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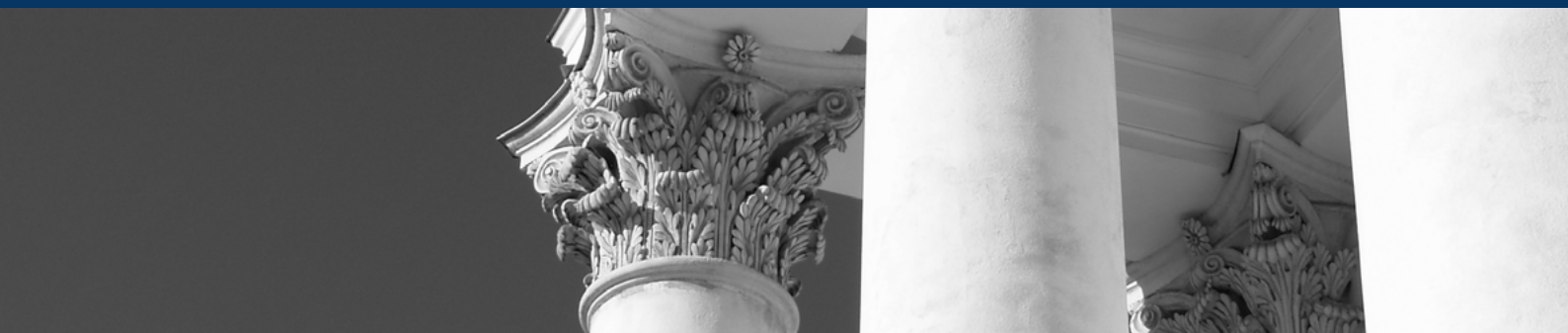"IULIU HATIEGANU" UNIVERSITY
OF MEDICINE AND PHARMACY

DOCTORAL SCHOOL
NEUROSCIENCE
PROGRAM

2022-2023 | M 2.3

21 MARCH, 2023
VIRTUAL MEETING

PhD NEUROSCIENCE PROGRAM COORDINATOR

Dafin F. Mureşanu

President of the European Federation of NeuroRehabilitation Societies (EFNR)

Secretary General AMN
(Academy for Multidisciplinary 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

INTERNATIONAL GUEST LECTURER

Maurizio Leone

EAN Guideline Production Group

Neurology Unit, Department of Medical Sciences, Scientific Institute for Research and Health Care "IRCCS Casa Sollievo della Sofferenza", S. Giovanni Rotondo, Italy

PhD NEUROSCIENCE PROGRAM FACULTY
2022-2023

Claudio Bassetti / Switzerland

Ettore Beghi / Italy

Natan Bornstein / Israel

Michael Brainin / Austria

Anca Dana Buzoianu / Romania

Michael Chopp / USA

László Csiba / Hungary

Marc Fisher / USA

Urs Fischer / Switzerland

Ioan Ștefan Florian / Romania

Antonio Federico / Italy

Francesca Federico / Italy

Max Hilz / Germany

Wolf Dieter Heiss / Germany

Tudor Jovin / USA

Maurizio Leone / Italy

Dafin F. Mureșanu / Romania

Milija Mijajlovic / Serbia

Lăcrămioara Perju-Dumbravă / Romania

Maura Pugliatti / Italy
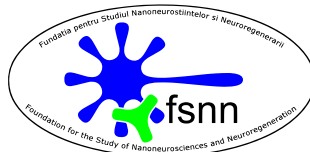
Johannes Vester / Germany

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"Iuliu Hatieganu", Cluj Napoca, Romania
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COURSE PROGRAM

COURSE PROGRAM

21 MARCH, 2023
VIRTUAL MEETING

12:00 - 12:20

Maurizio Leone/ Italy
How to search evidence in the literature

12:20 - 12:45

Maurizio Leone/ Italy
Writing a research protocol for a descriptive epidemiologic study

12:45 - 13:25

Maurizio Leone/ Italy
How to summarize clinical studies for guidelines and
clinical decision making

