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Institute for Neurological Research and Diagnostic





Seminars

**Department of Neurosciences University of Medicine and Pharmacy "Iuliu Hatieganu"** Cluj-Napoca | Romania

## 10 MARCH, 2021

VIRTUAL MEETING

# Welcome Address

It is a pleasure to welcome you to the 61<sup>st</sup> edition Seminars - 10 March, 2021. The seminar is hosted by the Department of Neurosciences, Faculty of Medicine, "Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca. This seminar aims to establish itself as a highly useful framework that will enable local specialists to benefit from the expertise of our invited speakers who are part of associated international faculty of our Department of Neurosciences Cluj-Napoca, Romania and RoNeuro Science network. Our scope is to flourish over years and set up an educational vector aiming to meet our junior and senior specialists' needs.

In contrast to large international conferences, the intention behind these seminars is to create an informal and intimate setting, which hopefully will stimulate open discussions.

Due to the uncertainties about the continuing impact of the COVID-19 pandemic, our events will be held in the virtual space, for the time being. As organizers, we would therefore be deeply grateful if you participate and share your time with us.

We are looking forward to your active participation in this educational event!

With consideration,

#### Prof. Dr. Dafin F. Muresanu,

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

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## **Program Coordinator**



### Dafin F. Mureşanu

President of the European Federation of NeuroRehabilitation Societies (EFNR)

Chairman of EAN Communication and Liaison Committee

Co-Chair EAN Scientific Panel Neurotraumatology

Past President of the Romanian Society of Neurology

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













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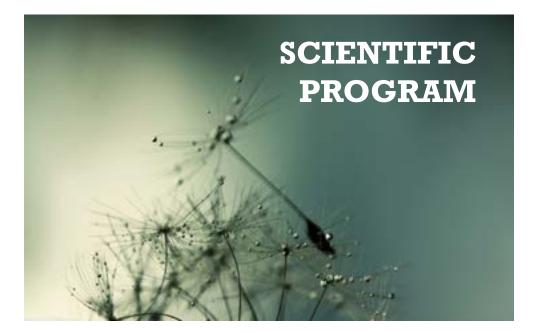


## **SPEAKER**

Dr. Fisher was affiliated with the University of Massachusetts Medical School for 35 years and is currently an emeritus Professor of Neurology. He began work part-time at Beth Israel Deaconess Medical Center in Boston with an appointment at Harvard Medical School in August, 2014. He has a long track record in performing MRI-based experiments in rat stroke models to evaluate the presence and evolution of the ischemic penumbra. Using diffusion/perfusion MRI his experimental group has evaluated the effects of therapies on the progression of the diffusion/perfusion mismatch. Dr. Fisher has extensive experience in organizing and implementing clinical acute stroke therapy trials with a particular interest in imaging-based trials. He has performed these trials with co-investigators at multiple sites around the world. He has maintained an active clinical practice for many years with an emphasis on patients with cerebrovascular disorders as well as broad range of other neurological illnesses. He has published extensively and has published over 260 peerreviewed articles with an h-index of 72 and has edited or co-edited 13 books. He currently serves as editor-in-chief of Stroke and will continue in that position until 2020.



Marc Fisher



# Scientific program

## 10 MARCH, 2021 VIRTUAL MEETING

- 11:00 11:45 Acute stroke therapy: current status and future directions Marc Fisher/ USA
- 11:45 12:30 Cryptogenic Stroke Marc Fisher/ USA







#### ACUTE STROKE THERAPY: CURRENT STATUS AND FUTURE DIRECTIONS

The field of acute stroke therapy has seen exciting advances recently. In 2015, five thrombectomy trials were published that clearly demonstrated the efficacy of this treatment in carefully selected patients in patients with proximal, large vessel occlusion when treated within 6-8 hours of stroke onset. The key features of these trials were the substantial rate of recanalization with the use of stent retrievers, the rapidity of the procedure in most cases and the inclusion of patients with a small/ moderate sized ischemic core as measured by CT ASPECTS or CT perfusion. More recently, thrombectomy was shown to be highly effective in patients up to 24-hours after stroke onset in the DAWN and DEFUSE-3 trials. In both trials, advanced imaging with CT perfusion or diffusion MRI was used to select patients with small to medium sized ischemic cores. Similar selection criteria will need to be utilized in daily clinical practice to replicate the benefits of the early and later time window thrombectomy trials.

Going forward, many additional thrombectomy trials will be needed to evaluate patients not included in the initial trials, such as those with a more distal intracranial occlusion, lower baseline NIHSS score and larger ischemic core. Additionally, trials to evaluate neuroprotection combined with thrombectomy can be envisioned. Three types of combination trials can be anticipated. The first would be to use very early initiation of neuroprotection to slow down the evolution of the ischemic core while patients are being transferred from a smaller outlying hospital to a thrombectomy center or in patients who will have a long transport time from home to the thrombectomy center. The second type of neuroprotection trial with thrombectomy would be to directly or systemically infuse a drug targeting reperfusion injury after reperfusion has been established by thrombectomy. A third combination would be to use a drug or gas that enhances collateral blood flow prior to thrombectomy to favorably enhance collateral blood flow before thrombectomy to keep the ischemic core as small as possible.

### MARC FISHER /USA

## Abstracts

### **CRYPTOGENIC STROKE**

Cryptogenic stroke is defined as a stroke of uncertain source despite an adequate search for the potential cause. The percentage of ischemic strokes that are cryptogenic vary among case series but contemporary studies suggest that approximately 25-30% of ischemic strokes do not have a determined cause. A recently defined group of cryptogenic stroke patients is those who are likely to have a cardioembolic stroke and they have been called embolic stroke of undetermined source (ESUS). The evaluation of ischemic stroke patients should include an extensive array of tests such as brain and vascular imaging, blood tests, an echocardiogram and monitoring of the cardiac rhythm. Since many cryptogenic strokes are thought to fall into the ESUS category, a more extensive cardiac evaluation should be considered. This would include transesophageal echocardiography and prolonged ECG monitoring in selected patients. The risk for recurrence of cryptogenic stroke is similar to patients with a determined source for their stroke. Secondary prevention should include antiplatelet therapy and risk factor modification. For ESUS patients, it is tempting to consider anticoagulation but current recommendations do not support this approach. Several ongoing clinical trials are comparing direct oral anticoagulants to antiplatelet therapy and the results should be available in a few years.

### MARC FISHER /USA



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