

ean  
congress

5<sup>th</sup> Congress of the  
European Academy  
of Neurology

Oslo  
2019

June 29 – July 2

Final Programme

# Neuroinflammation

Science. Synergies. Solutions.



# The official journal of the European Academy of Neurology



Impact Factor

## 4.621

ISI Clinical Neurology subject ranking: **34/197**

ISI Neurosciences subject ranking: **56/261**

The *European Journal of Neurology* covers all areas of clinical and basic research in neurology, including pre-clinical research of immediate translational value for new potential treatments. The journal welcomes submissions on controlled clinical trials including those of novel therapies from Phase I-III. Emphasis is placed on major diseases of large clinical and socio-economic importance:

- Dementia
- Stroke
- Epilepsy
- Headache
- Multiple Sclerosis
- Movement Disorders
- Infectious Diseases

The journal provides a forum for European activity in clinical neuroscience and medical practice and helps strengthen the links between research workers and clinicians in Europe and other parts of the world.

## Free Online Access for EAN Members



FREE Guidelines



Reviews



High Impact  
Research Articles



Topical Virtual  
Issues

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# OUR UNIVERSE IS MADE UP OF 86 BILLION NEURONS.

LET'S EXPLORE IT.  
TOGETHER.

## Driving Excellence in Neurology.

Be part of one of humankind's most ambitious projects to help uncover the workings of the nervous system. EAN connects 45,000 specialists in neurology in 47 countries across Europe. Promoting excellence, cutting-edge science and innovative therapies for a better life for more than 430 million patients in Europe alone. Read more on [ean.org](http://ean.org)

Great Minds.



## Welcome

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It is our great pleasure to welcome you to Oslo on the occasion of the 5th EAN Congress from 29 June to 2 July 2019.

Oslo is one of Europe's fastest-growing cities, with a population of 620,000. Actually, half of Norway's population lives less than 3 hours' drive from Oslo harbour. The largest city in Norway is now quickly transforming into a cosmopolitan hub with many of world-class museums, restaurants and art, but still maintains the relaxed atmosphere of a much smaller town. The compact city centre is easily explored on foot or by bike, and an efficient public transport system makes the whole city accessible without a car.

Norway has longstanding traditions in neuroscience and clinical neurology. Oslo got its first full clinical professorship in Neurology already in 1895, possibly the second full chair of neurology in the world. Norway has a very active and dedicated Neurological association with more than 650 members who will do what they can to make the congress and your stay a great success and a memorable event.

The overarching theme for the congress is "Neuroinflammation – Science. Synergies. Solutions". The role of neuroinflammatory processes is currently a hot topic in both understanding neurological diseases and in developing new therapies for brain diseases. Different aspects of neuroinflammation will be highlighted during the congress in addition to a broad spectrum of events related to the whole variety of disorders covered by neurology. Sessions will range from teaching courses and focused workshops over high-quality symposia and named lectures to presentations of most recent scientific progress and should allow participants an individualised and high quality up-date in every aspect of neurology.

EAN and the Norwegian Neurological Association welcome you all to exciting days in Oslo and hope that the congress will be of benefit both for you and your patients. We also hope that you will enjoy the city, the fjord with its activities, surrounding nature, and our hospitality. No effort will be spared to make this congress a great success.



**Tony Marson**  
Chairman of the  
Programme Committee  
of the European Academy  
of Neurology



**Franz Fazekas**  
President of the  
European Academy  
of Neurology



**Erik Taubøll**  
Chairman of the  
Local Organising  
Committee



# About EAN

This year, the European Academy of Neurology (EAN) celebrates its fifth year of supporting education and fostering research within European neurology. Founded in 2014, through the merger of two existing societies, EAN has since served as the home of neurology in Europe, giving neurologists and related professionals in Europe a unified voice, while ensuring it remains one of the world's scientific hotspots.

The Aim of EAN (European Academy of Neurology) is Excellence in Neurology in Europe.

**EAN is a non-profit organisation and identifies itself with the following five values:**

- Professionalism. EAN strives to reach the highest scientific standards and to deliver unbiased information in its research and educational activities.
- High ethical standards. EAN applies high ethical standards in all its activities within science, education, communication, and administration, complying with applicable regulations and codes of ethics.
- Involvement. EAN strives to involve its members and collaborators in the organisation of research, education and liaison activities.
- Independence. EAN operates as a professional and scientific organisation, independent from the political or commercial interests of external companies or organisations.
- Transparency. EAN provides transparency in the organisation of all its scientific and administrative activities.

**EAN is an organisation of:**

- 47 European national neurological societies
- 1200 individual members
- 10 corresponding member societies

**EAN consists of:**

- an Assembly of Institutional and Individual delegates
- elected officers
- 4 standing committees, 2 sub-committees and working groups
- 30 Scientific Panels

## Committees

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### Board

Franz Fazekas, Austria  
*President*

Claudio Bassetti, Switzerland  
*President Elect*

Günther Deuschl, Germany  
*Past President*

Marianne de Visser, The Netherlands  
*Secretary General*

Elena Moro, France  
*Treasurer*

Dafin Muresanu, Romania  
*Chair Communication Committee*

Riccardo Soffietti, Italy  
*Chair Education Committee*

Tony Marson, United Kingdom  
*Chair Programme Committee*

Marie José Vidailhet, France  
*Chair Scientific Committee*

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### Programme Committee

Tony Marson, United Kingdom (*Chair*)  
Erik Taubøll, Norway (*Co-Chair*)

Urs Fischer, Switzerland  
Sten Fredrikson, Sweden  
Salimata Gassama, France (*RRFS representative*)  
Dan Healy, Ireland  
Ivan Rektor, Czech Republic  
Evzen Růžička, Czech Republic (*MDS-ES representative*)  
Philip Scheltens, The Netherlands  
Riccardo Soffietti, Italy (*Chair Education Committee*)  
Claudia Sommer, Germany (*Chair Teaching Course Sub-Committee*)  
Guido Stoll, Germany  
Walter Struhal, Austria (*Ethics & Quality TF representative*)  
Antonio Toscano, Italy  
Marie José Vidailhet, France (*Chair Scientific Committee*)

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### Local Organising Committee

Erik Taubøll (*Chair*)

Anne Hege Aamodt  
Geir Bråthen  
Espen Dietrichs  
Nils Erik Gilhus  
Ellisiv Mathiesen  
Ole-Bjørn Tysnes

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### Teaching Course Sub-Committee

Claudia Sommer, Germany (*Chair*)

David García Azorín, Spain (*RRFS representative*)  
Elena R. Lebedeva, Russian Federation  
Milija Mijajlovic, Serbia  
Celia Oreja-Guevara, Spain  
Erich Schmutzhard, Austria  
Maria Stamelou, Greece (*Ethics & Quality TF representative*)  
Pille Taba, Estonia (*MDS-ES representative*)  
Roland Wiest, Switzerland

# EAN Membership benefits

<b>Fee 1</b> until 3 May
<b>Fee 2</b> from 4 May until 30 September
<b>Fee 3</b> after 30 September, all fees go towards the following year

## GET CONNECTED AND VISIT THE ANNUAL CONGRESS

<b>Reduced registration fees</b> (*not valid for Fee 2)
<b>One free educational course</b> (*not valid for Fee 2)
<b>Access to the VIP area</b>
<b>Access to selected congress webcasts</b>
<b>Have your picture taken at the EAN photobooth</b>

## MAKE CONNECTIONS AND EXPAND YOUR KNOWLEDGE

<b>Purchase the printed edition of the <i>European Journal of Neurology</i> at a reduced rate</b>
<b>My EAN: free web-conferencing tool</b>
<b>EAN Guideline Reference Centre</b>
<b>Gain Individual Membership in EAN Scientific Panels</b>

## GET ACCESS TO AND LEARN

<b>Current issues and the full archive of the <i>European Journal of Neurology</i></b>
<b>Online learning platform eBrain</b>
<b>E-book Manual of Neurological Examination</b>
<b>Receive monthly mailshots of our electronic newsletter EAN pages</b>
<b>EAN grants</b>

## SHAPE THE FUTURE OF EAN & PARTICIPATE

<b>Voting rights &amp; Committee participation</b>
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## ENJOY YOUR SPECIAL STATUS

<b>The right to use the FEAN title in your CV and publications &amp; a medal recognizing your FEAN status</b>
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Student Member	Resident & Research Member	Full Member	Corresponding Member	Fellow of EAN (FEAN)	Corresponding FEAN	Associate Member
0,-	45,-	150,-	150,-	250,-	250,-	0,-
0,-	45,-	75,-	75,-	125,-	125,-	0,-
0,-	45,-	150,-	150,-	250,-	250,-	0,-

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\*\*Associate Member conditions vary



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- If your place of work is a low/ low middle income country (as defined by World Bank), you pay a reduced fee of €25
- If your place of work is a low/ low middle income country (as defined by World Bank), you are entitled to a 50% discount
- ◆ If you are a retired neurologist, you are entitled to a discount of 50%
- AAN Members from outside Europe get a 10% discount off EAN membership
- \* Members from EAN member countries get a 10% discount off AAN membership



## Membership Information

EAN celebrates its 5-Year Anniversary. To honour those that have been a part of EAN from the very beginning, a “Wall of Fame” is dedicated to them in the hallway outside the main auditorium.

Become an EAN individual member and benefit from the following:

### Get connected and visit the annual congress

- Reduced registration fees
- One free educational course
- Access to the VIP area
- Access to selected congress webcasts
- Have a professional picture taken at the EAN photobooth

### Make connections and expand your knowledge

- Purchase the printed edition of the *European Journal of Neurology* at a reduced rate
- My EAN: web-conferencing tool
- EAN Guideline Reference Centre
- Gain Individual Membership in EAN Scientific Panels


### Get access to and learn

- Current issues and the full archive of the *European Journal of Neurology* online
- Online learning platform eBrain
- E-book Manual of Neurological Examination
- EAN Grants (for Resident and Research Members)

### Shape the future of EAN

- Voting rights & Committee participation (FEAN & Full members only)

### Savings

- AAN shared Membership:  If you are an AAN Member, you are eligible of a 10% discount off your EAN Individual Membership fee. In reverse, EAN Individual members receive a 10% discount when applying for AAN membership.
- If your place of work is a low/low middle-income country (as defined by World Bank), you pay a reduced fee.
- If you are a retired neurologist, you are entitled to a discount of 50% off the regular membership fee.

### Membership packages

**Full Member:** Neurologists who are nationals of any EAN member country, or practicing in any of the EAN member countries, irrespective of their citizenship, including neurologists in training who can become RRFS members.

**Corresponding Member:** Neurologists living in a non-EAN member country or a health professional and/or scientist working in another specialty area or profession related to neurology.

**Resident and Research Member (RRFS):** Residents/neurologists in training, research fellows, PhD students in Neurology. The mentioned three groups up to a maximum of 3 years beyond their latest degree (MD, PhD).

**Student Member:** All undergraduate medical students (Bachelor and Master, or equivalent) no matter which country they come from.

### Fellow of EAN (FEAN)

The title of ‘Fellow of the EAN’ acknowledges a limited number of neurologists/neuroscientists who are full/corresponding members and who deserve a special recognition.

- a scientific achievement that places you within the European leaders in your field, or
- significant and continuing service in a leadership position for a European or international society for neurology or a neurological subspecialty society, or
- a service for neurological patients that is considered exceptional



Please apply by sending your application form and CV (in English) to EAN Head Office: Forms can be downloaded online or be sent upon request. You can apply for any membership category online: [www.ean.org/Membership-Packages](http://www.ean.org/Membership-Packages).

### Service Award

The European Academy of Neurology is proud to award outstanding members of the neurological community for their service to European Neurology and EAN. The award is handed over during the Assembly of Delegates, taking place at EAN annual congresses. Recipients are granted the Title “Fellow of EAN”.

In 2019, Hannah Cock, London, United Kingdom will receive the EAN Service Award during the EAN Assembly of Delegates, for her outstanding contributions towards improvement and expansion of the educational activities of EAN.

## Educational Grants Information

### Clinical Fellowship 2020



Application deadline: October 31, 2019

The purpose of this award is to provide a well-defined observational clinical practice, service structure or technical experience to support training. The grant is to support a visit of six weeks duration.

Each grant is amounting to € 1,500.-/month (plus travel expenses of up to € 300.-)

A list of approved hosting departments (and details for interested hosts of how to apply) is available on [www.ean.org](http://www.ean.org)

Candidates from all EAN member (and corresponding member) countries are eligible to apply. Applicants must be current residents with a minimum of 2 years training in neurology or have obtained their board certificate/completed training within the last 3 years at the time of application; have knowledge of the local language (host department) or be fluent in English. Awardees from previous years are no more qualified.

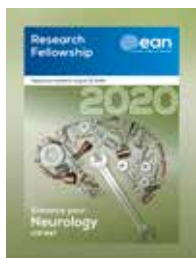
**All applicants must be Full member or RRFS member at time of application.**

Applicants and hosts are expected to have consulted and worked together on any application to maximise the likelihood of success.

All application documents must be submitted by October 31, 2019 by email to [fellowship@ean.org](mailto:fellowship@ean.org)

**Application is open between 1 August and 31 October 2019**

### EAN Research Fellowship 2020



Application deadline: August 31, 2019

The purpose is to support training and experience for European Neurologists in any area of basic or clinical or applied research in neuroscience. The research work must be carried out at a European academic neurological department outside the country of residence. All applications should

demonstrate experience/training of clear value to the home department/individual beyond that available in their own countries/institutions. Successful applicants will be awarded € 2,000.- per month.

**Research training fellowship:** Expected to be of typically 12 months and no less than 6 months, to lead either to completion of a higher degree, a grant application or peer-reviewed publication.

**Research experience fellowship:** Expected to be of typically and no more than 6 months duration for individuals who might otherwise not have the opportunity to gain high quality research experience; more experienced clinicians/researchers requiring training in a specific research methodology or technique not currently available in their own country and of clear value to home department will also be considered.

Candidates from EAN member countries and affiliated to a European academic neurological department with a minimum of 2 years neurology training, up to a maximum of 5 years beyond their final degree (PhD, MD, or equivalent) at the time of application are eligible to apply.

**All applicants must be Full member or RRFS member at time of application.**

Applicants and hosts are expected to have consulted and worked together on any application to maximise the likelihood of success.

All application documents must be submitted by August 31, 2019 by email to [fellowship@ean.org](mailto:fellowship@ean.org)

**Application Deadline: August 31, 2019**

### EAN Spring School 2020

May 2020



Application deadline: January 31, 2020

Dedicated to clinical neurologists in training who did not yet complete their residency/clinical speciality training who wish to boost their knowledge and to get the chance to enable personal contacts among participants and faculty members.

Preliminary Programme:

1. Headache & Pain
2. Multiple Sclerosis
3. Infectious diseases

## Educational Grants Information

Structure: morning plenary sessions and case-based workshops for smaller rotating groups in the afternoons.

Location: Steinschaler Doerfl, Frankenfels, Austria (1.5h from Vienna airport)

All applicants must be neurologists in training (not yet completed residency/clinical speciality training) with more than 2 years of clinical training, and up to a maximum of 5 years beyond their final degree. RRFs members from Corresponding Institutional Member Countries and HINARI Group A countries are welcome to apply. Attendance during the entire course is mandatory.

Awardees from previous years are no more qualified.

**All applicants must be Full member or RRFs member at time of application.**

Accommodation, tuition, board and programme are sponsored by EAN. Participants pay for their travel only.

All application documents must be submitted by January 31, 2020 by email to [education@ean.org](mailto:education@ean.org)

**Application open between 1 October 2019 and 31 January 2020**

### EAN Autumn School 2019

October 17-20, 2019



Application deadline: July 31, 2019

Increase your knowledge of clinical neurology! Experienced neurologists and sub-specialists will illustrate how they approach specific clinical presentations, including an update on relevant diagnostic and treatment approaches for key conditions in the relevant areas.

Preliminary Programme:

1. Cognitive dysfunction and Headache: Image patterns and clinical presentations
2. Cognitive dysfunctions
3. Headache

Structure: morning plenary sessions and hands-on/case-based clinical workshops (video and patient presentations) for 20 persons each in the afternoons.

Location: Loutraki, Greece (1.5h from Athens airport)

All applicants must be neurologists in training (not yet completed residency/clinical speciality training) with more than 2 years of clinical training, and up to a maximum of 5 years

beyond their final degree. RRFs members from Corresponding Institutional Member Countries and HINARI Group A countries are welcome to apply. Attendance during the entire course is mandatory.

**All applicants must be Full member or RRFs member at time of application.**

Accommodation, tuition, board and programme are sponsored by EAN. Participants pay for their travel only.

All application documents must be submitted by July 31, 2019 by email to [education@ean.org](mailto:education@ean.org)

**Application Deadline: July 31, 2019**

### EAN Regional Teaching Courses (RTC) and EAN-Day



EAN RTCs are specially designed for the purpose to bring neurological standards directly to the countries that cannot host an EAN congress or to Sub-Saharan Africa to avoid that our colleagues in training have to travel to far-away congresses. RTCs provide basic teaching in neurology and thus also establish friendly relations with all colleagues. These courses are held in English language and have a duration of 3 days.

Plenary sessions with 3 international and 1 local speaker are held each morning and deal with each of the three main topics of the RTC, i.e. focus on one main topic per day. Small tutorial groups in the afternoon are set up to enhance the hands-on learning (case-based videoclips, Hands-on course, Workshops). Organisers are either National Neurological Societies or Neurological University departments.

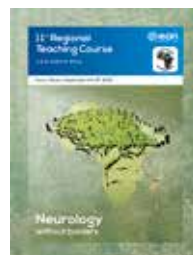
RTC in Sub-Saharan Africa is organised in cooperation with AFAN – African Academy of Neurology – and other scientific societies who through their contribution make this RTC possible. The EAN Task Force “Neurology and Africa” together with the EAN Education Committee and Ethics



and Quality Assurance task-force guarantee the high scientific standard of this Course.

The 11th Regional Teaching Course in Sub-Saharan Africa will take place September 04-07, 2019 in Accra, Ghana.

Involved Societies in 2019 are: AAN, IBRO, MDS, WFN and WSO.



## Educational Grants Information

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The **EAN-Day** aims at bringing excellent teaching and special recognition by EAN to our National Neurological Member Societies (and Corresponding Societies). This day takes place directly prior or after a National Neurological Society meeting.

Three plenary sessions take place in the morning addressing 3 different topics by renown international speakers. After a lunch break, there are rotating workshops on the same 3 topics, case-based video clips or hands-on courses for participants to work and learn in smaller groups. Lectures are usually in English.

All Guidance documents and application forms can be found online: [www.ean.org-LEARN-Educational events](http://www.ean.org-LEARN-Educational%20events)

### CME Articles



Based on selected articles published in the *European Journal of Neurology* that are related to either a Guideline, consensus document or key reviews/summaries. Answer 5 article-related questions correctly and receive a certificate recommending one hour of CME.

Please log-in on the EAN website for free-of-charge access to all e-learning features and the online version of the *European Journal of Neurology*.

### Guideline papers

Included in the *European Journal of Neurology* & FREE OF CHARGE access for EAN members via the Guideline Reference Center on the EAN website.

### eBook Manual of the Neurological Examination for Neurologists in Training

Launched in 2017, the e-book presents the basics and some advanced knowledge about the neurological examination in the clinic, on the ward, and in the emergency room. It contains 12 sections, intuitively divided for application of the exam to a variety of contexts, from cranial nerves to the examination of the unconscious patient. By utilising the e-book structure, the examination techniques in over 90 video tutorials and over 100 figures, and show typical disease patterns in over 40 patient movies are illustrated.

It contains optimised display for tablets, smartphones and desktops with adjustable font size and gives opportunities for personal note-taking to support the learning process.

The eBook is available in English, German and Portuguese language on the EAN Website free for download for EAN members.

### eBrain



ebrain represents the world's largest, most comprehensive web-based training resource in clinical neuroscience

designed to support training and continuous professional development for clinical neuroscience trainees, consultants and non-specialists. It is free-of-charge for EAN members. Please log-in on [www.ean.org](http://www.ean.org) to have direct access. If you need help, please come to the EAN booth/LEARN, or contact [education@ean.org](mailto:education@ean.org)

The multimedia-rich, engaging materials are designed to enhance traditional learning, support existing teaching methods and provide a valuable reference point that is accessible anytime, anywhere.

The online training content comprises approximately 20 modules of e-learning, with each of the 550+ individual lessons taking around 20 minutes to complete.

## RRFS

### Resident and Research Fellow Section



RRFS represents the junior generation of neurologists within EAN. Our members are physicians currently working as a resident in Neurology, research fellow, PhD student or neurologist with not more than 3 years of practice after completion of the residence training. Application for membership can be done directly at the EAN booth or online at the EAN website: <https://www.ean.org/Resident-and-Research-Fellow.2676.0.html>

The aims of RRFS are to support neurology trainees in their clinical training or research, to promote network between European junior neurologists and different generations of neurologists. In order to be eligible for any EAN educational grant, RRFS membership is mandatory.

#### Activities of Resident and Research Fellow Section (RRFS) during the Congress

##### Join us at the RRFS booth

During the congress, RRFS members will be available at the LEARN area of the EAN booth to provide up-to-date information about membership, travel grants, education and other congress activities. Furthermore, our amazing lottery takes place with drawing of the winners on Tuesday, July 02, at 10.00.

##### RRFS at the Scientific Theatre

Several talks by RRFS members are given at the Scientific Theatre, please see the complete schedule at page 53.

##### RRFS National representatives meeting

Saturday, June 29, 14:15-15:15, Room HoC

All RRFS National Representatives are invited to join this meeting as well as all RRFS members, who are interested to become an RRFS National Representative. Currently 36 countries are actively represented and involved, and new representatives are very welcome. The aim is to meet and discuss topics relevant to residents and research fellows in Europe. An overview about the current state and further development of RRFS projects are provided, together with the different national societies as well as how RRFS can be involved or support national initiatives.

##### RRFS Special Session

Sunday, June 30, 16:45 – 18:15 h, Room CbW

Resident and Research Fellow Section Round Table Discussion  
Chairpersons: Officers of RRFS

1. Controversy: How to plan your residency in neurology?
  - a. Completely in one country  
Jan Kuks, Groningen, The Netherlands
  - b. Enclose an experience abroad  
Diana Aguiar, Lisbon, Portugal
2. Controversy: Being a clinical scientist ...
  - a. Positive chance to combine research and patient care  
Lars Timmermann, Marburg, Germany
  - b. By no means at all (as this means no proper research and no full patient care)  
Michael Khalil, Graz, Austria

This session will provide a thorough discussion including pro and contra arguments with provision of facts but on the other hand still in an open environment with the possibility to question arguments on an individual level.

##### RRFS hospital visit

Sunday, June 30, 18:15, meeting-point is in front of Oslo congress center

If you have missed to register for your participation during your congress registration, you can sign up at the RRFS booth – places are limited. Participants will be introduced to the local neurology education while visiting the Neurology Department of the Rikshospitalet and the adjacent building where the research departments are (Domus Medica). The hospital visit is followed by a get-together with food and beverages.

Registration is necessary due to limited places. If you would like to join us, send an email to [rrfs@ean.org](mailto:rrfs@ean.org), or come by the EAN LEARN Booth.



##### RRFS General Assembly

Monday, July 01, 17:30 – 18:30, Room HoC

All RRFS members are invited to join the RRFS General Assembly to vote the next treasurer of the RRFS office.

# FOR US, COMMUNICATION IS AN ART FORM.

LET'S PERFECT IT.  
TOGETHER.

## Driving Excellence in Neurology.

Be part of one of humankind's most ambitious projects to help uncover the workings of the nervous system. EAN connects 45,000 specialists in neurology in 47 countries across Europe. Promoting excellence, cutting-edge science and innovative therapies for a better life for more than 430 million patients in Europe alone. Read more on [ean.org](http://ean.org)

**Great Minds.**



## Congress Grants

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### Congress Grants

#### Bursaries

The 5th EAN Congress offered 240 bursaries consisting of free registration and up to four nights of hotel accommodation.

Eligible were EAN Resident and Research Members in good standing from EAN member countries, whose abstract had been accepted.

It was also possible for colleagues in training from Algeria, Egypt, Jordan, Lebanon, Libya, Mauretania, Morocco, Palestine, Syria and Tunisia as well as from sub-Saharan countries belonging to the HINARI Group A list of countries as established by WHO ([www.who.int/hinari/eligibility/en/](http://www.who.int/hinari/eligibility/en/)) to apply for bursaries.

Bursary recipients were selected by the Programme Committee based on abstract evaluation. One bursary per person was awarded. The bursaries were co-sponsored by an educational grant from MDS-ES.

Applications for the 6<sup>th</sup> EAN Congress Paris 2020 can be submitted by the time of the abstract submission deadline: **8 January 2020**. Bursaries are available for EAN RRFS members only.

#### Investigator Award

All free presentations (oral presentations, ePresentations and ePosters) selected for presentation at the 5th EAN Congress 2019 will automatically take part in the selection of an Investigator Award. The award for the 20 best presentations will be a registration to the 6<sup>th</sup> EAN Congress in Paris, France, a certificate and the winners will be announced in EAN Pages. The award will be given to the first author, who needs to be the person to present the work at the congress. The EAN Scientific Panels together with the Scientific Committee and the Programme Committee will be responsible for the evaluation process before as well as during the congress.

#### Tournament for Neurologists in Training

A tournament for neurologists in training will take place. The tournament will be carried out in two groups. One on basic neurological science, Sunday, June 30, 2019 (see page 100) and one on clinical related research Monday, July 01, 2019 (see page 116)

Eligible were EAN Resident and Research Members in good standing from EAN member countries, whose abstracts had been accepted.

**Selection of candidates:** The EAN Programme Committee has selected 6 candidates for each tournament group based on the contents of the abstracts submitted. The clinical subjects had to be received from authors, who work in Europe and thus carry out their projects in Europe. For the basic science session, clinical relevance was weighted.

**Financial support:** Candidates selected for the tournament have received a bursary consisting of free registration to the Congress, up to four nights hotel accommodation, and a travel grant.

**Presentation:** Each selected candidate is allotted 10 minutes for presentation of his/her paper plus five minutes for discussion with the jury.

**Jury:** Members of the Programme, the Scientific and the Teaching Course Committees.

**Evaluation:** Candidates will be judged not only on the scientific value of the work presented, but also on the quality of the oral presentation and the way the candidate responds to the questions of the jury.

**Prize:** The winner of each group will receive a prize consisting of: Free registration to the 6<sup>th</sup> EAN Congress in Paris 2020, up to four nights hotel accommodation as well as a travel grant. The prize is not transferable and will not be paid off in cash.

Two runner-up prizes in each, the clinical and basic tournament will be awarded. They will consist of a certificate and a free registration to the 6<sup>th</sup> EAN Congress in Paris 2020.



## Appreciation and thanks

---

We would like to thank the reviewers of the submitted abstracts for their invaluable help and assistance.

### A

Anne Hege Aamodt, Norway  
Yuri Alekseenko, Belarus  
Cristian Andriescu, Romania  
Kateryna Antonenko, Ukraine  
Angelo Antonini, Italy  
Nadine Attal, France

### B

Claudio Bassetti, Switzerland  
Raffaella Battisti, Italy  
Ettore Beghi, Italy  
Andreas Bender, Germany  
Shakya Bhattacharjee, United Kingdom  
Roberta Biundo, Italy  
Paul Boon, Belgium  
Geir Bråthen, Norway  
Milan Brázdil, Czech Republic  
Marianthi Breza, Greece  
Filipe Brogueira Rodrigues, United Kingdom

### C

Ilaria Callegari, Italy  
Diogo Carneiro, Portugal  
Neşe Çelebisoy, Turkey  
Moussa Chalah, France  
Jonathan Cole, United Kingdom  
Giancarlo Comi, Italy  
Philippe Couratier, France

### D

Catarina Damas, Portugal  
Linda Damian, United Kingdom  
Maxwell Damian, United Kingdom  
Philippe Damier, France  
Marianne de Visser, The Netherlands  
Giovanni Di Liberto, Switzerland  
Francesco Di Lorenzo, United Kingdom  
Volker Dietz, Switzerland  
Laurens Dobbels, Belgium  
Raffaele Dubbioso, Italy  
Nicolas Dubuisson, United Kingdom

### E

Asya Ekmen, France  
Ayse Deniz Elmali Yazici, Turkey  
Füsün Erdoğan, Turkey  
Devrimsel Harika Ertem, Turkey  
Stefan Evers, Germany

### F

Franz Fazekas, Austria  
Lorenzo Ferlini, Belgium  
Massimo Filippi, Italy  
Urs Fischer, Switzerland  
Vera Forminykh, Russia  
Sten Fredrikson, Sweden  
Rolf Fronczek, The Netherlands

### G

Daniela Galimberti, Italy  
Andreas Gantenbein, Switzerland  
David Garcia Azorín, Spain  
Salimata Gassama, France  
Thomas Gattringer, Austria  
Nils Erik Gilhus, Norway  
Loretta Giuliano, Italy  
Peter Goadsby, United Kingdom  
Ralf Gold, Germany  
Mohamed Gomaa, Egypt

### H

Dan Healy, Ireland  
Wolfgang Heide, Germany  
Raimund Helbok, Austria  
Bernhard Hemmer, Germany  
Mariana Hernandez Gonzales Monje, Spain  
Aleksandra Herrera-Sokołowska, Poland  
Max Hilz, Germany  
Henry Houlden, United Kingdom

### I

Michella Ibrahim, Lebanon

### J

Harish Jayakumar, India  
Erik Jung, Germany

### K

Manfred Kaps, Germany  
Bartosz Karaszewski, Poland  
Aristeidis Katsanos, Greece  
Michael Khalil, Austria  
Daniel Kondziella, Denmark  
Christian Krarup, Denmark  
Jan B.M. Kuks, The Netherlands  
Hatice Kurucu, Turkey

### L

Maurizio Leone, Italy

### M

Antonella Macerollo, United Kingdom  
Gian Luigi Mancardi, Italy  
Hadi Manji, United Kingdom  
Tony Marson, United Kingdom  
Luca Massacesi, Italy  
Geert Mayer, Germany  
Eavan McGovern, France  
Milija Mijajlovic, Serbia  
Veronique Miron, United Kingdom  
Marcello Moccia, Italy  
Gustave Moonen, Belgium  
Magdalena Mroczek, Poland  
Dafin Muresanu, Romania

### N

Bo Norrving, Sweden

### O

Stefan Oberndorfer, Austria  
David Oliver, United Kingdom  
Celia Oreja-Guevara, Spain  
Serefnur Ozturk, Turkey

### P

Davide Pareyson, Italy  
Max Christian Pensel, Germany  
Miguel Pereira, Portugal  
Antonio Pisani, Italy  
Simon Podnar, Slovenia



## Appreciation and thanks & Continuing Medical Education

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### R

Anna Rostedt Punga, Sweden  
 Paolo Ragonese, Italy  
 Martin Rakusa, Slovenia  
 Katrin Rauen, Switzerland  
 Răzvan Alexandru Radu, Romania  
 Ivan Rektor, Czech Republic  
 Irena Rektorová, Czech Republic  
 Evzen Růžička, Czech Republic

### S

Ceyhun Sayman, Turkey  
 Anthony Schapira, United Kingdom  
 Philip Scheltens, The Netherlands  
 Erich Schmutzhard, Austria  
 Benedikt Schoser, Germany  
 Giorgio Sciacca, Italy  
 Pasquale Scoppettuolo, Belgium  
 Johann Sellner, Austria  
 Raad Shakir, United Kingdom  
 Kamila Shamtieva, Russian Federation  
 Yuliya Shpilyukova, Russian Federation  
 Vincenzo Silani, Italy  
 Aksel Siva, Turkey  
 David Skoloudik, Czech Republic  
 Ide Smets, Belgium  
 Alessandro Soderò, Italy  
 Riccardo Soffietti, Italy  
 Claudia Sommer, Germany  
 Israel Steiner, Israel  
 Guido Stoll, Germany  
 Anette Margrethe Storstein, Norway  
 Walter Struhal, Austria  
 Michael Strupp, Germany

### T

Erik Taubøll, Norway  
 Maarten J. Titulaer, The Netherlands  
 Vlad Tiu, Romania  
 Antonio Toscano, Italy

### V

Josep Valls-Solé, Spain  
 Domizia Vecchio, Italy  
 Marie José Vidailhet, France

### W

Markus Weber, Switzerland  
 Roland Wiest, Switzerland

### Continuing Medical Education (CME Information)

#### Purpose

The purpose of the 5th EAN Congress is to offer a forum for clinical and basic discussion on a variety of neurological topics including presentations of current research and available treatments.

#### Learning Objectives

Through Plenary Symposia, Symposia, Focused Workshops, Teaching Courses, Case-based workshops, Hands-on Courses, Controversy Sessions, Career development Sessions, Interactive Sessions and Special Sessions, participants will be better able to:

1. Describe the pathophysiology and neurobiology of neurological diseases
2. Discuss the diagnostic approaches and tools available for neurological diseases
3. Discuss the pharmacological and non-pharmacological treatment options available for neurological diseases

#### Target Audience

The target audience includes clinicians, researchers, post-doc fellows, medical residents, students and other healthcare professionals with an interest in the current research and diagnosis and treatment of neurological diseases. Kindly note that in the description of some courses the target audience is separately disclosed.

#### Financial disclosure information

It is the policy of the European Academy of Neurology to ensure objectivity, independence and balance in all congress activities. All participants are required to disclose any real or apparent conflict(s) of interest that can have a direct bearing on the subject matter of the activity. Financial disclosure information will be provided on the presentations and/or abstracts.

#### EACCME Accreditation statement

EACCME EVENT CODE: LEE19-00023

The 5th Congress of the European Academy of Neurology is accredited by the European Accreditation Council for Continuing Medical Education (EACCME). The EACCME is an institution of the European Union of Medical Specialists (UEMS): <http://www.uems.net>.



WORLD FEDERATION  
OF NEUROLOGY

# WCN 2019

**XXIV WORLD CONGRESS OF NEUROLOGY**  
DUBAI, UNITED ARAB EMIRATES, OCTOBER 27-31 2019



# DUBAI

**ACCELERATING THE PACE OF CHANGE**



## PROGRAM HIGHLIGHTS

- Teaching Courses
- Tournament of the Minds
- WFN Medals Presentation
- Presidential Symposium
- Regional Symposium
- Sponsored Symposium

## AWARD & LECTURES

- Elsevier Young Investigators Award
- Soriano Award Lecture
- Yahr Award Lecture
- Barucha Award Lecture
- Fulton Award Lecture
- Angela Vincent Award for Best Young Investigator

## TOURNAMENT OF THE MINDS

Nominated team members for the 2019 Tournament (up to 4 per country) will qualify for reimbursement of their 2019 registration fees once they have completed the Tournament. National societies are encouraged to nominate their teams as soon as possible to enable team members to benefit from this incentive.

**EARLY-BIRD REGISTRATION: AUGUST 6, 2019**

Visit the website for full application details.

**[WWW.WCN-NEUROLOGY.COM](http://WWW.WCN-NEUROLOGY.COM)**

## Continuing Medical Education & Instructions for Speakers

The Congress of the European Academy of Neurology (Saturday, Sunday, Monday, Tuesday) is designated for a maximum of 27 hours of European external CME credits. Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity.

These points are accepted by several national societies, and thus they can be claimed in these countries.

Through an agreement between the Union Européenne des Médecins Spécialistes and the American Medical Association, physicians may convert EACCME® credits to an equivalent number of AMA PRA Category 1 Credits™. Information on the process to convert EACCME® credit to AMA credit can be found at [www.ama-assn.org/education/earn-credit-participation-international-activities](http://www.ama-assn.org/education/earn-credit-participation-international-activities).

### Ethical MedTech

The 5th Congress of the European Academy of Neurology is endorsed by MedTech Europe under the Code of Ethical Business Practice

MedTech Europe is the European trade association representing the medical technology industries, from diagnosis to cure. It represents Diagnostics and Medical Devices manufacturers operating in Europe. Its mission is to make innovative medical technology available to more people, while helping healthcare systems move towards a sustainable path. It also promotes medical technology's value for Europe focusing on innovation and stakeholder relations.

