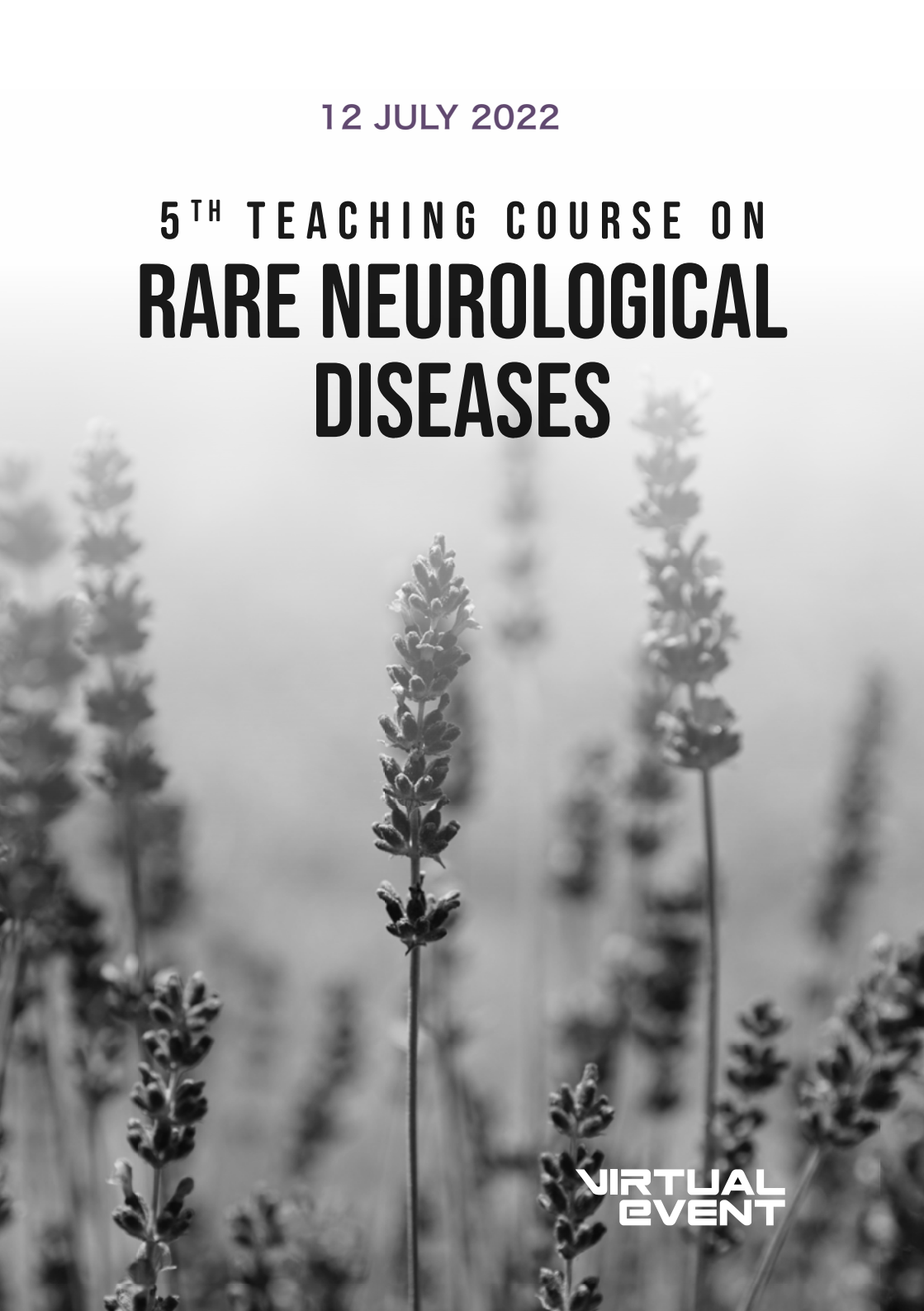
12 JULY 2022

5TH TEACHING COURSE ON RARE NEUROLOGICAL DISEASES



PROGRAM COORDINATORS

ANTONIO FEDERICO

Department of Medicine, Surgery and Neurosciences, Medical School, University of Siena, Siena, Italy

Past Chairman of the Scientific Committee and Past Member of the Board of the European Academy of Neurology

Co-Chair EAN Coordinating Panel Rare Neurologic Diseases

DAFIN F. MURESANU

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

FACULTY

IN ALPHABETICAL ORDER

Kailash Bhatia / UK

Jean-Marc Burgunder / Switzerland

Antonio Federico / Italy

Holm Graessner / Germany

Wolfgang Grisold / Austria

Max Hilz / Germany

Michelangelo Mancuso / Italy

Maria Judit Molnar / Hungary

Dafin F. Muresanu / Romania

Davide Pareyson / Italy

Marianne De Visser / Netherlands

SCIENTIFIC PROGRAM

12 JULY 2022

08:50 - 09:00	***WELCOME ADDRESS***

SESSION 1

Chairpersons: Antonio Federico (Italy), Kailash Bhatia (UK)

09:05 – 09:40	Rare Neurologic Diseases, a pandora box for neurology and neurosciences Antonio Federico (Italy)
09:40 – 10:15	Rare presentation of Parkinson diseases and dystonia Kailash Bhatia (UK)
10:15 – 10:50	Evaluating autonomic dysfunction in Rare Neurologic Diseases – a diagnostic tool and predictor of increased risk Max Hilz (Germany)
10:50 – 11:00	***SESSION BREAK***

SESSION 2

Chairpersons: Marianne de Visser (The Netherlands)
Michelangelo Mancuso (Italy)

11:00 – 11:40	Stroke and Rare Neurologic Diseases. An EAN Consensus Michelangelo Mancuso (Italy)
11:40 – 12:15	HyperCKemia: from common to rare Marianne de Visser (The Netherlands)
12:15 – 12:50	Rare Neurologic Diseases mimicking a Multiple Sclerosis like phenotype Antonio Federico (Italy)
12:50 – 14:00	***SESSION BREAK***

SESSION 3

Chairpersons: Wolfgang Grisold (Austria)
Jean Marc Burgunder (Switzerland)

14:05 – 14:40	Clinical and diagnostic approach for diagnosis of rare forms of peripheral neuropathies Davide Pareyson (Italy)
14:40 – 15:15	Paraneoplastic neurological syndromes - rare diseases Wolfgang Grisold (Austria)
15:15 – 15:50	Neurorehabilitation in Rare Neurologic Diseases Dafin F. Muresanu (Romania)
15:50 – 16:00	***SESSION BREAK***

