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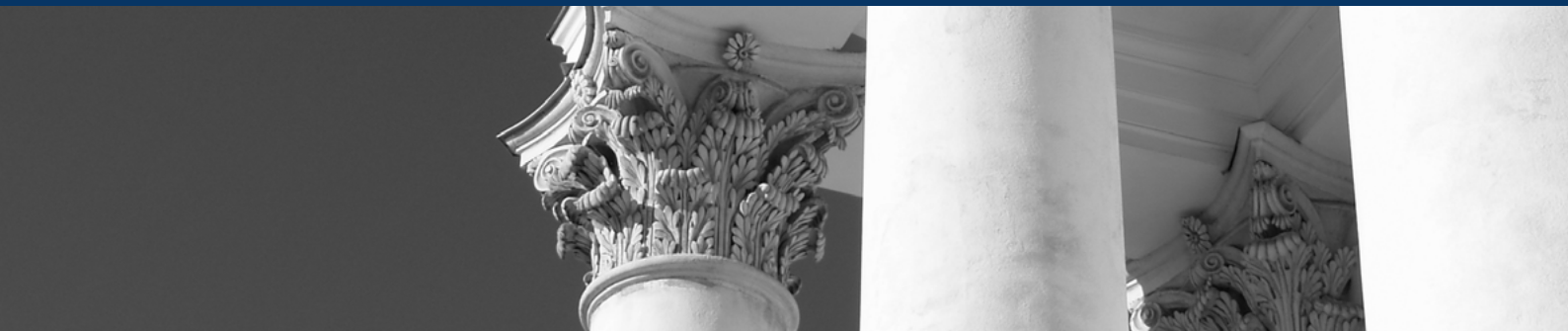
"IULIU HATIEGANU" UNIVERSITY
OF MEDICINE AND PHARMACY

DOCTORAL SCHOOL NEUROSCIENCE

PROGRAM

2022-2023 | M 2.6.2

23 MAY, 2023
VIRTUAL MEETING



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2022-2023

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COURSE PROGRAM

COURSE PROGRAM

23 MAY, 2023

VIRTUAL MEETING

12:00 – 12:30	CAPTAIN Trials (I and II) – a new horizon in TBI Dafin Mureșanu / Romania
12:30 – 13:10	Advances and updates in neurorecovery after stroke – new EAN-EFNR guideline Dafin Mureșanu / Romania

INTERNATIONAL GUEST LECTURER

DAFIN F. MUREȘANU
ROMANIA

Professor of Neurology, Senior Neurologist, Chairman of the Neurosciences Department, Faculty of Medicine, "Iuliu Hatieganu" University of Medicine and Pharmacy Cluj-Napoca, President of the European Federation of Neurorehabilitation Societies (EFNR), Chairman Communication Committee of the European Academy of Neurology (EAN), Past President of the Romanian Society of Neurology, President of the Society for the Study of Neuroprotection and Neuroplasticity (SSNN), Chairman "RoNeuro" Institute for Neurological Research and Diagnostic, Corresponding Member of the Romanian Academy, Member of the Academy of Medical Sciences, Romania and secretary of its Cluj Branch. He is member of 17 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 also a specialist in Leadership and Management of Research and Health Care Systems (specialization in "Management and Leadership, Arthur Anderson Institute, Illinois, USA, 1998"; "MBA – Master of Business Administration - Health Care Systems Management, The Danube University - Krems, Austria, 2003"). He has performed valuable scientific research in high interest fields such as: neurobiology of central nervous system (CNS) lesion mechanisms; neurobiology of neuroprotection and neuroregeneration of CNS; the role of the Blood-brain barrier (BBB) in CNS diseases; developing comorbidities in animal models to be used in testing therapeutic paradigms; nanoparticles neurotoxicity upon CNS; the role of nanoparticles in enhancing the transportation of pharmacological therapeutic agents through the BBB; cerebral vascular diseases; neurodegenerative pathology; traumatic brain injury; neurorehabilitation of the central and peripheral nervous system; clarifying and thoroughgoing study on the classic concepts of Neurotrophicity, Neuroprotection, Neuroplasticity and Neurogenesis by bringing up the Endogenous Defense Activity (EDA) concept, as a continuous nonlinear process, that integrates the four aforementioned concepts, in a biological inseparable manner.