### CME Certificate and Attendance Tracking Report

If you need a report of your attendance in sessions, please evaluate all sessions that you have attended. Once evaluation of the sessions is complete, you can obtain a CME Certificate, including all sessions attended, via the online registration platform.

If you have any questions, you can find a designated 'App and Evaluation Helpdesk' in the congress entrance area next to the registration desk.



**CME Certificates including a record of attendance will only be available for participants who have evaluated the sessions attended during the congress. Evaluation is possible until Wednesday, 24 July 2019, 23:59 CET.**

Please see page 23, "Evaluation" for further information.

## Instructions for Speakers and Presenters

### Speakers' Service Centre

All speakers are requested to hand in their presentations (MS PowerPoint only) via a USB compatible memory stick at the Speakers' Service Centre (SSC) at least three hours before the beginning of the session. The SSC is located next to Room 'Jan Mayen' on the first floor in the blue area.

Speakers will have the opportunity to check their presentations on PCs available in the SSC.

### ePresentations and ePosters

All posters will be presented electronically only. Within the ePoster area (located in the exhibition hall) there are 24 poster screens and 12 iMac stations available throughout the congress, where presenters and audience are invited to interact with each other. You will be able to contact all presenters via the poster system and meet with them at any time at one of the poster screens to discuss his/her work.

In addition, there will be scheduled ePoster and ePresentation sessions, taking place from Saturday to Monday from 12:30 – 13:15 and 13:30 – 14:15 (see page 34).

All ePoster and ePresentation sessions will be discussed with a chairperson. The chairperson will be present and discuss each presentation with the presenter and the audience. In **ePoster sessions** (45 minutes) up to 15 presentations are scheduled at the dedicated poster screens. Each presenter will have 2 minutes of presentation time and approximately 1 minute of discussion.

**ePresentation sessions** will be 45 minutes long as well and accommodate up to 10 presentations. Each presenter will have approximately 3 minutes of presentation time and 2 minutes of discussion.

Please make sure that you are present at your screen at the beginning of your session.

Please see page 34 or the Interactive Programme Planner (IPP) for details and exact session times.

For better audio quality, please pick up a receiver and earphones from the ePoster Helpdesk before the session. Different sessions will have different channels, indicated next to each poster screen.

### ePoster Helpdesk

Technicians and hosts will be available throughout the congress in the ePoster area.

## Information from A to Z

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### Information from A to Z

#### Abstracts

All accepted abstracts are published as a supplement to the *European Journal of Neurology*. There will be no printed book available, but a USB drive can be picked up at the EAN LEARN + RESEARCH Booth.

You can create your personal abstract book by using the Interactive Programme Planner (IPP).

The abstracts can also be found online on [www.ean.org/Oslo2019](http://www.ean.org/Oslo2019) and on [www.europeanjournalofneurology.com](http://www.europeanjournalofneurology.com).

#### App

The congress app “EAN Congress” is available for download free of charge on Google Play and iTunes.

It includes the Interactive Programme Planner (IPP), all session evaluations as well as the voting system for the Interactive sessions. Please download the app and login with your EAN user information. You can then go ahead and create your personal congress programme. You will also be able to access the favourites you made on the EAN Congress website.

Seize all benefits of the EAN Congress app to connect and meet with colleagues, prepare your meeting schedule and have additional and up-to-date information on the congress.

If you have any questions, you can find a designated ‘App and Evaluation Helpdesk’ in the congress entrance area next to the registration desk.

The App is supported by 

#### App and Evaluation Helpdesk

The ‘App and Evaluation Helpdesk’ can be found next to the entrance area, near the registration desk and is supported by



#### ATM/Cash Machine

An ATM/cash machine is located next to the exhibition entrance.

#### Attendance tracking report

See page 21

#### Badges

Access to all scientific and networking events will only be possible with your personal badge. All participants are requested to wear their name badge throughout the congress.

If you forget your badge, we can reprint it for a fee of 50€.

#### Scanning of badges

Participants are not obliged to allow exhibitors to scan their badge in the exhibition area or when entering an industry symposium. Participants must show their badge for proof of access rights, but do not need to let anybody scan it. With allowing a company to scan, you acknowledge that your registration details will be forwarded to the exhibitor.

#### Caring for the environment

**Bag recycling** – You can leave your congress bag at the registration desk when leaving the congress.

**Green print** – The print materials of this congress have been printed on paper that is PEFC approved. PEFC is an organisation that certifies paper manufacturers who keep to sustainable forest management criteria.

**Reducing print** – The printed programme is available only for participants who order it in advance at registration. The complete programme can also be found online in the Interactive Programme Planner (IPP) and on our congress app and you can create your individual schedule & abstract book.

**Recycling** – As part of our efforts we try to produce less waste and recycle plastic, glass, cans and paper. We are also trying to use only recyclable tableware.

**Food waste** – The venue has signed an agreement with the Norwegian Ministry of Climate and Environment on a 50% reduction in food waste by 2030. This is one of the United Nations’ sustainable development goals (SDGs).

**Offset your Carbon Footprint** – You can contribute to our ecological efforts by offsetting the Carbon Footprint of your travels to Oslo. A Carbon Offset represents a reduction in emissions somewhere else. You can learn more and offset your carbon foot print at: [www.carbonfund.org](http://www.carbonfund.org).

We are doing our best and there is still much to learn. We will be happy to hear your ideas; please do not hesitate to write to us at [headoffice@ean.org](mailto:headoffice@ean.org).

## Information from A to Z

### Certificate of Attendance

If you need a report of your attendance in sessions, please evaluate all sessions that you have attended immediately after the session. You can obtain a CME Certificate, including all sessions attended, via the online registration platform after the congress.

If you have any questions, you can find a designated 'App and Evaluation Helpdesk' in the congress entrance area next to the registration desk.

#### Guide to your certificate

##### 1. Evaluate

Evaluate all sessions that you have attended. For this, please use the EAN website and EAN Congress App or go to the 'App and Evaluation Helpdesk' next to the registration area. Please note that evaluation is possible until **Wednesday, 24 July 2019, 23:59 CET**.

##### 2. Get your certificate

Go to [www.ean.org/oslo2019](http://www.ean.org/oslo2019) and login with your EAN user information. Then, go to the online congress registration platform via "Register now" and click on "My documents". There you will be able to download your CME Certificate. The certificate lists all sessions that were evaluated and includes all CME points. Please note that your certificate will be available in your user area only after the congress, i.e. from 3 July 2019.



**CME Certificates including a record of attendance will only be available for participants who have evaluated the sessions attended during the congress. Evaluation is possible until Wednesday, 24 July 2019, 23:59 CET.**

Information on EACCME accreditation can be found on page 17.

### Children at EAN Congress 2019/ Kindergarten

Aiming to support families and parents attending the 2019 Congress, EAN provides a child care service to all registered participants.

The Kindergarten Service is easy to find, located in Norges Varemesse next to Hall Paris (B4).

Please note that children over the age of 1 year are not allowed to access the exhibition area due to the pharma codex.

### Cloakroom

A cloakroom is located in the registration area and is open during the registration opening hours. The cloakroom service is free of charge.

### Congress registration desk

The registration desks, located in the entrance area of the congress venue, are open during the following hours:

Friday	28 June 2019: 16:00 – 19:00 (badge/congress bag pick-up for pre-registered delegates only)
Saturday	29 June 2019: 7:30 – 20:00
Sunday	30 June 2019: 7:00 – 19:00
Monday	1 July 2019: 7:00 – 19:00
Tuesday	2 July 2019: 7:30 – 17:00

All congress material (congress bag, personal name badge, etc.) will be handed over to the registered participants in this area. Onsite registration will be accepted, but receipt of all congress material cannot be guaranteed. Accepted payment methods on-site are credit card or cash.

During the above-mentioned opening hours, the registration service desks can be reached at +43 676 637 39 56.

### Congress Venue

Norges Varemesse –  
Norway Convention & Exhibition Centre  
Messeveien 8  
2004 Lillestrøm, Norway  
[www.norgesvaremesse.no/](http://www.norgesvaremesse.no/)

The 5<sup>th</sup> Congress of the European Academy of Neurology takes place at the Norges Varemesse – Norway Convention & Exhibition Centre, which is located in Lillestrøm, only a few minutes away from the Oslo city centre by train and only 12 minutes away from the Oslo airport. We highly recommend going by train as it is the fastest and cheapest way from the airport to the congress centre and the city centre.

It takes 16 minutes from the city centre to the congress centre. You can take trains #R10, #L13, #R11 in both directions every 10 minutes. Try to avoid train #L1, which will hold at every stop and takes 34 minutes to the city centre.

The average cost for a ticket is 23 NOK/2.40 EUR per ticket.

### Currency

The official currency of the 5<sup>th</sup> EAN Congress in Oslo is Euro (€). However, the local currency is Norwegian Krona (NOK), exchange rate is about 1NOK = 0,10€. Credit cards (Visa, Mastercard etc.) are accepted. Cash will only be accepted in Euro.

The easiest way to withdraw NOK is to get them from an ATM ("minibank"), which are everywhere in Oslo/Lillestrøm. Most ATMs work with credit cards of the Visa and MasterCard type, and debit cards that use the Maestro or Cirrus systems.

## Information from A to Z

While credit cards (usually MasterCard and Visa) are accepted in most hotels and restaurants, some shops, cafes or museums still don't.

### EAN Booth – Your Home of Neurology

“900,000,000 brains – 45,000 members – 47 countries – one community!”

Location: in front of the main auditorium (take a right from the main entrance)

Opening hours:

Saturday 29 June 2019: 07:30 – 18:30  
 Sunday 30 June 2019: 07:30 – 18:00  
 Monday 1 July 2019: 07:30 – 18:00  
 Tuesday 2 July 2019: 07:30 – 13:00

Visit the EAN Booth and its 4 different areas (HOME, MEET, LEARN and RESEARCH) and find out more about the European Academy of Neurology, your home of neurology, and its aims and missions:

#### HOME

Learn everything about EAN and the benefits of being an active and valuable part of Europe's largest community of neurologists. Get all information on our different membership programmes, meet the people behind EAN, the EAN Board as well as the EAN Head Office.

Join us and become a member of our community today!

EAN Congress Postcards can be mailed – just drop them in the mailbox, EAN will provide the stamp and mail it for you! Join us and become a member of our community!

#### LEARN

When visiting the LEARN area, you can find all educational aspects that underpin the EAN vision to promote excellence in Neurology in Europe. From study programmes outside the EAN congress or grants to support projects in other European Neurological Departments or online learning possibilities.

Please visit the RRFS desk to get first hand information for Neurologists in training.

#### RESEARCH

Get all the information on EAN guideline production and the Scientific Panels – not only on panel membership but also what these panels do and plan to do in the future. Join the Scientific Panels right away and become actively involved! Grab your copy of the European Journal of Neurology and discover how to access EAN free-to-read guidelines.

#### MEET

MEET our next congress destinations and watch our white-board artist recreate the current congress on paper. You can also be a part of future EAN activities. Let us know about your congress experience and what YOU would do differently! Stop by to get to know your colleagues in a relaxed setting and take the opportunity for quick casual business meetings!

You can also visit this area already in the morning for a cup of coffee and a chat with colleagues from all over Europe and the world.

During coffee and lunch breaks, you can then challenge yourself with the tricky EAN BrainGame and win various EAN prizes.

## EAN Booth



## Information from A to Z

### EAN Bag

Need one-of-a-kind memorabilia? Come by and purchase one of the unique EAN bags – strictly limited to 150 pieces maximum per congress year, made of the poster background tarps of the 2015 – 2018 EAN congresses in Berlin, Copenhagen and Amsterdam and Lisbon. EAN decided to re-use nearly all printed tarps and cloths of the poster booths and design its very own limited collector item. The EAN bags are produced locally in Vienna, Austria by WienWork, an organisation that enables people with disabilities, chronic illnesses or long-term unemployed people to participate in economic and social life. With every purchase of a bag you support this project.

**EAN unique bag:** Be sure to get your one-of-a-kind limited bag for only €20 (discount possibilities: 2 for €35 and 3 for €45 only and 4 for €50)



### Emergency Phone Numbers

In case of an emergency there are three different phone numbers you should know.

Fire and major accidents: Tel 110  
Police and rescue coordination centre: Tel 112  
Ambulance and medical assistance: Tel 113

### Evaluation/Quality Control

In order to guarantee the quality of the upcoming congresses, we are carrying out congress evaluations.

#### General Evaluation

The general evaluation of the congress will be sent to all congress participants after the congress.

#### Session Evaluation/CME Certificate

If you need a report of your attendance in sessions, please evaluate all sessions that you have attended. Once evaluation of the sessions is complete, you can obtain a CME Certificate, including all sessions attended, via the online registration platform.

If you have any questions, you can find a designated 'App and Evaluation Helpdesk' in the congress entrance area next to the registration desk.

#### Guide to your certificate

##### 1. Evaluate

Evaluate all sessions that you have attended. For this, please use the EAN website and EAN Congress App or go to the 'App and Evaluation Helpdesk' next to the registration area. Please note that evaluation is possible until Wednesday, 24 July 2019, 23:59 CET.

##### 2. Get your certificate

Go to [www.ean.org/oslo2019](http://www.ean.org/oslo2019) and login with your EAN user information. Then, go to the online congress registration platform via "Register now" and click on "My documents". There you will be able to download your CME Certificate and a confirmation of participation. The certificate lists all sessions that were evaluated and includes all CME points. Please note that your certificate will be available in your user area only after the congress, i.e. from 3 July 2019.



**CME Certificates including a record of attendance will only be available for participants who have evaluated the sessions attended during the congress. Evaluation is possible until Wednesday, 24 July 2019, 23:59 CET.**

Please take time to complete the electronic evaluation forms provided for each session you attend. Your input is essential for planning future EAN congresses and for receiving your certificate.

## Information from A to Z

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### Exhibition

An extensive exhibition will be held concurrently with the congress.

Exhibition opening hours are:

Saturday 29 June 2019: 9:00 – 17:00  
 Sunday 30 June 2019: 9:00 – 17:00  
 Monday 1 July 2019: 9:00 – 17:00  
 Tuesday 2 July 2019: 9:00 – 13:30

Accompanying children over the age of 1 year are not allowed to access the exhibition area due to the Pharma Codex. Thank you for your understanding.

The exhibition floor plan can be found on page 29 and 137.

### Film and photos

Please be advised that photographs and video recordings may be taken at the 5<sup>th</sup> EAN Congress. By participating in the congress, you consent to the publication, release, exhibition and/or reproduction of such photos to be used for the EAN website, EAN newsblog “EAN pages” and on social media.

### Hotel and travel

Official Housing Agency  
 AIM Group International  
[hotel@ean.org](mailto:hotel@ean.org)

The Vienna office of the AIM Group International has been appointed as the official housing partner for EAN 2019 and is offering hotel accommodation for group and individual bookings.

AIM is present at the hotel desk in the registration area. Staff can assist you with your hotel bookings there.

### Insurance & Liability

Neither EAN nor AIM group can accept liability for personal accidents or loss of or damage to private property of participants, either during or indirectly arising from the 5<sup>th</sup> Congress of the European Academy of Neurology.

It is recommended that all participants are covered by personal travel insurance for their trip.

### Internet Corner / “Browse & print your boarding pass”

An Internet Corner, located in the exhibition, is available to all congress participants during the exhibition opening hours. A printer will be available.

### Interactive Programme Planner (IPP)

Please use the IPP in order to create your personal programme and abstract book.

All invited lectures, oral sessions and poster presentations will be available in the IPP. By logging in with your EAN user information, you will be able to save and edit your personal programme. It is available for desktop, tablet and in our congress app.

Contents are sorted by topic and can be searched through standard web search functions. Once you have created your personal programme, you can export it to different calendar formats, or download it as a book of abstracts.

The IPP will be available before and during the congress.

### Language

The official language of the congress is English. No simultaneous translation will be provided.

### Login Corner

If you want to use all the EAN website’s benefits, you need to use your EAN login information. Visit the login corner at the EAN MEET Booth and collect your information.

### Lost & Found

Please apply to the congress registration desk.

### Lunch and Coffee Breaks

Light lunch and coffee is included in the registration fee and will be served in the exhibition area as per the times indicated in the timetable (see page 48).

### Mail/Messages

ePoster and ePresentation presenters can be contacted via the online poster system.

If you wish to leave a message for somebody, please apply to the registration desk.



## Information from A to Z

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### Media Contact

EAN Press & Communications Officer  
Michael Crean  
[crean@ean.org](mailto:crean@ean.org), +43 1 889 05 03 24

EAN 2019 Congress Press Contact  
Luke Paskins  
[Luke@spinkhealth.com](mailto:Luke@spinkhealth.com), +44 1 444 811099

### Medical Assistance

Please apply to the registration service desk or contact the next EAN staff.

### Members' Lounge

EAN Resident and Research, Full, Corresponding Members, Fellows of EAN and Faculty Members have the possibility to network and enjoy their lunch in a separated Members' Lounge. The Members' Lounge is located next to the EAN Booth area on the Mezzanine and is open from 7:30 – 18:30 Saturday till Monday, and 7:30 – 14:30 on Tuesday.

A photographer to take a portrait picture of you for your EAN profile is located in this area during the opening hours.

### Mobile Charging Stations

Mobile charging stations will be placed all over the venue available to all congress participants.

The mobile charging stations are supported by



### Mobile phones

Please note that mobile phones must be switched off during all sessions.

### Networking

Resident and Research Fellow Section Activities (see page 13)  
Opening and Welcome Reception (See page 41)  
Challenges for women in neurology (see page 43)  
Musical recital on Sunday (see page 45)  
History of neuroscience visit (see page 47)  
Networking event "Meet your Neurology Network" (see page 47)  
Members' Lounge (see page 25)  
EAN booth (see page 22)

### NeuroTank

The EAN NeuroTank is located in the exhibition hall and is your hub for the digital content of EAN. You can relax and watch livestreams of current sessions, webcasts of previous lectures and browse all ePoster presentations.

Got to [www.ean-neurotank.org](http://www.ean-neurotank.org) to get started!

The online platform  
EAN NeuroTank is supported by Biogen.

### ePoster Session Overview

Please see page 34.

### Public transportation

The congress centre is located in Lillestrøm, 16 minutes away from the Oslo city centre by train and 12 minutes away from the Oslo airport. We highly recommend going by train as it is the fastest and cheapest way from the airport to the congress centre and the city centre.

All the public transports in Oslo are part of the same ticket and price system.

The tickets are valid for buses, local trains, subways and trams.

#### To the Airport

You can take the Airport Express 'Flytoget' from Oslo Airport Gardermoen to Lillestrøm and be at the Lillestrøm station within 12 minutes. From there it is a 3-minute walk to the Congress Centre.

For more information on time schedules and ticket prices go to [www.flytoget.no](http://www.flytoget.no)

#### From/to the city centre

It takes 16 minutes from the city centre to the congress centre. You can take trains #R10, #L13, #R11 in both directions every 10 minutes. Try to avoid train #L1, which will hold at every stop and takes 34 minutes to the city centre. The average cost for a ticket is 23 NOK/2.40 EUR per ticket.

### Press Office

A designated room with wireless internet access is available to registered journalists. The Press Office is located in the green area (first floor, Thon Hotel Arena).



## EUROPEAN PAIN FEDERATION EFIC®

As an organisation, the European Pain Federation EFIC® has been growing steadily over the last 25 years in its core domains of education, research, and advocacy. We have developed into Europe's most important multi-disciplinary and multi-professional organisation in the field of pain medicine, representing 37 constituent national pain societies with over 20,000 scientists, physicians, nurses, psychologists, physiotherapists and other healthcare professionals.

### OUR 11TH CONGRESS BRINGING THE FUTURE TO THE PRESENT

The 11<sup>th</sup> Congress of the European Pain Federation EFIC® will be held in Valencia, Spain from 4<sup>th</sup> to 7<sup>th</sup> September 2019. The congress will offer numerous lectures, workshops, refresher courses and networking initiatives on several aspects of pain. We will cover acute, chronic, cancer and non-cancer pain among the others. Along with the newest developments in basic science, we will discuss all aspects of multimodal interdisciplinary care for patients suffering from pain. As EFIC2019 is taking place in beautiful Valencia, there will also be several sessions in Spanish. This emphasis on the future of pain medicine leads up to the theme of our 2019 meeting: **"BRINGING THE FUTURE TO THE PRESENT"**. A comprehensive Industrial Exhibition and sponsored Satellite Symposia will complement the scientific content.

### OUR ACTIVITIES IN THE FIELD OF EDUCATION, RESEARCH AND ADVOCACY

With regards to education, the European Pain Federation organises **'Pain Schools'**, bringing together leading educators to provide study programs across Europe. We have also developed curricula for medical schools, and on pain medicine and pain physiotherapy, as well as accompanying examinations and qualifications. The **Examination for the European Diploma in Pain Medicine (EDPM)** was launched in 2017. The **Examination for the European Diploma in Pain Physiotherapy (EDPP)** has been launched for the first time in 2018. Concerning research, the European Pain Federation provides **grants and fellowships** for researchers and takes part in international research consortia.

On advocacy, we partner within the **Societal Impact of Pain platform**, along with the pharmaceutical company Grünenthal, the patients' organisation Pain Alliance Europe, and the citizens' rights organisation Active Citizenship Network. The European Pain Federation runs awareness raising campaign such as **EFIC on the move**, and focused on pain primary and secondary prevention through physical activity and the Global Year Against Pain campaign, known as the **European Year Against Pain** in Europe.

#### Contact Information:

European Pain Federation (EFIC) • Rue de Londres / Londenstraat 18 • 1050 Brussels • BELGIUM  
Tel.: +32 2 251 55 10 • Email: [secretary@efic.org](mailto:secretary@efic.org)

[www.efic.org](http://www.efic.org)

## Information from A to Z

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### Scientific Theatre

Located on the ground floor, inside the exhibition, the Scientific Theatre is a forum for EAN committees, working groups, task forces and other EAN partner organisations to inform the audience in short about their latest achievements and future ambitions.

The detailed programme is on page 53.

During lunch and coffee breaks, the scientific theatre is made available for forum talks by our industry partners. The detailed programme can be found on page 171.

Capacity is for 40 people, please bring your earphones (available at the Poster help desk).

### Smoking policy

Smoking is always prohibited in the meeting halls, exhibit halls and restrooms. Your compliance is appreciated.

### Speakers' Service Centre (SSC)

See page 19.

### Tourist Information

For tourist information, please visit: [www.visitoslo.com](http://www.visitoslo.com)

### WI-FI

Wi-Fi will be available free of charge in the registration and exhibition area as well as in the session rooms.

Network: **EAN2019\_Wifi\_Biogen**

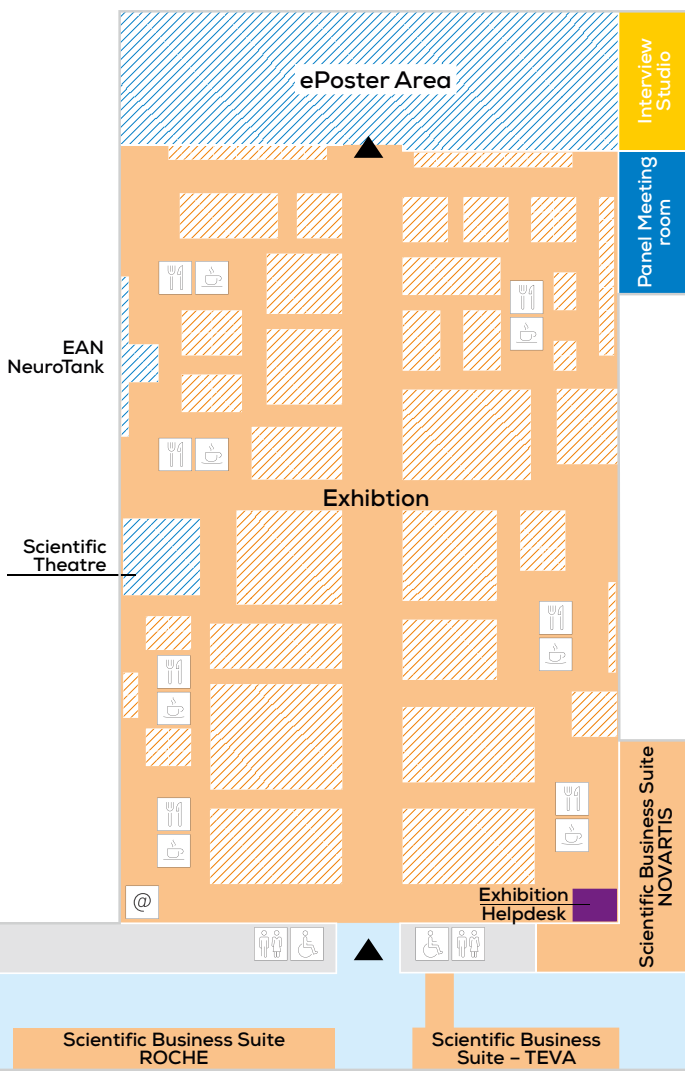
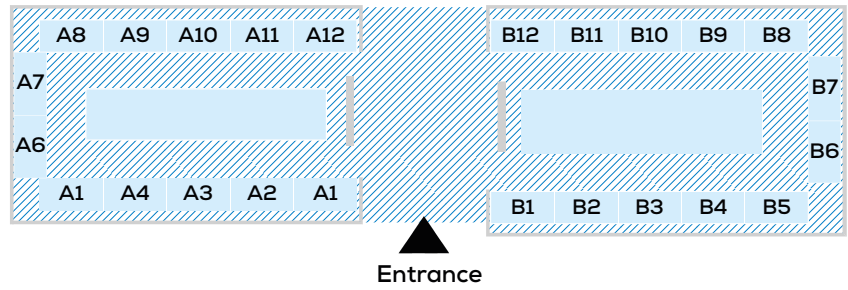
No password or username is necessary.

The Wi-Fi is supported by 



















## ePoster Area



## Blue Area

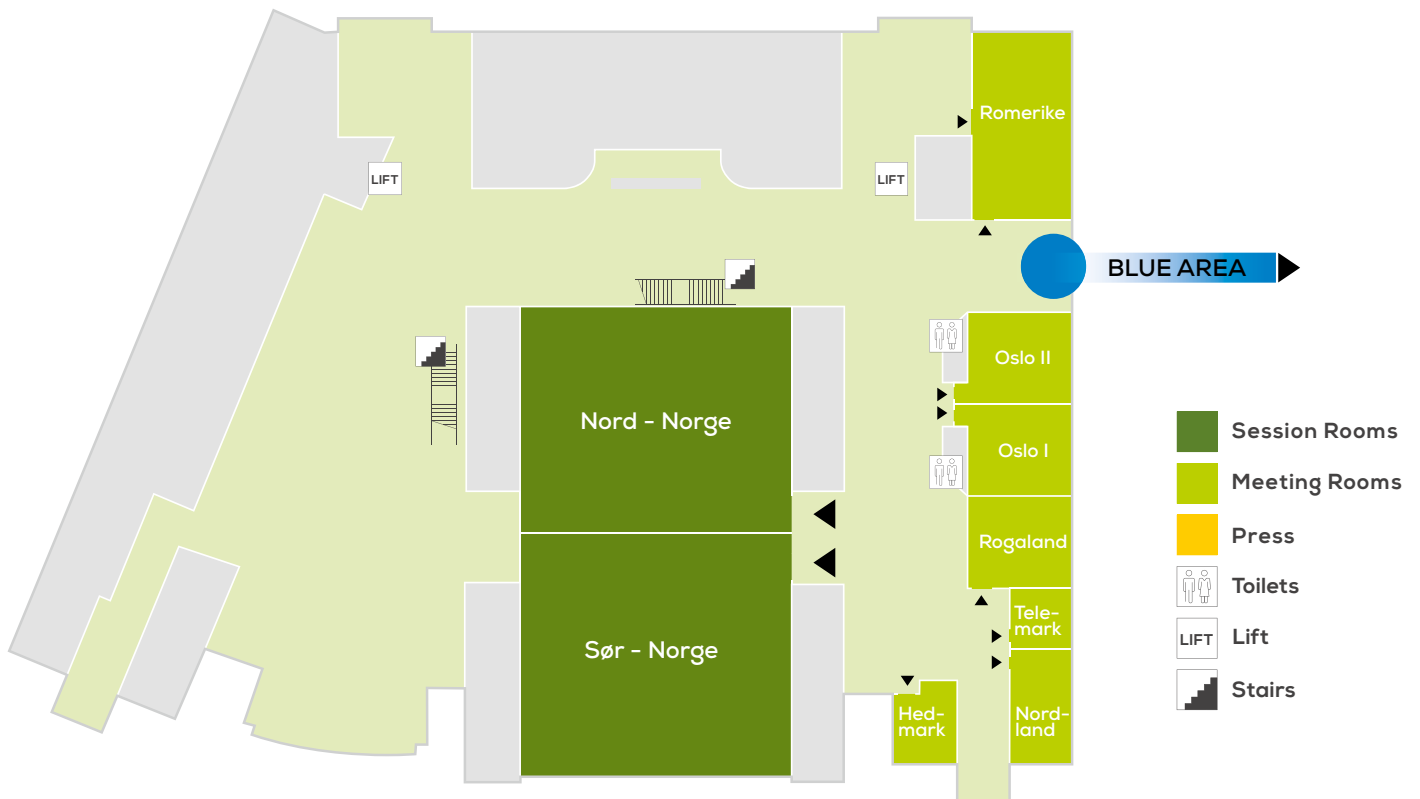
-  Session Rooms – Blue Area
-  Meeting Rooms – Blue Area
-  EAN Areas
-  Press
-  EAN Scientific Areas
-  Exhibition
-  Scientific Business Suites
-  Handicap Toilet
-  Toilets
-  LIFT
-  Catering Area
-  Cloakroom
-  Internet Corner
-  Stairs

GROUND FLOOR



FIRST FLOOR

## Green Area



GROUND FLOOR

- Session Rooms
- Meeting Rooms
- Press
- Toilets
- Lift
- Stairs

## Overview of Business Meetings

(in chronological order, as per date of printing)

Additional meetings reserved after the date of printing can be found in the IPP (App).

Group/Committee	Day	Time	Room
European Affairs sub-Committee	Saturday, 29 June	08:30 – 10:00	President's office, green area
UEMS Board	Saturday, 29 June	09:00 – 13:00	Måsan 1-2, Scandic Hotel
Assembly of Delegates	Saturday, 29 June	13:00 – 15:00	Berlin, blue area
RRFS National Representatives	Saturday, 29 June	14:15 – 15:15	HoC, blue area
Website Panel Representatives	Saturday, 29 June	15:30 – 16:30	Hordaland 2, green area
eCommunication board and Scientific Panel Website representatives	Saturday, 29 June	16:30 – 17:30	Rogaland 2, green area
Corresponding Societies	Saturday, 29 June	16:30 – 17:30	President's office (Troms), green area
Africa Task Force	Sunday, 30 June	08:30 – 10:00	Hordaland 1, green area
Joint Education Board	Sunday, 30 June	08:30 – 10:00	Hordaland 2, green area
Scientific Panel Chairs	Sunday, 30 June	12:30 – 14:30	Berlin, blue area
eCommunication Board	Sunday, 30 June	16:00 – 17:30	Hordaland 1, green area
Teaching Course sub-Committee	Monday, 01 July	08:00 – 09:30	Hordaland 1, green area
Ethics and Quality Assurance Task Force	Monday, 01 July	11:15 – 12:45	Oppland, green area
Communication Committee	Monday, 01 July	12:30 – 14:00	Hordaland 1, green area
Scientific Committee	Monday, 01 July	12:30 – 14:00	Hordaland 2, green area
Guideline Production Group	Monday, 01 July	15:00 – 16:30	Hordaland 1, green area
Industrial Relation Board (IRB)	Monday, 01 July	15:00 – 16:30	Berlin, blue area
Education Committee	Monday, 01 July	15:00 – 16:30	Hordaland 2, green area
Local Organising Committee Paris	Monday, 01 July	17:00 – 18:00	Hordaland 1, green area
RRFS General Assembly	Monday, 01 July	17:30 – 18:30	HoC, blue area
Programme Committee	Tuesday, 02 July	13:00 – 14:30	Hordaland 1, green area

## Overview of Business Meetings of Scientific Panels, Task Forces

(in chronological order, as per date of printing)

Additional meetings reserved after the date of printing can be found in the IPP (App).

Scientific Panel/Task Force	Day	Time	Room
Scientific Panel Child Neurology	Saturday, 29 June	08:30 – 09:30	Hordaland 1, green area
Scientific Panel ALS and frontotemporal dementia	Saturday, 29 June	08:30 – 10:00	Akershus, green area
Scientific Panel Multiple sclerosis	Saturday, 29 June	11:00 – 12:30	Akershus, green area
Scientific Panel Neurotoxicology	Saturday, 29 June	11:00 – 12:30	Hordaland 2, green area
Scientific Panel Neurocritical care	Saturday, 29 June	13:00 – 14:30	Hordaland 1, green area
Scientific Panel Dementia and cognitive disorders	Saturday, 29 June	16:30 – 18:00	VIP Room, exhibition, blue area
Scientific Panel Stroke	Saturday, 29 June	16:30 – 18:00	Akershus, green area
Scientific Panel Neuropathies	Sunday, 30 June	08:00 – 09:30	Room Berlin, blue area
Scientific Panel Infectious diseases	Sunday, 30 June	08:30 – 10:00	VIP Room, exhibition, blue area
Scientific Panel Neurotraumatology	Sunday, 30 June	08:30 – 10:00	Akershus, green area
Scientific Panel Clinical neurophysiology	Sunday, 30 June	15:00 – 16:30	VIP Room, exhibition, blue area
Scientific Panel Neuro-oncology	Sunday, 30 June	15:00 – 16:30	Akershus, green area
Scientific Panel Neuro-ophthalmology and -otology	Sunday, 30 June	15:00 – 16:30	Hordaland 2, green area
Scientific Panel Neurorehabilitation	Sunday, 30 June	16:45 – 18:15	VIP Room, exhibition, blue area
Scientific Panel Translational neurology	Sunday, 30 June	16:45 – 18:15	Hordaland 2, green area
Scientific Panel Higher cortical functions	Sunday, 30 June	17:00 – 18:30	Akershus, green area
Scientific Panel Epilepsy	Monday, 01 July	08:00 – 09:30	Akershus, green area
Task Force Parkinson's diseases guideline	Monday, 01 July	08:00 – 09:30	Oppland, green area
Scientific Panel Neuroepidemiology	Monday, 01 July	08:30 – 10:00	VIP Room, exhibition, blue area
Scientific Panel Autonomic nervous system disorders	Monday, 01 July	10:00 – 11:30	Hordaland 2, green area
Scientific Panel Neurosonology	Monday, 01 July	10:00 – 11:30	Hordaland 1, green area
Scientific Panel Movement disorders	Monday, 01 July	10:00 – 12:00	Room Berlin, blue area
Scientific Panel Headache	Monday, 01 July	10:15 – 11:45	VIP Room, exhibition, blue area



## Overview of Business Meetings of Scientific Panels, Task Forces

Scientific Panel/Task Force	Day	Time	Room
Scientific Panel Neurogenetics	Monday, 01 July	10:15 – 11:45	Akershus, green area
Scientific Panel Coma and chronic disorders of consciousness	Monday, 01 July	13:00 – 14:30	Akershus, green area
Scientific Panel Muscle and NMJ disorders	Monday, 01 July	13:00 – 14:30	VIP Room, exhibition, blue area
Task Force Pain guideline	Monday, 01 July	13:30 – 15:00	Oppland, green area
Scientific Panel Palliative care	Monday, 01 July	15:00 – 16:30	Akershus, green area
Task Force Narcolepsy guideline	Monday, 01 July	15:00 – 16:30	Oppland, green area
Task Force Autoimmune encephalitis guideline	Monday, 01 July	16:30 – 18:00	Oppland, green area
Scientific Panel Pain	Monday, 01 July	17:00 – 18:30	VIP Room, exhibition, blue area
Scientific Panel Sleep-wake disorders	Monday, 01 July	17:00 – 18:30	Akershus, green area
Scientific Panel Neuroimmunology	Tuesday, 02 July	08:30 – 10:00	VIP Room, exhibition, blue area
Task Force Rare Neurological Diseases	Tuesday, 02 July	09:00 – 10:30	Akershus, green area
Task Force Coma guideline	Tuesday, 02 July	09:30 – 11:30	Hordaland 2, green area
Scientific Panel Neuroimaging	Tuesday, 02 July	10:45 – 12:45	Akershus, green area

## ePoster Overview

Saturday, 29 June, 12:30 – 13:15

All presenters are requested to be at their poster screen at the beginning of the sessions.  
Pick up your audio equipment at the ePoster Helpdesk!