SESSION 4

Chairpersons:	Holm Graessner (Germany) Maria Judit Molnar (Hungary)
16:05 – 16:40	New therapies for Rare Neurologic Diseases Maria Judit Molnar (Hungary)
16:40 – 17:15	Update in neurogenetics and therapy Jean Marc Burgunder (Switzerland)
17:15 – 17:50	Undiagnosed Rare Neurologic Diseases and the ERN Role Holm Graessner (Germany)
17:50	***CLOSING REMARKS***

ABSTRACTS

RARE PRESENTATION OF PARKINSON DISEASES AND DYSTONIA

KAILASH BHATIA
Professor of Clinical Neurology, Sobell Department of Movement Neuroscience, Institute of Neurology, UCL, Queen Square, London, UK

TBA

UPDATE IN NEUROGENETICS AND THERAPY

JEAN-MARC BURGUNDER
Professor of Experimental Neurology, Faculty of Medicine, University of Bern, Bern, Switzerland

TBA

RARE NEUROLOGIC DISEASES, A PANDORA BOX FOR NEUROLOGY AND NEUROSCIENCES

ANTONIO FEDERICO
Emeritus Professor Neurology, Department of Medicine, Surgery and Neurosciences, University of Siena, Siena, Italy

In the past two decades more attention has been dedicated to Rare Diseases (RD), with particular regards to Rare Neurologic Disorders (RND), representing more then 50% of all RD. However a coordinated activity by all stakeholders is necessary to harmonize in the world their care. For them, new treatments are now available some involving gene therapies or enzyme substitutions. An action plan to improve diagnosis has been developed in many countries, patient's organizations are very active, EU created the European Reference Networks, linking and coordinating the best European centers. Scientific Societies promoted the improvement of the information and knowledge of RND (EAN approved a Coordinating Panel for Rare Neurologic Diseases and the WFN on the past year approved a Specialist Group on the topic.) The European Brain Council launched research projects on the Value of Treatment for ataxias, dystonias and phenylketonuria. Research projects are dedicated to the undiagnosed patients and finally WHO in the new ICD11 classification of the diseases considered RND in the differential diagnosis of

the most common neurologic conditions. In conclusions, RND may be considered as a Pandora Box for Clinical Neurology and Neurosciences and many efforts are needed by all the stakeholders to avoid that these conditions are considered orphans of medicine, of doctors informed in their diagnosis and care in order to facilitate an early diagnosis , important for an early treatment now available for many disorders and able to improve the quality of life of patients and caregivers.

We need to improve, accordingly to 2030 EU Recommendation (1) with some extensions:

- the accademic and the post-graduate formation in this complex area of neurology involving also the general practitioners;
- the collaboration with the expertise centers and the European Reference Networks;
- the development of research projects on the pathogenetic mechanisms, with investment attraction;
- specialized neurorehabilitative approach;
- the support of families and caregivers with social assistance;
- a better harmonization of the disparities existing in the different areas of the world in the opportunity of diagnosis and care.

Reference 1) The rare 2030 Recommendation: the future of rare diseases starts today. https://www.rare2030.eu/recommendations/

RARE NEUROLOGIC DISEASES MIMICKING A MULTIPLE SCLEROSIS LIKE PHENOTYPE

ANTONIO FEDERICO
Emeritus Professor Neurology, Department of Medicine, Surgery and Neurosciences, University of Siena, Siena, Italy

The use of neuroimaging criteria for diagnosis of Multiple Sclerosis (MS), with the evidence of time and spaces disseminated white matter lesions is important for an early diagnosis and treatment . However several white matter disorders, mainly genetic, need to be considered in the differential diagnosis also with the familial form of MS. In fact, many forms of genetic leukodystrophies and leukoencephalopathies are characterized by a juvenile or adult onset, progressive or relapsing-remitting courses, intrafamilial clinical heterogeneity and MRI signs of multifocal white matter (WM) abnormalities, clinical findings that may lead to a temporary confusion with MS.

Between these, adrenoleukodystrophy and adrenomyeloneuropathy and Paelizaeus-Merzbacker diseases are the most important conditions with X-linked inheritance; CADASIL, CARASIL and other small vessel diseases , spheroid leukodystrophy and Lamin1 leukodystrophy within the dominant forms, and Leber's hereditary optic atrophy in the mitochondrial inherited forms.

In this presentation we will report several cases , stressing on the risk of misdiagnosing of a genetic leukodystrophy with MS, especially in an early disease stage, with a consequence of an inappropriate and ineffective treatment.

Genetic diseases mimicking multiple sclerosis. Hsu CL, Iwanowski P, Hsu CH, Kozubski W.Postgrad Med. 2021 Sep;133(7):728-749

Common Clinical and Imaging Conditions Misdiagnosed as Multiple Sclerosis: A Current Approach to the Differential Diagnosis of Multiple Sclerosis. Siva A.Neurol Clin. 2018 Feb;36(1):69-117.

Diagnostic algorithm for the differentiation of leukodystrophies in early MS. Köhler W.J Neurol. 2008 Dec;255 Suppl 6:123-6. Sporadic adult-onset leukoencephalopathy with neuroaxonal spheroids mimicking cerebral MS. Keegan BM, Giannini C, Parisi JE, Lucchinetti CF, Boeve BF, Josephs KA.Neurology. 2008 Mar 25;70(13 Pt 2):1128-33

The differential diagnosis of multiple sclerosis: classification and clinical features of relapsing and progressive neurological syndromes. Trojano M, Paolicelli D.Neurol Sci. 2001 Nov;22 Suppl 2:S98-102.

UNDIAGNOSED RARE NEUROLOGIC DISEASES AND THE ERN ROLE

HOLM GRAESSNER

Head of Research Management Unit, Institute of Medical Genetics and Applied Genomics at the University Hospital, Tubingen, Germany

This lecture is on Solve-RD that is a H2020 funded flagship EU project that brings together 22 partners from 10 countries and which will be running from 2018 to 2023. The main ambitions are (i) to solve large numbers of RD, for which a molecular cause is not known yet, by sophisticated combined Omics approaches, and (ii) to improve diagnostics of RD patients through a "genetic knowledge web". Solve-RD pursues an integrated "beyond the exome" approach. Unsolved Rare Neurological

Diseases are one main focus of Solve-RD . Two main analysis approaches are being implemented: massive re-analysis and cohort specific innovative -omics approaches.

