), Editura Medicala, Bucuresti, 2011; the Faculty of Medicine, "Iuliu Hatieganu" University of Medicine and Pharmacy Cluj-Napoca "Octavian Fodor Award" for the best scientific activity of the year 2010 and the 2009 Romanian Academy "Gheorghe Marinescu Award" for advanced contributions in Neuroprotection and Neuroplasticity.

BOGDAN O. POPESCU

/ROMANIA

Bogdan O. Popescu graduated the School of Medicine at "Carol Davila" University of Medicine and Pharmacy, Bucharest, in 1996. From 1997 to 2012, he worked as neurologist and Assistant Professor at the University Hospital Bucharest.

Since 2015 he is full Professor of Neurology at "Carol Davila" University, School of Medicine, at "Colentina" Clinical Hospital and President of the Scientific Council at "Victor Babeş" National Institute of Pathology in Bucharest.

He graduated two PhDs, in Bucharest, in 2001, and in Stockholm, Sweden (Karolinska Institute) in 2004, with theses regarding apoptosis and cell signaling in neurodegeneration, respectively.

His scientific contribution refers mainly to mechanisms of neurodegenerative diseases (Alzheimer's and Parkinson's).

He authored over 40 papers in ISI high impact factor journals, being cited more than 1000 times in international publications and having a Hirsch index of 17.

He is member of EAN, MDS, ESO, Romanian Society of Neurology, Society for the Study of Neuroprotection and Neuroplasticity and National Society of Neuroscience.

He was honored with the "Victor Babeş" award for medical research by the Romanian Academy in 2007. During 2001-2013 period he served as General Secretary of the Romanian Society of Neurology. He is the Executive Editor of the Romanian Journal of Neurology since 2001.

He is the Elected President of Romanian Society of Neurology, starting with 2017.

LÁSZLÓ VÉCSEI

/HUNGARY

PROFESSOR AND DIRECTOR OF NEUROLOGY

1979	MD, Albert Szent-Györgyi Medical University, Szeged, Hungary
1984	Board examination in chemical pathology
1986	CSc (PhD, University of Szeged)
1987	Board examination in clinical neurology
1987-1989	Research fellow in Neuroscience, University of Lund, Sweden (PhD, University of Lund)
1989-1990	Research fellow in Experimental Neurology, Harvard Medical School, Massachusetts General Hospital, Boston, USA
1992	DSc, Hungarian Academy of Sciences
1993 -	Professor and Director of Neurology, University of Szeged
2001 - 2007	Corresponding Member of Hungarian Academy of Sciences
2007 -	Ordinary Member of Hungarian Academy of Sciences
2010 - 2014	Dean of the Medical Faculty, Univ. Szeged
2011 - 2014	President, Medical Class, Hungarian Academy of Sciences

László Vécsei was Dean of Medical Faculty (2010-2014), University of Szeged, Past-President of the Medical Class of the Hungarian Academy of Sciences, of the Society of Hungarian Neurologists and Psychiatrists and of the Hungarian Medical Association, General Secretary of the Danube Symposium for Neurological Sciences, Past-Secretary of European Society for Clinical Neuropharmacology (ESCNP), Vice-President of European Federation of Neurological Societies (EFNS; 2011-2014). His main interests are: headache, multiple sclerosis and extrapyramidal disorders (especially the role of kynurenines). Published PUBMED papers: 470; books and monographs: 15; cumulative citation: 11.400/8.400 (www.mtmt.hu).

During the last years he served in EFNS as a member of the Scientific-, Program-, Liaison and European Affairs- and European Cooperation Committees, the 1st European Neurology Board Exam Committee, and Editorial Board of European Journal of Neurology. He was President of the Panel of Developmental Neurology and the Educational Committee and serves in the Headache Panel (European Academy of Neurology). He was Chairman of the Local Arrangements Committee of the 15th EFNS Congress (Budapest, 2011).

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“RoNeuro”

**Institute for Neurological Research and Diagnostic,
Cluj-Napoca, Romania**

Tel.: +40 374 46.22.22

**37 Mircea Eliade Street, PO 400364, Cluj-Napoca, Romania
Fax: +40 374.461.674; Email: receptie@roneuro.ro**

www.roneuro.ro