Topic	Screen Nr	Poster Numbers	Chairs
Ageing and dementia 1	Screen A1	EPO1001 – EPO1012	Reinhold Schmidt, <i>Austria</i>
Ageing and dementia 4	Screen A2	EPO1013 – EPO1024	Ana Graca Velon, <i>Portugal</i>
Cerebrovascular diseases 1	Screen B1	EPO1025 – EPO1038	Felix Schlachetzki, <i>Germany</i>
Cerebrovascular diseases 2	Screen B2	EPO1039 – EPO1052	Pasquale Scoppettuolo, <i>Belgium</i>
Cerebrovascular diseases 3	Screen B3	EPO1053 – EPO1066	Zuzana Gdovinova, <i>Slovakia</i>
Child neurology/developmental neurology; Cognitive neurology/neuropsychology	Screen B6	EPO1067 – EPO1079	Miryam Carecchio, <i>Italy</i>
Critical Care; Neurorehabilitation	Screen B7	EPO1080 – EPO1092	Martin Rakusa, <i>Slovenia</i>
Epilepsy 1	Screen A3	EPO1093 – EPO1107	Eylert Brodtkorb, <i>Norway</i>
Epilepsy 2	Screen A4	EPO1108 – EPO1122	Füsün Erdoğan, <i>Turkey</i>
Headache and pain 1	Screen A9	EPO1123 – EPO1136	Hans-Christoph Diener, <i>Germany</i>
Infectious Diseases; Education in Neurology; History of Neurology; Neurology and Arts	Screen A5	EPO1137 – EPO1149	Klaus Viktor Toyka, <i>Germany</i>
Motor neurone diseases; Neuroimmunology	Screen A7	EPO1150 – EPO1164	Markus Weber, <i>Switzerland</i>
Movement disorders 1	Screen A10	EPO1165 – EPO1178	Efthalia Angelopoulou, <i>Greece</i>
Movement disorders 2	Screen A11	EPO1179 – EPO1192	Anthony Schapira, <i>United Kingdom</i>
Movement disorders 3	Screen A12	EPO1193 – EPO1206	Lucia Muntean, <i>Germany</i>
MS and related disorders 1	Screen B10	EPO1207 – EPO1220	Salimata Gassama, <i>France</i>
MS and related disorders 2	Screen B11	EPO1222 – EPO1236	Abhijit Chaudhuri, <i>United Kingdom</i>
MS and related disorders 3	Screen B12	EPO1237 – EPO1251	Hans-Peter Hartung, <i>Germany</i>
Muscle and neuromuscular junction disease 1	Screen A6	EPO1252 – EPO1265	Corrado Angelini, <i>Italy</i>
Neurogenetics 1	Screen B9	EPO1266 – EPO1280	Geir Bråthen, <i>Norway</i>
Neuroimaging 1	Screen B4	EPO1281 – EPO1295	Celia Oreja-Guevara, <i>Spain</i>
Neuroimaging 2	Screen A8	EPO1296 – EPO1311	Manfred Kaps, <i>Germany</i>
Peripheral nerve disorders 1	Screen B5	EPO1312 – EPO1326	Vanessa Carvalho, <i>Portugal</i>
Sleep disorders	Screen B8	EPO1327 – EPO1341	Stefan Seidel, <i>Austria</i>

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## ePoster Overview

Sunday, 30 June, 12:30 – 13:15

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Topic	Screen Nr	Poster Numbers	Chairs
Ageing and dementia 2	Screen A1	EPO2001 – EPO2012	Leif Gjerstad, <i>Norway</i>
Ageing and dementia 5	Screen A2	EPO2013 – EPO2025	Görl R. Gröntvedt, <i>Norway</i>
Cerebrovascular diseases 4	Screen B1	EPO2026 – EPO2038	Harish Jayakumar, <i>India</i>
Cerebrovascular diseases 5	Screen B2	EPO2040 – EPO2053	Elena Lebedeva, <i>Russian Federation</i>
Cerebrovascular diseases 6	Screen B3	EPO2054 – EPO2067	Bartosz Karaszewski, <i>Poland</i>
Child neurology/developmental neurology	Screen A4	EPO2068 – EPO2081	Hatice Kurucu, <i>Turkey</i>
Clinical neurophysiology 1	Screen B4	EPO2082 – EPO2094	Asya Ekmen, <i>France</i>
Cognitive neurology/neuropsychology 1	Screen B6	EPO2095 – EPO2108	Isil Tatlidil, <i>Turkey</i>
Epilepsy 3	Screen A3	EPO2109 – EPO2123	Gyri Veiby, <i>Norway</i>
Headache and pain 2	Screen A9	EPO2124 – EPO2137	Michel Ferrari, <i>The Netherlands</i>
Headache and pain 3	Screen A8	EPO2138 – EPO2151	Peter Goadsby, <i>United Kingdom</i>
Movement disorders 4	Screen A10	EPO2152 – EPO2165	Anastasia Bougea, <i>Greece</i>
Movement disorders 5	Screen A11	EPO2166 – EPO2179	Jaime Kulisevsky, <i>Spain</i>
Movement disorders 6	Screen A12	EPO2180 – EPO2193	Chokri Mhiri, <i>Tunisia</i>
MS and related disorders 4	Screen B10	EPO2194 – EPO2208	Per Soelberg Sørensen, <i>Denmark</i>
MS and related disorders 5	Screen B11	EPO2209 – EPO2223	Ilaria Callegari, <i>Italy</i>
MS and related disorders 6	Screen B12	EPO2224 – EPO2238	Banu Anlar, <i>Turkey</i>
Muscle and neuromuscular junction disease 2	Screen A6	EPO2239 – EPO2252	Kristin Ørstavik, <i>Norway</i>
Neurogenetics 2	Screen B9	EPO2253 – EPO2267	Miguel Pereira, <i>Portugal</i>
Neuroimmunology 1	Screen A5	EPO2268 – EPO2281	Mihailo Mirkovic, <i>Serbia</i>
Neurological manifestations of systemic diseases	Screen B8	EPO2282 – EPO2296	Ide Smets, <i>Belgium</i>
Neuro-oncology 1	Screen A7	EPO2297 – EPO2309	Ceyhun Sayman, <i>Turkey</i>
Neurorehabilitation	Screen B7	EPO2310 – EPO2321	Daniel Kondziella, <i>Denmark</i>
Peripheral nerve disorders 2	Screen B5	EPO2322 – EPO2336	Panagiotis Zis, <i>United Kingdom</i>

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## ePoster Overview

Monday, 1 July, 12:30 – 13:15

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Pick up your audio equipment at the ePoster Helpdesk!

Topic	Screen Nr	Poster Numbers	Chairs
Ageing and dementia 3	Screen A1	EPO3001 – EPO3012	Eric Salmon, <i>Belgium</i>
Autonomic nervous system	Screen B12	EPO3013 – EPO3022	Max Hilz, <i>Germany</i>
Cerebrovascular diseases 7	Screen B1	EPO3023 – EPO3036	Titto Idicula, <i>Norway</i>
Cerebrovascular diseases 8	Screen B2	EPO3037 – EPO3051	Eva Zupanic, <i>Slovenia</i>
Clinical neurophysiology 2	Screen B3	EPO3052 – EPO3063	Anna Rostedt Punga, <i>Sweden</i>
Cognitive neurology/neuropsychology 2	Screen B6	EPO3064 – EPO3077	Josep Valls-Solé, <i>Spain</i>
Epilepsy 4	Screen A3	EPO3078 – EPO3093	Alla Guekht, <i>Russia</i>
Headache and pain 4	Screen A9	EPO3094 – EPO3107	Aud Nome Dueland, <i>Norway</i>
Headache and pain 5	Screen A8	EPO3108 – EPO3121	Cristina Tassorelli, <i>Italy</i>
Infectious Diseases	Screen B4	EPO3122 – EPO3136	Aleksandra Herrera-Sokolowska, <i>Poland</i>
Motor neurone diseases	Screen A4	EPO3137 – EPO3151	Philippe Couratier, <i>France</i>
Movement disorders 7	Screen A10	EPO3152 – EPO3165	Anne Björnara, <i>Norway</i>
Movement disorders 8	Screen A11	EPO3166 – EPO3177	Kailash Bhatia, <i>United Kingdom</i>
Movement disorders 9	Screen A12	EPO3178 – EPO3189	Joakim Goberg Jörgensen, <i>Norway</i>
MS and related disorders 7	Screen B10	EPO3190 – EPO3204	Ludwig Kappos, <i>Switzerland</i>
MS and related disorders 8	Screen B11	EPO3205 – EPO3220	Giancarlo Comi, <i>Italy</i>
Muscle and neuromuscular junction disease; Neuroepidemiology	Screen A6	EPO3221 – EPO3235	Trine Popperud, <i>Norway</i>
Neurogenetics 3	Screen B9	EPO3236 – EPO3251	Michelangelo Mancuso, <i>Italy</i>
Neuroimaging 3	Screen A5	EPO3252 – EPO3267	Radu Razvan, <i>Romania</i>
Neuroimmunology 2	Screen A2	EPO3268 – EPO3281	Jan Kuks, <i>The Netherlands</i>
Neurological manifestations of system diseases; Peripheral nerve disorders	Screen B8	EPO3282 – EPO3294	Sophie Demeret, <i>France</i>
Neuro-oncology 2	Screen A7	EPO3295 – EPO3307	Stefan Oberndorfer, <i>Austria</i>
Neuro-ophthalmology/ neuro-otology	Screen B5	EPO3308 – EPO3319	Laurens Dobbels, <i>Belgium</i>
Neurotoxicology/occupational neurology; Neurotraumatology; Spinal cord and root disorders	Screen B7	EPO3320 – EPO3331	Radu Tanasescu, <i>United Kingdom</i>

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## ePresentation Overview

Saturday, 29 June, 13:30 – 14:15

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Topic	Screen Nr	Poster Numbers	Chairs
Ageing and dementia 1	Screen A1	EPR1001 – EPR1007	Kristian Steen Frederiksen, <i>Denmark</i>
Ageing and dementia 2	Screen A2	EPR1008 – EPR1014	Noa Bregman, <i>Israel</i>
Cerebrovascular diseases 1	Screen B1	EPR1015 – EPR1021	Christian Enzinger, <i>Austria</i>
Cerebrovascular diseases 2	Screen B2	EPR1022 – EPR1028	Gianmarco di Marchis, <i>Switzerland</i>
Epilepsy 1	Screen A3	EPR1029 – EPR1035	Jera Kruja, <i>Albania</i>
Epilepsy 2	Screen A4	EPR1036 – EPR1042	Christian Samsonsen, <i>Norway</i>
Headache and pain 1	Screen A9	EPR1043 – EPR1048	Messoud Ashina, <i>Denmark</i>
Motor neurone diseases 1	Screen A12	EPR1049 – EPR1055	Raffaele Dubbioso, <i>Italy</i>
Movement disorders 1	Screen B10	EPR1056 – EPR1062	Federica Agosta, <i>Italy</i>
Movement disorders 2	Screen B11	EPR1063 – EPR1069	Tzoulis Charalampos, <i>Norway</i>
Movement disorders 3	Screen B12	EPR1070 – EPR1076	Joaquim Ferreira, <i>Portugal</i>
MS and related disorders 1	Screen A6	EPR1077 – EPR1083	Hanne Flinstad Harbo, <i>Norway</i>
MS and related disorders 2	Screen A7	EPR1084 – EPR1090	Ralf Gold, <i>Germany</i>
Neurogenetics 1	Screen B4	EPR1091 – EPR1096	Giulia Ricci, <i>Italy</i>
Neuro-ophthalmology/ neuro-otology	Screen A10	EPR1097 – EPR1103	David Garcia Azorín, <i>Spain</i>
Neurorehabilitation	Screen A11	EPR1104 – EPR1110	Rita Formisano, <i>Italy</i>
Neurorehabilitation; Critical Care	Screen B7	EPR1111 – EPR1117	Andreas Gantenbein, <i>Switzerland</i>
Neurotraumatology	Screen B3	EPR1118 – EPR1122	Katrin Rauen, <i>Germany</i>
Peripheral nerve disorders	Screen B6	EPR1123 – EPR1130	Sissel Løseth, <i>Norway</i>
Sleep disorders 1	Screen B8	EPR1131 – EPR1135	Ulf Kallweit, <i>Germany</i>

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## ePresentation Overview

Sunday, 30 June, 13:30 – 14:15

All presenters are requested to be at their poster screen at the beginning of the sessions.  
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Topic	Screen Nr	Poster Numbers	Chairs
Ageing and dementia 3	Screen A1	EPR2001 – EPR2006	Ole-Björn Tysnes, <i>Norway</i>
Cerebrovascular diseases 3	Screen B1	EPR2007 – EPR2013	Halvor Ness, <i>Norway</i>
Cerebrovascular diseases 4	Screen B2	EPR2014 – EPR2020	Johann Sellner, <i>Austria</i>
Child neurology/developmental neurology	Screen A4	EPR2021 – EPR 2025	Ayse Deniz Elmali, <i>Turkey</i>
Cognitive Neurology/neuropsychology	Screen B6	EPR2026 – EPR2030	Marijke Miatton, <i>Belgium</i>
Epilepsy 3	Screen A3	EPR2031 – EPR2037	Erik Taubøll, <i>Norway</i>
Headache and pain 2	Screen A9	EPR2038 – EPR2043	Knut Hagen, <i>Norway</i>
Motor neurone diseases 2	Screen A12	EPR2044 – EPR2050	Christian Krarup, <i>Denmark</i>
Movement disorders 4	Screen B10	EPR2051 – EPR2057	Günter Hoeglinger, <i>Germany</i>
Movement disorders 5	Screen B11	EPR2058 – EPR2064	Regina Katzenschlager, <i>Austria</i>
Movement disorders 6	Screen B12	EPR2065 – EPR2071	Petra Schwingenschuh, <i>Austria</i>
MS and related disorders 3	Screen A6	EPR2072 – EPR2078	Michael Khalil, <i>Austria</i>
MS and related disorders 4	Screen A7	EPR2079 – EPR2085	Paolo Ragonese, <i>Italy</i>
Muscle and neuromuscular junction disease 1	Screen A2	EPR2086 – EPR2092	Laurence Bindoff, <i>Norway</i>
Neurogenetics 2	Screen B4	EPR2093 – EPR2098	Giovanni Meola, <i>Italy</i>
Neurogenetics 3	Screen B3	EPR2099 – EPR2104	Magda Mroczek, <i>Poland</i>
Neuroimaging 1	Screen B7	EPR2105 – EPR2111	Ivan Rektor, <i>Czech Republic</i>
Neuroimmunology 1	Screen A10	EPR2112 – EPR2116	Giovanni Di Liberto, <i>Switzerland</i>
Neuro-oncology	Screen A11	EPR2117 – EPR2121	Lorenzo Ferlini, <i>Belgium</i>

All posters will be available throughout the congress on the poster screens and poster stations in the ePoster area (located in the exhibition area). You can contact ePoster and ePresentation presenters via the poster system.  
For this, please use one of the poster screens in the ePoster area and navigate to the poster you would like to contact the author of. You can find a contact link on the bottom of the page. You can do the same via the link on the congress website.

## ePresentation Overview

Monday, 1 July, 13:30 – 14:15

All presenters are requested to be at their poster screen at the beginning of the sessions.  
Pick up your audio equipment at the ePoster Helpdesk!

Topic	Screen Nr	Poster Numbers	Chairs
Ageing and dementia 4	Screen A1	EPR3001 – EPR3006	Giorgio Fumagalli, <i>Italy</i>
Cerebrovascular diseases 5	Screen B1	EPR3007 – EPR3013	Jukka Putaala, <i>Finland</i>
Cerebrovascular diseases 6	Screen B2	EPR3014 – EPR3020	Natan Bornstein, <i>Israel</i>
Clinical neurophysiology; Neurological manifestations of systemic diseases	Screen A4	EPR3021 – EPR3027	Yuri Alekseenko, <i>Belarus</i>
Cognitive neurology/neuropsychology 2	Screen B6	EPR3028 – EPR3032	Milija Mijajlovic, <i>Serbia</i>
Epilepsy 4	Screen A3	EPR3033 – EPR3038	Kristl Vonck, <i>Belgium</i>
Headache and pain 3	Screen A9	EPR3039 – EPR3043	Stefan Evers, <i>Germany</i>
Infectious Diseases	Screen B3	EPR3044 – EPR3050	Raad Shakir, <i>United Kingdom</i>
Miscellaneous	Screen A11	EPR3051 – EPR3055	Theodoros Kyriakides, <i>Cyprus</i>
Motor neurone diseases 3	Screen A12	EPR3056 – EPR3062	Vincenzo Silani, <i>Italy</i>
Movement disorders 7	Screen B10	EPR3063 – EPR3068	Angelo Antonini, <i>Italy</i>
Movement disorders 8	Screen B11	EPR3069 – EPR3074	Philippe Damier, <i>France</i>
MS and related disorders 5	Screen A6	EPR3075 – EPR3081	Mario Habek, <i>Croatia</i>
Muscle and neuromuscular junction disease 2	Screen A2	EPR3082 – EPR3088	Anneke van der Kooi, <i>The Netherlands</i>
Neuroepidemiology	Screen A7	EPR3089 – EPR3094	Anne Hege Aamodt, <i>Norway</i>
Neurogenetics 4	Screen B4	EPR3095 – EPR3100	Alessandro Filla, <i>Italy</i>
Neuroimaging 2	Screen B7	EPR3101 – EPR3106	Markus Kneihsl, <i>Austria</i>
Neuroimmunology 2	Screen A10	EPR3107 – EPR3111	Veronique Miron, <i>United Kingdom</i>
Sleep disorders 2	Screen B12	EPR3112 – EPR3115	Fabio Pizza, <i>Italy</i>

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## Driving Excellence in Neurology.

Be part of one of humankind's most ambitious projects to help uncover the workings of the nervous system. EAN connects 45,000 specialists in neurology in 47 countries across Europe. Promoting excellence, cutting-edge science and innovative therapies for a better life for more than 430 million patients in Europe alone. Read more on [ean.org](http://ean.org)

Great Minds.





## Official Networking Programme & other activities

Saturday, 29 June



Saturday, 29 June

18:30

Main Auditorium

### Opening & Welcome Reception

Welcoming addresses by

Günther Deuschl, *EAN Past President*

Erik Taubøll, *Local Chairperson*

Announcement

Tony Marson, *EAN Programme Committee Chair*

Opening Lecture

“The positioning system in the brain”

Nobel Prize Winner 2014: Edvard I. Moser,

*Trondheim, Norway*

Musical and Dance performance

Known for innovative and prize-winning performing arts, FRIKAR will introduce the power of ancient but vital arts from Norway.

All participants and exhibitors are invited to the Opening and Welcome reception afterwards. The reception will take place in the Congress venue with the possibility to go outside. We are happy to serve a buffet and cold drinks. Please wear your badge.





**INUS**

**International  
Neuro-Urology Society**

the only scientific society which deals exclusively with Neuro-Urology with the aim to offer the best possible care to neuro-urological patients worldwide



**INUS**  
**ANNUAL**  
**CONGRESS 2020**  
January 23-25th

*Istanbul*

**NEURO-UROLOGY  
IN PRACTICE:  
ADVANCES & CHALLENGES**

**We invite all**

doctors, nurses, physiotherapists etc. - who are involved in neuro-urological care and research

## Official Networking Programme & other activities

Sunday, 30 June

Sunday, 30 June  
13:00-14:30  
Room Amsterdam

### Challenges for Women in Neurology

#### Chairpersons:

Elena Moro, *Grenoble, France*  
Antonella Macerollo, *London, UK*

The aim of the event is to help identifying and overcoming the challenges that women can find during their academic and hospital career development in neurology. This event is mainly directed to female neurology residents and neurologists at the beginning of their career. Male colleagues are welcome to join.

You are invited to bring your lunch to this session.

#### Anne Hege Aamodt

*Oslo, Norway*



Anne Hege Aamodt is the President of the Norwegian Neurological Association and senior consultant at the Department of Neurology, Oslo University Hospital with headache and stroke as her subspecialties. Her primary research interest is related to acute stroke treatment, cryptogenic stroke and migraine treatment. She is the principle investigator of international stroke studies and is collaborating in several national and international projects. She is national deputy delegate and national delegate in the stroke scientific panel in EAN, board member of the World Federation of Neurology Constitution & Bye-laws Committee member of the EAN/UEMS-SN/EBN Joint Education Board and the Local Organising Committee for the 5<sup>th</sup> EAN congress in Oslo 2019 and Fellow of the European Stroke Organisation where she is member of board of the guideline committee and membership committee.



**Kristl Vonck**  
*Ghent, Belgium*

Kristl Vonck is Head of the Department 'Head and Skin' at Ghent University in Belgium. She has held international training positions at Guy's Hospital, London, UK; Yale University School of Medicine, New Haven, Connecticut, USA and the University of Stellenbosch, South Africa. She is a fellow of the EAN and member of the EU Joint Task Force of the International League Against Epilepsy. Her research interests include epilepsy, neuromodulation, bioelectronic medicine and neurophysiological home-monitoring of neurological disorders. In the translational research setting of the 4Brain Research team, her team investigates the mechanism of action, efficacy and side effects of several neurostimulation modalities. Both in animals and patients, crucial questions are investigated for the application of neurostimulation as a valuable treatment option for neurological disorders: stimulation parameters, open and closed loop neurostimulation applications, seizure detection and prediction algorithms, invasive versus non-invasive neurostimulation. Proof-of-concept and early innovative techniques for neurological monitoring@home are validated at the excellence Center for Neurophysiological Monitoring (CNM) of Ghent University Hospital before being investigated in a home environment. Kristl Vonck has published widely in international peer-reviewed journals (>150 papers), has authored seven book chapters and has given 190 international presentations.



**Alla Guekht**  
*Moscow, Russia*

Alla Guekht is Director of the Moscow Research and Clinical Center for Neuropsychiatry of the Moscow Healthcare Department and Professor of Neurology in the Russian National Research Medical University. She received the PhD Diploma for the dissertation on EEG monitoring in carotid surgery and the Doctor of Medical Sciences Diploma for the dissertation on Brain plasticity and restoration after stroke. Her main research interests are epilepsy and cerebrovascular diseases. She is the author of more than 190 Pubmed-listed publications, including over 80 papers in the international peer-reviewed journals and chapters in the international textbooks. She received the Bruce S. Schoenberg International Award in Neuroepidemiology, the European Educational Award on Epileptology and the Ambassador for Epilepsy Award. She is the elected Trustee of the WFN, the Vice-President of the ILAE and the Secretary-General of the National Society of Neurologists.



International Federation of  
**CLINICAL NEUROPHYSIOLOGY**

## **Europe - Middle East - Africa Chapter**

The Europe-Middle East- Africa Chapter of the IFCN is pleased to be collaborating with the EAN to improve Clinical Neurophysiology.

The International Federation of Clinical Neurophysiology (IFCN) has member societies in 62 countries. The IFCN mission is to promote best practice in clinical neurophysiology through education and research throughout the world. And our vision is to improve healthcare worldwide by understanding the nervous system and optimizing the diagnosis and treatment of its disorders through clinical neurophysiology

Our chapter, one of four in the IFCN, contains just over half the national societies affiliated to the IFCN. It runs its Congress every two years and supports visiting lecturer programmes, bursaries and scholarships. Our chapter was a founding member of the European Brain Council, representing clinical neurophysiology. and a partner in EBC-coordinated EU project 'The European Brain Research Area (EBRA), It is initiating educational and training developments.

For details contact;

Professor Jonathan Cole, Chair, Executive Committee  
[jonathan.cole@poole.nhs.uk](mailto:jonathan.cole@poole.nhs.uk)

Dr Hatice Tankisi, Secretary/Treasurer, [hatitank@rm.dk](mailto:hatitank@rm.dk)

**[www.ifcn.info](http://www.ifcn.info)**



## Official Networking Programme & other activities

Sunday, 30 June

Sunday, 30 June  
18:15  
meeting-point in front of Oslo congress center

### Resident and Research Fellow Hospital Visit

This year, the traditional hospital visit is organised on Sunday, June 30, with meeting point at 18:15 in front of the Oslo congress centre.

You can sign up at the RRFS booth/EAN LEARN booth – places are limited. Participants will be introduced to the local neurology education while visiting the Neurology Department of the Rikshospitalet and the adjacent building where the research departments are (Domus Medica).

The hospital visit is followed by a get-together with food and beverages.



Sunday, 30 June  
20:30  
Room Nord Norge

### From neurologists for neurologists – Music Recital



A Musical Journey through Europe with compositions from the Baroque to the Classic and Romantic Periods:  
Johann Sebastian Bach – Edvard Grieg – Franz Schubert – Clara Schumann – Antonio Vivaldi

This chamber music recital is the third one organised and scheduled at the time of an EAN congress by the neurologists Klaus V. Toyka, Würzburg, Germany, Hannah Cock, London, UK, and pianist Beate Toyka, UK.

Delegates of the congress are cordially invited to spend an hour of relaxed listening.



Tickets 15€/10 € at the registration desk onsite or by booking through EAN Registration.



# EANO 2019 LYON



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**14<sup>TH</sup> MEETING & Educational Day**



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**EUROPEAN ASSOCIATION  
OF NEURO-ONCOLOGY**

Centre de Congrès  
Lyon, France

## Official Networking Programme & other activities

Monday, 1 July

Monday, 1 July  
12:30

### History of Neuroscience Visit to the Polhøgda – Fridtjof Nansen Institute

The participants of the History of Neuroscience Visit will be picked up by bus at 12:30 on Monday, 1 July in front of Norges Varemesse. All participants will arrive at Polhøgda around 13:00. After a 90 minutes guided tour, the bus will take all participants back to the Norges Varemesse. Local neurologists are guiding the bus tour informing on historical facts and figures.

Entrance fee: 50€  
Reduced fee: 35€



Fridtjof Nansen (1861-1930) was a famous Norwegian Arctic explorer, oceanographer, statesman and humanitarian. In the final decade of his life he was the League of Nation's High Commissioner for Refugees. He was awarded the Nobel Peace Prize in 1922 for his work on behalf of the displaced victims of the First World War and

related conflicts. What is less known, is that he was the first Norwegian to defend a Ph.D. in neuroscience. He studied the central nervous system of lower marine vertebrates. He was probably the first scientist who gave experimental evidence that nerve cells are not connected in a syncytium, and thus helped establishing the neuron theory.

Polhøgda was built 1900-1901, as the home of Fridtjof and Eva Nansen. Their home was an important location of social life for artists and intellectuals in the Oslo area. After Fridtjof Nansen's death in 1930, he was buried at the property. Polhøgda was sold for a nominal fee from his heirs to a group of donators, who in turn gave the property to the University of Oslo. Their conditions included that the building should be preserved, and not be used as a museum. It was later owned by the Norwegian Academy of Science and Letters, and from 1947 the Norwegian Geographical Society.



It currently hosts the research foundation Fridtjof Nansen Institute. However, Fridtjof Nansen's own office at Polhøgda has been kept unchanged throughout the years.

Monday, 1 July  
19:00  
City Hall, Oslo

### Meet Your Neurology Network

Oslo City Hall houses the city council, city administration and art studios. Its characteristic architecture, artworks and the Nobel Peace Prize ceremony makes it one of Oslo's most famous buildings.



The building as it stands today was constructed between 1931 and 1950, with an interruption during the Second World War. It was designed by architects Arnstein Arneberg and Magnus Poulsson. The building is located in the city center, in the northern part of the Pipervika neighbourhood, and it faces Oslofjord. Oslo City Hall is built of red brick and has two towers, one 63 meters tall and other 66 meters tall. The roof of the eastern tower has a 49-bell carillon which plays every hour. On December 10 (anniversary of Alfred Nobel's death) each year, Oslo City Hall hosts the Nobel Peace Prize ceremony in which the annual laureate gives his or her lecture and is awarded the medal and diploma. The Norwegian Royal Family and Prime Minister are attendants.

The entrance fee is € 5 and includes free snacks and drinks and guiding through selected areas.

The City Hall is easy to reach from the Norges Varemesse by train. Take the train to the city center and get out at Nationaltheatret. From there it is a 5-minute walk.



Session Overview

Saturday, 29 June

Main Auditorium	Room Lisbon	Room Paris	Svalbard	Jan Mayen 1	Sar Norge	Nord Norge	Jan Mayen 2	CbW room	Room Berlin	Room Amsterdam	HoC room	HoC room	Room Helsinki	Room Budapest
<b>FW1</b> 08:30-10:00 Stroke and Dementia	<b>IdS1</b> 08:30-10:00 Treatment strategies in MS	<b>FW2</b> 08:30-10:00 Future treatments of neuroinflammation and neuroimmune diseases	<b>FW3</b> 08:30-10:00 EAN/MDS-ES Functional movement disorders	<b>SpS1</b> 08:30-10:00 Brain death, circulatory death and organ donation	<b>FW4</b> 08:30-10:00 Can we reduce mortality in epilepsy? Yes, we can!	<b>FW5</b> 08:30-10:00 Cannabinoids: the link between neuroinflammation and neurodegeneration	<b>FW6</b> 08:30-10:00 Circulating biomarkers in genetic and neuro-muscular disorders and RNAi therapeutics	<b>CbW1</b> 08:30-10:00 Dilemmas in neuroinflammatory disease in the ICU	<b>FW7</b> 08:30-10:00 Liquid biopsy of CSF in brain tumours	<b>HoC1*</b> 08:00-09:00 Conventional needle EMG (Level 1)	<b>HoC2*</b> 08:00-09:00 Nerve conduction studies (Level 1)	<b>HoC3*</b> 08:15-10:15 Transcranial magnetic stimulation (Level 1)	<b>HoC4*</b> 09:15-10:15 Vestibular evoked myogenic potentials (Level 1)	

**9DS**  
10:00-10:30  
Sanofi Genzyme: Multiple Sclerosis – Out of the Brain?

09:00-17:00 Exhibition opening hours  
10:00-10:30 Coffee Break at exhibition

SYMPOSIUM	SYMPOSIUM	SYMPOSIUM	SYMPOSIUM
<b>SYMPOSIUM 1</b> 10:30-12:30 Biomarkers in degenerative dementia: news and views from the European DLB Consortium	<b>SYMPOSIUM 2</b> 10:30-12:30 Insights into headache pathophysiology	<b>SYMPOSIUM 3</b> 10:30-12:30 New insights into the pathogenesis and treatment of autoimmune disorders	<b>SYMPOSIUM 4</b> 10:30-12:30 EAN/MDS-ES: Movement disorders in systemic conditions

SAT	SAT	SAT	SAT
<b>13:00-14:30</b> Novartis: Calcitonin gene-related peptide monoclonal antibodies for migraine prevention: what the neurologist needs to know	<b>13:00-14:30</b> Novartis: Multiple Sclerosis Diagnostic challenges and cognitive impairment in a changing world	<b>13:00-14:30</b> AstraZeneca: Gene therapy in neuromuscular diseases: a journey from bench to bedside	<b>13:00-14:30</b> Alkermes: Hereditary transylferin amyloidosis Unraveled: Linking a Mixed One Disease

12:30-14:45 Lunch Break at exhibition (lunch served from 12:30-13:30)

12:30-13:15 ePoster sessions  
13:30-14:15 ePresentation sessions

TC1	OS	TSYMP	SpS3	TC2	TC3	TC4	OS	OS	CbW2	SpS4	HoC5*	HoC6*	OS
14:45-18:15 Mitochondrial diseases for beginners (Level 1)	14:45-18:30 Neuroimmunology: Neurotraumatology	14:45-18:15 Unmet needs in the treatment of migraine	14:45-18:15 EAN/MDS-ES: European Basal Ganglia Club	14:45-18:15 Treatment of adult and paediatric primary sleep disorders (Level 2)	14:45-18:15 EAN/PNS: Novel approach in the treatment of neuropathy (Level 3)	14:45-18:15 Emergencies in neurology: dealing effectively with syncope and TLOC (Level 1)	14:45-18:30 Aging and dementia 1	14:45-18:15 Diagnostic dilemmas in glioma	14:45-16:15 EAN/AFAN: Intractable Epilepsies	14:45-15:45 Conventional needle EMG (Level 1)	14:45-15:45 Nerve conduction studies (Level 1)	14:45-16:00 Cerebrovascular diseases 1	

16:15-16:45 Coffee Break at exhibition  
16:15-16:30 Forum Talk | ROCHE – Early Alzheimer's disease: Towards drug biomarkers co-development | Scientific Theatre  
16:30-16:45 Forum Talk | MERCK – Family planning for patients with multiple sclerosis | Scientific Theatre

TC1	OS	OS	OS	TC2	TC3	TC4	OS	OS	OS	SpS5	HoC9	HoC10	OS
cont.	16:45-18:15 BrainChallenge	16:45-18:15 Neuro-oncology	16:30-18:00 Movement disorders 1	cont.	cont.	cont.	16:30-18:15 MS and related disorders 1	16:45-18:15 Muscle and neuromuscular junction disease	17:00-18:15 Neurogenetics 1	16:45-18:15 Rare Neurological Diseases for neurologists: the nervous system functions and dysfunctions	17:00-17:15 Transcranial magnetic stimulation (Level 1)	17:15-18:15 Nerve and conduction study (Level 2)	17:00-18:15 Cerebrovascular diseases 2

PLEN1	OS	OS	OS
18:30-20:00 Opening session			

\* HoC 5-8 are repetitions of HoC 1-4

20:00-21:30 Welcome Reception



- 3DS** 3-Day Satellite Session
- CdS** Career development Session
- CbW** Case-based Workshop
- CONT** Controversy Session
- FW** Focused Workshop
- HoC** Hands-on Course
- IoS** Interactive Session
- OS** Oral Session
- PLEN** Plenary Symposium
- SAT** Satellite Symposium
- SpS** Special Session
- SYMP** Symposium
- TC** Teaching Course
- T** Tournament
- TSYMP** Topical Symposium
- NET** Networking
- €** Overarching Theme
- €** Extra fee

Sunday, 30 June

Main Auditorium	Room Lisbon	Room Paris	Svalbard	Jan Mayen.1	Sør Norge	Nord Norge	Jan Mayen.2	CbW room	Room Berlin	Room Amsterdam	HoC room	Room Helsinki	Room Budapest
	<b>IoS2</b>	<b>FW8</b>	<b>FW9</b>	<b>FW10</b>	<b>SpS6</b>	<b>FW11</b>	<b>FW12</b>	<b>CbW3</b>		<b>FW13</b>	<b>HoC11</b>		
	08:00-09:30 The buzz of Alzheimer's disease in neuromuscular disease	08:00-09:30 The buzz of Alzheimer's disease for an Alzheimer's threat	08:00-09:30 Integration of mobile applications into stroke care networks	08:00-09:30 Disturbances of sleep-wake functions: The lesson from brain damaged patients	08:00-09:30 New neurological guidelines	08:00-09:30 Glia and epilepsy: inflammation and new therapeutic possibilities	08:00-09:30 Autologous stem cell transplantation in MS - results and future directions	08:00-09:30 Clinical differential diagnosis of ALS		08:00-09:30 The role of iron in metabolic encephalopathy	08:00-09:30 Clinical MDS-ES: Physiological assessment of patients with MD (Level 2)		
					09:00-17:00 Exhibition opening hours								
					09:30-10:00 Coffee Break at exhibition								
					9:45-10:00 Forum Talk   ALNYLAM PHARMACEUTICALS - Acute hepatic porphyria: A potentially fatal cause of peripheral neuropathy or encephalopathy. A practical perspective from an expert centre   Scientific Theatre								
					9:45-10:00 Forum Talk   MERCK - Caudribine Tablets real-world experience: the Finnish experience   Scientific Theatre								

<b>PLEN 2</b>	
10:00-12:00 Presidential Symposium	
	<b>SAT</b>
12:15-13:15 Bigger, Spinal Neuropathy in adults: patient management in the new therapeutic era	<b>SAT</b>
13:45-14:45 Teva: Optimism and opportunities with anti-CGRP Biologics in migraine - where are we today?	<b>SAT</b>
13:00-14:30 Novel tales of the unexpected: Uncovering the diagnosis in muscular diseases	<b>SAT</b>
	<b>NET</b>
	13:00-14:30 Challenges for women in Neurology
	12:00-14:45 Lunch break at exhibition (lunch served from 12:00-13:00)
	12:30-13:15 ePoster sessions
	13:30-14:15 ePresentation sessions

<b>SpS7</b>	<b>IoS3</b>	<b>TC5</b>	<b>TC6</b>	<b>TSYMP</b>	<b>TC7</b>	<b>T</b>	<b>TC9</b>	<b>CbW4</b>	<b>OS</b>	<b>TC8</b>	<b>CdS1</b>	<b>OS</b>	<b>OS</b>
15:00-16:30 Clinical Grand Rounds	15:00-16:30 The dying, still deadly breed of neuroinfections	15:00-16:30 Refractory status epilepticus: What to do and how dangerous is it to the brain? (Level 2)	15:00-16:30 Movement disorders for general neurologists (Level 2)	15:00-16:30 Novel approaches in progressive supranuclear palsy	15:00-16:30 Acute headache treatment (Level 1)	Tournament Basic	15:00-18:15 Antibodies: From autoimmune encephalitis to paraneoplastic myopathies (Level 2)	15:00-16:30 EAN/EAPC: Taboos in care - issues that are difficult to discuss	15:00-16:30 Cerebrovascular diseases 3	15:00-18:15 Medical management issues of dementia - Role of the neurologist (Level 2)	15:00-16:30 Basic statistics for neurologists	14:45-16:00 Neuroimmunology: Infectious Diseases	14:45-16:00 Miscellaneous 1

<b>OS</b>	<b>IoS4</b>	<b>TC5</b>	<b>TC6</b>	<b>CONT1</b>	<b>TC7</b>	<b>OS</b>	<b>TC9</b>	<b>SpS8</b>	<b>OS</b>	<b>TC8</b>	<b>HoC12</b>	<b>OS</b>
16:45-18:15 Peripheral nerve disorders	16:45-18:15 Autonomic dysfunction in non-neurological conditions	cont.	cont.	16:45-18:15 Neuroinfections	cont.	16:45-18:15 Neurogenetics 2	cont.	16:45-18:15 RRFS Session - Round table discussion	16:45-18:15 Cerebrovascular diseases 4	cont.	16:45-18:45 Pituitary nerve disorders from studies (Level 3)	17:00-18:30 Sleep disorders

**3DS**  
16:15-16:45  
Special Course: Normal brain atrophy rates in Multiple Sclerosis, a brainwave?

16:15-16:45 Coffee Break at exhibition  
16:30-16:45 Forum Talk | ROCHE - Understanding spinal muscular atrophy: how far have we come? | Scientific Theatre  
16:30-16:45 Forum Talk | VIELA BIO - N-Momentum Study Design | Scientific Theatre

**SAT**  
18:30-20:00  
Sunovion: From "Off" To "On" - Treating "Off" Episodes In Parkinson's Disease

**SAT**  
18:30-20:00  
UCB: Childhood to adulthood transition in Neurology: How to best orchestrate the transition within epilepsy



**3DS** 3-Day Satellite Session  
**CdS** Career development Session  
**CbW** Case-based Workshop  
**CONT** Controversy Session

**FW** Focused Workshop  
**HoC** Hands-on Course  
**IS** Interactive Session  
**OS** Oral Session

**PLEN** Plenary Symposium  
**SAT** Satellite Symposium  
**SpS** Special Session  
**SYMP** Symposium

**TC** Teaching Course  
**T** Tournament  
**TSYMP** Topical Symposium  
**NET** Networking

**€** Overarching Theme  
**€** Extra fee

Tuesday, 2 July

Main Auditorium	Room Lisbon	Room Paris	Svalbard	Jan Mayen I	Sør Norge	Nord Norge	CbW room	Room Berlin	Room Amsterdam	HoC room	Room Budapest
<b>SYM7</b> 10:00–10:00 Neuroimaging in common neurologic disorders	<b>IS7</b> 08:00–09:30 The Do's and Don'ts in neurologic emergencies	<b>SYMP 8</b> 08:00–10:00 New insights/developments in stroke treatment	<b>OS</b> 08:30–10:00 Late Breaking News	<b>OS</b> 08:45–10:00 Movement Disorders 3	<b>CdS 2</b> 08:30–10:00 Scientific writing	<b>SpS 10</b> 08:30–10:00 How to use 'big data' and digital technology to improve epilepsy care and patient outcomes	<b>CbW 7</b> 08:30–10:00 EAN/MDS-ES: When 'playing' with dopamine goes wrong	<b>OS</b> 08:30–10:00 Epilepsy 2	<b>OS</b> 08:30–10:15 MS and related disorders 2	<b>HoC15</b> 08:00–10:00 bedside examination of the vestibular and ocular motor system (Level 2)	€

**3DS**

10:00–10:30  
 Challenge: Are brain atrophy and cognitive impairment the result of early treatment of early Multiple Sclerosis?