Six European Reference Networks form the core of Solve-RD due to their unsolved rare disease patient cohorts, diagnostic research expertise and infrastructure of partners: ERN-ITHACA, -RND, -EURO-NMD, -GENTURIS, ERN RITA and ERN EpiCARE. Clinicians, geneticists, bioinformaticians and researchers of the ERNs contribute their expertise and knowledge to Solve-RD. In March 2017, 24 European Reference Networks (ERNs) have been approved by the European Commission. They are networks of THE European clinical expertise centres for rare diseases and provide value for improving diagnosis of RD patients.

PARANEOPLASTIC NEUROLOGICAL SYNDROMES - RARE DISEASES

WOLFGANG GRISOLD
President WFN

TBA

EVALUATING AUTONOMIC DYSFUNCTION IN RARE NEUROLOGIC DISEASES – A DIAGNOSTIC TOOL AND PREDICTOR OF INCREASED RISK

MAX. HILZ
Department of Neurology, Icahn School of Medicine at Mount Sinai New York, NY, USA

Examining the autonomic nervous system facilitates differentiating rare neurological diseases, and identifying an increased cardiovascular or respiratory risk. While there are abundant neurological orphan diseases, the rare Hereditary Sensory and Autonomic Neuropathies (HSANs) provide instructive examples of not easily differentiated diseases that can be distinguished with readily available neurophysiological and autonomic tests.

The - so far – eight known HSANs are quickly identified with a solid evaluation of the patient's history, a detailed clinical examination, rather limited studies of motor and sensory nerve conductions, the assessment of sensory small nerve fiber function by Quantitative Sensory Testing, particularly of cold, warm and heat pain

perception, but also of vibratory perception that is mediated by thickly myelinated A beta-fibers, and the evaluation of sudomotor function and assessment of sympathetic or parasympathetic cardiovascular alterations. While warm, cold, and heat pain perception are compromised in HSAN I, II, and IV, these perception thresholds are intact but vibratory perception is altered in HSAN II patients. In contrast, only pain perception is impaired in HSAN V.

Testing detailed thermoregulatory sweating might not always be possible since the required equipment, a sweat chamber, is expensive and not readily available. Yet, the "sweating history" and manual diagnosis of profuse sweating or dry skin already provide first diagnostic hints. The easily performed sympathetic skin response (SSR) recorded from palms and soles quickly discriminates HSAN III from HSAN IV. While patients suffering from HSAN III, also known as Familial Dysautonomia or Riley-Day syndrome, have preserved SSRs, patients with HSAN IV, also known as Congenital Insensitivity to Pain with Anhidrosis (CIPA), have no SSR. Another readily available sudomotor test is the Ninhydrin-test or Moberg-test during which the patient presses the palms and soles on a sheet of paper. The circumference of the hands and feet is marked with a pen. Then, colorless Ninhydrin is sprayed onto the paper. Wherever sweat touched the paper, Ninhydrin will react with amino acids contained in sweat, and the paper will show a color reaction known as "Ruhemann's purple". In contrast to the imprint of healthy persons, the imprint of a patient suffering for example from HSAN II shows a significantly reduced purple staining of the paper while HSAN IV patients show no purple staining at all.

Detailed cardiovascular autonomic testing also requires expensive and not always available equipment. Nevertheless, HSANs, and many other rare neurological diseases can be differentiated with simple bedside tests of cardiovascular autonomic function. Monitoring heart rate continuously with any monitor and measuring blood pressure every minute are often sufficient to identify reduced cardiovagal function during deep metronomic breathing at six cycles/minute or to diagnose orthostatic hypotension with a prominent blood pressure decrease upon standing-up from supine; heart rate might still accelerate if parasympathetic withdrawal and sympathetic activation are still somewhat preserved, or heart rate remains unchanged despite blood pressure decrease because parasympathetic withdrawal and sympathetic activation are already severely compromised.

In summary, simple autonomic bedside tests help distinguish rare, supposedly rather similar neurological diseases.

STROKE AND RARE NEUROLOGIC DISEASES. AN EAN CONSENSUS

MICHELANGELO MANCUSO
Head of the Centre of Neurogenetics and Expertise for Mitochondrial Diseases and Rare Diseases, Dep of Clinical and Experimental Medicine, Neurological Institute, University of Pisa, Pisa, Italy

Although the most common hereditary cerebral small-vessel disease (cSVD), cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL), was first described over two decades ago, in recent years additional monogenic cSVD genes have been identified. Apart from Fabry disease, there are no available disease-modifying therapies. Therefore, cSVD treatment focuses on symptomatic management, using approaches for which there is often no clear evidence base. Therefore, there are inconsistencies in treatment and preventive care regimens. Diagnosis can also provide challenges, particularly with the increasing use of next-generation sequencing techniques and the need to determine whether or not variants are disease causing.

In my talk I will report the results generated by a European Academy of Neurology Delphi consensus panel on important clinical questions related to diagnosis and management of monogenic cSVD.

NEW THERAPIES FOR RARE NEUROLOGIC DISEASES

MARIA JUDIT MOLNAR
Director, Institute of Genomic Medicine and Rare Disorders
Semmelweis University, Budapest, Hungary

TBA

NEUROREHABILITATION IN RARE NEUROLOGIC DISEASES

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

Rare neurologic disorders in the context of rare causes of stroke .

According to the World Health Organization, 15 million people suffer stroke worldwide each year. Of these, 5 million die and another 5 million are permanently disabled. Europe averages approximately 650,000 stroke deaths each year.

Stroke is the number one cause of permanent disability globally and the second most common cause of dementia. Although stroke among young adults is generally considered a rare event, with a previous study reporting that about 5% of all strokes in the United States occurred in a young adult population aged between 18 and 44 years, there is growing evidence of an increasing trend of stroke in young adults. It has been documented that stroke incidence in young adults aged between 20 and 54 years has significantly increased between 1999 and 2005.