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 500 scientific participations as "invited speaker" in national and international scientific events, a significant portfolio of scientific articles (260 papers indexed on Web of Science-ISI, H-index: 25) as well as contributions in monographs and books published by prestigious international publishing houses. Prof. Dr. Dafin F. Muresanu has been honoured with: „Dimitrie Cantemir" Medal of the Academy of The Republic of Moldova in 2018, 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.

ABSTRACTS

RESULTS OF THE CAPTAIN II TRIAL - A NEW HORIZON IN TBI TREATMENT

DAFIN F. MUREȘANU
Chairman Department of Neurosciences University of Medicine and Pharmacy 'Iuliu Hatieganu', Cluj-Napoca, Romania

Background and aims
Traumatic brain injury (TBI) is a leading cause of injury-related disability and death worldwide. In 2016, an estimated 27 million new cases of TBI we added to the global burden. The CAPTAIN-RO trial enriches compelling evidence that currently exists for Cerebrolysin, an approved agent for neuroprotection and neurorecovery after TBI in many countries, using a novel approach: multidimensional analysis.

Methods
The study is an interventional, randomized, double-blind, controlled, single-center trial. The full protocol is available for consultation in the ISRCTN registry (no. 17097163). General and neurocognitive outcomes after TBI were measured using full scales, avoiding dichotomization of variables. The multidimensional analysis opens a new direction for clinical and statistical thinking in neurorehabilitation by adding precision to the measurement of complex health states for TBI.

Results
A total of 142 patients aged 19-79 with a diagnosis of TBI and a GCS score between 7-12 at the time of hospital admission were enrolled. Baseline, day 10, 30 and 90 assessments were collected using nine scales that measured cognitive function and emotional status.

Conclusion
CAPTAIN-RO is one of the first trials in TBI history with a truly multidimensional approach based on full outcome scales. We believe this strategy is superior to the single criterion paradigm, commonly used in neuroprotective treatment research. This trial delivers a unique perspective to decades of well-established positive effect trends of Cerebrolysin. These will be extensively discussed and evaluated for implications concerning future TBI research upon completion of data analysis.

Keywords: Randomized Controlled Trial, Traumatic Brain Injury, Multidimensional Analysis

CAPTAIN TRIALS (I AND II) – A NEW HORIZON IN TBI

DAFIN F. MUREȘANU
Chairman Department of Neurosciences University of Medicine and Pharmacy 'Iuliu Hatieganu', Cluj-Napoca, Romania

Background and purpose
Early pharmacological support for post-stroke neurorehabilitation has seen an abundance of mixed results from clinical trials, leaving practitioners at a loss regarding the best options to improve patient outcomes. The objective of this evidence-based guideline is to support clinical decision-making of healthcare professionals involved in the recovery of stroke survivors.

Methods
This guideline was developed using the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) framework. PubMed, Cochrane Library and Embase were searched (from database inception to June 2018, inclusive) to identify studies on pharmacological interventions for stroke rehabilitation initiated in the first 7 days (inclusive) after stroke, which were delivered together with neurorehabilitation. A sensitivity analysis was conducted on identified interventions to address results from breaking studies (from end of search to February 2020).

Results
Upon manually screening 17,969 unique database entries (of 57,001 original query results), interventions underwent meta-analysis. Cerebrolysin (30 ml/day, intravenous, minimum 10 days) and citalopram (20 mg/day, oral) are recommended for clinical use for early neurorehabilitation after acute ischaemic stroke. The remaining interventions identified by our systematic search are not recommended for clinical use: amphetamine (5, 10 mg/day, oral), citalopram (10 mg/day, oral), dextroamphetamine (10 mg/day, oral), Di-Huang-Yi-Zhi (2 × 18 g/day, oral), fluoxetine (20 mg/day, oral), lithium (2 × 300 mg/day, oral), MLC601(3 × 400 mg/day, oral), phosphodiesterase-5 inhibitor PF-03049423 (6 mg/day, oral). No recommendation 'for' or 'against' is provided for selegiline (5 mg/day, oral). Issues with safety and tolerability were identified for amphetamine, dextroamphetamine, fluoxetine and lithium.

Conclusions
This guideline provides information for clinicians regarding existing pharmacological support in interventions for neurorecovery after acute ischaemic stroke. Updates to this material will potentially elucidate existing conundrums, improve current recommendations, and hopefully expand therapeutic options for stroke survivors.


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