09:00–13:30 Exhibition opening hours  
 10:00–10:30 Coffee Break at exhibition

**PLEN 4**

10:30–12:30  
 Highlight Session

12:30–13:30 Lunch Break at exhibition

IS 8	TC15	TC16	TC17	TC18	SpS11	CbW 8
13:00–14:30 Epileptic seizure semiology: what can be inferred from total behavioural manifestations for clinical practice? (Level 2)	13:00–16:30 Eye movements and vestibular function in critical care, emergency, and ambulatory neurology (Level 2)	13:00–16:30 TBI, stroke and subarachnoid haemorrhage – How to make an impact in neurocritical care management and research (Level 2)	13:00–16:30 Congenital myasthenic syndromes and the myotonic dystrophies: Diagnosis and possible treatment (Level 3)	13:00–16:30 Testing of cognitive functions by the neurologist (Level 1)	13:00–14:30 Using health registries in neurology: the Norwegian experience	13:00–14:30 Challenging neurogenetics phenotypes: acute presentation, management and diagnosis not to miss

14:30–15:00 Coffee Break near session rooms

CONT 3	TC15	TC16	TC17	TC18
15:00–16:30 New research: small fibre neuropathy and fibromyalgia and thymolytic objective markers of pain	cont.	cont.	cont.	cont.

# 11<sup>th</sup>



## World Research Congress of the European Association for Palliative Care



13-16 May  
**2020**  
Palermo, Italy

ORGANIZING SECRETARIAT



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## Scientific Theatre – Programme

Time	Saturday, 29 June		Sunday, 30 June		Monday, 01 July		Tuesday, 02 July	
	09:00–17:00 exhibition opening hours						09:00–13:30 exhibition opening hours	
	organisation/ speaker	lecture title	organisation/ speaker	lecture title	organisation/ speaker	lecture title	organisation/ speaker	lecture title
09:30			Coffeekbreak: Forum talk by industry <b>9:30-9:45 ALNYLAM PHARMA-CEUTICALS</b> - Acute hepatic porphyria: A potentially fatal cause of peripheral neuropathy or encephalopathy. A practical perspective from an expert centre <b>9:45-10:00 MERCK</b> - Cladribine Tablets real-world experience: the Finnish experience		Coffeekbreak: Forum talk by industry <b>9:45-10:00 ROCHE</b> - Aware of rare: what's new in Huntington's Disease?			
10:00	Coffeekbreak				<b>RRFS</b> - S. Gassama	Tips and Practical advices for the EBN examination	Coffeekbreak	
10:30	<b>eBook</b> - K. Toyka	The handbook for neurological examination	<b>EFNA</b> - E. Cunningham	#BrainLifeGoals: An Awareness Campaign	<b>eBook</b> - K. Toyka A. Siva	The handbook for neurological examination – Turkish edition of the e-Book		
11:00	<b>RRFS</b> - A. Sauerbier	The National Representatives Network	<b>EBC</b> - M. Kautsch	The MULTI-ACT project: the science of patient input	<b>Wiley</b> - P. Saloheimo	Scientific Writing		
11:30			<b>EFNA</b> - T. Hawrot	Global Health Policy: Advocating for Neurology	<b>Wiley</b> - P. Saloheimo	Scientific Writing	<b>RRFS</b> - F. Di Lorenzo	Italian young neurologists: activities and projects looking to the future in Italy and Europe
12:00			<b>EBC</b> - F. Destrebecq, G. Esposito	European Brain Research Area (EBRA): coordinating European brain research and developing global initiatives				
12:30			<b>EAPC</b> - D. Oliver	Neurology and Palliative Care - collaboration now and in the future	<b>INUS</b> - J. Panicker	INUS and the EAN - a year of collaboration		
13:00	<b>RRFS</b> - D. Schreier	How young neurologists in Europe can shape their own future	<b>RRFS</b> - N. Kleinberg, M. Van Der Meulen	Residency Program in Europe – a National Representatives Survey	<b>RRFS</b> - L. Klingelhöfer, G. Di Liberto	News from the Resident and Research Fellow Section		
13:30			W. Grisold, W. Struhal	Bookpresentation: Advocacy in Neurology	<b>RRFS</b> - V. Carvalho, A. Sauerbier	News from the Resident and Research Fellow Section		
14:00			<b>RRFS</b> - F. Di Lorenzo, D. Schreier	Endovascular therapy for acute ischemic stroke: which role for neurologists?				
14:30								
15:00								
15:30	<b>EAN</b> - D. Muresanu	Scientific Panels - what they are and how they work						
16:15	Coffeekbreak: Forum talk by industry <b>16:15-16:30 ROCHE</b> - Early Alzheimer's disease: Towards drug-biomarkers co-development <b>16:30-16:45 MERCK</b> - Family planning for patients with multiple sclerosis		Coffeekbreak: Forum talk by industry <b>16:15-16:30 ROCHE</b> - Understanding spinal muscular atrophy: how far have we come? <b>16:30-16:45 VIELA BIO</b> - N-Momentum Study Design		Coffeekbreak: Forum talk by industry <b>16:15-16:30 MERCK</b> - Managing switching between high efficacy treatments in relapsing multiple sclerosis: lessons from Cladribine Tablets			

## Session Descriptions

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### Session descriptions and Buttons

Please make sure to be in session halls on time as all sessions will begin as per schedule.

If you need a report of your attendance in sessions, please evaluate all sessions that you have attended. Once evaluation of the sessions is complete, you can obtain a CME Certificate, including all sessions attended, via the online registration platform. (see also page 21)

If you have any questions, you can find a designated 'App and Evaluation Helpdesk' in the congress entrance area next to the registration desk.



**CME Certificates including a record of attendance will only be available for participants who have evaluated the sessions attended during the congress. Evaluation is possible until Wednesday, 24 July 2019, 23:59 CET.**

### Scientific Sessions:

#### Plenary Symposia:

One Plenary Symposium per day is scheduled, with no other session held in parallel. During these four sessions, outstanding speakers will present the Opening lecture, three Named Lectures, the most relevant topics within the Overarching congress theme and the highlights of the congress.

#### Symposia:

Symposia are scheduled on each congress day and will last 2 hours each. Lecturers will give general information on the main topics of the congress.

#### Focused Workshops:

Focused workshops (FWs) will be held in the morning and last for 1.5 hours. They cover narrow topics and aim to promote discussion around new ideas, evidence or theories. Ample time for discussion will be provided.

#### Special Sessions:

Special Sessions (SPS) cover topics of special interest.

### Educational Sessions:

#### Teaching Courses:

If you wish to participate, tickets can still be purchased at the Course booking stations/Registration helpdesk for a fee of €38/€25, availability permitting.

TCs are held on each congress day in the afternoon and last for 3 hours (plus 1/2 hour coffee break). They are interactive with ample opportunity for participants to ask questions. All TCs are aimed primarily at a post-graduate audience.

There are 3 levels of TCs:

**Level 1 (Introductory):** Aimed primarily at neurologists in training, or those wishing to refresh/update their basic knowledge in the field. Level 1 can also be suitable for undergraduates or general trainees with a particular interest.

**Level 2 (standard):** Assumes familiarity with basic clinical knowledge and practice, aimed at specialist trainees or practitioners wishing to update and further develop their knowledge in the field.

**Level 3 (advanced):** Aimed at specialist trainees or practitioners with a particular interest in that field, covering the latest advances of particular interest to a specialist audience.

Participation is not included in the registration fee. The manuscript of the lectures will be available online on the congress website.

#### Hands-on Courses:

If you wish to participate, tickets can still be purchased at the Course booking stations/Registration helpdesk for a fee of €38/€25, availability permitting.

These Hands-on Courses (HoC) are for a limited number of participants only, with some built-in work in smaller groups who attend parallel by rotating to each presenter of the course. Live demonstrations with screening machines are the core of these courses.

Participation is not included in the registration fee. For a limited number of participants only (first come-first-served basis).

#### Case-based Workshops:

If you wish to participate, tickets can still be purchased at the Course booking stations/Registration helpdesk for a fee of €38/€25, availability permitting.

The case-based workshops are to support knowledge and practice in clinical diagnosis and management in a format, which requires the attendees to actively participate, with opportunities for direct discussion/contact with leading experts to discuss pre-prepared cases.

Participation is not included in the registration fee. For a limited number of participants only (first come-first-served basis).

#### Interactive Sessions:

These sessions are open for all participants. Through an interactive voting system, the opinions of colleagues will be collected. Please download the congress app to actively participate in the Q&A.

#### Controversy Sessions:

Allow to give a critical overview of the current and most recent advances on key topics, share knowledge, stimulate debate and forge opinions on controversial issues of clinical care, research, educational practice and therapy.

## Session Descriptions

### Career development Sessions:

This format shall allow to share and improve knowledge on: “how to best write an academic paper”; “how to plan and organize a clinical or scientific study”; “how to apply for a grant”, “how to get a paper accepted” etc...

These sessions are open for all participants and primarily aim at a post-graduate audience.

### EAN BrainChallenge: (see page 73)

The session will give a platform for interactive learning using quiz questions. Two competing teams, a local team and an international team, will try to win the BrainChallenge by giving the correct answer to a case-presentation. The audience can silently vote via the EAN congress app, the results will be presented after each case.

Please download the congress app to actively participate in the Quiz.

### Clinical Grand Rounds: (see page 92)

In this session, highly experienced neurologists will interview and examine real patients with difficult or complex neurological conditions. They will discuss the clinical diagnosis, request and review all available diagnostic tests and will end by formulating a final diagnosis.

### Buttons @ Scientific programme:



OVERARCHING  
THEME

The Overarching Theme for the 2019 Congress is “Neuroinflammation”. Sessions with this button are dedicated to the Overarching theme and were either created by the Programme committee together with Local Organising committee, or by the EAN Scientific Panels.



PATIENTS'  
CHOICE

EFNA (European Federation of Neurological Associations), the federation uniting European Patients' Associations, has selected these sessions as high priority.



HIGHLIGHT

These are the highlights of the congress.



RARE  
DISEASES

These sessions were selected by the EAN Rare Neurological Disease Task Force.



# IN OUR WORLD, A STEADY FLOW KEEPS PATIENTS ALIVE.

LET'S TAKE CARE OF IT.  
TOGETHER.

## Driving Excellence in Neurology.

Be part of one of humankind's most ambitious projects to help uncover the workings of the nervous system. EAN connects 45,000 specialists in neurology in 47 countries across Europe. Promoting excellence, cutting-edge science and innovative therapies for a better life for more than 430 million patients in Europe alone. Read more on [ean.org](http://ean.org)

Great Minds.





# Scientific Programme

5<sup>th</sup> Congress of the  
European Academy  
of Neurology

June 29 – July 2



# THE WAY WE SEE IT, EVEN GREY MATTERS.

LET'S GIVE IT MEANING.  
TOGETHER.

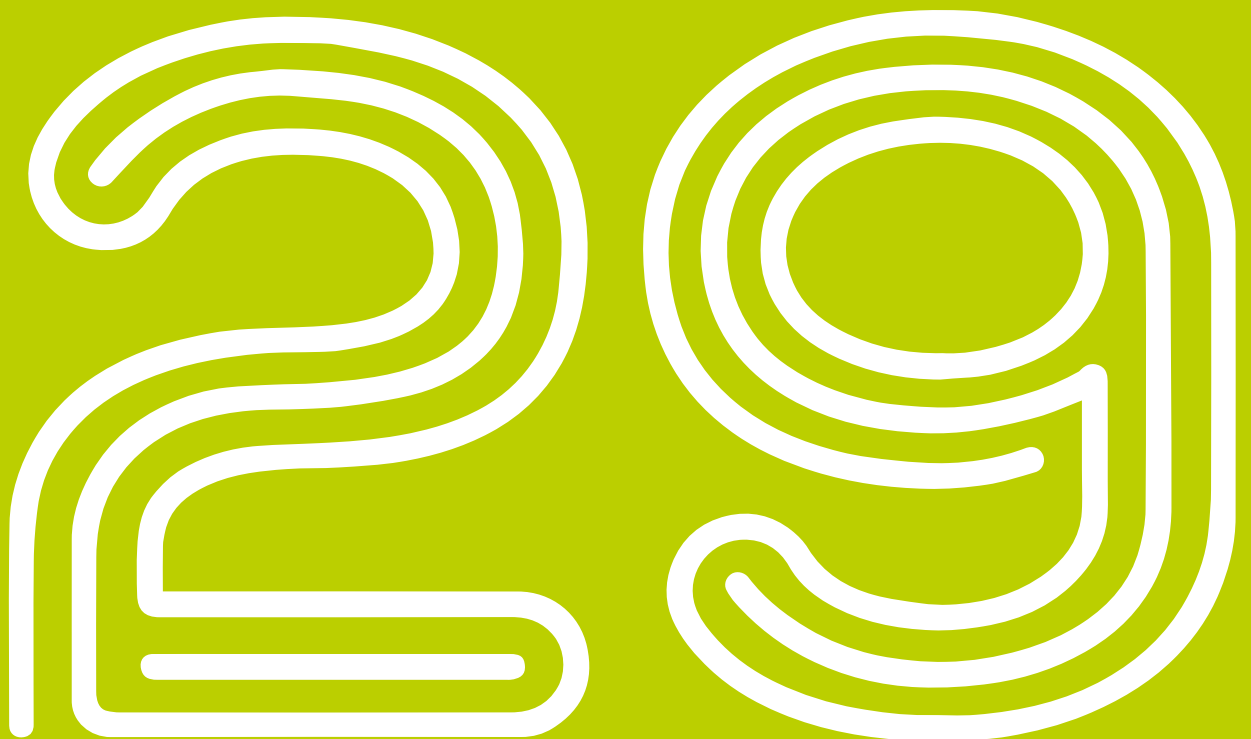
## Driving Excellence in Neurology.

Be part of one of humankind's most ambitious projects to help uncover the workings of the nervous system. EAN connects 45,000 specialists in neurology in 47 countries across Europe. Promoting excellence, cutting-edge science and innovative therapies for a better life for more than 430 million patients in Europe alone. Read more on [ean.org](http://ean.org)

Great Minds.



# Saturday 29 June 2019





EUROPEAN STROKE  
ORGANISATION

Do you want to hear the results of late-breaking trials  
and receive updates on world-leading science  
with reduced registration rates for the ESO Conference?

## **Become a member of ESO!**

Other benefits include:

- Subscription to the European Stroke Journal
- Monthly newsletter
- Joint membership with WSO
- Possibility to attend other ESO educational events  
(e.g. Summer / Winter School, Department-to-Department  
Visiting Programme, etc.)
- ... and many more

***Apply for membership online now.***

Reduced membership fees for low income countries and  
members of associated national stroke societies.

[www.eso-stroke.org](http://www.eso-stroke.org)





# 14th European Congress on Epileptology

4-8 July 2020

Geneva, Switzerland



[www.epilepsycongress.org](http://www.epilepsycongress.org)



08:00 – 09:00  
Room HoC

### Hands-on Course 1: Conventional needle EMG – Level 1

**Chairperson:**

*Christian Krarup (Copenhagen, Denmark)*

• **Conventional needle EMG**

*Christian Krarup (Copenhagen, Denmark)*

**Educational Content:**

Teaching the use of EMG and jitter analysis to differentiate weakness due to neurogenic disorders, myopathy and neuromuscular transmission disorders.

Limited to 40 persons. Please register separately – additional fees will apply.

This course is supported by NATUS Medical Inc.

08:00 – 09:00  
Room HoC

### Hands-on Course 2: Nerve conduction studies – Level 1

**Chairperson:**

*Josep Valls-Solé (Barcelona, Spain)*

• **Motor and sensory nerve conduction studies. F-wave**

*Josep Valls-Solé (Barcelona, Spain)*

**Educational Content:**

Teaching how to perform nerve conduction studies and use them in the clinical neurophysiological evaluation of neurological, mostly neuromuscular, disorders.

Limited to 40 persons. Please register separately – additional fees will apply.

This course is supported by NATUS Medical Inc.

08:30 – 10:00  
Room CbW

### Case-based Workshop 1: Dilemmas in neuroinflammatory disease in the ICU

**Chairperson:**

*Maxwell S. Damian (Cambridge, United Kingdom)*

• **Management of super-refractory status epilepticus in autoimmune encephalitis**

*Sophie Demeret (Paris, France)*

• **Severe inflammatory disease of the spinal cord: diagnostic and management dilemmas**

*Hadi Manji (London, United Kingdom)*

• **Dilemmas in prognostication: when is coma in severe encephalitis salvageable and when to stop**

*Maxwell Damian (Cambridge, United Kingdom)*

**Educational Content:**

This session aims to illustrate major diagnostic problems in severe inflammatory disease of the nervous system and discuss their possible solution, based on case examples demonstrated by recognised experts in inflammatory disease and intensive care neurology.

The session is aimed at Level 2-3 participants.

Limited to 60 participants. Please register separately – additional fees will apply.

08:30 – 10:00  
Main Auditorium

### Focused Workshop 1: Stroke and Dementia

**Chairperson:**

*Tormod Fladby (Lørenskog, Norway)*

• **Does treating vascular risk factors prevent dementia and Alzheimer's disease? A systematic review and meta-Analysis**

*Hugh Markus (Cambridge, United Kingdom)*

• **How can we reduce cognitive decline after stroke?**

*Reinhold Schmidt (Graz, Austria)*

• **Synergic interactions between brain small vessel disease and Alzheimer's disease?**

*Tormod Fladby (Lørenskog, Norway)*

**Scientific Content:**

This topic should be highly relevant, these are of course very prevalent diseases where epidemiological research indicate clinically relevant interaction.

1: Recent meta-analyses (Larsson, Markus) point to putative promising effects on dementia (including Alzheimer's dementia) of treatment of vascular risk factors, but also to the need for further trials. An understanding of specific mechanisms is lacking, but could ultimately lead to better focused prevention.

2: Several therapies and interventions have been suggested to improve cognitive prognosis post-stroke, there is a need for trials but some substantial evidence exists for guidance.

Interactions between markers for small vessel disease and amyloid pathology has been studied and there are clear interactions, though the direction of causality may be difficult to discern and mechanisms need to be better explored. Improved understanding of genetic risk factors, and improved imaging and fluid biomarkers for both diseases now rapidly increase our understanding and should improve disease prevention in the near future.

Saturday, 29 June  
08:00 – 10:00

29

08:30 – 10:00  
Room Paris



### Focused Workshop 2: Future treatments of neuroinflammation and neuroimmune diseases

**Chairpersons:**

*Hanne Flinstad Harbo (Oslo, Norway)*  
*Antonio Uccelli (Genoa, Italy)*

- **Brain repair and inflammation**  
*Veronique Miron (Edinburgh, United Kingdom)*
- **B-cell therapies in neuroimmune diseases**  
*Bernhard Hemmer (Munich, Germany)*
- **T-cell therapies in neuroimmune diseases**  
*Per Soelberg Sørensen (Copenhagen, Denmark)*
- **Discussion between the panel and participants of the workshop**

**Scientific Content:**

Diverse immunomodulatory treatments have recently been introduced for treatment of a broad spectrum of neurological diseases. The rationale, mechanisms, effects and risks of such treatments are not always evident. This is a hot topic both for new research and for scientists in clinical practice. This workshop will aim at reviewing the current principles and applications of established as well as future treatments of neuroinflammation through talks by world-leading scientists and clinicians. The workshop will end with an interactive session with a discussion of the topic between the panel of speakers and participants of the workshop.

08:30 – 10:00  
Room Svalbard



### Focused Workshop 3: EAN/MDS-ES: Functional movement disorders

**Chairperson:**

*Francesca Morgante (London, United Kingdom)*

- **The clinical and spectrum and electrophysiology of functional movement disorders**  
*Francesca Morgante (London, United Kingdom)*
- **Neurobiology of functional movement disorders**  
*Mark Edwards (London, United Kingdom)*
- **Managing functional movement disorders**  
*Tereza Serranova (Prague, Czech Republic)*

**Scientific Content:**

This session is focused on the clinical diagnosis, biological background and management of functional movement disorders.

**Recommended Audience**

- Clinical academicians
- Practitioners
- Students/residents/trainees
- Non-physician Health professionals

08:30 – 10:00  
Room Sør Norge



### Focused Workshop 4: “Can we reduce mortality in epilepsy? Yes, we can!”

**Chairperson:**

*Rainer Surges (Aachen, Germany)*

- **Time trends in mortality in epilepsy**  
*Claudia Granbichler (Tel Aviv, Israel)*
- **Unravelling the enigma of SUDEP**  
*Lina Nashef (London, United Kingdom)*
- **Can epilepsy surgery reduce mortality?**  
*Rainer Surges (Aachen, Germany)*

**Scientific Content:**

Mortality in epilepsy is an important and clinically relevant topic. There is an increased risk of mortality from the disease, such as SUDEP and persons with epilepsy are reported to have a 2 to 3-fold increased risk to die compared to the general population. More recently publications show, that mortality ratios are no longer increased in some populations and life expectancy in epilepsy has increased. One explanation could be the full deployment of epilepsy surgery, better preventive measures against SUDEP, and improved primary health care with earlier diagnosis and better selection of refractory cases. Within this focussed workshop speakers will outline the most up to date facts on mortality trends. Participants will learn about the mechanisms, risk factors and prevention of SUDEP. Epilepsy surgery is a very effective treatment of epilepsy. Besides abolishing seizures mortality can be reduced, but current data to support this are still controversial. The participants of this focussed workshop will be engaged in a critical debate on the current evidence to reduce mortality and the measured needed in the future to improve the patient's outcomes.

08:30 – 10:00  
Room Nord Norge



### Focused Workshop 5: Cannabinoids: between neuroinflammation and neurodegeneration

**Chairpersons:**

*Antonio Pisani (Rome, Italy)*  
*Radu Tanasescu*  
*(Nottingham, United Kingdom)*

- **Cannabinoids and neuroinflammation**  
*Radu Tanasescu*  
*(Nottingham, United Kingdom)*
- **Cannabinoids and neurodegeneration**  
*Antonio Pisani (Rome, Italy)*
- **Cannabinoids beyond beneficial effects: the risk of abuse**  
*Olivier Manzoni (Marseille, France)*
- **Cannabinoids in epilepsy**  
*Rima Nabhout (Paris, France)*

**Scientific Content:**

The participants will be able to know the main characteristics of the endocannabinoids as important mediators involved in neuroinflammation and neurodegeneration and will understand the basic of the endocannabinoid system and the fundamental functions played by its major components, with particular practical emphasis on its important physiological and pathological role of clinical interest for the neurologist. They will be able to describe the main clinical neurological indications for which endocannabinoid-targeting medication is already approved, their major pathophysiological basis, the benefits and side issues raised in practice as well as familiarized with the near-future practical trends in endocannabinoid research with future clinical implications, aiming to specifically ameliorate neurological disease while eliminating side effects such as psychological or addictive complications. The participants will understand the current controversies and issues regarding the use of cannabinoid medicines, both therapeutic and legal, from a practical point of view.

08:30 – 10:00  
Room Jan Mayen 2



### Focused Workshop 6: Circulating biomarkers in genetic and autoimmune neuromuscular disorders and RNAi therapeutics

**Chairperson:**

*Maria Judit Molnar (Budapest, Hungary)*

- **MicroRNA in metabolic dystrophies**  
*Maria Judit Molnar (Budapest, Hungary)*
- **RNAi therapeutics in peripheral neuropathies**  
*Giuseppe Vita (Messina, Italy)*
- **Circulating microRNA in myasthenia gravis**  
*Anna Rostedt Punga (Uppsala, Sweden)*

**Scientific Content:**

The scientific content of the focused workshop is intended to highlight the circulating biomarkers in neuromuscular disorders, neuropathies and myasthenia gravis, since the follow-up of these disorders could be better performed by clinicians if they follow not only the clinical evolution but also specific molecular biomarkers in future clinical trials to treat these disorders. Biomarkers can identify both muscle, nerve, neuromuscular junctions or inflammatory components in a neuromuscular disorder.

08:30 – 10:00  
Room Amsterdam

### Focused Workshop 7: Liquid biopsy of CSF in brain tumours

**Chairperson:**

*Roberta Rudá (Turin, Italy)*

- **Primary CNS lymphomas**  
*Uwe Schlegel (Bochum, Germany)*
- **Brain and leptomeningeal metastases**  
*Roberta Rudá (Turin, Italy)*
- **Primary brain tumours**  
*Johan M. Kros*  
*(Rotterdam, The Netherlands)*

**Scientific Content:**

Review of usefulness of ctDNA, miRNA, and circulating tumour cells in CSF for diagnosis and monitoring



Saturday, 29 June  
08:30 – 10:15

29

08:30 – 10:00  
Room Lisbon



### Interactive Session 1: Treatment strategies in MS

**Chairperson:**

*Eva Kubala Havrdova  
(Prague, Czech Republic)*

- **Escalating treatment strategy**  
*Emmanuelle Le Page (Rennes, France)*
- **Induction treatment strategy**  
*Eva Kubala Havrdova  
(Prague, Czech Republic)*
- **Deciding to treat progressive MS**  
*Aksel Siva (Istanbul, Turkey)*

**Educational Content:**

6 clinical cases offering clinical and MRI data that might help for discussing the different option strategies according to some well-known predictive factors and the main results of phase 3 clinical trial in relapsing and progressive MS.

Please download the app “EAN Congress” to actively participate and vote.

08:30 – 10:00  
Room Jan Mayen 1

### Special Session 1: Brain death, circulatory death and organ donation

**Chairperson:**

*Nina Forss (Helsinki, Finland)*

- **Clinical diagnosis of brain death – is it enough?**  
*Nina Forss (Helsinki, Finland)*
- **Use of ancillary tests – when and why?**  
*Uwe Walter (Rostock, Germany)*
- **Circulatory death of organ donors**  
*Michael Kuiper  
(Leeuwarden, The Netherlands)*
- **Legislation and consent in European countries**  
*Romy Beer (Innsbruck, Austria)*

**Scientific Content:**

Brain death means irreversible cessation of all brain functions and is a prerequisite for organ donation. However, methods for determining brain death vary widely. In addition, there is marked variation in use of ancillary tests. In some countries organ donation after circulatory death (DCD) makes significant contribution to overall donation, whereas in some other countries DCD is not at all in use. This special session aims to highlight the best practises in different countries and to stimulate discussion on this important topic.

09:15 – 10:15  
Room HoC



### Hands-on Course 3: Transcranial magnetic stimulation – Level 1

**Chairperson:**

*Letizia Leocani (Milan, Italy)*

- **Transcranial magnetic stimulation**  
*Letizia Leocani (Milan, Italy)*

**Educational Content:**

Teaching how to perform transcranial magnetic stimulation studies. Technical aspects of basic recordings and their interpretation according to the clinical context. Indications and applications

Limited to 40 persons. Please register separately – additional fees will apply.

09:15 – 10:15  
Room HoC

### Hands-on Course 4: Vestibular evoked myogenic potentials – Level 1

**Chairperson:**

*Eleftherios S. Papathanasiou  
(Nicosia, Cyprus)*

- **Vestibular evoked myogenic potentials**  
*Eleftherios S. Papathanasiou  
(Nicosia, Cyprus)*

**Educational Content:**

Teaching how to perform vestibular evoked myogenic potentials. Technical aspects of basic recordings and their interpretation according to the clinical context.

Limited to 40 persons. Please register separately – additional fees will apply.

This course is supported by by NATUS Medical Inc.

10:30 – 12:30  
Main Auditorium

### Symposium 1: Biomarkers in degenerative dementia: news and views from the European Dementia with Lewy Body (DLB) Consortium

**Chairpersons:**

*Flavio Nobili (Genova, Italy)*  
*Dag Aarsland (London, United Kingdom)*

- **Neurophysiology: EEG and videopolysomnography**  
*Laura Bonanni (Chieti, Italy)*
- **Molecular imaging: PET and SPECT**  
*Zuzana Walker (London, United Kingdom)*
- **MRI tools: structural and functional imaging**  
*Irena Rektorová (Brno, Czech Republic)*
- **CSF markers: tau, amyloid, alpha-synuclein, and beyond**  
*Evelien Lemstra (Amsterdam, The Netherlands)*

**Scientific Content:**

An effort to define the criteria to identify the prodromal stage of DLB is ongoing and here the role of biomarkers is even more relevant. Molecular imaging can show nigrostriatal deafferentation as well as norepinephrine transporter deficit at heart level in most DLB patients early in the disease while polysomnography demonstrates REM sleep without atonia. Supporting biomarkers are structural MRI showing relatively preserved medial temporal lobe, EEG with the typical frequency fluctuations of dominant posterior rhythm and diffuse delta waves, and FDG-PET demonstrating the temporo-occipital hypometabolism with preservation of posterior cingulate cortex. CSF biomarkers are in full development based on the new alpha-synuclein assays, but other markers are actively studied. Harmonization efforts across European countries are needed to improve homogeneity in biomarker assay and reporting.

10:30 – 12:30  
Room Lisbon

### Symposium 2: Insights into headache pathophysiology

**Chairpersons:**

*Messoud Ashina (Copenhagen, Denmark)*  
*Stefan Evers (Münster, Germany)*

- **Insights from the ergot derivatives and triptans**  
*Stefan Evers (Münster, Germany)*
- **What does the efficacy of neuro-stimulation tell us?**  
*Peter Goadsby (London, United Kingdom)*
- **CGRP and PACAP mechanisms**  
*Messoud Ashina (Copenhagen, Denmark)*
- **Insights from medication overuse headache**  
*Cristofer Lundquist (Oslo, Norway)*

**Scientific Content:**

Since the development of triptans, migraine and headache drugs have shown increasing efficacy changing the life of headache sufferers. However, there are still unmet needs in treating headaches, searching for better ways of treatment is still ongoing. In the beginning of modern migraine treatment, drugs were developed empirically and based on wrong assumptions. Meanwhile, we have learnt a lot on headache pathophysiology by investigating the exact mechanisms of the drugs. The major aim of the symposium is to give an oversight on the present knowledge about drug efficacy and drug mechanisms in migraine and other headache disorders such as cluster headache (including the risks of the drugs) and to give perspectives on future drug developments based on the knowledge we obtain from older drugs. Thus, the audience will receive a comprehensive insight into the modern knowledge of headache pathophysiology and modern drug treatment and drug development.

10:30 – 12:30  
Room Paris



### Symposium 3: New insights into the pathogenesis and treatment of autoimmune neuromuscular disorders

**Chairpersons:**

*Peter van den Bergh (Brussels, Belgium)*  
*Hugh Willison (Glasgow, United Kingdom)*

- **Immunological paradigms in the neuromuscular system**  
*Hugh Willison (Glasgow, United Kingdom)*
- **Progress in the diagnosis and management of GBS and CIDP**  
*Bart Jacobs (Rotterdam, The Netherlands)*
- **Conceptual paradigm shifts in inflammatory myopathies**  
*Werner Stenzel (Berlin, Germany)*
- **New guidelines for diagnosis and treatment in myasthenia gravis**  
*Nils-Erik Gilhus (Bergen, Norway)*

**Scientific Content:**

Inflammation plays an important role in the neuromuscular system. Much progress has been made in the understanding of immune mechanisms leading to new pathogenetic insights, novel treatment approaches and new diagnostic and therapeutic guidelines of these disorders.