Many risk factors for cerebrovascular diseases have been established including no modifiable factors such as age, gender, and race, as well as acquired risk factors such as hypertension, smoking, diabetes, and obesity. These factors, however, only account for a portion of the stroke risk suggesting that other variables, including genetics, must be involved in the etiology of stroke. The exact contribution of genetics to the incidence of stroke still remains largely unknown; however, it is clear that stroke can result from both monogenic and polygenic diseases. Common monogenic causes of stroke include cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL) and its autosomal recessive form, CARASIL, as well as sickle cell disease, and Fabry disease. Among rarer monogenic and polygenic causes of stroke we have: mitochondrial encephalomyopathy, lactic acidosis, and stroke like episodes (MELAS), hereditary endotheliopathy with retinopathy, ephropathy, and stroke (HERNS), homocystinuria, moyamoya disease, and inherited connective tissue disorders, including type IV collagen α1- chain gene (COL4A1) mutation, Marfan syndrome, and vascular Ehlers–Danlos syndrome (VEDS).

Despite all recent advances in neuro-technologies applied for stroke diagnostic, up to a third of strokes are rendered cryptogenic or of undetermined etiology. This number is specifically higher in younger patients. At times, inadequate diagnostic workups, multiple causes, or an under-recognized etiology contributes to this statistic. The current presentation will give a brief overview related to most

studied rare causes of stroke: aortic arch atheroma, cervical dissection, PFO & ASA, hereditary conditions, thrombophilia, acquired hypercoagulable status and vasculitis.

CLINICAL AND DIAGNOSTIC APPROACH FOR DIAGNOSIS OF RARE FORMS OF PERIPHERAL NEUROPATHIES

DAVIDE PAREYSON
Head of Rare Neurodegenerative and Neurometabolic Diseases Unit, Dept. of Clinical Neurosciences, IRCCS Foundation, Neurological Institute "Carlo Besta", Milan, Italy

Peripheral neuropathies are frequent as 8-10% of the population aging more than 55 years has symptoms or signs suggestive or peripheral nerve dysfunction, while rates in younger population are still undetermined. Recognizing rare neuropathies among these is a challenge, but it is an important task as an increasing proportion of them is now treatable and proper genetic diagnosis is fundamental also for those that are still without effective medical therapy. Charcot-Marie-Tooth disease (CMT) and related neuropathies represent the most common group (estimated prevalence 18-40:100,000). The diagnostic pathway is based on the full phenotypic characterization before performing the genetic testing, by determining the clinical picture, the inheritance modality, and the nerve conduction study (NCS) behavior; NCS and EMG are important to define presence, degree, and pattern of nerve conduction slowing, involvement of motor and/or sensory nerves, presence of spontaneous activity such as in active denervation and neuromyotonia, and to detect or rule out myopathic signs. The approach to genetic diagnosis depends on the availability of next generation sequencing techniques (NGS); testing for the PMP22 duplication (CMT1A) and deletion (HNPP) and GJB1 mutations (CMTX1) is often performed if clinically indicated before going to panels or WES, and NGS results require careful interpretation and matching with the phenotype. It is also important to look for peculiar clinical features that may be specific for certain CMT subtypes, such as optic atrophy, glaucoma, cataract, hearing loss, vocal cord palsy, pyramidal tract signs/spastic paraplegia, split hand. High serum sorbitol levels are typical of SORD-related dHMN/CMT2. Nerve biopsy, now limited to selected cases, may reveal specific myelin or axonal changes. The differential diagnosis may be challenging particularly with dysimmune neuropathies, other hereditary neuropathies, some of which are treatable, distal myopathies, slowly progressive motor neuron diseases. CANVAS, associated with a recessive intronic pentanucleotide repeat expansion in the RFC1 gene is a frequent cause of late-onset sensory ataxia, vestibulopathy and later cerebellar involvement; unexplained cough preceding sensory neuropathy onset is common. Hereditary TTR-related amyloid neuropathy

is an underdiagnosed disease which should not be missed as it is treatable and not so uncommon even in non-endemic countries; early recognition of AL amyloid neuropathy is also important for rapid treatment initiation. The recent PNS/EAN guideline on CIDP is an excellent document to use for following the best diagnostic strategy and selecting the proper treatment. Other neuropathies are definitely rare or ultrarare but still important to diagnose as some have available therapies (e.g., anti-MAG neuropathy, POEMS syndrome, acute intermittent porphyria, Refsum disease, MNGIE). A careful and comprehensive approach, taking into consideration also very rare neuropathies, is needed in such cases.

HyperCKemia: FROM COMMON TO RARE

MARIANNE DE VISSER
Senior Neurologist, Amsterdam University Medical Centres, Dept. of Neurology, Amsterdam, The Netherlands

Asymptomatic hyperCKemia and hyperCKemia manifesting with only sparse symptoms, such as myalgia or slight weakness (paucisymptomatic hyperCKemia) are the focus of this lecture. The non-neuromuscular and neuromuscular causes of a/paucisymptomatic hyperCkemia will be discussed. At the end of the lecture the learner will 1) know the common causes of a/paucisymptomatic hyperCKemia; 2) is able to make a differential diagnosis of a/paucisymptomatic hyperCKemia; 3) has acquired the skills to use the appropriate diagnostic tools to evaluate a/paucisymptomatic hyperCKemia.

CURRICULUM VITAE

KAILASH BHATIA

UK

I am a Professor of Clinical Neurology in the Department of Clinical and Movement Neuroscience at the Institute of Neurology, UCL, Queen Square, London and an Honorary Consultant Neurologist at the affiliated National Hospital for Neurology, Queen Square. I obtained my medical degree and also neurology degree from Bombay University India and obtained further training in neurogenetics and movement disorders with the late Professor's Anita Harding and David Marsden at Queen Square London. I am a Fellow of the Royal College of Physicians and corresponding Fellow of the American Academy of Neurology. My main research interest is in movement disorders, merging clinical, electrophysiological, and genetic methods to study the pathophysiology of movement disorders conditions like Dystonia, Parkinson's disease and atypical parkinsonian syndromes.

I currently have over 620 peer reviewed publications, several book chapters and have edited 4 books including a large reference tome "Marsden's book of Movement Disorders" by Oxford University Press (OUP) which was the recipient of the best book in Neuroscience award at the BMA awards in 2013. I am the current and founding editor in chief of Movement Disorders Clinical Practise Journal (MDCP) and have previously been the Associate Editor of Movement Disorders Journal (MDJ). I have served on several International committees of the MDS and the ENS, EFNS including the International Executive Committee (IEC) of Parkinson's disease and Movement Disorders Society and their central science programme committee (CSPC). I am on the executive committee for movement disorders for the Association of British Neurology (ABN). I have been an active member of the EAN as a delegate and full individual member and was the subcommittee chairman of movement disorders when the EAN was formed. I start a term in 2019 for two years as Secretary- elect of the MDS- ES to continue the close collaboration in the education programmes with the EAN and other bodies.