INTERNATIONAL GUEST LECTURER

MAURIZIO LEONE
ITALY

Maurizio A. LEONE, MD, is Director of the Neurology Unit at the Clinical Research Institute IRCCS "Casa Sollievo della Sofferenza" in San Giovanni Rotondo, Italy. Prior, he was head of the Multiple Sclerosis Centre of University Hospital in Novara. Born in 1955, he took his medical degree at the University of Torino in 1980. He was Guest Researcher at the Neuroepidemiology, Branch, NINCDS, NIH, Bethesda, USA (1986-7). He was Consultant at the Laboratorio di Neurologia, "Mario Negri" Pharmacological Institute in Milan (1998-2012). He is member of the Scientific Committee of the European Academy of Neurology and heads the EAN guideline production group. He was President of the Italian Society of Neuroepidemiology in 2012-4, and is currently member of the board of Italian Society of Neurology, and honorary member of the Moldovan Society of Neurologists. He serves as Associate Editor for the European Journal of Neurology and Frontiers in Neurology, and is referee for many neurological journals. Dr. Leone authored 167 papers in peer-reviewed journals in the area of neuroepidemiology —including amyotrophic lateral sclerosis, multiple sclerosis, epilepsy alcohol-related neurological diseases- and of evidence-based Neurology.

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

HOW TO SEARCH EVIDENCE IN THE LITERATURE

MAURIZIO LEONE
University of Piemonte Orientale, Novara, Italy

The scope of this lecture is to introduce students to the knowledge and use of the medical literature for answering clinical and research questions. Firstly, the pyramid of the production of the medical literature will be presented, starting from the primary studies up to systematic reviews, technology assessments and guidelines. An outline of the principal data-banks of primary and secondary literature will be presented, including the Cochrane library. Examples will be given of the entire procedure, from breaking down a clinical practice or research question, to where to search, how to generate search terms, how to use MeSH, filters, limits, and others. Lastly examples will be given on how to report literature searches for publication, including PRISMA.

WRITING A RESEARCH PROTOCOL FOR A DESCRIPTIVE EPIDEMIOLOGIC STUDY

MAURIZIO LEONE
University of Piemonte Orientale, Novara, Italy

Writing a research protocol for an epidemiological study is a very challenging task. It should not be considered as a tedious work required by the funding Agencies or academic bodies, but as a prerequisite for a good and successful epidemiological study. A carefully written protocol is the opportunity to explore any possible bias of the study, anticipate and prevent it from failure in collecting crucial information, guarantee methodological quality, evaluate feasibility and possible study impairments, lay down terms of reference for the collaborating partners, and allow for study reproducibility. Besides that, a good protocol is the basis for a good scientific paper. Here, a practical and interactive session is proposed to ensure the basis to design an appropriate research protocol. The practical aspects of writing a protocol for a descriptive epidemiologic study, including background, objectives, methods of data collection and analysis, and implementation are outlined. An overview of different sources of data for a descriptive epidemiological study will be explained, including current and ad-hoc sources: demographic data (censuses), vital registration systems (birth and death certificates), notification of infectious diseases, hospital admission/discharge archives, exemptions codes for specific diseases, drug prescriptions archive, reports of accidents at work, and reports of professional diseases, household samples, clinical data banks, and registers . Aim of the lecture is to understand the advantages and disadvantages of different types of data sources, the importance of representativeness, the importance of evaluating the quality of data (completeness, accuracy, relevance and timeliness). Special focus will be given to the health information systems and their possible uses for epidemiologic studies. Students will be asked to design a protocol, starting from their well-defined research question.

HOW TO SUMMARIZE CLINICAL STUDIES FOR GUIDELINES AND CLINICAL DECISION MAKING

MAURIZIO LEONE

University of Piemonte Orientale, Novara, Italy

The first part of this lecture will explain the difference between background and foreground questions, and how to formulate clinical questions that can be answered, introducing the format of PICO questions (Population, Intervention, Comparator, and Outcome). Examples will be offered and student will be asked to identify clinical questions from their clinical daily experience and then apply the PICO format to create searchable clinical queries. The difference between disease-oriented and patient-oriented outcomes will also be outlined. The second part includes an overview of systematic reviews with examples from a Cochrane review, and the difference between systematic and narrative reviews. A short introduction of the metanalysis will be given with examples of interpretation of a forest plot. Lastly, an overview of clinical practice guidelines will be provided. We need guidelines in Neurology for several reasons, including the fact that not all medical decisions are based on evidence, deterioration of knowledge over time, delay in transferring results from research to clinical practice, geographical variations in clinical practices, and limited resources. The characteristics of guidelines will be explained, differentiating with other documents with some of indications for the clinical practice but not clinical practice guidelines, such as technological assessments, diagnostic pathways and protocols. Examples of evaluation of the quality of guidelines will be provided, using AGREE. A brief summary of the production pattern of guidelines within the European Academy of neurology will be outlined.