Saturday, 29 June  
10:30 – 16:15

29

10:30 – 12:30  
Room Svalbard



**Symposium 4:  
EAN/MDS-ES:  
Movement disorders in  
systemic conditions**

**Chairperson:**

*Joaquim Ferreira (Lisbon, Portugal)*  
*Maria Stamelou (Athens, Greece)*

- **Metabolic movement disorders**  
*Susanne Schneider (Munich, Germany)*
- **Toxic movement disorders**  
*Pille Taba (Tartu, Estonia)*
- **Autoimmune movement disorders**  
*Angela Vincent (Oxford, United Kingdom)*
- **Neuroinfections and movement disorders**  
*Joaquim Ferreira (Lisbon, Portugal)*

**Scientific Content:**

Presentation and discussion of the pathogenesis, clinical spectrum, workup and management of the most common neuro-metabolic, toxic, autoimmune and neuroinfections diseases causing movement disorders. Update on the pathogenesis of the different etiologies and overlap in the movement disorders syndromes. Advances in the management of the different etiologies and clinical features.

14:45 – 15:45  
Room HoC

**Hands-on Course 5:  
Conventional needle EMG –  
Level 1 – repetition of HoC 01**

**Chairperson:**

*Christian Krarup (Copenhagen, Denmark)*

- **Conventional needle EMG**  
*Christian Krarup (Copenhagen, Denmark)*

**Educational Content:**

Teaching the use of EMG and jitter analysis to differentiate weakness due to neurogenic disorders, myopathy and neuromuscular transmission disorders

Limited to 40 persons. Please register separately – additional fees will apply.

This course is supported by  
NATUS Medical Inc.

14:45 – 15:45  
Room HoC

**Hands-on Course 6: Nerve  
conduction studies – Level 1  
- repetition of HoC 02**

**Chairperson:**

*Josep Valls-Solé (Barcelona, Spain)*

- **Motor and sensory nerve conduction studies. F-wave**  
*Josep Valls-Solé (Barcelona, Spain)*

**Educational Content:**

Teaching how to perform nerve conduction studies and use them in the clinical neuro-physiological evaluation of neurological, mostly neuromuscular, disorders.

Limited to 40 persons. Please register separately – additional fees will apply.

This course is supported by  
NATUS Medical Inc.

14:45 – 16:15  
Room CbW

**Case-based Workshop 2:  
Diagnostic dilemmas in glioma**

**Chairperson:**

*Anette Storstein (Bergen, Norway)*

- **Clinical pitfalls in Gliomas**  
*Anette Storstein (Bergen, Norway)*
- **MRI dilemmas in Glioma**  
*Martha Nowosielski (Innsbruck, Austria)*
- **What's the use amino acid PET in Glioma**  
*Norbert Galldiks (Cologne, Germany)*

**Educational Content:**

The focus of this workshop is to elaborate the advantages and disadvantages of clinical, morphological and metabolic diagnostics in the follow up of glioma patients. This CbW is aimed to improve knowledge concerning multimodal diagnostic approaches and to strengthen the ability of the participants in identifying pitfalls.

Limited to 60 participants. Please register separately – additional fees will apply.

14:45 – 16:15  
Room Paris

### Topical Symposium: Unmet needs in the treatment of migraine

**Chairpersons:**

*Stefan Evers (Münster, Germany)*  
*Cristina Tassorelli (Pavia, Italy)*

- **Refractory migraine attacks**  
*Cristina Tassorelli (Pavia, Italy)*
- **High frequency and chronic migraine**  
*Patricia Pozo-Rosich (Barcelona, Spain)*
- **Medication-overuse headache**  
*Zaza Katsarava (Essen, Germany)*
- **Rare migraine syndromes**  
*Stefan Evers (Münster, Germany)*

**Scientific Content:**

This symposium is directed to all neurologists with more than a basic interest in headache medicine. The first two lectures will be on patients who are refractory to “normal” treatment (i.e., to treatment in accordance to guidelines): one is addressing the possibilities of acute treatment, the other is addressing patients refractory to standard prophylactic care. A separate problem in migraine treatment is medication overuse headache (MOH). Thus, a lecture on the clinical picture and prevention, on the different ways of management and specifically on the treatment of withdrawal headache is included in this symposium. Finally, rare syndromes such as uncommon migraine auras, complications of migraine such as migrainous infarction and epilepsy associated with migraine, and the associated syndromes such as the periodic syndromes of childhood are presented with respect to both diagnosis and treatment. At the end of symposium, the participant will have better knowledge in the treatment of migraine patients who are not sufficiently relieved by a basic guideline adherent treatment and on MOH and on rare migraine syndromes.

This symposium is supported by an educational grant from Eli Lilly.

14:45 – 16:15  
Room Svalbard

### Special Session 3: MDS-ES: European Basal Ganglia Club

**Chairperson:**

*Evžen Růžička (Prague, Czech Republic)*

- **C. David Marsden Award Lecture: Tremor**  
*Günther Deuschl (Kiel, Germany)*
- **Video Cases**  
*Junior participants*

**Scientific Content:**

Every year the European Basal Ganglia Club features a prominent speaker to present a C. David Marsden Award lecture. During the 5th congress of the European Academy of Neurology, it is an honour to have Prof. Günther Deuschl present a lecture on Tremor.

In addition, selected video case studies will be featured. Presenters of the video case studies will have been chosen through an application and selection process in collaboration with the International Parkinson and Movement Disorder Society – European Section.



14:45 – 16:15  
Room Amsterdam

### Special Session 4: EAN/AFAN: Intractable Epilepsies

**Chairpersons:**

*Jean-Michel Vallat (Limoges, France)*  
*Erich Schmutzhard (Innsbruck, Austria)*

- **Symptomatic etiologies of epilepsy in Mediterranean countries and Africa**  
*Hassan Hosny (Cairo, Egypt)*
- **Autoimmune epilepsies**  
*Sarosh Irani (London, United Kingdom)*
- **Selection of epileptic patients for surgery**  
*Augustina Charway-Felli (Accra, Ghana)*
- **Personalised treatment of epileptic patients**  
*Amadou Gallo Diop (Dakar, Senegal)*

**Scientific Content:**

Epilepsy affects 50 million persons worldwide. In spite of optimum anti-epileptic drug treatment, about one third of all epilepsy patients have medically intractable epilepsy. To be able to determine prognostic factors that, in an early therapeutic stage of epilepsy herald intractability could facilitate patient management. Several clinical, etiological, demographic, pharmacological, and genetic factors may be involved in the development of intractability. In cases of medically refractory, lesion-negative epilepsy, clinicians should have a high level of suspicion for the diagnosis of autoimmune aetiologies, the key role of neuro-inflammation in the pathophysiology of resistant epilepsy becoming very important. A better knowledge of those independent factors that predict intractability, as early as possible, could improve patient management by guiding treatment decisions, such as earlier referral for epilepsy surgery. Most of these very important points will be addressed. The speakers will discuss the causes of intractable epilepsy in non-occidental countries and point out the difficulties to diagnose and manage such epileptic patients.

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24<sup>TH</sup> Annual Conference  
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MULTIPLE SCLEROSIS

*European network for best practice and research*



Saturday, 29 June  
14:45 – 18:15

29

14:45 – 18:15  
Main Auditorium



### Teaching Course 1: Mitochondrial diseases for beginners – Level 1

**Chairperson:**

*Michelangelo Mancuso (Pisa, Italy)*

- **Mitochondrial diseases of the brain**  
*Thomas Klopstock (Munich, Germany)*
- **Mitochondrial diseases beyond the brain**  
*Grainne Gorman (Newcastle, United Kingdom)*
- **Diagnostic approach: which are the red flags?**  
*Michelangelo Mancuso (Pisa, Italy)*
- **Management. What to do and not to do**  
*Laurence Bindoff (Bergen, Norway)*

**Educational Content:**

The primary role of the mitochondrion is to produce cell's energy in the form of ATP through a process called oxidative phosphorylation. A variety of clinical disorders are linked to mutations in both mitochondrial and nuclear genomes, leading to defective oxidative phosphorylation and ATP depletion, and clinically impairing multiple tissues and organs. This class of diseases still represents a challenge for physicians, both in the diagnosis and treatment approaches.

This course is tailored for trainee clinicians and clinical scientists with an interest in mitochondrial diseases. It will provide an update on recent developments in diagnostics and clinical presentation of mitochondrial diseases, with an emphasis on clinical cases, management, diagnostic approaches and therapy.

14:45 – 18:15  
Room Jan Mayen 1



### Teaching Course 2: Treatment of adult and paediatric primary sleep disorders – Level 2

**Chairperson:**

*Rolf Fronczek (Leiden, The Netherlands)*

- **Management of CNS hypersomnolence disorders**  
*Rolf Fronczek (Leiden, The Netherlands)*
- **Treatment of sleep-related movement and breathing disorders**  
*Ulf Kallweit (Witten, Germany)*
- **Parasomnia's – video session & treatment**  
*Stine Knudsen (Oslo, Norway)*
- **Paediatric sleep disorders - diagnosis and treatment**  
*Fabio Pizza (Bologna, Italy)*

**Educational Content:**

More than 90% of sleep disorders are either primary neurological disorders or secondary to other neurological disorders. Hence, sleep medicine and the treatment of sleep disorders is a vital part of neurology training. This teaching course will expand upon the 2018 level 1 course. Basic knowledge regarding sleep mechanisms and the primary sleep disorders is thus presumed.

Dr. Fronczek will cover the treatment of hypersomnia according to the recently updated EAN guideline.

Dr. Kallweit will cover two topics: RLS - one of the most common neurological disorders and a "24-h" disorder. SBD - a frequent co-morbidity in neurological disorders..

Dr. Knudsen's session will cover-REM-sleep behaviour disorder, pavor nocturnus, sleep walking and their differential diagnosis

To conclude, Dr. Pizza will cover both the diagnosis and treatment of primary sleep disorders in children (such as narcolepsy, idiopathic hypersomnia, Kleine-Levin Syndrome, REM and sleep-related movement disorders.

14:45 – 18:15  
Room Sør Norge



### Teaching Course 3: EAN/PNS: Novel approach in the treatment of neuropathy – Level 3

**Chairperson:**

*Eduardo Nobile-Orazio (Milan, Italy)*

- **Inherited neuropathies: Emerging genetic therapies**  
*Mary Reilly (London, United Kingdom)*
- **Genetic therapy in amyloid neuropathy: The future has started**  
*Davide Pareyson (Milan, Italy)*
- **Novel therapies in immune-mediated neuropathies**  
*Eduardo Nobile-Orazio (Milan, Italy)*
- **Novel advances in the treatment of pain in neuropathies**  
*Claudia Sommer (Würzburg, Germany)*

**Educational Content:**

Several new advances have been recently made in the treatment of peripheral neuropathies. Most of these treatments are effective but all of them are very expensive. It is important for specialists to have an overview of the benefit and limits of currently used treatment and what are the effective benefits of newly developed therapies and in which conditions these new therapies have led to a major advance in the treatment of neuropathies.

14:45 – 18:15  
Room Nord Norge

### Teaching Course 4: Emergencies in neurology: dealing effectively with syncope and transient loss of consciousness (TLOC) – Level 1

**Chairperson:**

*J. Gert van Dijk (Leiden, The Netherlands)*

- **Why 'TLOC' and not just epilepsy as we are used to?**  
*J. Gert van Dijk (Leiden, The Netherlands)*
- **When neurologists and cardiologists must meet**  
*Artur Fedorowski (Malmö, Sweden)*
- **Orthostatic hypotension and falls**  
*Alessandra Fanciulli (Innsbruck, Austria)*
- **Psychogenic Transient Loss of Consciousness (TLOC) with a focus on syncope mimics.**  
*Roland Thijs (Leiden, The Netherlands)*

**Educational Content:**

Syncope accounts for up to 3% of emergency room (ER) visits and is often the cause of misdiagnosis. This course will cover:

1. The 2018 multidisciplinary guidelines on syncope of the European Society of Cardiology (ESC), endorsed by EFAS and EAN, providing a differential diagnostic framework suitable for all specialties, centred round 'Transient Loss of Consciousness' (TLOC); decision trees for TLOC and syncope in the ER; and using a syncope unit as the logical outpatient corollary of ER care.
2. No specialty considers vasovagal syncope as one of its subjects, although it affects one third of all people. This blind spot results in inefficient care by neurologists as well as cardiologists, also contributing to misdiagnosis of epilepsy.

16:00 – 17:00  
Room HoC

### Hands-on Course 7: Transcranial magnetic stimulation – Level 1 - repetition of HoC 03

**Chairperson:**

*Letizia Leocani (Milan, Italy)*

- **Transcranial magnetic stimulation**  
*Letizia Leocani (Milan, Italy)*

**Educational Content:**

Teaching how to perform transcranial magnetic stimulation studies. Technical aspects of basic recordings and their interpretation according to the clinical context. Indications and applications

Limited to 40 persons. Please register separately – additional fees will apply.

16:00 – 17:00  
Room HoC

### Hands-on Course 8: Vestibular evoked myogenic potentials – Level 1 – repetition of HoC 04

**Chairperson:**

*Eleftherios S. Papathanasiou (Nicosia, Cyprus)*

- **Vestibular evoked myogenic potentials**  
*Eleftherios S. Papathanasiou (Nicosia, Cyprus)*

**Educational Content:**

Teaching how to perform vestibular evoked myogenic potentials. Technical aspects of basic recordings and their interpretation according to the clinical context.

Limited to 40 persons. Please register separately – additional fees will apply.

This course is supported by  
NATUS Medical Inc.

16:45 – 18:15  
Room Amsterdam



### Special Session 5: The lesson from Rare Neurological Diseases for understanding nervous system functions and dysfunctions

**Chairpersons:**

*Antonio Federico (Siena, Italy)*

*Holm Grassner (Tübingen, Germany)*

- **The neurologist's viewpoint**  
*Antonio Federico (Siena, Italy)*
- **The geneticist's viewpoint**  
*Tobias Haack (Tübingen, Germany)*
- **The child neurologist's viewpoint**  
*Nicole Wolf (Amsterdam, The Netherlands)*
- **Perspectives of therapies**  
*Maria Judit Molnar (Budapest, Hungary)*

**Scientific Content:**

The workshop will consider rare neurologic diseases as a model to discuss how an identified molecular or biochemical alteration will reflect on the dysfunction of the nerve system and in consequence identify a specific role in normal CNS function. The interaction between clinical neurologists, geneticists and neuro-pediatricians will also give the opportunity to discuss about the clinical and genetic heterogeneity, the higher vulnerability of several CNS area to a dysmetabolic changes, the possibility of symptoms in carriers, and the new findings suggested by the used of new genetic technologies, enlarging the phenotypic presentation.



Saturday, 29 June  
14:45 – 18:15

29

16:45 – 18:15  
Room Lisbon



### Interactive Session 9: BrainChallenge

**Moderators:**

*Angelo Antonini (Padua, Italy)*  
*Marie Vidailhet (Paris, France)*

- Local Team
- International Team

The aim of this session is to promote a meaningful and interactive learning experience based on clinical study cases designed for both senior and junior neurologists from all over the world. The cases will not only show how prompt and accurate diagnosis can be achieved despite the complexity of neurology, but will also draw attention to rarely recognised conditions.

A team of local neurologists is competing with a team of international neurologists - each team consists of 4 senior and 2 junior neurologists.

Download the app “EAN Congress” and be part of EAN’s quiz show.



17:15 – 18:15  
Room HoC

### Hands-on Course 9: Threshold tracking and nerve excitability testing – Level 3

**Chairperson:**

*Mihai Moldovan (Copenhagen, Denmark)*

- Threshold tracking and nerve excitability testing  
*Mihai Moldovan (Copenhagen, Denmark)*

**Educational Content:**

Demonstration how to perform studies of nerve excitability testing, including refractory period and threshold tracking. Clinical applications.

Limited to 40 persons. Please register separately – additional fees will apply.

17:15 – 18:15  
Room HoC

### Hands-on Course 10: Nerve and muscle echography – Level 2

**Chairperson:**

*Simon Podnar (Ljubljana, Slovenia)*

- Nerve and muscle echography  
*Simon Podnar (Ljubljana, Slovenia)*

**Educational Content:**

Teaching how to perform nerve and muscle echography and use the results together with those of clinical neurophysiological evaluation in the assessment of neurological, mostly neuromuscular, disorders.

Limited to 40 persons. Please register separately – additional fees will apply.

## Oral Session

Saturday, 29 June  
14:45 – 16:00

14:45 – 16:00  
Room Jan Mayen 2

### Ageing and dementia 1

#### Chairpersons:

Tormod Fladby (Oslo, Norway)  
Irena Rektorová (Brno, Czech Republic)

14:45 | O1101

**Italian inter-societal consensus for the biomarker-based etiological diagnosis in MCI**

M. Boccardi<sup>1</sup>, V. Nicolosi<sup>1</sup>, C. Festari<sup>1</sup>,  
A. Bianchetti<sup>1</sup>, S. Cappa<sup>4</sup>, D. Chiasserini<sup>2</sup>,  
A. Falini<sup>3</sup>, U. Guerra<sup>1</sup>, F. Nobili<sup>4</sup>,  
A. Padovani<sup>1</sup>, G. M. Sancesario<sup>5</sup>,  
S. D. Morbelli<sup>4</sup>, L. Parnetti<sup>2</sup>, P. Tiraboschi<sup>3</sup>,  
C. Muscio<sup>3</sup>, D. Perani<sup>3</sup>, F. B. Pizzini<sup>6</sup>,  
A. Beltramello<sup>6</sup>, G. Salvini Porro<sup>3</sup>,

M. Ciaccio<sup>7</sup>, O. Schillaci<sup>3</sup>, M. Trabucchi<sup>3</sup>,  
F. Tagliavini<sup>3</sup>, G. B. Frisoni<sup>1</sup>

<sup>1</sup>Brescia, <sup>2</sup>Perugia, <sup>3</sup>Milan, <sup>4</sup>Genoa, <sup>5</sup>Rome, <sup>6</sup>Verona,  
<sup>7</sup>Palermo, Italy

15:00 | O1102

**The pathophysiological and clinical significance of soluble TREM2 in Mild Cognitive Impairment and Mild Alzheimer's Disease**

A. Chandra, O. Cousins, M. Politis  
London, United Kingdom

15:15 | O1103

**Serum neurofilament light levels in normal aging: associations with morphologic brain changes**

M. Khalil<sup>1</sup>, L. Pirpamer<sup>1</sup>, E. Hofer<sup>4</sup>,  
M. Voortman<sup>1</sup>, C. Barro<sup>2</sup>, S. Ropele<sup>1</sup>,  
C. Enzinger<sup>4</sup>, F. Fazekas<sup>1</sup>, R. Schmidt<sup>1</sup>,  
J. Kuhle<sup>2</sup>

<sup>1</sup>Graz, Austria, <sup>2</sup>Basel, Switzerland

15:30 | O1104

**Effect of antipsychotic drugs on mortality risk among dementia patients with and without comorbidity: A nationwide study**

A. Nørgaard<sup>1</sup>, C. Jensen-Dahm<sup>1</sup>,  
T. Wimberley<sup>2</sup>, J. H. Svendsen<sup>1</sup>,  
K. Ishtiak-Ahmed<sup>1</sup>, T. Munk-Laurson<sup>2</sup>,  
G. Waldemar<sup>1</sup>, C. Gasse<sup>2</sup>

<sup>1</sup>Copenhagen, <sup>2</sup>Aarhus, Denmark

15:45 | O1105

**Association of EEG topographical markers with FDG-PET brain glucose metabolism and CSF neurogranin in MCI and AD patients**

U. Smailovic<sup>1</sup>, T. Koenig<sup>2</sup>, K. Höglund<sup>3</sup>,  
I. Savitcheva<sup>1</sup>, B. Winblad<sup>1</sup>, V. Jelic<sup>1</sup>

<sup>1</sup>Stockholm, Sweden, <sup>2</sup>Berne, Switzerland, <sup>3</sup>Gothenburg, Sweden



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**CMSC 2020 ANNUAL MEETING**



Saturday, 29 June  
14:45 – 16:15

29

14:45-16:00  
Room Helsinki

## Cerebrovascular diseases 1

### Chairpersons:

Charlotte Cordonnier (Lille, France)  
Simona Sacco (L'Aquila, Italy)

14:45 | O1106

**Cryptogenic stroke is linked to cardioembolic aetiology: A histopathological study of thrombus retrieved after endovascular thrombectomy**

*S. Bhaskar<sup>1</sup>, J. Saab<sup>1</sup>, C. Cappelen-Smith<sup>1</sup>, D. Cordato<sup>1</sup>, A. Cheung<sup>1</sup>, N. Manning<sup>2</sup>, J. Wenderoth<sup>2</sup>, P. Thomas<sup>1</sup>, P. Aouad<sup>1</sup>, R. Beran<sup>1</sup>, S. Hodgkinson<sup>1</sup>, A. McDougall<sup>1</sup>, M. Killingsworth<sup>1</sup>*

<sup>1</sup>Sydney, <sup>2</sup>Liverpool, Australia

15:00 | O1107

**Cerebrolysin ameliorates BBB leakage and microvascular inflammation induced by tPA and fibrin**

*M. Chopp, C. Li, H. Teng, L. Zhang, Z. Zhang*  
Detroit, USA

15:15 | O1108

**Idarucizumab in cerebral ischemia or intracranial hemorrhage under dabigatran therapy in Germany – A Nationwide Case Collection**

*P. Kermer<sup>1</sup>, C. Eschenfelder<sup>2</sup>, H.-C. Diener<sup>3</sup>, M. Grond<sup>4</sup>*

<sup>1</sup>Sanderbusch, <sup>2</sup>Ingelheim, <sup>3</sup>Essen, <sup>4</sup>Siegen, Germany

15:30 | O1109

**Access to mechanical thrombectomy for cerebral ischaemia: a population-based study in the North of France**

*D. Leys<sup>1</sup>, N. Dequatre-Ponchelle<sup>1</sup>, M. Ferrigno<sup>1</sup>, H. Hénon<sup>1</sup>, F. Mounier-Vehier<sup>2</sup>, S. Moulin<sup>1</sup>, B. Casolla<sup>1</sup>, R. Tortuyaux<sup>1</sup>, M. Chochoi<sup>1</sup>, I. Girard-Buttaz<sup>3</sup>, J.-P. Pruvo<sup>1</sup>, P. Goldstein<sup>1</sup>, C. Cordonnier<sup>1</sup>*

<sup>1</sup>Lille, <sup>2</sup>Lens, <sup>3</sup>Valenciennes, France

15:45 | O1110

**Hunting for the underlying causes and links: Atrial Fibrillation in Cryptogenic Stroke and TIA – The Nordic Atrial Fibrillation and Stroke Study (NOR-FIB)**

*B. Ratajczak-Tretel<sup>1</sup>, A. T. Lambert<sup>1</sup>, H. Johansen<sup>2</sup>, B. Halvorsen<sup>2</sup>, D. Russell<sup>2</sup>, E. C. Sandset<sup>2</sup>, H. Ihle-Hansen<sup>2</sup>, E. Eriksen<sup>2</sup>, H. Næss<sup>3</sup>, T. C. Truelsen<sup>4</sup>, K. L. Ægidius<sup>5</sup>, H. Tobro<sup>6</sup>, S. B. Krogseth<sup>7</sup>, H. Ihle-Hansen<sup>8</sup>, G. Kruuse<sup>9</sup>, K. Arntzen<sup>10</sup>, M. Villseth<sup>11</sup>, C. Eldoen<sup>12</sup>, A. Gulsvik<sup>2</sup>, M. Kurz<sup>13</sup>, J. Sømark<sup>14</sup>, S. Ingebrigtsen<sup>15</sup>, C. Kremer<sup>16</sup>, D. Atar<sup>2</sup>, A. H. Aamodt<sup>2</sup>*

<sup>1</sup>Kalnes, <sup>2</sup>Oslo, <sup>3</sup>Bergen, Norway, <sup>4</sup>Copenhagen, <sup>5</sup>Bispebjerg, Denmark, <sup>6</sup>Skien, <sup>7</sup>Tønsberg, <sup>8</sup>Bærum, Norway, <sup>9</sup>Herlev, Denmark, <sup>10</sup>Bodø, <sup>11</sup>Drammen, <sup>12</sup>Molde, <sup>13</sup>Stavanger, <sup>14</sup>Lillehammer, <sup>15</sup>Tromsø, Norway, <sup>16</sup>Malmö, Sweden

14:45 – 16:15  
Room Lisbon

## Neuroimmunology; Neurotraumatology

### Chairpersons:

Erich Schmutzhard (Innsbruck, Austria)  
Aksel Siva (Istanbul, Turkey)

14:45 | O1111

**Immunological insights into the mechanisms by which RTX is effective in Neuromyelitis Optica spectrum disorders**

*V. Damato<sup>1</sup>, D. Whittam<sup>2</sup>, S. Huda<sup>2</sup>, M. Woodhall<sup>1</sup>, P. Waters<sup>1</sup>, A. Jacob<sup>2</sup>, S. R. Irani<sup>1</sup>*

<sup>1</sup>Oxford, <sup>2</sup>Liverpool, United Kingdom

15:00 | O1112

**Single cell immune profiling of lymphocytes from autoimmune encephalitis-associated teratomas reveals novel clonally expanded cell populations**

*A. Handel, A. Al-Diwani, M. Makuch, H. Slawinski, T. Hassanali, D. Fowler, G. Hollander, S. Irani*

Oxford, United Kingdom

O1113 | withdrawn

15:15 | O1114

**Susac syndrome is a CD8+ T-cell-mediated endotheliopathy**

*C. C. Gross<sup>1</sup>, C. Meyer<sup>2</sup>, U. Bhatia<sup>1</sup>, L. Yshii<sup>2</sup>, I. Kleffner<sup>1</sup>, J. Bauer<sup>3</sup>, S. Meuth<sup>1</sup>, G. Martin-Blondel<sup>2</sup>, H. Wiendl<sup>1</sup>, R. Liblau<sup>2</sup>*

<sup>1</sup>Münster, Germany, <sup>2</sup>Toulouse, France, <sup>3</sup>Vienna, Austria

15:30 | O1115

**Neurologic syndromes associated with GAD65 antibodies. Clinical and serological response to immunotherapy.**

*A. Muñoz Lopetegui<sup>1</sup>, M. de Bruijn<sup>2</sup>, S. Boukhrissi<sup>2</sup>, A. Bastiaansen<sup>2</sup>, M. Nagtzaam<sup>2</sup>, E. Hulsenboom<sup>2</sup>, P. A. Sillevius Smitt<sup>2</sup>, M. Schreurs<sup>2</sup>, M. J. Titulaer<sup>2</sup>*

<sup>1</sup>San Sebastian, Spain, <sup>2</sup>Rotterdam, The Netherlands

## Oral Session

15:45 | O1116

**Autoantibody production following traumatic brain injury is associated with poor outcome, and is therapeutically modifiable**

*E. Needham, A. Coles, D. K. Menon*

Cambridge, United Kingdom

16:00 | O1117

**Clinical and prognostic meaning of Myelin Oligodendrocyte Glycoprotein antibodies (MOG-Abs): a multicentre Italian study**

*E. Rignonì, M. Gastaldi, P. Banfi, L. Benedetti, G. Novi, G. Mallucci, A. Sturchio, S. Scaranzin, E. Zardini, M. Mancardi, T. Giacomini, P. Annovazzi, D. Baroncini, S. Savasta, T. Foidelli, M. Bianco, E. Marchioni, D. Franciotta*

<sup>1</sup>Pavia, <sup>2</sup>Varese, <sup>3</sup>Genoa, <sup>4</sup>Galarate (VA), <sup>5</sup>Milan, Italy

16:30 – 18:15

Room Jan Mayen 2

### MS and related disorders 1

**Chairpersons:**

*Xavier Montalban (Barcelona, Spain)*

*Kjell Morten Myhr (Bergen, Norway)*

16:30 | O1201

**Reduced brain volume loss in relapsing multiple sclerosis with Ozanimod versus Interferon beta-1a in two phase 3 trials (SUNBEAM and RADIANCE)**

*D. L. Arnold, J. A. Cohen, B. A. C. Cree, D. Silva, J. K. Sheffield, V. Huang, G. Comi*

<sup>1</sup>Montréal, Quebec, Canada, <sup>2</sup>Cleveland, OH, <sup>3</sup>San Francisco, CA, <sup>4</sup>Summit, NJ, USA, <sup>5</sup>Milan, Italy

16:45 | O1202

**Alemtuzumab improves clinical and MRI outcomes, including slowing of brain volume loss, in RRMS patients over 8 years: CARE-MS I Follow-up (TOPAZ Study)**

*G. Comi, D. L. Arnold, A. N. Boyko, H.-P. Hartung, E. K. Havrdova, J. S. Inshasi, P. McCombe, K. Nakamura, C. Oreja-Guevara, D. Pelletier, C. Pozzilli, K. W. Selmaj, T. F. Scott, L. Chung, N. Daizadeh, S. Afsar, B. van Wijmeersch*

<sup>1</sup>Milan, Italy, <sup>2</sup>Montréal, Canada, <sup>3</sup>Moscow, Russian Federation, <sup>4</sup>Düsseldorf, Germany, <sup>5</sup>Prague, Czech Republic, <sup>6</sup>Dubai, United Arab Emirates, <sup>7</sup>Brisbane, Australia, <sup>8</sup>Cleveland, USA, <sup>9</sup>Madrid, Spain, <sup>10</sup>Los Angeles, USA, <sup>11</sup>Rome, Italy, <sup>12</sup>Olsztyn, Poland, <sup>13</sup>Pittsburgh, USA, <sup>14</sup>Cambridge, USA, <sup>15</sup>Hasselt, Belgium

17:00 | O1203

**In-vivo mapping of thalamic pathological mechanisms in pediatric patients with MS**

*E. de Meo, L. Storelli, L. Moiola, M. P. Amato, A. Ghezzi, P. Veggiotti, R. Capra, M. A. Rocca, M. Filippi*

<sup>1</sup>Milan, <sup>2</sup>Florence, <sup>3</sup>Gallarate, <sup>4</sup>Brescia, Italy

17:15 | O1204

**Cancer risk in multiple sclerosis patients, siblings, and healthy controls: a prospective, longitudinal cohort study**

*N. Grytten, K. M. Myhr, E. G. Celius, E. Benjaminsen, M. T. Kampman, R. Midgard, A. Vatne, J. H. Aarseth, T. Riise, Ø. F. G. Torkildsen*

<sup>1</sup>Bergen, <sup>2</sup>Oslo, <sup>3</sup>Bodø, <sup>4</sup>Tromsø, <sup>5</sup>Molde, <sup>6</sup>Kristiansand, Norway

17:30 | O1205

**Bruton's Tyrosine Kinase inhibitor Evobrutinib (M2951) in patients with relapsing multiple sclerosis: a randomised, placebo-controlled, phase 2 study**

*X. Montalban, D. Arnold, M. Weber, I. Staikov, K. Piasecka-Stryczynska, E. Martin, S. Syed, F. Dangond, J. Wolinsky*

<sup>1</sup>Barcelona, Spain, <sup>2</sup>Montreal, Canada, <sup>3</sup>Gottingen, Germany, <sup>4</sup>Sofia, Bulgaria, <sup>5</sup>Plewiska, Poland, <sup>6</sup>Billerica, USA, <sup>7</sup>Houston, USA

17:45 | O1206

**Cause and age of mortality in patients diagnosed with multiple sclerosis**

*R. Persson, S. Lee, N. Minton, S. Niemcryk, A. Lindholm, S. Jick*

<sup>1</sup>Lexington, MA, <sup>2</sup>Summit, NJ, <sup>3</sup>Boston, MA, USA

18:00 | O1207

**Immunization and multiple sclerosis: recommendations from the French Multiple Sclerosis Society**

*C. Lebrun-Frenay, S. Vukusic*

<sup>1</sup>Nice, <sup>2</sup>Lyons, France

Saturday, 29 June  
16:45 – 18:15

29

16:45 – 18:00  
Room Svalbard

## Movement disorders 1

### Chairpersons:

Tove Henriksen (Copenhagen, Denmark)  
Eavan McGovern (Paris, France)

16:45 | O1208

**Longitudinal evaluation of mutant huntingtin and neurofilament light as biomarkers for Huntington's disease: the HD-CSF study**

*F. Brogueira Rodrigues<sup>1</sup>, L. Byrne<sup>1</sup>, E. Johnson<sup>1</sup>, R. Tortelli<sup>1</sup>, P. Wijeratne<sup>1</sup>, E. de Vita<sup>1</sup>, D. C. Alexander<sup>1</sup>, C. Czech<sup>2</sup>, S. Schobel<sup>2</sup>, R. Scallill<sup>1</sup>, A. Heslegrave<sup>1</sup>, H. Zetterberg<sup>1</sup>, E. Wild<sup>1</sup>*  
<sup>1</sup>London, United Kingdom, <sup>2</sup>Basel, Switzerland

17:00 | O1209

**Tracking cortical changes throughout cognitive decline in Parkinson's disease: a longitudinal MRI study**

*E. Canu<sup>1</sup>, F. Agosta<sup>1</sup>, T. Stojkovic<sup>2</sup>, S. Basaia<sup>1</sup>, I. Stankovic<sup>2</sup>, V. Markovic<sup>2</sup>, I. Petrovic<sup>2</sup>, E. Stefanova<sup>2</sup>, V. S. Kostic<sup>2</sup>, M. Filippi<sup>1</sup>*  
<sup>1</sup>Milan, Italy, <sup>2</sup>Belgrade, Serbia

17:15 | O1210

**Nigral iron load as diagnostic parameter in Parkinson's disease**

*S. Frantal<sup>1</sup>, L. Pirpamer<sup>1</sup>, N. Homayoon<sup>1</sup>, P. Katschnig-Winter<sup>1</sup>, M. Koegl<sup>1</sup>, K. Wenzel<sup>1</sup>, C. Langkammer<sup>1</sup>, S. Ropele<sup>1</sup>, F. Fazekas<sup>1</sup>, R. Schmidt<sup>1</sup>, P. Schwingenschuh<sup>1</sup>*  
Graz, Austria

17:30 | O1211

**Rare variation in biological pathways and their impact on development and progression of Parkinson's disease**

*J. J. Gaare<sup>1</sup>, G. S. Nido<sup>1</sup>, P. Sztromwasser<sup>1</sup>, P. M. Knappskog<sup>1</sup>, O. Dahl<sup>1</sup>, M. Lund-Johansen<sup>1</sup>, J. Maple-Grødem<sup>2</sup>, G. W. Alves<sup>2</sup>, O.-B. Tysnes<sup>1</sup>, S. Johansson<sup>1</sup>, K. Haugarvoll<sup>1</sup>, C. Tzoulis<sup>1</sup>*

<sup>1</sup>Bergen, <sup>2</sup>Stavanger, Norway

17:45 | O1212

**Multiple System Atrophy: phenotypic spectrum approach coupled with brain FDG PET**

*S. Grimaldi<sup>1</sup>, M. Boucekine<sup>1</sup>, M. Renaud<sup>2</sup>, P. J.-P. Azulay<sup>1</sup>, E. Guedj<sup>1</sup>, P. A. Eusebio<sup>1</sup>*

<sup>1</sup>Marseilles, <sup>2</sup>Nancy, France

16:45 – 18:15  
Room CbW

## Muscle and neuromuscular junction disease

### Chairpersons:

Benedikt Schoser (Munich, Germany)  
Antonio Toscano (Messina, Italy)

16:45 | O1213

**Assessing frequency and features of muscle pain in mitochondrial diseases: a survey from a cohort of the Italian network**

*S. Cotti Piccinelli<sup>1</sup>, T. Mongini<sup>2</sup>, S. Servidei<sup>3</sup>, O. Musumeci<sup>4</sup>, P. Tonin<sup>5</sup>, F. M. Santorelli<sup>6</sup>, C. Simoncini<sup>6</sup>, G. A. Primiano<sup>3</sup>, L. Vercelli<sup>2</sup>, A. Rubegni<sup>6</sup>, A. Galvagni<sup>7</sup>, M. G. Moggio<sup>8</sup>, C. Lamperti<sup>8</sup>, G. P. Comi<sup>8</sup>, V. Carelli<sup>8</sup>, A. Toscano<sup>4</sup>, A. Padovan<sup>7</sup>, G. Siciliano<sup>6</sup>, M. Mancuso<sup>6</sup>, M. Filosto<sup>1</sup>*