JEAN-MARC BURGUNDER
SWITZERLAND

Jean-Marc Burgunder has graduated in Medicine at the Faculty of Medicine in Bern, Switzerland, and trained in internal medicine, neurology and neuroscience in Switzerland and at the Institutes of Mental Health in Bethesda, USA. He is a Professor of Experimental Neurology at the faculty of medicine of the University in Bern. He has spent some years as a Professor of Medicine at the National University of Singapore. He is a visiting Professor of Neurogenetics at the Central South University in Changsha and at the Sichuan University in Chengdu (China). He also holds a position as an adjunct professor at the Sun Yat Sen University in Guangzhou in China. He is Director of the Neurocenter, including the Swiss HD Center at Siloah in Gümligen (Bern), devoted to the care of patients with rare neurological disorders, along with the provision of general neurology services for the area. Chair of the EHDN Executive Committee, Founding Steering committee member of the Chinese Huntington's Disease Network, Fellow of the European Academy of Neurology, Chair of the European Reference Network on Rare Neurological disorders Advisory board.

ANTONIO FEDERICO
ITALY

Prof. Antonio Federico, born in Polla (Sa) on the 25.08.48, from 1990 is full professor of Neurology at the University of Siena , Director of the Unit Clinical Neurology and Neurometabolic Disease.

He was Director of the Department of Neurological, Neurosurgical and Behavioural Sciences, University of Siena (2002-2008).

He received the degree in Medicine and specialization in Nervous and Mental Diseases, summa cum laude, at the University of Naples in 1972 and 1975 respectively. He received the Lepetit Award for the best degree dissertation in 1972.

His biological training was in the Institute of Biochemistry as student and after in Physiology of the University of Naples, and in the Centre de Neurochimie of CNRS, in Strasbourg, directed by prof. Mandel where he worked in the years 1973-75. He also collaborated with many international research groups, in different countries where he spent in the past years some times: in Montreal (Prof. Andermann, Karpati and Shoudgbridge), in London (dr A. Harding and prof. Morgan-Hughes), in Toronto (dr.Robinson), in Bonn (prof. von Bergmann), in Paris (dr.Baumann), in Baltimore (proff. Moser and Naidu), in Oxford (prof. Matthews), etc. His clinical formation was made at the Medical School of the University of Naples, in the Dept, Neurology, and after in Siena, where he moved on 1980 with his mentor, prof. G.C. Guazzi. Associated professor in Neurology in 1982, since 1990 he is full professor of Neurology, Medical School, University of Siena. In 2013, he received honoris causa degree in Medicine at University Carol Davila, Bucharest, Rumania.

In the years 1990-96 he was Secretary of the Italian Society of Neurology. In the years 2006-08 was President of the Italian Society of Neurology. He coordinated the Study Group on Clinical Neurogenetics of the Italian Society of Neurology. He has been referee for projects evaluation in the area of Orphan drugs and Orphan diseases for Biomed Projects from EU, for MURST, CNR and Istituto Superiore di Sanita, and other national and international funding agencies, etc.

He is member of the Second Opinion Group of the American Leucodistrophy Association. Associated editor of Neurological Sciences , Springer-Verlag Editor from 2000. From 2012, he is Editor-in Chief.

He is author of more than 500 article quoted by Pubmed. He is author of a chapter on Cerebrotendinous Xanthomatosis, Vinken and Bruyn Edts, Handbook of Clincal Neurology, vol 49, Neurodystrophies and Neurolipidoses.

On the book McKusick's Mendelian Inheritance in Man,. Ed.1992, Catalog of Autosomal Dominant and Recessive Phenotypes he is cited for 3 different diseases. He was editor of the book Late Onset Neurometabolic diseases (A.Federico, K. Suzuki and N.Baumann Edts), Karger 1991, and many other books from Italian and international.

Publishing Companies. Recently he published (2015) Manuale di Neurologia Pratica and Neurologia and Assistenza infermieristica, for students.

His main field of interest is related to neurometabolic, neurodegenerative and rare diseases, investigated from a genetic, metabolic, neuroimaging and clinical point of vue. Summary of the academic involvements: - Director of the Section Neurological Sciences, Dept Neurological , Neurosurgical and Behavioural Sciences (2000-2012) - Director of the Research Center for the Diagnosis, Therapy and Prevention of the Neurohandicap and Rare Neurological Diseases, until the 2010 - Vice-Dine of the Medical School, University of Siena (2003- 2006) - Director of the Postgraduate School of Neurology, University of Siena, from 2006 up to 2014. - Director of the PhD School in Cognitive and Neurological Sciences, University of Siena (from 2000 up to date) - Coordinator of the Section of the Univ. Siena of

the PhD Program Neurosciences, Univ. Florence. - Research delegate for the Dept Medicine, Surgery and Neurosciences (2013-2018) - Vice-Rector of the University of Siena, from 1st april 2016 to november 2017.

Medical Involvements – Until November 2018 (date of retirement) Director of the OU Clinical Neurology and Neurometabolic Diseases, University Hospital of Siena Medical School. –He is still Director of the Regional Reference Center for Rare Diseases - Regional Coordinator of the Network for Rare Neurological Diseases, Tuscany Region. - Member of several Ministry of Health and Regional Committees National and International Commitments - President of the Italian Society of Neurology (2009-11) - Italian delegate to the World Federation of Neurology - Italian Delegate to the European Union of Medical Specialists (Section Neurology) - Italian Delegate and Chairman of the Neuromediterraneum Forum and President - Consultive Member of the European Brain Council - Editor – in – Chief of Neurological Sciences, Springer Verlag Editor. He is in the Editorial Board of many national and international journals. - Member of the American Panel United Leucodystrophies. – Member of the Scientific Committee of AISM (Associazione Italiana Sclerosi Multipla) - Chairman of the Scientific Committee of the European Academy of Neurology (2014-2018) - Chairman of Neuromediterraneum Forum - Co-Chairman of Research group of WFN Migration Neurology. Member of the Scientific Societies: - Societa Italiana di Neurologia (Past Secretary, President, Past-President and Member of the Committee) - Society for the Inborn Errors of Metabolism - Italian Association of Neuropathology - SINDEM (Italian Association of Dementias) - Italian Association for Parkinson's disease - Italian Association of Neurogeriatrics (Member of the Scientific Committee) - Italian Stroke Forum - European Academy of Neurology (Member of the Board and Chairman of the Scientific Committee) - American Academy of Neurology - World Federation of Neurology (Co-Chair Section of Migration Neurology) - Neuromediterraneum Forum (President).

HOLM GRAESSNER
GERMANY

Holm Graessner has graduated in Biomedical Engineering, Electrical Engineering, German Language and Literature, Philosophy as well as Business Administration. He received his PhD "Summa cum laude" in 2004 and, then, he obtained his MBA degree in 2008.

He has been Managing Director of the Rare Disease Centre, since 2010, at the University and University Hospital Tübingen, Germany. www.zse-tuebingen.de

He is Coordinator of the European Reference Network for Rare Neurological Diseases (ERN-RND). www.ern-rnd.eu. Together with Olaf Riess, he coordinates the H2020 Solve-RD project on "Solving the unsolved rare diseases". www.solve-rd.eu

He has been co-leading one of the four working groups of the German Action Plan for Rare Diseases from 2010 until 2013. Since 2020, as a fellow of the European Academy of Neurology (EAN) he is a member of the management teams of the Neurogenetics Panel and the Rare Neurological Disease Coordinating Panel of the EAN.

WOLFGANG GRISOLD
AUSTRIA

Prof. Wolfgang Grisold is a specialist for neurology and psychiatry. In neurology he has a background in neuropathology and neurophysiology.

Special interests are general neurology, neurooncology, neuromuscular disease, education and patient related issues as pain, palliative care and advocacy.

He is involved education, and has been the initiator of the UEMS European board examination in neurology.

He has experience in hospital practice, research and private practice. He has participated in EU projects on paraneoplastic syndromes. The scientific focus is the effect of cancer on the peripheral nervous system, in particular in peripheral neurotoxicity and the direct effects of cancer.

In regard to neuromuscular disease, he has experience with autoimmune diseases, in particular myasthenia gravis and inflammatory neuropathies. He works in an interprofessional setting in diagnosis and treatment of mononeuropathies including imaging (ultrasound) electrophysiology and also plastic and reconstructive surgery.

He has authored and edited 20 books, and his pubmed count is presently 265.

He is involved in several international neurological societies and has organized several international neurological congresses, among the EANO congress in 2006 in Vienna, the ICNMD 2018 in Vienna , and was involved in the organization of the World Congress of

Neurology 2013, in Vienna, as the congress secretary.

He has become an elected trustee of the World federation of Neurology in 2009, and has started his term as the WFN president in 2022.

MAX HILZ
GERMANY

Studied medicine at the Universities of Cologne and Erlangen-Nuremberg in Germany. He first trained in Anesthesiology and Intensive Care Medicine and in Ear-Nose-and–Throat diseases, and then started his residency in Neurology and Psychiatry at the University of Erlangen-Nuremberg. He specialized in Neurology, Clinical Neurophysiology, Neurological Intensive Care Medicine and Disorders of the Autonomic Nervous System (ANS).

He holds German board certificates in Neurology and Psychiatry and in Psychotherapy. He also passed the board examination of the American Board of Electrodiagnostic Medicine. He is licensed to practice medicine in Germany, the United Kingdom, and in the State of New York, USA. From 1992 until 2013, he was Attending and Full Professor of Neurology, Medicine and Psychiatry at New York University, New York, NY. Until 2007, he also served as the Associate Director of the Dysautonomia Evaluation and Treatment Center at New York University. In 2006, he was offered an Endowed Chair and tenured Professorship at New York University.

From September 2016 to August 2017, he was the Chair in Autonomic Neurology, and Director of the Clinical Department of Autonomic Neurology at the University College London, Institute of Neurology, Queen Square, London, UK. Currently, Until April 2019, he was Professor of Neurology at the University of Erlangen-Nuremberg in Erlangen, Germany. Since June 2015, he is also Adjunct Professor of Neurology at Icahn School of Medicine at Mount Sinai, New York, NY, USA.

In December 2018, he received the academic degree of Doctor honoris causa (Dr. h.c.) from the "Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania. Professor Hilz is the current Chair of the Autonomic Disorders Research Group in the World Federation of Neurology. He also co-chairs the Autonomic Nervous System Subspecialty Panel of the European Academy of Neurology, EAN. He was President of the German Autonomic Society, President of the European Federation of Autonomic Societies, and Chair of the Autonomic

Section of the American Academy of Neurology. He is a member of the editorial board of Clinical Autonomic Research, and Associate Clinical Editor of Autonomic Neuroscience: Basic and Clinical. He also served as an advisor to the European Medicines Agency, EMA, on issues related to autonomic nervous system dysfunction.

He co-authored the guidelines of the German Neurological Society on syncope, the guidelines on erectile dysfunction and the guidelines of the German Diabetes Society on diabetic neuropathy. He has published more than 300 original and review articles in peer-reviewed journals and chapters in textbooks and presented his work at several hundred scientific conferences. Prof. Hilz is experienced in the examination of small nerve fiber diseases and disorders of the peripheral and central autonomic nervous system, including hereditary sensory and autonomic neuropathies, diabetic neuropathies, and Fabry disease, and central autonomic disorders. He studied the pathophysiology of Familial Dysautonomia, also known as Hereditary Sensory and Autonomic Neuropathy Type III, of Fabry disease, and the effects of brain lesions of various etiologies on the central autonomic network and on autonomic function. He also described long-term changes in the central autonomic modulation of the cardiovascular system in patients with a history of traumatic brain injury, stroke, epilepsy, multiple sclerosis and other diseases.

MICHELANGELO MANCUSO
ITALY

Professor Mancuso has more than 20-years experience on neurology and on treating patients with various neurological diseases.

Professor Mancuso is the head of the Centre of Neurogenetics and expertise for mitochondrial diseases and rare diseases at the Neurological Clinic of the University Hospital of Pisa (Orphanet Center EUGTIT247621). Scientific and research activity of Professor Michelangelo Mancuso has mainly been conducted in the field of mitochondrial, neurogenetics and neurodegenerative diseases and stroke.