<sup>1</sup>Brescia, <sup>2</sup>Turin, <sup>3</sup>Rome, <sup>4</sup>Messina, <sup>5</sup>Verona, <sup>6</sup>Pisa, <sup>7</sup>Brescia, <sup>8</sup>Milan, Italy

17:00 | O1214

**Variable effects of enzyme replacement therapy in adults with Pompe disease: a 10-year prospective study**

*L. Harlaar<sup>1</sup>, J.-Y. Hogrel<sup>2</sup>, B. Perniconi<sup>2</sup>, M. Kruijshaar<sup>1</sup>, D. Rizopoulos<sup>1</sup>, N. Taouagh<sup>2</sup>, A. Canal<sup>2</sup>, E. Brusse<sup>1</sup>, P. A. van Doorn<sup>1</sup>, A. van der Ploeg<sup>1</sup>, P. Laforêt<sup>3</sup>, N. van der Beek<sup>1</sup>*

<sup>1</sup>Rotterdam, The Netherlands, <sup>2</sup>Paris, France, <sup>3</sup>Garches, France

17:15 | O1215

**Zilucoplan, a subcutaneously self-administered peptide inhibitor of complement component 5 (C5), for the treatment of generalized myasthenia gravis: results of a Phase 2 randomized, double-blind, placebo-controlled trial**

*J. F. Howard<sup>1</sup>, R. J. Nowak<sup>2</sup>, G. I. Wolfe<sup>3</sup>, M. G. Benatar<sup>4</sup>, J. Macdougall<sup>5</sup>, P. W. Duda<sup>5</sup>, R. Farzaneh Far<sup>6</sup>, H. J. Kaminski<sup>6</sup>, The Zilucoplan Mg Study Group<sup>7</sup>*

<sup>1</sup>Chapel Hill, <sup>2</sup>New Haven, CT, <sup>3</sup>Buffalo, NY, <sup>4</sup>Miami, FL, <sup>5</sup>Cambridge, MA, <sup>6</sup>Washington, DC, <sup>7</sup>Cambridge, USA

17:30 | O1216

**Neuromuscular adverse events associated with anti-PD-1 monoclonal antibodies**

*A. Johansen, S. J. Christensen, D. Scheie, J. L. Sunnleyg Højgaard, D. Kondziella*  
Copenhagen, Denmark

17:45 | O1217

**First-in-human study of ATB200/AT2221 in patients with Pompe disease: preliminary functional assessment results from the ATB200-O2 trial**

*B. Schoser<sup>1</sup>, P. Kishnani<sup>2</sup>, D. Bratkovic<sup>3</sup>, B. J. Byrne<sup>4</sup>, P. R. Clemens<sup>5</sup>, O. Goker-Alpan<sup>6</sup>, X. Ming<sup>7</sup>, M. Roberts<sup>8</sup>, P. Schwenkreis<sup>9</sup>, K. Sivakumar<sup>10</sup>, A. T. van der Ploeg<sup>11</sup>, V. Jain<sup>12</sup>, J. Wright<sup>12</sup>, S. Sitaraman<sup>12</sup>, J. A. Barth<sup>12</sup>, H. Lagast<sup>12</sup>, T. Mozaffari<sup>13</sup>*

<sup>1</sup>Munich, Germany, <sup>2</sup>Durham, USA, <sup>3</sup>Adelaide, Australia, <sup>4</sup>Gainesville, USA, <sup>5</sup>Pittsburgh, USA, <sup>6</sup>Fairfax, USA, <sup>7</sup>Newark, USA, <sup>8</sup>Salford, United Kingdom, <sup>9</sup>Bochum, Germany, <sup>10</sup>Phoenix, USA, <sup>11</sup>Rotterdam, The Netherlands, <sup>12</sup>Cranbury, USA, <sup>13</sup>Irvine, USA

18:00 | O1218

**Intravenous iMMunoglobulins as Early treatment in newly DIAGnosed idiopathic inflammaTory myopathiEs (IMMEDIATE): a phase-2 open-label pilot study**

*J. Lim<sup>1</sup>, F. Eftimov<sup>1</sup>, C. Verhamme<sup>1</sup>, E. Brusse<sup>2</sup>, J. Hoogendijk<sup>3</sup>, C. Saris<sup>4</sup>, R. de Haan<sup>1</sup>, I. N. van Schaik<sup>1</sup>, E. Aronica<sup>1</sup>, M. de Visser<sup>1</sup>, A. van der Kooij<sup>1</sup>*

<sup>1</sup>Amsterdam, <sup>2</sup>Rotterdam, <sup>3</sup>Utrecht, <sup>4</sup>Nijmegen, The Netherlands

## Oral Session

Saturday, 29 June  
16:45 – 18:15

16:45 – 18:15  
Room Paris

### Neuro-oncology

#### Chairpersons:

David Oliver (London, United Kingdom)  
Anette Storstein (Bergen, Norway)

16:45 | O1219

#### Treatment of primary brain tumors with BRAF Inhibitors

A. L. Azevedo, M. Fernandes, D. Garcez,  
J. Passos, L. Roque, M. Mafra, S. Nunes,  
D. Salgado

Lisbon, Portugal

17:00 | O1220

#### Avelumab in newly diagnosed glioblastoma multiforme - the SEJ study

E. Jacques<sup>1</sup>, G. Nicholas<sup>2</sup>, I. Lorimer<sup>2</sup>,  
V. Sikati Foko<sup>1</sup>, J. Prevost<sup>1</sup>

<sup>1</sup>Gatineau, <sup>2</sup>Ottawa, Canada

17:15 | O1221

#### Can we spare patients with PCNSL a bone marrow biopsy?

M. Margold<sup>1</sup>, A. Korfel<sup>2</sup>, A. Baraniskin<sup>1</sup>,  
R. Schroers<sup>1</sup>, S. Seidel<sup>1</sup>, T. Kowalski<sup>1</sup>,  
U. Schlegel<sup>1</sup>

<sup>1</sup>Bochum, <sup>2</sup>Berlin, Germany

17:30 | O1222

#### Hope springs eternal: A longitudinal comparative analysis of neuro-oncological patients

S. Mayer<sup>1</sup>, M. Skardelly<sup>2</sup>, S. Fuchs<sup>2</sup>,  
H. Reichmann<sup>1</sup>, N. Schaeffeler<sup>2</sup>, S. Zipfel<sup>2</sup>,  
M. Teufel<sup>3</sup>

<sup>1</sup>Dresden, <sup>2</sup>Tübingen, <sup>3</sup>Essen, Germany

17:45 | O1223

#### HDMTX-based induction therapy followed by consolidation with conventional systemic chemotherapy and intraventricular therapy (modified Bonn protocol) in primary CNS lymphoma: A monocentric retrospective analysis

S. Seidel<sup>1</sup>, A. Korfel<sup>2</sup>, T. Kowalski<sup>1</sup>,  
M. Y. Margold<sup>1</sup>, F. S. Ismail<sup>1</sup>, R. Schroers<sup>1</sup>,  
A. Baraniskin<sup>1</sup>, H. Pels<sup>3</sup>, P. Martus<sup>4</sup>,  
U. Schlegel<sup>1</sup>

<sup>1</sup>Bochum, <sup>2</sup>Berlin, <sup>3</sup>Regensburg, <sup>4</sup>Tübingen, Germany

18:00 | O1224

#### Cognitive functioning as predictor of survival in diffuse glioma patients

E. van Kessel, T. J. Snijders, F. de Vos,  
S. Fonville, I. Wajer, C. Ruis, T. Seute,  
J. Verhoeff, M. van Zandvoort, P. Robe

Utrecht, The Netherlands

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25. bis 28. September 2019  
ICS – Internationales Congresscenter  
Stuttgart

Saturday, 29 June  
17:00 – 18:15

29

17:00 – 18:15  
Room Helsinki

## Cerebrovascular diseases 2

### Chairpersons:

Didier Leys (Lille, France)  
Nicola Logallo (Bergen, Norway)

17:00 | O1225

**Ischemic stroke despite oral anticoagulant therapy in patients with AF: recurrence risk and optimal anticoagulation strategy**

D. Seiffge<sup>1</sup>, G. M. de Marchis<sup>2</sup>, M. Koga<sup>3</sup>, M. Paciaroni<sup>4</sup>, D. Wilson<sup>5</sup>, M. Cappellari<sup>6</sup>, K. Macha<sup>7</sup>, G. Tsigoulis<sup>8</sup>, G. Ambler<sup>5</sup>, S. Arihiro<sup>9</sup>, L. Bonati<sup>2</sup>, B. Bonetti<sup>6</sup>, B. Kallmuenzer<sup>7</sup>, K. Muir<sup>10</sup>, P. Bovi<sup>6</sup>, H. Gensicke<sup>2</sup>, S. Schwab<sup>7</sup>, S. Yagi<sup>11</sup>, P. Lyrer<sup>2</sup>, M. Takagi<sup>9</sup>, H. R. Jager<sup>5</sup>, A. Polymeris<sup>2</sup>, K. Toyoda<sup>3</sup>, S. Engelter<sup>2</sup>, D. Werring<sup>5</sup>

<sup>1</sup>Berne, <sup>2</sup>Basel, Switzerland, <sup>3</sup>Osaka, Japan, <sup>4</sup>Perugia, Italy, <sup>5</sup>London, United Kingdom, <sup>6</sup>Verona, Italy, <sup>7</sup>Erlangen, Germany, <sup>8</sup>Athens, Greece, <sup>9</sup>Suita, Japan, <sup>10</sup>Glasgow, United Kingdom, <sup>11</sup>Providence, USA

17:15 | O1226

**Effect of chronic administration of GA-BAA  $\alpha$ 5 antagonist on motor recovery in a permanent middle cerebral artery occlusion rat model**

M. Pace<sup>1</sup>, M. Falappa<sup>1</sup>, D. M. Hermann<sup>2</sup>, C. Bassetti<sup>3</sup>

<sup>1</sup>Genoa, Italy, <sup>2</sup>Essen, Germany, <sup>3</sup>Berne, Switzerland

17:30 | O1227

**Tenecteplase compared to alteplase beyond 3 hours after ischemic stroke**

O. M. Rønning<sup>1</sup>, N. Logallo<sup>2</sup>, B. Thommessen<sup>1</sup>, H. Tobro<sup>3</sup>, V. Novotny<sup>2</sup>, C. Kvistad<sup>2</sup>, A. H. Aamodt<sup>4</sup>, H. Næss<sup>2</sup>, U. Waje-Andreassen<sup>2</sup>, L. Thomassen<sup>2</sup>

<sup>1</sup>Lørenskog, <sup>2</sup>Bergen, <sup>3</sup>Skien, <sup>4</sup>Oslo, Norway

17:45 | O1228

**Depression and anxiety in acute thalamic stroke patients prospectively examined over one year**

A.-C. Scharf<sup>1</sup>, J. Gronewold<sup>1</sup>, A. Eilers<sup>1</sup>, O. Todica<sup>1</sup>, T. Doepfner<sup>2</sup>, C. Moeninghoff<sup>1</sup>, C. Kleinschnitz<sup>1</sup>, D. M. Hermann<sup>1</sup>

<sup>1</sup>Essen, <sup>2</sup>Goettingen, Germany

18:00 | O1229

**Risk factors for symptomatic hemorrhagic transformation after recanalization therapy following acute cerebral infarction in a prospective cohort**

L. Venditti<sup>1</sup>, N. Legris<sup>1</sup>, C. Ancelet<sup>1</sup>, C. Denier<sup>1</sup>, O. Chassin<sup>1</sup>

Paris, France

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Saturday, 29 June  
17:00 – 18:15

29

17:00 – 18:15  
Room Berlin

## Neurogenetics 1

### Chairpersons:

Vincenzo Bonifati  
(Rotterdam, The Netherlands)  
Enza-Maria Valente (Udine, Italy)

17:00 | O1230

**A phase 1/2 open-label extension study of Givosiran, an investigational RNAi therapeutic, in patients with acute intermittent porphyria**

*M. Bissell*<sup>1</sup>, *K. E. Anderson*<sup>2</sup>, *D. H. L. Bonkovsky*<sup>3</sup>, *E. Sardh*<sup>4</sup>, *P. Harper*<sup>4</sup>, *M. Balwani*<sup>5</sup>, *D. Rees*<sup>6</sup>, *P. Stein*<sup>6</sup>, *J. R. Bloomer*<sup>7</sup>, *C. Parker*<sup>8</sup>, *J. Phillips*<sup>8</sup>, *D. Vassiliou*<sup>4</sup>, *C. Penz*<sup>9</sup>, *A. Chan*<sup>9</sup>, *G. Liu*<sup>9</sup>, *W. Querbes*<sup>9</sup>, *A. Simon*<sup>9</sup>

<sup>1</sup>San Francisco, <sup>2</sup>Galveston, <sup>3</sup>Winston-Salem, USA, <sup>4</sup>Stockholm, Sweden, <sup>5</sup>New York, USA, <sup>6</sup>London, United Kingdom, <sup>7</sup>Birmingham, <sup>8</sup>Salt Lake City, <sup>9</sup>Cambridge, USA

17:15 | O1231

**BICD2 Arg747Cys point mutation causes autosomal dominant SMA: clinical phenotype of a British family**

*M. Boix Codony*, *V. Bharambe*, *M. Bonello*, *C. F. Dougan*, *J. Holt*

Liverpool, United Kingdom

17:30 | O1232

**Parkinsonism in mitochondrial diseases: expanding the genetic basis of an emerging clinical phenotype of mitochondrial dysfunction**

*C. La Morgia*<sup>1</sup>, *M. L. Valentino*<sup>1</sup>, *V. Donadio*<sup>1</sup>, *P. Liguori*<sup>1</sup>, *C. Casali*<sup>2</sup>, *O. Musumeci*<sup>3</sup>, *A. Toscano*<sup>3</sup>, *M. Zeviani*<sup>4</sup>, *E. Pegoraro*<sup>5</sup>, *G. Rizzo*<sup>1</sup>, *P. Martinelli*<sup>1</sup>, *P. Avoni*<sup>1</sup>, *M. P. Giannoccaro*<sup>1</sup>, *P. Parchi*<sup>1</sup>, *F. Tagliavini*<sup>1</sup>, *L. Caporali*<sup>1</sup>, *V. Carelli*<sup>1</sup>

<sup>1</sup>Bologna, <sup>2</sup>Rome, <sup>3</sup>Messina, Italy, <sup>4</sup>Cambridge, United Kingdom, <sup>5</sup>Padua, Italy

17:45 | O1233

**Compound heterozygous and homozygous mutations reducing VPS13C protein expression are associated with Lewy body disease and Parkinson's disease**

*S. Smolders*<sup>1</sup>, *S. Philtjens*<sup>1</sup>, *D. Crosiers*<sup>2</sup>, *S. van Mossevelde*<sup>1</sup>, *B. Heeman*<sup>1</sup>, *A. Sieben*<sup>3</sup>, *P. Pals*<sup>2</sup>, *S. Engelborghs*<sup>1</sup>, *P. P. de Deyn*<sup>1</sup>, *P. Cras*<sup>2</sup>, *C. van Broeckhoven*<sup>1</sup>, *B. Consortium*<sup>1</sup>

<sup>1</sup>Antwerp, <sup>2</sup>Edegem, <sup>3</sup>Ghent, Belgium

18:00 | O1234

**Brain white matter MRI differentiates Kennedy's disease from other motor neuron disease clinical phenotypes**

*E. G. Spinelli*<sup>1</sup>, *F. Agosta*<sup>1</sup>, *P. M. Ferraro*<sup>1</sup>, *G. Querini*<sup>2</sup>, *N. Riva*<sup>1</sup>, *C. Bertolin*<sup>2</sup>, *I. Martinelli*<sup>2</sup>, *C. Lunetta*<sup>1</sup>, *A. Fontana*<sup>3</sup>, *G. Sorarù*<sup>2</sup>, *M. Filippi*<sup>1</sup>

<sup>1</sup>Milan, <sup>2</sup>Padua, <sup>3</sup>San Giovanni Rotondo, Italy



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# Sunday 30 June 2019

30

08:00 – 09:30  
Room CbW



### Case-based Workshop 3: Clinical differential diagnosis of ALS

**Chairperson:**

*Vincenzo Silani (Milan, Italy)*

- **Differential diagnosis of bulbar palsy**  
*Vincenzo Silani (Milan, Italy)*
- **Multifocal motor neuropathies**  
*Eduardo Nobile-Orazio (Milan, Italy)*
- **Distal myopathies and ALS**  
*Benedikt Schoser (Munich, Germany)*

**Educational Content:**

The diagnosis and differential diagnosis of ALS is clinically not difficult, but often important since it is of major relevance for the individual prognosis. Therefore, for the diagnosis of bulbar palsy speech and swallowing disorders must be distinguished, including space-occupying lesions of the esophagus, myasthenia gravis, sarcoidosis, and polymyositis. With regard to multifocal motor neuropathy (MMN), it is important to know that this disease is rare, but potentially treatable. Important differential diagnoses include flail arm syndrome, lesions of the brachial plexus, and cervical radiculopathies. Many cases of MMN seem to have a similar prognosis as ALS. This dilemma should be discussed.

The spectrum of distal myopathies is a fast-developing field. These diseases may look like leg-onset ALS (or neuropathies), but can be clinically distinguished, MRI and muscle biopsy are of help. These diseases have a completely different prognosis and must be approached therapeutically in a different manner.

In conclusion, this case-based workshop emphasizes the importance of a thorough clinical differential diagnosis of ALS, including its subtypes and variants.

08:00 – 09:30  
Room Paris



### Focused Workshop 8: The maze of ataxias: need for an Ariadne's thread

**Chairperson:**

*Alessandro Filla (Naples, Italy)*

- **Dominant ataxias**  
*Thomas Klockgether (Bonn, Germany)*
- **Recessive ataxias**  
*Mario Manto (Brussels, Belgium)*
- **Sporadic ataxias**  
*Alessandro Filla (Naples, Italy)*

**Scientific Content:**

The ataxia field is growing. The next generation techniques allowed the discovery of new genes, widened the phenotypes, and made easier the laboratory tests. New therapeutic approaches in some forms seem to be on hand.

08:00 – 09:30  
Room Svalbard

### Focused Workshop 9: Integration of telemedicine and mobile applications into stroke care networks

**Chairperson:**

*Bo Norrving (Lund, Sweden)*

- **Insights from using smartphones in stroke prevention**  
*Bo Norrving (Lund, Sweden)*
- **The PRE-hospital Stroke Treatment Organization**  
*Heinrich Audebert (Berlin, Germany)*
- **Mobile applications related to stroke: a systematic review**  
*Lucas Rodríguez Prunotto (Madrid, Spain)*

**Scientific Content:**

Motivating and empowering people to reduce their risk of having a stroke/CVD by using increasingly used smartphone technologies would bridge the gap in the population-wide and high-risk prevention strategies and reduce stroke/CVD burden worldwide. The integration of modern mobile applications into pre-hospital management of acute stroke and rehabilitation of stroke survivors would further improve stroke care.



Limited to 60 participants.  
Please register separately –  
additional fees will apply.

Sunday, 30 June  
08:00 – 09:30

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08:00 – 09:30  
Room Jan Mayen 1

### Focused Workshop 10: Disturbances of consciousness and sleep-wake functions: The lesson from brain damaged patients

**Chairpersons:**

*Ulf Kallweit (Witten, Germany)*  
*Steven Laureys (Liege, Belgium)*

- **Disturbances of consciousness and sleep-wake functions following thalamic lesions**  
*Claudio Bassetti (Bern, Switzerland)*
- **Disturbances of consciousness and sleep-wake functions following hemispheric lesions**  
*Steven Laureys (Liege, Belgium)*
- **Disturbances of consciousness and sleep-wake functions in patients following brainstem lesions**  
*Poul Jennum (Copenhagen, Denmark)*

**Scientific Content:**

Clinical observations in brain damage patients offer unique insights into the brain mechanisms regulating consciousness and the sleep-wake cycle.

08:00 – 09:30  
Room Nord Norge

### Focused Workshop 11: Glia and epilepsy: pathophysiology, inflammation and new therapeutic possibilities



**Chairpersons:**

*Annamaria Vezzani (Milan, Italy)*  
*Erik Taubøll (Oslo, Norway)*

- **The roles of glia cells in epilepsy**  
*Kjell Heuser (Oslo, Norway)*
- **The role of astrocyte-mediated inflammatory processes in epileptogenesis**  
*Eleonora Aronica (Amsterdam, The Netherlands)*
- **Managing epilepsy by modulating glia?**  
*Peter Bedner (Bonn, Germany)*

**Scientific Content:**

Until recently, epilepsy research has largely focused on the most prominently affected cell types – the neurons. The passive role of glial cells described in the past is now overlaid with discoveries of crucial glial functions for normal CNS functioning which have changed focus to a more holistic neuroglial viewpoint. Disruption of glia-mediated function and uncontrolled glial-mediated immunity with activated astrocytes and microglia has now been found to be crucial in the pathogenesis of not only epilepsy, but most neurological diseases. The new understanding of the role and importance of glial cells in health and disease opens up for completely new therapeutic strategies for a multitude of neurological diseases, including epilepsy, in the future. New glial targets for potential drug treatment are now being studied.

08:00 – 09:30  
Room Jan Mayen 2

### Focused Workshop 12: Autologous haematopoietic stem cell transplantation in multiple sclerosis – results and future directions

**Chairperson:**

*Øivind Torkildsen (Bergen, Norway)*

- **A meta-analysis of autologous haematopoietic stem cell transplantation in MS**  
*Giovanni Luigi Mancardi (Genova, Italy)*
- **HSCT-treatment for multiple sclerosis: Results from the MIST-trial**  
*Joachim Burman (Uppsala, Sweden)*
- **RAM-MS: A randomised controlled trial comparing alemtuzumab to HSCT**  
*Øivind Torkildsen (Bergen, Norway)*

**Scientific Content:**

Autologous haematopoietic stem cell transplantation (HSCT) seem to have a higher treatment effect than standard RRMS immunomodulatory treatment. The premise of autologous haematopoietic stem cell transplantation (HSCT) in MS is that the self-reactive immune response is eradicated by the conditioning regime, and that the immune system is “reset” after reinfusion of autologous haematopoietic stem cells, producing an immune system that is less self-reactive. There has been a tremendous patient interest in this treatment option, but until now, long-term studies and randomised controlled trials have not been available. The topic will cover long time effects of the treatment, comparison to standard MS-treatment, results from randomised controlled trials and future directions.

08:00 – 09:30  
Room Amsterdam



### Focused Workshop 13: The role of neuroinflammation in metabolic encephalopathy

**Chairperson:**

*Raimund Helbok (Innsbruck, Austria)*

- **Hypoxic encephalopathy**  
*Ronny Beer (Innsbruck, Austria)*
- **Septic encephalopathy**  
*Simone Tauber (Aachen, Germany)*
- **Metabolic encephalopathy with specific focus on hepatic encephalopathy**  
*Vicente Felipo (Valencia, Spain)*

**Scientific Content:**

Metabolic encephalopathy describes a clinical state of global cerebral dysfunction that can vary in clinical presentation from mild executive dysfunction to deep coma with decerebrate posturing. Neuroinflammation plays a critical role in pathophysiologic mechanisms leading to prolonged deterioration of consciousness. Targeting neuroinflammation may serve as novel treatment to improve patient care.

08:00 – 09:30  
Room HoC



International Parkinson and  
Movement Disorder Society



### Hands-on Course 11: EAN/MDS-ES: Clinical neuro- physiology for assessment of patients with movement disorders – Level 2

**Chairperson:**

*Marina de Koning-Tijssen  
(Groningen, The Netherlands)*

- **Jerky movements**  
*Marina de Koning-Tijssen  
(Groningen, The Netherlands)*
- **Tremorous movements**  
*Petra Schwingenschuh (Graz, Austria)*
- **Polymyography for dystonia**  
*Hans Koelman  
(Amsterdam, The Netherlands)*

**Educational Content:**

This hands-on course will discuss and illustrate the use of EMG and other electrophysiological tools in the assessment of hyperkinetic movement disorders.

Limited to 60 persons. Please register separately – additional fees will apply.

08:00 – 09:30  
Room Lisbon



### Interactive Session 2: Diagnostic dilemmas in neuromuscular disease

**Chairperson:**

*Jochen Schäfer (Dresden, Germany)*

- **Progressive tetraparesis and anaemia in a young man**  
*Jochen Schäfer (Dresden, Germany)*
- **Distal myopathy with vocal cord and pharyngeal weakness in a middle-aged woman**  
*Giovanni Meola (Milan, Italy)*
- **Limb girdle weakness and fatigability in a young man**  
*Anna Kostera-Pruszczyk (Warsaw, Poland)*

**Educational Content:**

In this Interactive Session, differential diagnostic problems in neuromuscular medicine will be discussed with the audience using four cases to illustrate the diagnostic pathway and potential pitfalls in reaching a diagnosis. The cases will cover major fields of neuromuscular medicine: neuromuscular junction disorders, polyneuropathies, muscular dystrophies, metabolic myopathies, inflammatory myopathies. After presentation of the cases the audience will be invited to offer diagnostic options by means of a smartphone voting app; furthermore, questions will be asked and discussed regarding investigations and management of the patient. Particular emphasis will be laid upon demonstrating ways how to approach a neuromuscular patient with seemingly puzzling physical findings and how to consider and evaluate the neuromuscular differential diagnoses.

Please download the app “EAN Congress” to actively participate and vote.

Sunday, 30 June  
08:00 – 09:30

30

08:00 – 09:30  
Room Sør Norge



**Special Session 6:  
New neurological guidelines**

**Chairpersons:**

*Maurizio Leone  
(S. Giovanni Rotondo, Italy)  
Marie Vidailhet (Paris, France)*

• **General medical management issues  
in dementia**

*Kristian Steen Frederiksen  
(Copenhagen, Denmark)*

• **Sleep & Stroke**

*Claudio Bassetti (Bern, Switzerland)*

• **Trigeminal neuralgia**

*Lars Bendtsen (Glostrup, Denmark)*

• **Medication Overuse in Headache**

*Hans-Christoph Diener (Essen, Germany)*

This session will introduce the latest guideline papers developed by EAN.

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TRAINING COURSE  
of the ESNCH  
11<sup>th</sup> ZADAR SUMMER SCHOOL  
of NEUROSONOLOGY and  
STROKE MANAGEMENT

September 19<sup>th</sup>- 21<sup>st</sup> 2019 Zadar, Croatia

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Sunday, 30 June  
10:00 – 12:00

30

10:00 – 12:00  
Main Auditorium

## Plenary Symposium 2: Presidential Symposium

### Chairpersons:

*Günther Deuschl (Kiel, Germany) EAN Past President*

*Anne Hege Aamodt (Oslo, Norway)*

*President of the Norwegian Society of Neurology*



- **The Brain Prize Lecture: The prodromal, cellular phase of Alzheimer's disease: towards a novel understanding of the disorder**  
*Bart De Strooper (Leuven, Belgium)*
- **Charles Edouard Brown-Séquard Lecture: Do we need to reinvent translational cerebrovascular research?**  
*Ulrich Dirnagl (Berlin, Germany)*
- **Moritz Romberg Lecture: Translational neuroscience to improve outcomes for motor neuron disease. Are we winning?**  
*Pamela Shaw (Sheffield, United Kingdom)*



### Prof. Bart De Strooper

Bart De Strooper is scientific director of the UK-Dementia Research Institute, United Kingdom, and Professor of molecular medicine at KU Leuven and VIB, Belgium and Professor in dementia research at the University College London. He received his M.D. in 1985 and Ph.D. in 1991 from KU Leuven and worked as postdoc in the laboratory

of Carlos Dotti at EMBL in Heidelberg.

His scientific work focuses on the understanding of the fundamental mechanisms that underlie Alzheimer's and Parkinson's disease. His major findings are the role of ADAM10 and presenilin/gamma-secretase in the proteolysis of the amyloid precursor protein and Notch, and he has worked on microRNA, mitochondria, and more recently on the role of the different brain cell types in the pathogenesis of AD.

In 2018, Bart De Strooper, together with John Hardy, Christian Haas and Michel Goedert, were awarded The Brain Prize for their groundbreaking research on the genetic and molecular basis of Alzheimer's disease.



### Prof. Ulrich Dirnagl

At the Charité Universitätsmedizin Berlin Ulrich Dirnagl is Professor for Clinical Neurosciences and serves as Director of the Department of Experimental Neurology. Since 2017 he is also the founding director of the QUEST Center for Transforming Biomedical Research at the Berlin Institute of Health. QUEST aims at overcoming the

roadblocks in translational medicine by increasing the value and impact of biomedical research through maximizing the quality, reproducibility, generalizability, and validity of research. In preclinical as well as in clinical studies Ulrich Dirnagl's research has revealed pathobiology which impact on the outcome after a stroke. These include deleterious as well as endogenous protective mechanisms, as interactions of the brain with other systems of the body after it has been injured. Several of these mechanism can be therapeutically targeted, clinical trials are under way. In addition, through meta-research he was able to identify opportunities for improving research practice and to obtain evidence for the impact of interventions targeted to increase the value of biomedical research.



### Prof. Dame Pamela Shaw DBE MBBS MD FRCP FMED SCI FAAN FANA FAAAS

Professor Dame Pamela Shaw, Professor of Neurology and Vice President and Pro-Vice Chancellor for the Faculty of Medicine, Dentistry and Health at the University of Sheffield and Founding Director of the Sheffield Institute for Translational Neuroscience (SITraN), one

of the world-leading centres for motor neuron disease (MND) research. She is also Director of the Sheffield NIHR Biomedical Research Centre for Translational Neuroscience. The work of her team is focused on investigating molecular mechanisms of motor neuron injury and new therapeutic approaches in MND, both for neuroprotection and improved symptom management. Key recent achievements include: identification of new genetic subtypes of MND; improvements in symptomatic management of MND including non-invasive ventilation and the HeadUp collar; identification and implementation of new therapeutic targets for MND including evaluation of novel drug and gene therapy approaches and the development of innovative pre-clinical model systems for screening of therapeutic agents.

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Sunday, 30 June  
15:00 – 16:30



15:00 – 16:30  
Room HoC

### Career Development Session 1: Basic statistics for neuro- logists

**Chairperson:**

*Ettore Beghi (Milan, Italy)*

- **Strengths & limitations of statistical analyses**  
*Derrick Bennett (Oxford, United Kingdom)*
- **Statistics in observational studies**  
*Josemir Sander (London, United Kingdom)*
- **Statistics in randomised clinical trials**  
*Ettore Beghi (Milan, Italy)*

**Educational Content:**

Both residents and board-certified neurologists have limited knowledge on the choice and significance of the statistical tests applied in medical research. This is an obstacle to the interpretation of the findings of published reports and even when planning a study. Although the presence of a statistician is required to prepare the statistical plan of a scientific protocol, the problems to be solved by the statistician should be clarified by a clinician that speaks the same language. The limits of the statistical analyses will be outlined (sample size, characteristics of the data, frequency and variability of the independent and the dependent variables, etc.).

15:00 – 16:30  
Room CbW

### Case-based Workshop 4: EAN/EAPC: Taboos in care – issues that are difficult to discuss

**Chairperson:**

*David Oliver (Canterbury, United Kingdom)*

- **Interventions may become a burden to patients**  
*Christina Faull (Leicester, United Kingdom)*
- **Requests for assisted dying**  
*Stefan Lorenzl (Salzburg, Austria)*
- **Discussing difficult subjects – how do we cope?**  
*David Oliver (Canterbury, United Kingdom)*

**Educational Content:**

This session will allow discussion and consideration of difficult issues when caring for someone with neurological disease, particularly when they are deteriorating and needing palliative care. There will be opportunities to consider the most effective and helpful ways of communication with patients, families and other professionals within the team. The session will allow these taboos to be discussed more openly and potential ways of helping / supporting to be developed.

Limited to 60 participants. Please register separately – additional fees will apply.

15:00 – 16:30  
Room Lisbon

### Interactive Session 3: The dying, still deadly breed of neuroinfections

**Chairperson:**

*Bettina Pfausler (Innsbruck, Austria)*

- **Lassa Virus, Rabies, Diphtheria**  
*Erich Schmutzhard (Innsbruck, Austria)*
- **Tetanus, Botulism**  
*Bettina Pfausler (Innsbruck, Austria)*
- **Polio & Measles**  
*Banu Anlar (Ankara, Turkey)*

**Educational Content:**

Several pathogens cause only rarely CNS infections in the Western hemisphere. Neurologists should be familiar with the presentation, diagnostic tools and therapy in this condition, and the course aims at thorough description of these conditions.

Please download the app “EAN Congress” to actively participate and vote.

15:00 – 16:30  
Room Jan Mayen 1

### Topical Symposium: Novel approaches in progressive supranuclear palsy

**Chairperson:**

*Angelo Antonini (Padua, Italy)*

- **Clinical diagnosis and phenotype**  
*Maria Stamelou (Athens, Greece)*
- **Cognitive and imaging biomarkers**  
*Angelo Antonini (Padua, Italy)*
- **Current and future treatments**  
*Guenther Hoeglinger (Munich, Germany)*
- **Case presentations**  
*Klaus Seppi (Innsbruck, Austria)*

This symposium was supported by educational funding from Biogen.

15:00 – 16:30  
Room Nord Norge

### Special Session 7: Clinical Grand Rounds

**Chairpersons:**

*Espen Dietrichs (Oslo, Norway)*

- **Movement disorders**  
*Espen Dietrichs (Oslo, Norway)*  
*Lasse Pihlström (Oslo, Norway)*
- **Ataxia**  
*Siri Rydning (Oslo, Norway)*  
*Rebecca Schüle (Tübingen, Germany)*
- **Neuromuscular disorders**  
*Trine Popperud (Oslo, Norway)*  
*Bjarne Udd (Tampere, Finland)*

**Scientific Content:**

Patients will be examined during the session. The clinician will first inform on the patient's history, focus on neurological examination, work-up a plan to confirm the diagnosis and aetiology.



15:00 – 18:15  
Room Paris

### Teaching Course 5: Refractory status epilepticus (RSE): What to do and how dangerous is it to the brain? – Level 2

**Chairperson:**

*Hannah Cock (London, United Kingdom)*

- **Which AED to choose when first line SE treatment fails?**  
*Hannah Cock (London, United Kingdom)*
- **What to do when refractory SE does not stop? Third-line therapy.**  
*Andrea Rossetti (Lausanne, Switzerland)*
- **Is convulsive or non-convulsive SE a risk factor for cognitive dysfunction?**  
*Kjersti Nesheim Power (Bergen, Norway)*
- **What is the role for EEG in RSE?**  
*Sandor Beniczky (Copenhagen, Denmark)*

**Educational Content:**

Status epilepticus (SE) that does not terminate with a first or a second line antiepileptic drug (AED) is considered as refractory SE (RSE). RSE is frequently seen in the emergency room in all neurological departments and must be treated immediately. Still, correct AED treatment of RSE has been discussed for many years but no consensus has been reached. The ongoing ESETT study may shed some light on this and will be discussed in the first talk. What to choose as third line treatment is even less evidence based, and many options are available.

Therapeutic coma is one of several options often discussed in patients with both convulsive and non-convulsive RSE not responding to antiepileptic drugs, but what is the evidence? And what is the possibility for permanent cognitive decline after RSE? Can we predict the outcome in RSE patients better? What is the role for EEG in RSE, both in the acute phase, but also in the follow-up of patients with different forms of RSE? These clinically important, day to day issues will be discussed during the course.

Sunday, 30 June  
15:00 – 18:15

30

15:00 – 18:15  
Room Svalbard



International Parkinson and  
Movement Disorder Society

### Teaching Course 6: EAN/MDS-ES: Movement disorders for general neurologists – Level 1

#### Chairperson:

*Evžen Růžička (Prague, Czech Republic)*

- **Diagnosis and early management of Parkinson's disease**  
*Daniela Berg (Kiel, Germany)*
- **Diagnosis and therapy of essential tremor**  
*Evžen Růžička (Prague, Czech Republic)*
- **Diagnosis and therapy of common dystonias**  
*Marie Vidailhet (Paris, France)*
- **Diagnosis and therapy of restless legs syndrome**  
*Claudio Bassetti (Berne, Switzerland)*

#### Educational Content:

The aim of this course is to refresh the knowledge of neurologists about the four most common movement disorders encountered in general practice and familiarize them with the relevant news. Each lecture will be accompanied by numerous patient videos and demonstrations of common phenotypes. Current diagnostic and therapeutic criteria and recommendations will be shown in a way that will be beneficial to general practice. If advanced therapy methods are routinely available in specialised centres, listeners will be introduced to their effects and approaches for patient selection will be presented. In each lecture, diagnostic and therapeutic procedures will be illustrated using practical examples and questions for listeners.