As a whole results, his research activity have been presented in national and international congresses and published for a number of more than 250 full papers on peer-rewieved Life Science/Current Contents cited scientific journals. According to Scopus, Dr Mancuso's articles have more than 10000 citations, and the H-Index is 45.

Mancuso is the Coordinator of the Neurogenetics Group of the Italian Society of Neurology, and Chair of the Neurogenetics Panel of the European Academy of Neurology. Since 2018, he is also Fellow of the European Stroke Organisation.

MARIA JUDIT MOLNAR
HUNGARY

Maria Judit Molnar MD, PhD, Professor of Neurology, Psychiatry, Clinical Genetics, and Clinical Pharmacology, Doctor of the Hungarian Academy of Sciences is the director of Semmelweis University's Institute of Genomic Medicine and Rare Disorders, among others president of the Hungarian Medical College of Clinical Genetics, elected president of the Hungarian Human Genetic Society, Co- Chair of the Neuromuscular Scientific Panel and management board member of the Neurogenetic Scientific Panel of the European Academy of Neurology, past president of the Hungarian Society of Clinical Neurogenetics, secretary of the Hungarian Society of Personalized Medicine.

She was the vice-rector for Scientific Affairs at Semmelweis University (Budapest, Hungary) between 2012 and 2015, where she was also responsible for International Affairs.

After spending 2 years in Aachen Technische Universitat (Germany) as Humboldt fellow, she has been adjunct professor at the Montreal Neurological Institute, McGill University, between 1999 -2012. She is the member of the steering committee of the Association of Academic Health Centers Internationals. Dr. Molnar is the Facilitator of a Challenge Group of the International Consortia of Personalized Medicine initiated by the European Commission. Dr. Molnar is recognized as a leading experts on the diagnosis and treatment of neurological and psychiatric disorders. The Institute of Genomic Medicine and Rare Disorders lead by her offers a comprehensive state of the art, patient-centered multidisciplinary care for patients with rare neuropsychiatric disorders including genetic testing, neuropathological investigations and genetic counselling as well. Dr. Molnar's research covers a broad range of basic and clinical studies on rare neurological disorders, utilizing a broad spectrum of technologies including clinical science, molecular genetics including next generation sequencing and bioinformatics as well. The Institute of Genomic Medicine and Rare Disorders is the part of the European Reference Network of Rare Neurological Disorders (ERN-RND) and Neuromuscular Disorders (ERN-NMD). Dr. Molnar is the member of the management board of the ERN-RND as the work package leader.

She plays important role in the organization of rare disease management in Hungary and

acts as an ambassador promoting the personalized healthcare. She is the President of the Advisory Board of Rare Disorders, the official advisory board of the Hungarian Insurance Fund. She is the member of the advisory board of several pharmaceutical companies (AOP Orphan, Biogen, Greenovations Biotech GmbH, Sanofi Aventis, Sarepta, Stealth Health Biotherapeutics). She was the principal investigator of 11 clinical trials, and 13 research grants, published 1 book, 21 book chapters, 140 papers with more than 1500 citations. Hirsch Index is 20. She owns 2 patents. She is active in postgraduate education, 7 PhD students defended their thesis and 5 are active in their education. Several neurologists and clinical geneticist has been trained by her.

DAFIN F. MURESANU
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 of the EAN Communication Committee and Member of the Board, Co-Chair EAN Scientific Panel Neurotraumatology, Past President of the Romanian Society of Neurology, President of the Society for the Study of Neuroprotection and Neuroplasticity (SSNN), Corresponding Member of the Romanian Academy, Member of the Academy of Medical Sciences, Romania, 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 Neurotraumatolgy (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 (209 papers indexed on Web of Science-ISI, H-index: 22) as well as contributions in monographs and books published by prestigious international publishing houses.

Prof. Dr. Dafin F. Muresanu has been honored 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.

DAVIDE PAREYSON
ITALY

Head of Functional Department on Neurodegenerative and Rare Neurological Diseases,

Head of Rare Neurodegenerative and Neurometabolic Diseases Unit, Department of Clinical Neurosciences IRCCS Foundation, C. Besta Neurological Institute

Education: Degree in Medicine, University of Milan, cum laude; Board in Neurology, University of Milan, and in Clinical Neurophysiology, University of Pavia, Italy.

Davide Pareyson is a Clinical Neurologist working at the Fondazione IRCCS Istituto Neurologico C.Besta (INCB) of Milan, Italy, where he is currently Head of the Rare Neurodegenerative and Neurometabolic Diseases Unit; he is also Chief of the Functional Department of Neurodegenerative and Rare Neurological Diseases.

His main interest is clinical research on hereditary and acquired peripheral neuropathies and motor neuronopathies, inherited neurological disorders, rare diseases. He performed studies on phenotype-genotype correlation, clinical findings, electrophysiology, neuropathology (including skin nerve biopsies) of hereditary neuropathies (particularly Charcot-Marie-Tooth disease – CMT - and related neuropathies, but also amyloid neuropathy) and other neurogenetic disorders including spinal and bulbar muscle atrophy (SBMA), hereditary spastic paraplegias, hereditary ataxias, genetic leukodystrophies. He has been performing studies on pathomechanisms of late-onset axonal neuropathies related to MPZ mutations.

He has been working on the development of outcome measures for hereditary neuropathies and other rare diseases and has coordinated and participated in clinical trials and natural history studies in inherited and acquired neuropathies. He coordinated the international trial on ascorbic acid in CMT1A in Italy and UK (Pareyson et al., Lancet Neurol 2011) and the observational trial in patients with ATTR amyloid neuropathy treated with Tafamidis (Cortese et al., J Neurol 2016). He participated/participates in other interventional trials including the following: CMT (comparing two different rehabilitative approaches in CMT, coordinated by A Schenone, Genoa), CIDP (one coordinated by E Nobile Orazio with IVIG and pulse steroids, E Nobile-Orazio et al., Lancet Neurol 2015, and one international coordinated by RAC Hughes, published on Lancet Neurol 2012), TTR Amyloidosis (Helios-A, ongoing; Neurotransform, ongoing) and many natural history studies on CMT and SBMA.

He is the Coordinator of the Italian National Registries of Charcot-Marie-Tooth disease and

of Spino-Bulbar Muscular Atrophy (www.registronmd.it),and participates as local PI in the TTR-related amyloidosis Italian National Registry.

He has the certification of eligibility as Full Professor (Abilitazione Nazionale Italiana).

He has co-authored 286 papers on peer-reviewed Journals (Pubmed) mainly on hereditary disorders and neuromuscular diseases. H-index = 49 (Scopus)

Other Experience, Professional Memberships, Honors:

2021-2024	Coordinator of the Italian National Virtual Institute for Rare Diseases of the Neurosciences and Neurorehabilitation Network (Rete IRCCS delle Neuroscienze e della Neuroriabilitazione)
2020-	Member of the European Academy of Neurology (EAN) Teaching Course Committee
2020-2022	Chair of the International Peripheral Nerve Society (PNS) Guidelines Committee
2020-	EAN Representative in PNS Scientific Program Committee
2016-2021	Member of the Education Committee of the PNS
2016-2019	Chair of the CMTR, Charcot-Marie-Tooth neuropathy & Related diseases consortium
2019-2021	Member of the Board (as Past-Chair) of the CMTR
2013- 2017	Member of the Board of the PNS
2013-2018	Member of the Assembly of the EAN
2016-2020	Co-chair of the EAN Scientific Panel on Neuropathies
2016-2018	Member of the Management Group of the EAN Scientific Panel on Neurogenetics
2013-2015	Co-chair of the EAN Scientific Panel on Neurogenetics
2013-2014	Member of the Election Oversight Committee for the EAN
2012-2014	Member of the Executive Committee of the European Neurological Society (ENS)
2006-2013	Coordinator of the Clinical Neurogenetics Subcommittee of the ENS
2018-	Chair of the Neuropathy Group of the EURO-NMD ERN (European Reference Network for Neuromuscular Disorders) (since November 2018).
2016-2018	Deputy Chair of the Neuropathy Group of the EURO-NMD ERN
2020-2022	Vice-President of the Nervous System Commission of the Scientific Council of AFM-Telethon
2017-2019	Member of the Nervous System Commission of the Scientific Council of AFM-Telethon
2010-2013	President of the Italian Peripheral Nerve Society (ASNP)
2013-2016	Member of the Board of the of the ASNP
2008-2010	Coordinator the Italian Group for the study of the Peripheral Nervous System (GSSNP)

Member of the Editorial Board of the following Journals: Neurological Sciences (Associate Editor 2022-....), Neurology Genetics (2017-...), Journal of Neuromuscular Diseases; previously J Peripheral Nervous System (until Dec 2016), J Neurology (2008-2012), The Scientific World Journal (2010-2013).

Member of the Italian Neurological Society, European Academy of Neurology (EAN), Peripheral Nerve Society.

Ad Hoc Reviewer for: Nature, Nat Rev Neurol; Brain; Ann Neurol; Neurology; Annals of Clinical and Translational Neurology; Muscle & Nerve, Neuromuscular Disorders, J Neurol Neurosurg Psychiatry; J Neurol; Hum Mut., European J Neurol, Neurological Sciences, J Peripheral Nervous System, BMC Neurology, Clin Neurol, J Med Genet, J Medical Genetics, Clinical Genetics, Acta Neurologica Scandinavica, J Neurol Sci, Clinical Neurophysiology, Multiple Sclerosis, Clinical Neurology and Neurosurgery, Neurobiology of Disease, Mol Cytogenetics, Journal of Neuromuscular Disorders, Current Opinion in Neurology, GeneReviews, etc.; grant reviewer: MDA, AFM, FWO, Wellcome Trust, ABN Clinical Research Training Fellowship, Agence Nationale de la Recherche (ANR), National Institute for Health Research (NIHR, UK), NWO-Vici (The Netherlands), Neurological Foundation (New Zealand).

Research Support

Grants for research activities on CMT, SBMA, hATTR from NIH; AFM-Telethon; Telethon and Telethon-UILMD Italy; AIFA; MDA and CMTA; Regione Lombardia; Ministry of Health

MARIANNE DE VISSER
NETHERLANDS

Marianne de Visser is an adult neurologist at the Amsterdam University Medical Centers in Amsterdam, The Netherlands and emeritus Professor of Neuromuscular Diseases.

She was trained as a neurologist at the University Hospital of Amsterdam. In 1988 and 1989 she was a visiting scientist at Dr. Andrew Engel's lab at Mayo Clinic, Rochester, Minnesota where she performed ultrastructural studies on skeletal muscle in dermatomyositis. She obtained a position at the Department of Neurology

of the Academic Medical Center in Amsterdam and was appointed as Professor of Neuromuscular Diseases in 1993.

Her research interests are rare neuromuscular disorders such as myositis, hereditary neuropathies, motor neuron disorders. Her work on ALS kindled interest in palliative care.

Marianne de Visser has been President of the Netherlands Society of Neurology, an elected Trustee of the World Federation of Neurology. And at EAN she joined the Board right from its inception and served as the Treasurer and subsequently as Secretary-General. Since 2017, she is a member of the Executive Board of the ERN-EURO-NMD.

GENERAL INFORMATION

GENERAL INFORMATION

LOGISTIC PARTNERS:

Global Travel & More

21 Rapsodiei Street, Ap 15
Cluj Napoca, Romania
tel.: +40364137103
office@global-t.ro

Synapse Travel

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

Foundation for the
Society for the Study of
Neuroprotection and
Neuroplasticity
37 Mircea Eliade Street, 400364,
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.

FINAL PROGRAM & ABSTRACT BOOK

Available online here

TIME

The program hours are adjusted to Current Local Time in Bucharest, Romania, Eastern European Summer Time, UTC/GMT +3 hours

ACADEMIC PARTNERS

WFNR
World Federation for NeuroRehabilitation
Neuropharmacology SIG

EFNR The European Federation of NeuroRehabilitation Societies

Academy for Multidisciplinary Neurotraumatology

ORGANIZERS

Institute for Neurological Research and Diagnostic
www.roneuro.ro

Foundation of the Society for the Study of Neuroprotection and Neuroplasticity
www.ssnn.ro

Foundation of the Journal for Medicine and Life
www.medandlife.org

"Iuliu Haţieganu" University of Medicine and Pharmacy Cluj-Napoca, Romania
www.umfcluj.ro

Romanian Society of Neurology
www.neurology.ro

European Reference Network
for rare or low prevalence complex diseases
Network Neurological Diseases (ERN-RND)

NOTES