15:00 – 18:15  
Room Sør Norge

### Teaching Course 7: Acute headache treatment – Level 1

#### Chairperson:

*Anish Bahra (London, United Kingdom)*

- **Management in the emergency room**  
*Anne Donnet (Marseille, France)*
- **Red flags and the role of investigations**  
*Andreas Gantenbein (Niederweningen, Switzerland)*
- **Treatment of acute attacks**  
*Anish Bahra (London, United Kingdom)*
- **Self-management of acute headaches**  
*Charly Gaul (Königstein, Germany)*

#### Educational Content:

In this TC, participants will learn how to treat acute attacks according to evidence and guidelines. This refers first to the emergency room, where sudden appropriate therapy is necessary. Very important is the correct strategy, when further investigations such as neuroimaging or neurophysiology are needed and when to avoid these investigations. Then, the different drug classes which are helpful in acute attack treatment will be reviewed. Finally, self-management plays an important role. Patients can be advised how to self-treat their headache attacks according to evidence.

This TC is for clinicians and trainees who are not specialised in headache but are looking for more advice how to treat and advice patients in the outpatient clinic and in the emergency room.

15:00 – 18:15  
Room Amsterdam

### Teaching Course 8: Medical management issues of dementia – Role of the neuro- logist – Level 2

#### Chairperson:

*Kristian Steen Frederiksen (Copenhagen, Denmark)*

- **Medical management issues in dementia**  
*Kristian Steen Frederiksen (Copenhagen, Denmark)*
- **Treatment of dementia in Epilepsy**  
*Christer Nilsson (Lund, Sweden)*
- **Management of pain in dementia**  
*Milica Kramberger (Ljubljana, Slovenia)*
- **Sleep in dementia**  
*Geert Mayer (Schwalmstadt, Germany)*

#### Educational Content:

This course includes management of pain which may pose specific challenges in patients with dementia, since patients may not be able to communicate pain or process painful input. Moreover, pain may be a major cause of behavioural and psychological symptoms, which may resolve with recognition and treatment of pain. Many patients with dementia develop epilepsy in the course of the disease. Correct medical management is crucial to seizure control and should be tailored to the needs of the patient. This includes awareness of adverse effects of AEDs regarding worsening cognitive function and psychiatric symptoms. The lecture will summarise the available literature on treatment of epilepsy in dementia and discuss the benefits and risks of the more commonly used anti-epileptic drugs. Regarding sleep in dementia, the focus will be on symptomatology of sleep disorders in dementia, pathophysiology, diagnostic tools, predictors for dementia from sleep disturbance, therapies for dementia by treating sleep disorders

15:00 – 18:15  
Room Jan Mayen 2



### Teaching Course 9: Antibodies: From autoimmune encephalitis to paraneoplastic myelopathies – Level 2

#### Chairperson:

*Romana Höftberger (Vienna, Austria)*

- **What the neurologist needs to know in choosing the right assay for auto-antibody testing**  
*Romana Höftberger (Vienna, Austria)*
- **Paraneoplastic and autoimmune myelopathies**  
*Isabel Leite (Oxford, United Kingdom)*
- **Autoimmune encephalitis**  
*Maarten Titulaer (Rotterdam, The Netherlands)*
- **Antibody-mediated neuropathies**  
*Luis Querol (Barcelona, Spain)*

#### Educational Content:

In this TC, the speakers will prove practical relevant knowledge on autoantibody testing in neurological disorders. They will discuss the clinical phenotypes, suggested treatments and discuss the newest developments in this rapidly advancing field of neurology. They will provide tricks to recognize these diseases and share pitfalls to avoid misdiagnosis. In addition, the attendant will learn how these diseases can be relevant to other disciplines within clinical neurology and basic neurosciences.

16:45 – 18:15  
Room Jan Mayen 1

### Controversy 1: Controversies in neuro- infections

#### Chairperson:

*Israel Steiner (Petach Tikva, Israel)*

- **PRO: ICP monitoring should be routinely done in comatose patients**  
*Raimund Helbok (Innsbruck, Austria)*
- **CON: ICP monitoring should not be routinely done in comatose patients**  
*Johann Sellner (Salzburg, Austria)*
- **PRO: There is chronic Lyme disease**  
*Karl Bechter (Guenzburg, Germany)*
- **CON: There is no chronic Lyme disease**  
*Rick Dersch (Freiburg, Germany)*

#### Educational Content:

These topics cover two important issues that are undecided and draw heated debates: the effective and mandatory employment of intensive care for patients with reduced consciousness due to neuroinfections and the existence (or lack of it) of chronic lyme disease.

16:45 – 18:15  
Room Lisbon

### Interactive Session 4: Autonomic dysfunction in common neurological conditions

#### Chairperson:

*Max J. Hilz (Erlangen, Germany)*

- **ANS dysfunction in neuroimmunological diseases**  
*Mario Habek (Zagreb, Croatia)*
- **ANS dysfunction in neurodegenerative disorders**  
*Alessandra Fanciulli (Innsbruck, Austria)*
- **ANS and emergencies in neurology**  
*Max J. Hilz (Erlangen, Germany)*

#### Educational Content:

Disorders of the autonomic nervous system (ANS) are often perceived as typical of rare diseases and, by contrast, rare in common neurological diseases. This may result in limited knowledge on the clinical presentation, differential diagnostic role and prognostic implications of ANS disturbances among general neurologists.

As a matter of fact, ANS dysfunction does frequently occur in common neurological conditions and emergency situations, like multiple sclerosis, movement disorders, dementias and stroke. Knowledge on how to suspect an ANS involvement, interpret autonomic findings and prevent the potentially life-threatening consequences associated with untreated ANS dysfunction is therefore essential not only for ANS specialists, but also for a broader neurological audience.

Please download the app “EAN Congress” to actively participate and vote.

Sunday, 30 June  
15:00 – 18:15

30

16:45 – 18:15  
Room CbW



### Special Session 8: Resident and Research Fellow Section Round Table Discussion

#### Chairpersons:

*Office of the EAN RRFS*

#### 1. Controversy: How to plan your residency in neurology?

##### a. Completely in one country

*Jan Kuks (Groningen, The Netherlands)*

##### b. Enclose an experience abroad

*Diana Aguiar (Lisbon, Portugal)*

#### 2. Controversy: Being a clinical scientist ...

##### a. Positive chance to combine research and patient care

*Lars Timmermann (Marburg, Germany)*

##### b. By no means at all (as this means no proper research and no full patient care)

*Michael Khalil (Graz, Austria)*

#### Scientific Content:

The main aims of this sessions are to obtain experts' advices about the design of the neurology training including or not including a time abroad and to learn about research opportunities: combination of research and clinical work in contrast to primary focus on either research or patient care. Where to do your residency in neurology? Completely in one country or enclose an experience

abroad? How to maintain work-life balance while still being a clinical scientist? The RRFS special session will be a controversial discussion of two experienced physicians including pro and contra arguments based on their individual experience next to facts. The discussion will be kept open with the possibility to question arguments on an individual level. Hereby an individual guidance next to a broader exchange about two topics being of primary interest for residents and researcher shall be possible. Firstly the design of the residency with the enclosure of an experience abroad or not shall be discussed. This will be followed by a discussion about how to maintain work-life balance while still being a clinical scientist. We aim to give interested residents and researchers an overview of different ways to design their residency as well as the best way to combine clinical work and research in general but also on an individual basis.



A sponsored activity by The Adams Super Center for Brain Studies Tel Aviv University and the Joseph Sagol Neuroscience Center at the Chaim Sheba Medical Center, Tel Hashomer



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- Pain Workshop

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16:45 – 18:45  
Room HoC

### Hands-on Course 12: Motor Unit Number IndeX and phrenic nerve conduction studies – Level 3

**Chairperson:**

Markus Weber (St. Gallen, Switzerland)

- **Introduction: MUNIX – a progression marker of motor neuron loss**  
Markus Weber (St. Gallen, Switzerland)
- **Introduction: Phrenic nerve conduction studies**  
Mamede de Carvalho (Lisbon, Portugal)
- **Device 1 – MUNIX – UL muscles**  
Markus Weber (St. Gallen, Switzerland)

- **Device 2 – MUNIX – Biceps**  
Christoph Neuwirth  
(St. Gallen, Switzerland)

- **Device 3 – MUNIX – LL muscles**  
Sanjeev Nandedkar  
(Hopewell Junction, United States)

- **Device 4 – phrenic nerve conduction**  
Mamede de Carvalho (Lisbon, Portugal)

**Educational Content:**

Objective markers of disease progression in ALS clinical trials are urgently needed. Quantification of motor unit loss by means of MUNIX has the great advantage that this measure directly reflects the underlying pathology. Likewise, phrenic nerve conduction studies will not only objectively reveal diaphragmatic function but also prognostic information.

Both methods have gained a lot of scientific interest over the past few years and are at the forefront of ALS research.

This course will focus on practical issues. Participants will understand the applicability and limitations of these methods. After a brief introduction to both methods (lecture 15 minutes each) participants will apply the methods on each other. MUNIX will be performed on APB, ADM, FDI, Biceps, TA, EDB. After the course attendees will be able to make high quality MUNIX recordings and CMAP recordings of the diaphragm.

Limited to 60 persons. Please register separately – additional fees will apply.

This course is supported by  
NATUS Medical Inc.

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## Oral Session

 14:45 – 15:45  
 Room Budapest

### Miscellaneous 1

#### Chairpersons:

Jeanette Koht (Drammen, Norway)  
 Nils Peters (Basel, Switzerland)

14:45 | O2101

**The NorMig study: Migraine prophylactics in the Norwegian population - duration of use and effect on triptan prescription**

*M. H. Bjørk<sup>1</sup>, A. Nome Dueland<sup>2</sup>, F. Sorgaard<sup>2</sup>, Y. Mikkelsen<sup>2</sup>*

<sup>1</sup>Bergen, <sup>2</sup>Oslo, Norway

O2102

Presented as ePoster

15:00 | O2103

**Differences in the residency programme of neurology throughout Europe – A survey of the EAN-RRFS national representatives**

*N. Kleineberg<sup>1</sup>, M. van Der Meulen<sup>2</sup>, C. Franke<sup>3</sup>, L. Klingelhöfer<sup>4</sup>, A. Sauerbier<sup>5</sup>, G. Di Liberto<sup>6</sup>, V. Carvalho<sup>7</sup>, G. Deuschl<sup>8</sup>*

<sup>1</sup>Cologne, Germany, <sup>2</sup>Rotterdam, The Netherlands, <sup>3</sup>Berlin, <sup>4</sup>Dresden, Germany, <sup>5</sup>London, United Kingdom, <sup>6</sup>Geneva, Switzerland, <sup>7</sup>Matosinhos, Portugal, <sup>8</sup>Kiel, Germany

15:15 | O2104

**Fampridine and acetazolamide for the treatment of episodic ataxia type 2 (EAT2TREAT): a randomised, double-blind, placebo-controlled, three-period crossover trial**

*M. L. Strupp, U. Mansmann, C. Muth*  
 Munich, Germany

15:30 | O2105

**Syringomyelia secondary to pseudo-Chiari in spontaneous craniospinal hypotension: report of a new entity**

*G. Vilanilam<sup>1</sup>, L. Okromelidze<sup>1</sup>, N. Gopal<sup>1</sup>, M. Badi<sup>1</sup>, E. Middlebrooks<sup>1</sup>, P. H. Luetmer<sup>2</sup>, V. Gupta<sup>1</sup>*

<sup>1</sup>Jacksonville, <sup>2</sup>Rochester, USA

 14:45 – 16:00  
 Room Helsinki

### Neuroimmunology; Infectious diseases

#### Chairpersons:

Anke Salmen (Bochum, Germany)  
 Maarten Titulaer (Rotterdam, The Netherlands)

14:45 | O2106

**Anti-LGII, anti-NMDAR and anti-GABA<sub>B</sub>R encephalitis resembling dementia syndromes**

*A. E. Bastiaansen<sup>1</sup>, M. Nühn<sup>1</sup>, A. van Sonderen<sup>2</sup>, M. Coevorden, M. H. van Hameete<sup>1</sup>, M. de Bruijn<sup>1</sup>, M. Schreurs<sup>1</sup>, P. A. Sillevs Smitt<sup>1</sup>, J. de Vries<sup>1</sup>, M. J. Titulaer<sup>1</sup>*

<sup>1</sup>Rotterdam, <sup>2</sup>The Hague, The Netherlands

15:00 | O2107

**Adoptive transfer of JC virus-specific T-lymphocytes for the treatment of Progressive Multifocal Leukoencephalopathy**

*G. Berzéro, S. Basso, I. Pisani, A. Palermo, A. Pichiecchio, F. Lucev, E. Vegezzi, L. Diamanti, P. Bini, A. Romani, M. Zecca, E. Marchioni, P. Comoli*

Pavia, Italy

15:15 | O2108

**Differences between sexes in the response to corticosteroids in adults with community-acquired bacterial meningitis**

*S. Dias, M. C. Brouwer, D. van de Beek*

Amsterdam, The Netherlands

15:30 | O2109

**Clinico-serological features in autoimmune encephalitis: an Italian multicenter retrospective study**

*M. Gastaldi<sup>1</sup>, S. Casagrande<sup>2</sup>, L. Benedetti<sup>3</sup>, S. Bova<sup>4</sup>, M. Di Filippo<sup>5</sup>, A. Evoli<sup>6</sup>, S. Ferrari<sup>7</sup>, T. Foadelli<sup>1</sup>, T. Giacomini<sup>3</sup>, R. Iorio<sup>6</sup>, M. Mancardi<sup>3</sup>, S. Mariotto<sup>7</sup>, M. Mauri<sup>8</sup>, F. Massa<sup>3</sup>, M. Nosadini<sup>9</sup>, L. Papetti<sup>6</sup>, S. Ricci<sup>10</sup>, S. Sartori<sup>9</sup>, S. Savasta<sup>1</sup>, M. Valeriani<sup>6</sup>, M. Zoccarato<sup>9</sup>, L. Zuliani<sup>11</sup>, L. Massacesi<sup>2</sup>, D. Franciotta<sup>1</sup>*

<sup>1</sup>Pavia, <sup>2</sup>Florence, <sup>3</sup>Genoa, <sup>4</sup>Milan, <sup>5</sup>Perugia, <sup>6</sup>Rome, <sup>7</sup>Verona, <sup>8</sup>Varese, <sup>9</sup>Padua, <sup>10</sup>Città di Castello, <sup>11</sup>Vicenza, Italy

15:45 | O2110

**Epidemiology and Mortality of Group B Streptococcal Meningitis in The Netherlands (1987–2016)**

*M. van Kassel<sup>1</sup>, G. de Boer<sup>1</sup>, D. Jamrozny<sup>2</sup>, M. Bijlsma<sup>1</sup>, M. C. Brouwer<sup>1</sup>, A. van der Ende<sup>1</sup>, D. van de Beek<sup>1</sup>*

<sup>1</sup>Amsterdam, The Netherlands, <sup>2</sup>Hinxton, United Kingdom

Sunday, 30 June  
15:00 – 16:30

30

15:00 – 16:30  
Room Berlin

### Cerebrovascular diseases 3

#### Chairpersons:

Raimund Helbok (Innsbruck, Austria)  
Martin Kurz (Stavanger, Norway)

15:00 | O2111

The safety of intravenous thrombolysis for acute ischemic stroke in patients with unruptured intracranial aneurysms – a case series

*A. Barros, S. Vaz, C. Perry Da Câmara, P. Brás, J. Sequeira, P. Ferreira, A. Paiva Nunes*

Lisbon, Portugal

15:15 | O2112

Transesophageal echocardiography as dysphagia risk in acute stroke

*S. Hamzic, T. Braun, M. Jünemann, M. Kaps, M. Butz, S. Weber, T. Gerriets*  
Giessen, Germany

15:30 | O2113

Is it possible to detect large-vessel occlusions in acute ischemic stroke using screening scales?

*E. S. Kristoffersen, A. Reichenbach, K. Faiz, M. Altmann, A. Sundseth, B. Thommessen, O. M. Rønning*

Lørenskog, Norway

15:45 | O2114

Ischemic strokes in adolescents

*T. Rambaud<sup>1</sup>, L. Nicolas<sup>2</sup>, C. Bellesme<sup>3</sup>, B. Lapergue<sup>4</sup>, E. Jouvent<sup>3</sup>, M. Zuber<sup>3</sup>, S. Crozier<sup>3</sup>, C. Lamy<sup>3</sup>, Y. Béjot<sup>5</sup>, M. Kossorotoff<sup>3</sup>, C. Denier<sup>2</sup>*

<sup>1</sup>Paris, <sup>2</sup>Kremlin, <sup>3</sup>Paris, <sup>4</sup>Suresnes, <sup>5</sup>Dijon, France

16:00 | O2115

Acute ischemic stroke due to large vessel occlusion: predicting functional outcome with tissue viability score combining ASPECTS and collateral vessel status

*M. Vabanesi, G. Schwarz, A. Giordano, G. Sferruzza, G. Giacalone, F. Simionato, M. Filippi, L. Roveri*

Milan, Italy

16:15 | O2116

Carotid plaque neovascularization can be detected with Superb Microvascular Imaging Ultrasound without the use of contrast

*M. Zamani, K. Ryeng Skagen, H. Scott, D. Russell, M. E. Skjelland*

Oslo, Norway



# European Human Genetics Conference 2020

## City Cube | Berlin - Germany | June 6-9

<https://2020.eshg.org>  
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## Oral Session

Sunday, 30 June  
15:00 – 16:30

15:00 – 16:30  
Room Nord Norge

### Tournament basic

#### Chairpersons:

Paul A. Boon (Ghent, Belgium)  
Geir Bråthen (Trondheim, Norway)  
Guido Stoll (Würzburg, Germany)

15:00 | O2117

#### Inherited peripheral neuropathies: whole genome sequencing identifies a new treatable disorder

*V. Chelban<sup>1</sup>, M. Wilson<sup>1</sup>, J. Vandroucova<sup>1</sup>, N. Zanetti<sup>1</sup>, E. Zamba-Papanicolaou<sup>2</sup>, S. Efthymiou<sup>1</sup>, S. Pope<sup>1</sup>, M. Conte<sup>1</sup>, K. Christodoulou<sup>2</sup>, P. Nicolaou<sup>2</sup>, A. Minaidou<sup>2</sup>, M. Foiani<sup>1</sup>, H. Zetterberg<sup>3</sup>, N. Wood<sup>1</sup>, J. Rothman<sup>4</sup>, P. Mills<sup>1</sup>, P. Clayton<sup>1</sup>, H. Houlden<sup>1</sup>*

<sup>1</sup>London, United Kingdom, <sup>2</sup>Nicosia, Cyprus,

<sup>3</sup>Gothenburg, Sweden, <sup>4</sup>New Haven, USA

15:15 | O2118

#### Mapping in vivo cortical myelination in patients with Charcot-Marie-Tooth type 1A

*R. Dubbioso, S. Tozza, S. Cocozza, D. Severi,*

*M. Nolano, G. Pontillo, L. Santoro,*

*F. Manganeli*

*Naples, Italy*

15:30 | O2119

#### Impact of direct T-cell-neuron interaction on single neuron and global network activity

*E. Ellwardt, D. Luchtman, F. Zipp, S. Bittner*

*Mainz, Germany*

15:45 | O2120

#### Glia-neuron interactions underlie state transitions to generalized seizures

*S. Myren-Svelstad<sup>1</sup>, C. Diaz Verdugo<sup>1</sup>, C. Deneubourg<sup>2</sup>, R. Pelgrims<sup>1</sup>, A. Muto<sup>3</sup>, K. Kawakami<sup>3</sup>, N. Jurisch-Yaksi<sup>1</sup>, E. Yaksi<sup>1</sup>*

<sup>1</sup>Trondheim, Norway, <sup>2</sup>Leuven, Belgium, <sup>3</sup>Shizuoka,

Japan

16:00 | O2121

#### Mass cytometry-based analysis of the composition of the immune system in narcolepsy type 1

*M. Schinkelshoek<sup>1</sup>, Y. Kooy-Winkelaar<sup>1</sup>,*

*A. Triller<sup>2</sup>, A. Dietmann<sup>3</sup>, U. Kallweit<sup>4</sup>,*

*R. Fronczek<sup>1</sup>, C. Bassetti<sup>3</sup>, G. J. Lammers<sup>1</sup>,*

*F. Koning<sup>1</sup>*

<sup>1</sup>Leiden, The Netherlands, <sup>2</sup>Hagen, Germany, <sup>3</sup>Berne,

Switzerland, <sup>4</sup>Witten, Germany

16:15 | O2122

#### Evaluation of Imidazoline 2 binding sites reflecting astroglia pathology in Parkinson's Disease: An in vivo [11C]BU99008 PET study

*H. Wilson, G. Dervenoulas, G. Pagano,*

*R. Tyacke, J. Myers, R. Gunn, E. Rabiner,*

*D. J. Nutt, M. Politis*

*London, United Kingdom*



Sunday, 30 June  
16:45 – 18:15

30

16:45 – 18:15  
Room Berlin

## Cerebrovascular diseases 4

### Chairpersons:

Hugh Markus (London, United Kingdom)  
Else Charlotte Sandset (Oslo, Norway)

16:45 | O2201

**Meta-analysis of haematoma volume, haematoma expansion and mortality in intracerebral haemorrhage associated with oral anticoagulant use**

*M. Goeldlin<sup>1</sup>, D. J. Seiffge<sup>2</sup>, T. Tatlisumak<sup>3</sup>, P. Lyrer<sup>2</sup>, U. Fischer<sup>1</sup>, S. Engelter<sup>2</sup>, D. Werring<sup>4</sup>*

<sup>1</sup>Berne, <sup>2</sup>Basel, Switzerland, <sup>3</sup>Gothenburg, Sweden,

<sup>4</sup>London, United Kingdom

17:00 | O2202

**Differences in stroke mimics in young and old patients and their outcome in NOR-TEST Study**

*T. T. Idicula<sup>1</sup>, J. Crespi Vidal<sup>1</sup>, I. Winnberg<sup>1</sup>, V. Novotny<sup>2</sup>, N. Logallo<sup>2</sup>, L. Thomassen<sup>2</sup>*

<sup>1</sup>Trondheim, <sup>2</sup>Bergen, Norway

17:15 | O2203

**Increase in physical activity as a moderator of stroke risk among physically inactive older adults: evidence from a nationwide cohort study**

*K. Kim, S. Choi, J.-K. Lee, S. M. Park*

Seoul, Republic of Korea

17:30 | O2204

**Factors influencing employment and quality of life 12 months after a minor stroke**

*Å. H. Morsund<sup>1</sup>, H. Næss<sup>2</sup>*

<sup>1</sup>Molde, <sup>2</sup>Bergen, Norway

17:45 | O2205

**Safety and efficacy of Lasmiditan in patients with cardiovascular risk factors: Results from two phase 3 trials for acute treatment of migraine**

*H. M. Hochstetler<sup>1</sup>, E. B. Dennehy<sup>1</sup>, R. Khanna<sup>2</sup>, E. G. Doty<sup>1</sup>, P. H. Berg<sup>1</sup>, A. J. Starling<sup>3</sup>, R. E. Shapiro<sup>4</sup>*

<sup>1</sup>Indianapolis, USA, <sup>2</sup>Surrey, United Kingdom,

<sup>3</sup>Scottsdale, <sup>4</sup>Burlington, USA

18:00 | O2206

**Sex related rupture rate of unruptured intracranial aneurysms: an individual patient data meta-analysis**

*C. Zuurbier<sup>1</sup>, L. Mensing<sup>1</sup>, M. Wermer<sup>2</sup>, S. Juvela<sup>3</sup>, A. Lindgren<sup>4</sup>, J. Jääskeläinen<sup>4</sup>, T. Koivisto<sup>4</sup>, A. Morita<sup>5</sup>, H. Arai<sup>5</sup>, K. Nozaki<sup>6</sup>, Y. Murayama<sup>5</sup>, T. Ishibashi<sup>5</sup>, H. Takao<sup>5</sup>, G. Rinkel<sup>1</sup>, Y. Ruigrok<sup>1</sup>, J. Greving<sup>1</sup>*

<sup>1</sup>Utrecht, <sup>2</sup>Leiden, The Netherlands, <sup>3</sup>Helsinki, <sup>4</sup>Kuopio, Finland, <sup>5</sup>Tokyo, <sup>6</sup>Shiga, Japan

16:45 – 18:15  
Room Nord Norge

## Neurogenetics 2

### Chairpersons:

Alexandra Durr (Paris, France)  
Alessandro Filla (Naples, Italy)

16:45 | O2207

**FIREFISH Part 1: 1-year results on motor function in infants with Type 1 spinal muscular atrophy (SMA) treated with risdiplam (RG7916)**

*G. Baranello<sup>1</sup>, L. Servais<sup>2</sup>, J. W. Day<sup>3</sup>, N. Deconinck<sup>4</sup>, E. Mercuri<sup>5</sup>, A. Klein<sup>6</sup>, B. Darras<sup>7</sup>, R. Masson<sup>8</sup>, H. Kletzl<sup>6</sup>, Y. Cleary<sup>6</sup>, M. El-Khairi<sup>9</sup>, T. Seabrook<sup>6</sup>, C. Czech<sup>6</sup>, M. Gerber<sup>6</sup>, C. Nguyen<sup>6</sup>, K. Gelblin<sup>6</sup>, K. Gorni<sup>6</sup>, O. Khwaja<sup>6</sup>*

<sup>1</sup>London, United Kingdom, <sup>2</sup>Paris, France, <sup>3</sup>Palo Alto, CA, USA, <sup>4</sup>Brussels, Belgium, <sup>5</sup>Rome, Italy, <sup>6</sup>Basel, Switzerland, <sup>7</sup>Boston, MA, USA, <sup>8</sup>Milan, Italy, <sup>9</sup>Welwyn Garden City, United Kingdom

17:00 | O2208

**Neuroinflammation genomic markers in genome-wide association study of Parkinson's disease**

*S. J. Chung<sup>1</sup>, N. Choi<sup>1</sup>, J. Kim<sup>2</sup>, K. Kim<sup>1</sup>, M.-J. Kim<sup>3</sup>, Y. J. Kim<sup>1</sup>, H.-S. Ryu<sup>1</sup>, K. W. Park<sup>1</sup>*

<sup>1</sup>Seoul, <sup>2</sup>Anyang, <sup>3</sup>Seongnam, Republic of Korea

17:15 | O2209

**Onset symptoms and time to diagnosis in Friedreich's Ataxia**

*E. Indelicato<sup>1</sup>, W. Nachbauer<sup>1</sup>, A. Eigentler<sup>1</sup>, M. Amprosi<sup>1</sup>, P. Giunti<sup>2</sup>, C. Mariotti<sup>3</sup>, J. Arpa<sup>4</sup>, A. Durr<sup>5</sup>, T. Klopstock<sup>6</sup>, L. Schöls<sup>7</sup>, T. Klockgether<sup>8</sup>, K. Bürk<sup>9</sup>, M. Pandolfo<sup>10</sup>, J. B. Schulz<sup>11</sup>, S. M. Boesch<sup>1</sup>*

<sup>1</sup>Innsbruck, Austria, <sup>2</sup>London, United Kingdom, <sup>3</sup>Milan, Italy, <sup>4</sup>Madrid, Spain, <sup>5</sup>Paris, France, <sup>6</sup>Munich, <sup>7</sup>Tübingen, <sup>8</sup>Bonn, <sup>9</sup>Marburg, Germany, <sup>10</sup>Brussels, Belgium, <sup>11</sup>Aachen, Germany

17:30 | O2210

**Molecular mechanisms of mitochondrial disease: pathological and genetic studies in Mendelian disorders of mtDNA maintenance**

*D. Lehmann<sup>1</sup>, H. S. Rosa<sup>2</sup>, M. C. Rocha<sup>2</sup>, S. Zierz<sup>3</sup>, R. W. Taylor<sup>2</sup>, D. M. Turnbull<sup>2</sup>, A. E. Vincent<sup>2</sup>*

<sup>1</sup>Ulm, Germany, <sup>2</sup>Newcastle-upon-Tyne, United Kingdom, <sup>3</sup>Halle, Germany

17:45 | O2211

**Discriminating between neurofibromatosis-1 and typically developing children by means of multimodal MRI and multivariate analyses.**

*F. Nemmi<sup>1</sup>, F. Cignetti<sup>2</sup>, C. Assaiante<sup>3</sup>, S. Maziero<sup>1</sup>, F. Audic<sup>3</sup>, Y. Chaix<sup>4</sup>, P. Pèran<sup>1</sup>*

<sup>1</sup>Toulouse, <sup>2</sup>Grenoble, <sup>3</sup>Marseilles, France

18:00 | O2212

**Subclinical diffuse leukoencephalopathy: proposal for a new entity**

*E. Salsano, D. Di Bella, S. Magri, L. Farina, C. Benzoni, S. Fenu, E. Mauro, C. Gellera, D. Pareyson, F. Taroni*

Milan, Italy

## Oral Session

16:45 – 18:15  
Main Auditorium

### Peripheral nerve disorders

#### Chairpersons:

Jonathan Cole (Poole, United Kingdom)  
Hadi Manji (London, United Kingdom)

16:45 | O2213

**Facilitated subcutaneous immunoglobulin in multifocal motor neuropathy – a randomized, single-blinded, non-inferiority cross-over trial**

*A. Al-Zuhairi<sup>1</sup>, J. Jakobsen<sup>1</sup>, H. Andersen<sup>2</sup>, S. H. Sindrup<sup>3</sup>, L. H. Markvardsen<sup>2</sup>*

<sup>1</sup>Copenhagen, <sup>2</sup>Aarhus N, <sup>3</sup>Odense, Denmark

17:00 | O2214

**Testing the effects of SHP2 inhibition on in vitro and in vivo models of neuromuscular junction disorders**

*M. Cao, R. Webster, J. Cossins, S. Huda, P. Rodriguez Cruz, W. Liu, D. Beeson, A. Vincent*

Oxford, United Kingdom

17:15 | O2215

**Data on pregnancy in Charcot-Marie-Tooth Disease from questionnaires linked to the Italian CMT National Registry**

*D. Pareyson<sup>1</sup>, C. Pisciotta<sup>1</sup>, D. Calabrese<sup>1</sup>, L. Santoro<sup>2</sup>, F. Manganello<sup>2</sup>, G. M. Fabrizi<sup>3</sup>, A. Schenone<sup>4</sup>, T. Cavallaro<sup>5</sup>, M. Grandis<sup>4</sup>, I. Tramacere<sup>1</sup>, S. Previtali<sup>1</sup>, I. Allegri<sup>6</sup>, L. Padua<sup>7</sup>, C. Pazzaglia<sup>7</sup>, A. Quattrone<sup>8</sup>, P. Valentino<sup>8</sup>, S. Tozza<sup>2</sup>, A. Mazzeo<sup>9</sup>, G. Vita<sup>9</sup>*

<sup>1</sup>Milan, <sup>2</sup>Naples, <sup>3</sup>Verona, <sup>4</sup>Genoa, <sup>5</sup>Verona, <sup>6</sup>Parma, <sup>7</sup>Rome, <sup>8</sup>Catanzaro, <sup>9</sup>Messina, Italy

17:30 | O2216

**Novel diagnostic approach and algorithm for small fiber neuropathy**

*N. Saffer<sup>1</sup>, L. Kress<sup>1</sup>, K. Eggermann<sup>2</sup>, B. Namer<sup>3</sup>, T. Malzacher<sup>4</sup>, A. Klitsch<sup>1</sup>, D. Kampik<sup>1</sup>, R. Malik<sup>4</sup>, I. Kurth<sup>2</sup>, C. Sommer<sup>1</sup>, N. Üçeyler<sup>1</sup>*

<sup>1</sup>Würzburg, <sup>2</sup>Aachen, <sup>3</sup>Erlangen, Germany,

<sup>4</sup>Doha, Qatar

17:45 | O2217

**Second IVIg Course in Guillain-Barré syndrome patients with poor prognosis (SID-GBS): a double-blind randomized controlled trial**

*C. Walgaard<sup>1</sup>, B. Jacobs<sup>1</sup>, H. F. Lingsma<sup>1</sup>, E. Steyerberg<sup>1</sup>, D. R. Cornblath<sup>2</sup>, P. van Doorn<sup>1</sup>*

<sup>1</sup>Rotterdam, The Netherlands, <sup>2</sup>Baltimore, USA

18:00 | O2218

**Efficacy and safety of PXT3003 in patients with Charcot-Marie-Tooth type 1A (CMT1A): Results of PLEO-CMT an International Pivotal Phase 3 trial.**

**For the PLEO CMT Investigators**

*P. Young<sup>1</sup>, S. Attarian<sup>2</sup>, B. Youcef<sup>3</sup>, P. Rinaudo<sup>3</sup>, S. Fitoussi<sup>3</sup>, V. Bertrand<sup>3</sup>, R. Hajj<sup>3</sup>, S. Nabirotkin<sup>3</sup>, D. Cohen<sup>3</sup>*

<sup>1</sup>Münster, Germany, <sup>2</sup>Marseilles, <sup>3</sup>Issy les Moulineaux, France

17:00 – 18:30  
Room Budapest

### Sleep disorders

#### Chairpersons:

Poul Jennum (Copenhagen, Denmark)  
Stine Knudsen (Oslo, Norway)

17:00 | O2219

**Skin biopsy searching for phosphorylated  $\alpha$ -synuclein deposits distinguishes idiopathic REM sleep behavior disorder from the secondary form due to Narcolepsy**

*E. Antelmi<sup>1</sup>, Y. Soserio<sup>1</sup>, F. Pizza<sup>1</sup>, V. Donadio<sup>1</sup>, P. Liguori<sup>1</sup>, G. Plazzi<sup>1</sup>*

Bologna, Italy

17:15 | O2220

**Motor, non-motor and Quality of Life outcome in patients with Parkinson's disease and REM sleep behavior disorder following subthalamic deep brain stimulation**

*P. Bargiotas<sup>1</sup>, I. Debove<sup>1</sup>, I. Bargiotas<sup>2</sup>, L. Lachenmayer<sup>1</sup>, M. Ntafouli<sup>1</sup>, M. Schuepbach<sup>1</sup>, P. Krack<sup>1</sup>, C. Bassetti<sup>1</sup>*

<sup>1</sup>Berne, Switzerland, <sup>2</sup>Paris, France

17:30 | O2221

**Increased frequency of antibodies against neuronal surface antigens in childhood narcolepsy with cataplexy with complex movement disorders**

*M. P. Giannoccaro<sup>1</sup>, F. Pizza<sup>2</sup>, L. Jacobson<sup>1</sup>, R. Liguori<sup>2</sup>, G. Plazzi<sup>2</sup>, A. Vincent<sup>1</sup>*

<sup>1</sup>Oxford, United Kingdom, <sup>2</sup>Bologna, Italy

17:45 | O2222

**Sleep-wake disturbances after ischemic stroke/transient ischemic attack: frequency and evolution**

*S. Duss<sup>1</sup>, C. Gorban-Peric<sup>1</sup>, C. Bernasconi<sup>2</sup>, D. Kuen<sup>1</sup>, A. Seiler<sup>1</sup>, M. Oberholzer<sup>1</sup>, F. Alexiev<sup>1</sup>, J. Lippert<sup>1</sup>, A.-K. Brill<sup>1</sup>, M. Manconi<sup>2</sup>, M. Schmidt<sup>1</sup>, T. Horvath<sup>1</sup>, C. Bassetti<sup>1</sup>*

<sup>1</sup>Berne, <sup>2</sup>Lugano, Switzerland

18:00 | O2223

**Evaluation of micro-sleep stability in patients with neurodegeneration using an automated algorithm**

*M.-L. Muntean<sup>1</sup>, M. Cesari<sup>2</sup>, F. Sixel-Döring<sup>1</sup>, B. Mollenhauer<sup>1</sup>, J. A. Christensen<sup>2</sup>, H. B. Sorensen<sup>2</sup>, P. J. Jennum<sup>3</sup>, C. Trenkwalder<sup>1</sup>*

<sup>1</sup>Kassel, Germany, <sup>2</sup>Kgs. Lyngby, <sup>3</sup>Glostrup - Copenhagen, Denmark

18:15 | O2224

**Multimodal MRI reveals alterations of sensorimotor circuits in restless legs syndrome**

*A. Stefani<sup>1</sup>, T. Mitterling<sup>2</sup>, A. Heidbreder<sup>3</sup>, R. Steiger<sup>4</sup>, C. Kremser<sup>4</sup>, B. Frauscher<sup>4</sup>, E. Gizewski<sup>1</sup>, W. Poewe<sup>1</sup>, B. Högl<sup>1</sup>, C. Scherfner<sup>1</sup>*

<sup>1</sup>Innsbruck, <sup>2</sup>Linz, Austria, <sup>3</sup>Münster, Germany,

<sup>4</sup>Montreal, Canada



Prof. Dr. Walter Struhal  
EFAS President

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1<sup>st</sup> - 5<sup>th</sup> October 2019 · Copenhagen · Denmark

## MAIN TOPICS

- + Metabolic disturbances in neuromuscular diseases
- + Extra-muscular manifestations in neuromuscular diseases
- + Advances in the treatment of neuromuscular disorders

For further information please visit: [www.wms2019.com](http://www.wms2019.com)

We look forward to seeing you in Copenhagen!

@WorldMuscleSoc  
#WMS2019



## Invited speakers

### Pascal Laforêt

Hôpital Raymond-Poincaré and  
INSERM U1179, France

### Mette Cathrine Ørngreen

Copenhagen Neuromuscular  
Center, Denmark

### Dirk Lefeber

Radboud University Medical  
Center, The Netherlands

### Aldo Faisal

Imperial College, London, UK

### Nathalie Doorenweerd

Leiden University Medical Center,  
The Netherlands and  
Newcastle University, UK

### Markus Schülke

Charité Campus Virchow Klinikum,  
Berlin, Germany

### Karim Wahbi

CHU Paris Centre,  
Hôpital Cochin, France

### Bradley Olwin

University of Colorado Boulder,  
United States of America

### Jordi Díaz Manera

Hospital de la Santa Creu i  
Sant Pau de Barcelona, Spain

### Tina Dysgaard Jeppesen

Copenhagen Neuromuscular Center,  
Denmark

### Johan den Dunnen

University of Leiden, The Netherlands

### Federico Mingozzi

Genethon and INSERM U951



# Monday 1 July 2019



08:00 – 09:30  
Room CbW

### Case-based Workshop 5: Coping with refractory headache disorders of children and adolescents

**Chairperson:**

*Aynur Özge (Mersin, Turkey)*

- **Childhood chronic migraine (CM)**  
*Aynur Özge (Mersin, Turkey)*
- **Childhood CM with epilepsy**  
*Füsün Erdoğan (Kayseri, Turkey)*
- **Childhood periodic syndrome**  
*Prab Prabhakar (London, United Kingdom)*

**Educational Content:**

All of the cases will be presented with

- A short story of headache
- A short story of developmental process
- A short story of comorbidities and family history
- A short video (if possible) with English subtitle
- Summary of updated diagnostic criteria
- Summary of management guidelines
- Key messages
- Q and A

All of the presenters are members of International Headache Society Paediatric Headache Special Interest Group. There are also editors and authors of the Book “Headache in Children and Adolescents: A Case-Based Approach, Editors: Abu-Arafeh, Ishaq, Özge, Aynur (Eds.)” This book also has been awarded as “Highly Recommended” by BMA in 2017.

Limited to 60 participants. Please register separately – additional fees will apply.

08:00 – 09:30  
Room Paris

### Focused Workshop 14: Preclinical Alzheimer’s disease

**Chairperson:**

*Bruno Dubois (Paris, France)*

- **Natural history of Preclinical AD**  
*Bruno Dubois (Paris, France)*
- **Biomarkers of preclinical AD**  
*Femke Bouwman (Amsterdam, The Netherlands)*
- **Defining the risk, the brain health clinics**  
*Giovanni Frisoni (Geneva, Switzerland)*

**Scientific Content:**

During the past decade, a conceptual shift occurred in the field of Alzheimer’s disease (AD) considering the disease as a continuum. Thanks to evolving biomarker research and substantial discoveries, it is now possible to identify the disease even at the preclinical stage before the occurrence of the first clinical symptoms. This preclinical stage of AD has become a major research focus as the field postulates that early intervention may offer the best chance of therapeutic success. A clarification is needed about the definitions and lexicon, the limits, the natural history, the markers of progression, the future developments in the field of biomarkers and the ethical consequence of detecting the disease at this asymptomatic stage. In this context, a new generation of healthcare facilities, the brain health services, can be envisioned. The main missions of brain health services will be to transfer the latest evidence on risk profiling to practice; to accurately estimate an individual’s risk of developing dementia before the onset of cognitive symptoms; and to put in place risk-specific prevention interventions. This Focused Workshop is aimed at addressing all the different issues about Preclinical AD by providing for each of them an updated review of the literature and evidence, with practical recommendations.

08:00 – 09:30  
Main Auditorium



International Parkinson and  
Movement Disorder Society

### Focused Workshop 15: EAN/MDS-ES: Management of cognitive aspects in Parkinson’s disease and parkinsonisms

**Chairperson:**

*Roberta Biundo (Venice, Italy)*

- **Clinical profile of cognitive decline in patients with Parkinson’s disease, progressive supranuclear palsy and multiple system atrophy**  
*Roberta Biundo (Venice, Italy)*
- **Biomarkers for cognitive impairment in Lewy body disorders: status and relevance for clinical trials**  
*Dag Aarsland (London, United Kingdom)*
- **State-of-the art of pharmacological treatments and alternative interventions for cognitive symptoms in PD and parkinsonian patients**  
*Jaime Kulisevsky (Barcelona, Spain)*

**Scientific content:**

Unlike the situation in Alzheimer’s disease, little is known about the pre-dementia, prodromal stages of Lewy Body dementia and the presence of dementia/cognitive impairments (CI) in parkinsonisms plus syndromes [such as Multiple System Atrophy (MSA) and Progressive Supranuclear Palsy (PSP)], whose misdiagnosis is mostly due to overlapping features shared with DLB and PD. This workshop aims to provide neuropsychological, neuropathological and imaging biomarkers for dementia and CI which have the potential to improve diagnosis and prognosis and guide clinical treatment decisions, leading to a better efficacy of pharmacological treatment, motor and cognitive rehabilitative therapy in Parkinson’s disease and atypical parkinsonisms. Clinicians should gain some knowledge helping them in their routine care and researchers should obtain some hints to guide research studies.

Monday, 1 July  
08:00 – 09:30



08:00 – 09:30  
Room Svalbard

### Focused Workshop 16: Diagnostic impact of perceptual, ocular motor, and body tilts

**Chairperson:**

*Marianne Dieterich (Munich, Germany)*

- **Topographic diagnosis of nystagmus**  
*Dominik Straumann (Zurich, Switzerland)*
- **Subjective visual vertical and ocular skew – most sensitive signs of vestibular dysfunction**  
*Marianne Dieterich (Munich, Germany)*
- **Disturbance of body posture in pusher syndrome**  
*Dominic Perrenou (Grenoble, France)*

08:00 – 09:30  
Room Jan Mayen 1

### Focused Workshop 17: EEG in the ICU

**Chairperson:**

*Harald Aurlien (Bergen, Norway)*

- **EEG patterns in critically ill patients: towards standardised descriptions**  
*Harald Aurlien (Bergen, Norway)*
- **Challenges in status epilepticus**  
*Eugen Trinka (Salzburg, Austria)*
- **Challenges in cerebral anoxia**  
*Erik Westhall (Lund, Sweden)*

**Scientific Content:**

The aim of the session will first be to get acquainted with typical EEG-patterns that are often present in critically ill patients (periodic, rhythmic patterns, etc.). The participants will learn how to recognise these patterns in the EEG-reports, which will be much easier if we use a standardised language! Then, in the second part of the session, the aim will be to learn how to interpret these patterns, to know which patterns are controversial and why, with a special focus on status epilepticus and cerebral anoxia. The most recent research in these areas will be presented, and advice given on the best ways to use continuous EEG to improve EEG-interpretations.

08:00 – 09:30  
Room Sør Norge

### Focused Workshop 18: Management of stroke in young adults

**Chairperson:**

*Frank-Erik de Leeuw  
(Nijmegen, The Netherlands)*

- **Recent insights in the etiology of young stroke.**  
*Jukka Putaala (Helsinki, Finland)*
- **Acute treatment and secondary prevention after stroke in a young adult.**  
*Frank-Erik de Leeuw  
(Nijmegen, The Netherlands)*
- **Life-long challenges after young stroke: prognosis and personalised counselling**  
*Bettina von Sarnowski  
(Greifswald, Germany)*
- **Recent development in the etiology and management of extra- and intracranial dissection**  
*Stephanie Debette (Bordeaux, France)*

**Scientific Content:**

Worldwide more than 2 million young patients (18-49 years) suffer from an ischemic stroke and its incidence continues to increase; in other words, every tenth stroke patient of a practicing neurologist is “young”. Studies from the last few years created a paradigm shift by recognising that stroke among young adults is an acute disease during a vulnerable period in life with lifelong consequences on virtual every aspect of life. This workshop will start with epidemiology, by using it as a magnifying glass, to illustrate recently discovered causes of stroke that have been identified by taking a closer look at time trends, gender and age differences. We will specifically present emerging findings on extra- and intracranial dissection. Next, we will present recent advances of acute treatment and secondary prevention of stroke in young adults. We will discuss both vascular and psychosocial post-stroke sequelae that may serve a starting point for personalised counseling of the patient and their relatives.

08:00 – 09:30  
Room Nord Norge

### Focused Workshop 19: Promising and challenging aspects of neuro-regeneration and neuroplasticity in spinal cord injury

**Chairperson:**

*Volker Dietz (Zurich, Switzerland)*

- **Basic mechanisms of axonal growth and regeneration**  
*Frank Bradke (Bonn, Germany)*
- **Experience with application of stem cell therapies in humans**  
*Armin Curt (Zurich, Switzerland)*
- **Promises and limits of neuroplasticity after stroke and spinal cord injury**  
*Volker Dietz (Zurich, Switzerland)*
- **Immunomodulation of spinal cord injury**  
*Martin Schwab (Zurich, Switzerland)*

**Scientific Content:**

Actual neurorehabilitation approaches after a stroke or spinal cord injury are based on the exploitation of neuroplasticity. This can be achieved by an intensive training with the consequence of an improvement of function. Today novel rehabilitation technologies based on a neurophysiological basis (e.g. activation of load receptors) allow well-designed intensive trainings times with individually adapted support. Nevertheless, it is obvious that there are strong limits to improve function, especially of hand function, by these approaches. To achieve further progress in the improvement of function some regeneration of damaged tracts would be required. Several promising regeneration inducing therapies designed in rodent experiments are on the way in phase 1 and 2 trials to become applied in humans. In this focused workshop the present state of art and the outlook on promises and challenges of therapies presently exist in neurorehabilitation and neuro-regeneration will be discussed.

08:00 – 09:30  
Room Amsterdam



### Focused Workshop 20: Biomarkers in headache disorders

**Chairperson:**

*Cristina Tassorelli (Pavia, Italy)*

- **Genetic biomarkers**  
*Bendik Winsvold (Oslo, Norway)*
- **Neuroimaging**  
*Till Sprenger (Wiesbaden, Germany)*
- **Molecular biomarkers**  
*Cristina Tassorelli (Pavia, Italy)*

**Scientific Content:**

Biomarkers can be helpful for both diagnosis and treatment of disorders. In the field of primary headache disorders, no reliable biomarkers have been detected to date. However, there is a lot of research in the genetic field which might be able to identify specific migraine types by genetic analyses. Also, in neuroimaging, specific types of headache patients have been detected which might help to classify and stratify the best treatment. Neuropeptides are among the oldest biomarkers in migraine but are still not used to classify headache patients. However, recent advances in GCRP metabolism might help to find specific biomarkers for treatment response in migraine and cluster headache.

08:00 – 09:30  
Room HoC

### Hands-on Course 13: Neurosonology – from basics to clinical applications – Level 1

**Chairperson:**

*Branko Malojcic (Zagreb, Croatia)*

- **Cervical artery protocol and plaque morphology**  
*Branko Malojcic (Zagreb, Croatia)*
- **Intracranial artery protocol**  
*Eva Bartels (Munich, Germany)*
- **Sonographic features of dissection and inflammation**  
*Mona Skjelland (Oslo, Norway)*

**Educational Content:**

The participants will gain knowledge and skills on how to perform and report examinations of extra- and intracranial arteries with possible implications in the workup of neurovascular patients. The most frequent clinical scenarios requiring neurosonological assessment, such as atherosclerotic disease, stroke, vasospasm, dissection and inflammatory diseases of cerebral arteries will be presented.

Hands on teaching demonstration:  
Cervical and intracranial ultrasound protocols.

Limited to 60 persons. Please register separately – additional fees will apply.

Monday, 1 July  
08:00 – 09:30



08:00 – 09:30  
Room Lisbon

### Interactive Session 5: What can movement in sleep tell us about the disease?

**Chairperson:**

*Anna Heidbreder (Munster, Germany)*

- **REM-Sleep behaviour disorder – early face of alpha-synucleinopathy**  
*Ambra Stefani (Innsbruck, Austria)*
- **Parasomnia in neuro-immunological disorders**  
*Anna Heidbreder (Munster, Germany)*
- **REM, NREM parasomnia and overlap parasomnia disorder**  
*Panagiotis Bargiotas (Bern, Switzerland)*

**Educational Content:**

This video-based session should give an overview over sleep related movement disorder. Movement disorders do not only play an important role in sleep disorders itself, they can also represent a key symptom preceding the manifestation of different neurological disorders e.g. Parkinson's disease or neuro immunological disorder e.g. Anti-IgLON5 disease. In some cases, the differentiation between NREM and REM parasomnia is challenging. In detail, this course will illustrate diagnosis and implications of REM-behavior disorder, neuroimmunology and Sleep- parasomnia as first symptom and movement disorders during sleep, RLS and others- course and consequences

Please download the app "EAN Congress" to actively participate and vote!

08:00 – 09:30  
Room Jan Mayen 2



### Special Session 9: EAN/EFNA: Norwegian Brain Strategy: a plan to strengthen brain health in Europe

**Chairpersons:**

*Joke Jaarsma*

*(Amsterdam, The Netherlands)*

*Hanne Flinstad Harbo (Oslo, Norway)*

- **Better Brains for a Better World**  
*Vladimir Hachinski*  
*(London, Ontario, Canada)*
- **National Brain Plans: A tool to push neurology up the political agenda?**  
*Fred Destrebecq (Brussels, Belgium)*
- **The Norwegian Brain Plan 2018-2024: An example to follow?**  
*Anne Grethe Erlandsen (Oslo, Norway)*  
*Anne Hege Aamodt (Oslo, Norway)*
- **Discussion with panel and audience**

**Scientific Content:**

This symposium will focus on the increasing burden of brain diseases and why we must advocate for the development of European brain health plans to address this trend. The first national brain plan in Europe was launched in Norway in December 2017. This will be presented as a best practice template by State Secretary, Anne Grethe Erlandsen of the Norwegian Ministry of Health and Care Services. Eminent speakers such as Prof. Vladimir Hachinski (former President of the World Federation of Neurology) and Prof. Monica di Luca (President of the European Brain Council) will present how such plans could be used to push neurology up the political agenda and ensure optimal outcomes for healthcare systems and patients. Come along to hear how, together, we can advocate for higher priority for neurological disorders and how the examples presented could be implemented in your region.

08:00 – 09:30  
Room Berlin

### Special Session 12: History of Neuroscience: Three men behind the neuron theory

**Chairperson:**

*Espen Dietrichs (Oslo, Norway)*

- **Introduction**  
*Espen Dietrichs (Oslo, Norway)*
- **Fridtjof Nansen**  
*Ragnar Stien (Oslo Norway)*
- **Camillo Golgi**  
*Giorgio Zanchin (Padova, Italy)*
- **Santiago Ramon y Cajal**  
*Eduardo Tolosa (Barcelona, Spain)*

**Scientific Content:**

In 1906 Santiago Ramon y Cajal and Camillo Golgi shared the Nobel Prize in Physiology or Medicine. Even though they did not agree on all points, both made discoveries that were crucial for evolving the neuron theory. However, the Norwegian Arctic explorer and statesman Fridtjof Nansen was probably the first scientist that presented experimental evidence in favour of this theory. The neuron theory and the achievements of these three men will be the topic of this History of Neuroscience symposium.

10:00 – 12:00  
Main Auditorium



### Plenary Symposium 3: The role of inflammation in “non-inflammatory” neurological diseases

#### Chairpersons:

*Nils Erik Gilhus (Bergen, Norway)*  
*Annamaria Vezzani (Milano, Italy)*

- **Epilepsy: Neuroinflammatory pathways as treatment targets and biomarker candidates in epilepsy**  
*Annamaria Vezzani (Milan, Italy)*
- **Parkinson’s disease: Is there a role for neuroinflammation in the pathogenesis of Parkinson’s disease?**  
*Vidar Gundersen (Oslo, Norway)*
- **Cerebrovascular disease: Neuroinflammatory responses to stroke – implications for treatment?**  
*Guido Stoll (Würzburg, Germany)*
- **Migraine: Understanding migraine: Potential role of neurogenic inflammation**  
*Lars Edvinsson (Lund, Sweden)*

#### Scientific Content:

During the last few years, inflammation has been increasingly recognised as playing a critical role in the pathogenesis of a vast number of previously considered “non-inflammatory” neurological diseases such as stroke, Parkinson’s disease, epilepsy and Alzheimer’s dementia. This has increased our understanding of disease mechanisms in these major neurological conditions, but also opens for new treatment strategies. The primary focus of this symposium is to highlight the role of inflammation in neurological diseases and to discuss the complexities of targeting neuroinflammation as a novel therapy.

15:00 – 16:30  
Room CbW

### Case-based Workshop 6: Optic neuritis: a very frequent diagnosis in a neuro-ophthal- mology clinic

#### Chairperson:

*Gordon Plant (London, United Kingdom)*

- **Typical optic neuritis**  
*Gordon Plant (London, United Kingdom)*
- **Atypical optic neuritis (NMO SPECTRUM)**  
*Anat Kesler (Tel-Aviv, Israel)*
- **Optic neuropathy due to inflammatory disease (Behçet, sarcoid)**  
*Gulden Akdal (Izmir, Turkey)*

#### Educational Content:

Optic neuritis will be discussed with case presentations. In addition to the typical cases, atypical cases which need to be differentiated because of differing diagnostic work-up and treatment strategies with a special emphasize on Neuromyelitis Optica (NMO) will be given.

Limited to 60 participants. Please register separately – additional fees will apply.

15:00 – 16:30  
Room Lisbon

### Interactive Session 6: Challenging stroke patients

#### Chairperson:

*Natan Bornstein (Tel Aviv, Israel)*

- **Embolic stroke of unknown cause**  
*Natan Bornstein (Tel Aviv, Israel)*
- **Cryptogenic stroke?**  
*Milija Mijajlovic (Belgrade, Serbia)*
- **Rare stroke cause**  
*Anita Arsovska (Skopje, Macedonia)*

#### Educational content:

Rare and difficult to define stroke aetiologies will be presented, including clinical cases with discussion of treatment options, such as:

- Rare stroke aetiology
- Cryptogenic stroke and ESUS
- Clinical cases of rare and complex stroke patients
- Clinical signs
- Neuroimaging features of rare stroke aetiology (metabolic, infectious, inflammatory)
- Differential diagnosis of rare stroke anthologies
- Treatment options for rare stroke causes

Please download the app “EAN Congress” to actively participate and vote!

Monday, 1 July  
10:00 – 17:00



15:00 – 17:00  
Room HoC

### Hands-on Course 14: EAN/ESNCH: Neurosonology – contemporary and future developments – Level 2-3

**Chairperson:**

*Fabienne Perren (Lausanne, Switzerland)*

- **Cerebral sonography of cerebral parenchyma in movement disorders**  
*Uwe Walter (Rostock, Germany)*
- **Optic nerve sonography**  
*Fabienne Perren (Lausanne, Switzerland)*
- **Diagnosis and management of traumatic nerve lesions**  
*Daniele Coraci (Rome, Italy)*
- **Comprehensive ultrasound examination in stroke units**  
*Ole-Morten Rønning (Lørenskog, Norway)*

**Educational Content:**

This course presents recent developments in neurological ultrasound. Participants will gain knowledge and skills on how to perform, interpret and report ultrasound examinations of the patients with movement disorders, increased intracranial pressure and traumatic peripheral nerve lesions. Hands-on teaching demonstration by the faculty

Limited to 60 persons. Please register separately – additional fees will apply.

15:00 – 17:00  
Main Auditorium

### Symposium 5: Hot topics in neurostimulation

**Chairpersons:**

*Patricia Limousain (Paris, France)*

*Kristl Vonck (Ghent, Belgium)*

- **Vagal nerve – the missing link in the gut brain axis**  
*Bruno Bonaz (Grenoble, France)*
- **Behavioural disturbances and deep brain stimulation**  
*Paul Krack (Bern, Switzerland)*
- **Adaptive neurostimulation in epilepsy**  
*Kristl Vonck (Ghent, Belgium)*
- **Technological advances of neurostimulation for movement disorders**  
*Jens Volkmann (Würzburg, Germany)*

**Scientific Content:**

The vagal nerve is a major component of the autonomic nervous system and has an important role in the anti-inflammatory gut-brain axis. This lecture is highlighting the potential treatment options including vagal nerve stimulation (VNS). Deep brain stimulation is a well-established treatment in Parkinson's disease, dystonia and tremor. The area of behavioural changes as an indication for DBS treatment as well as a consequence of neurostimulation will be discussed. Next to chronic continuous deep brain stimulation recently proof of principle of adaptive DBS was shown. The core idea is a dynamic adaptation of stimulation with a feed back loop of biomarkers indicating pathological central brain circuit activity. For vagal nerve stimulation as a therapy for epilepsy, a closed loop system is also available. Seizure activity is detected by ictal heart rate increase triggering stimulation. Research findings and clinical outcome will be discussed.

This symposium is supported by an educational grant from Livanova.

15:00 – 17:00  
Room Paris

### Symposium 6: Diagnostic dilemmas in MS

**Chairpersons:**

*Bernhard Hemmer (Munich, Germany)*

*Ludwig Kappos (Basel, Switzerland)*

- **Challenges of the diagnostic criteria of MS**  
*Wallace J. Brownlee (London, United Kingdom)*
- **MRI red flags for MS mimics**  
*Christian Enzinger (Graz, Austria)*
- **Inflammatory mimics of MS**  
*Romain Marignier (Lyon, France)*
- **Genetic mimics of MS**  
*Wolfgang Köhler (Leipzig, Germany)*

**Scientific Content:**

The first talk will summarise the evolution of the current diagnostic criteria of MS. The McDonald criteria were developed to allow an early diagnosis of MS. However, the criteria in itself do not exclude differential diagnoses. Therefore, clinical vigilance is necessary even when the criteria are fulfilled. MRI is the most important paraclinical marker that is used for diagnosing MS. However, neurologists have to be aware that this biomarker bears the risk of misinterpretation. During recent years several novel neuroinflammatory diseases like MOG antibody associated demyelination, CLIPPERS and others have been discovered. This session highlights the clinical and paraclinical clues that differentiate MS from these conditions. It also discusses the therapeutic differences between these diseases. Genetic diseases like leukodystrophies, metabolic disorders, and spastic paraplegia can mimic progressive MS and sometimes also a relapsing-remitting disease course. They can even be associated with Gadolinium enhancing lesions in MRI and present with inflammatory CSF. This talk will give an overview of important genetic differential diagnoses of MS and explain how to spot them.

15:00 – 18:15  
Room Svalbard



### Teaching Course 10: Clinical science in muscle disorders – Level 2

**Chairpersons:**

*Benedikt Schoser (Munich, Germany)*  
*Antonio Toscano (Messina, Italy)*

- **The “myopathic” face**  
*Benedikt Schoser (Munich, Germany)*
- **Differential diagnosis of “scapular winging”**  
*Antonio Toscano (Messina, Italy)*
- **Rigid Spine syndrome**  
*Sabrina Sacconi (Nice, France)*
- **Diaphragmatic weakness**  
*Pascal Laforêt (Paris, France)*

**Educational Content:**

The speakers will address some of the common problems that are often referred to the Muscle Clinics, either when proposed by experts in neuromuscular disorders but also by general neurologists. A practical approach will be presented, based on the long experience of the presenters which aims to enhance the knowledge and confidence of the attendees to better handle these issues and provide guidance when to refer. Consequently, differential diagnostic problems in neuromuscular medicine will be discussed with the audience, even using specific cases to illustrate the diagnostic pathway and potential pitfalls in reaching a diagnosis. This teaching course is directed towards the diagnostic utility of recognising different causes and mechanisms of the “myopathic face”, winging scapula, rigid spine syndrome and respiratory weakness related to muscular disorders. Treatment and disease management will be part of the presentations.

15:00 – 18:15  
Room Jan Mayen 1

### Teaching Course 11: Current treatments in Neuro- logy – Level 1

**Chairperson:**

*Celia Oreja-Guevara (Madrid, Spain)*

- **Stroke: acute treatment and prevention**  
*Urs Fischer (Bern, Switzerland)*
- **Examples of successful gene treatment – FAP**  
*Laura Obici (Pavia, Italy)*
- **Examples of successful gene treatment – SMA**  
*Tim Hagenacker (Essen, Germany)*
- **Parkinson’s disease: Current treatment (medical and stimulation)**  
*Per Odin (Lund, Sweden)*
- **MS: an up-to-date treatment algorithm**  
*Celia Oreja-Guevara (Madrid, Spain)*

**Educational Content:**

This Teaching Course on current treatments in various neurological disorders/diseases will give an update of current treatment and management strategies in stroke, two major genetic disorders, Parkinson’s disease and multiple sclerosis. The lectures will summarise current state-of-the-art therapies and also address future therapeutic options and developments

15:00 – 18:15  
Room Sør Norge



International Parkinson and  
Movement Disorder Society



### Teaching Course 12: EAN/MDS-ES: Hyperkinetic movement disorders – Level 2

**Chairperson:**

*Mathieu Anheim (Strasbourg, France)*

- **The paroxysm of dyskinesias**  
*Emmanuel Roze (Paris, France)*
- **Ataxia: some order in the disorder?**  
*Mathieu Anheim (Strasbourg, France)*
- **What’s new in chorea?**  
*Edward Wild (London, United Kingdom)*
- **What’s new in paediatric movement disorders**  
*Miryam Carecchio (Milan, Italy)*

**Educational Content:**

This TC will give an overview including many didactic videos demonstrating typical and subtle phenotypes, including new entities of hyperkinetic movement. Insights to the diagnostic work for the management in clinical practice of patients with hyperkinetic movement disorders in clinical practice will be presented as well as automated algorithm for the diagnosis of recessive ataxias. Participants will learn how to handle with the genetic analysis in such patients: when, what, why?



Monday, 1 July  
15:00 – 18:15



15:00 – 18:15  
Room Jan Mayen 2

### Teaching Course 13: Nervous system disorders due to retroviruses – Level 3

**Chairperson:**

*Israel Seiner (Petach Tikva, Israel)*

- **Neuro-cognitive disorders due to HIV**  
*Christian Eggers (Linz, Austria)*
- **Aging with HIV**  
*Gabriele Arendt (Düsseldorf, Germany)*
- **Neurological disorders due to HTLV - an emerging issue in migrants to Europe**  
*Francisco Javier Carod Artal (Inverness, United Kingdom/ Barcelona, Spain)*
- **The possible role of retroviruses in neurological disorders of unknown aetiology**  
*Israel Steiner (Petach Tikva, Israel)*

**Educational Content:**

Retroviruses are responsible for chronic neurological disorders and are suspected as causing agents in neurological conditions of unknown aetiology. This course will focus on aspects of retroviral infections that are not emphasized and known.

15:00 – 18:15  
Room Amsterdam

### Teaching Course 14: Diagnosing coma and disorders of consciousness: pearls and pitfalls from a new EAN guideline – Level 1-2

**Chairpersons:**

*Daniel Kondziella (Copenhagen, Denmark)*  
*Steven Laureys (Liège, Belgium)*

- **Clinical examination in the ICU**  
*Karin Diserens (Lausanne, Switzerland)*
- **Clinical examination in rehabilitation**  
*Camille Chatelle (Liège, Belgium)*
- **Neuroimaging**  
*Daniel Kondziella (Copenhagen, Denmark)*
- **Electrophysiology**  
*Benjamin Rohaut (Paris, France)*

**Educational Content:**

This teaching course is based on the work currently conducted as part of the «EAN Guideline on the Classification of Coma and Chronic Disorders of Consciousness», aiming at gathering the state-of-the-art evidence regarding diagnosis and classification of coma and disorders of consciousness, including (a) clinical bedside examination techniques, (b) laboratory investigations based on functional neuroimaging (fMRI, PET, and (c) EEG (including transcranial magnetic stimulation (TMS)-EEG)). This course offers the audience a comprehensive overview on the current state of knowledge in assessing severely brain-injured patients in the acute and chronic setting. Particular emphasis will be given to the translation of scientific evidence from the guidelines into practical recommendations for the busy clinician at the bedside.

16:45 – 18:15  
Room CbW

### Controversy 2: Controversies in headache medicine

**Chairperson:**

*Messoud Ashina (Copenhagen, Denmark)*

- **PRO: Tension-type headache is a frequent disorder**  
*Jes Olesen (Copenhagen, Denmark)*
- **CON: Tension-type headache is NOT a frequent disorder**  
*Anish Bahra (London, United Kingdom)*
- **PRO: Medication overuse headache: detox!**  
*Zaza Katsarava (Essen, Germany)*
- **CONTRA: Medication overuse headache: do NOT detox!**  
*Christian Lampl (Linz, Austria)*

**Educational Content:**

In the first controversy the existence of tension-type headache (TTH) is debated. While epidemiological studies suggest that TTH is the most frequent headache disorder, clinicians argue that TTH can also be a minor form of migraine.

The second controversy is a very practical and important topic. There is no unanimous acceptance of when to detoxify medication overuse in headache patients. Evidence is controversial and conflicting. Modern randomised studies on this issue will be discussed as well as personal experience of the participants.

## Oral Session

 14:45 – 16:00  
 Room Budapest

### Miscellaneous 2

#### Chairpersons:

Josef Bednarik (Brno, Czech Republic)  
 Dan Healy (Dublin, Ireland)

14:45 | O3101

#### Brain volume changes underlying square wave jerks in Progressive Supranuclear Palsy

*E. Anagnostou*<sup>1</sup>, *E. Karavasilis*, *E. Potiri*,  
*V. Constantinides*, *E. Kapaki*, *C. Potagas*  
 Athens, Greece

15:00 | O3102

#### Migraine and cluster headache classification using a supervised machine learning approach: a multimodal MRI study

*R. Messina*<sup>1</sup>, *R. Leech*<sup>2</sup>, *F. Zelaya*<sup>2</sup>, *O. Dipasquale*<sup>2</sup>, *D. Weir*<sup>2</sup>, *M. Filippi*<sup>3</sup>, *P. J. Goadsby*<sup>2</sup>  
<sup>1</sup>Milan, Italy, <sup>2</sup>London, United Kingdom

15:15 | O3103

#### Results of the CAPTAIN-RO Trial – A New Horizon in TBI Clinical Research?

*D. F. Muresanu*<sup>1</sup>, *J. Vester*<sup>2</sup>, *K. von Wild*<sup>3</sup>,  
*V. Hömberg*<sup>4</sup>  
<sup>1</sup>Cluj, Romania, <sup>2</sup>Krailing, <sup>3</sup>Münster, <sup>4</sup>Düsseldorf,  
 Germany

15:30 | O3104

#### Development and Validation of the Heidelberg Neurological Triage System (HEINTS)

*H. Osswald*<sup>1</sup>, *L. Harenberg*<sup>1</sup>, *H. Joschonek*<sup>1</sup>,  
*S. Mundiyanapurath*<sup>1</sup>, *J. Purruicker*<sup>1</sup>,  
*G. Rauch*<sup>2</sup>, *P. Ringleb*<sup>1</sup>, *S. Nagel*<sup>1</sup>  
<sup>1</sup>Heidelberg, <sup>2</sup>Berlin, Germany

15:45 | O3105

#### Inspiratory sighs in multiple system atrophy

*S. Parreira*<sup>1</sup>, *F. Antunes*<sup>2</sup>, *C. Bentes*<sup>1</sup>,  
*R. Peralta*<sup>1</sup>  
<sup>1</sup>Lisbon, <sup>2</sup>Almada, Portugal

 14:45 – 16:00  
 Room Helsinki

### Neurogenetics 3

#### Chairpersons:

Matthias Toft (Oslo, Norway)  
 Stephanie Debette (Bordeaux, France)

14:45 | O3106

#### Clinical practice guidelines for rare neurological diseases: preliminary results of a systematic appraisal

*K. Aleksovska*<sup>1</sup>, *T. Kobulashvili*<sup>2</sup>, *C. Reinhard*<sup>3</sup>,  
*M. Copetti*<sup>1</sup>, *A. Federico*<sup>4</sup>, *M. Leone*<sup>1</sup>  
<sup>1</sup>San Giovanni Rotondo, Italy, <sup>2</sup>Salzburg, Austria,  
<sup>3</sup>Tübingen, Germany, <sup>4</sup>Sienna, Italy

15:00 | O3107

#### DNA methylation profile in the human hippocampus identifies involvement of genes essential in neurogenesis in Alzheimer's disease

*M. Altuna Azkargorta*<sup>1</sup>, *M. S. Cámara Marcos*<sup>2</sup>,  
*A. Urdanoz*<sup>1</sup>, *A. Labarga*<sup>1</sup>, *J. Sánchez-Ruiz de Gordo*<sup>1</sup>,  
*M. Zelaya*<sup>1</sup>, *M. Roldán*<sup>1</sup>, *I. Blanco*<sup>1</sup>,  
*X. Martínez de Morentin*<sup>1</sup>, *M. T. Tuñón*<sup>1</sup>,  
*R. Larumbe Ilundain*<sup>1</sup>, *C. Echavarrri*<sup>3</sup>,  
*M. Mendioroz*<sup>1</sup>  
<sup>1</sup>Pamplona, <sup>2</sup>San Sebastián, <sup>3</sup>Alsasua, Spain

15:15 | O3108

#### De novo mutations in TAOK1 cause neurodevelopmental disorders

*G. Bråthen*<sup>1</sup>, *M. Dulovic-Mahlow*<sup>2</sup>,  
*J. Trinh*<sup>2</sup>, *K. K. Kandaswamy*<sup>3</sup>, *M. Werber*<sup>3</sup>,  
*V. Krajca*<sup>2</sup>, *Ø. L. Busk*<sup>1</sup>, *G. Oprea*<sup>3</sup>,  
*Ø. L. Holla*<sup>1</sup>, *N. Didonato*<sup>4</sup>, *M. E. Weiss*<sup>3</sup>,  
*A.-K. Kahlert*<sup>4</sup>, *S. Kishore*<sup>3</sup>, *K. Tveten*<sup>1</sup>,  
*M. Vos*<sup>2</sup>, *A. Rolfs*<sup>3</sup>, *K. Lohmann*<sup>2</sup>  
<sup>1</sup>Skien, Norway, <sup>2</sup>Lübeck, <sup>3</sup>Rostock, <sup>4</sup>Dresden, Germany

15:30 | O3109

#### A recessive repeat expansion causes CANVAS and is a frequent cause of late-onset sensory ataxia

*A. Cortese*<sup>1</sup>, *R. Simone*<sup>1</sup>, *R. Sullivan*<sup>1</sup>,  
*J. Vandrovцова*<sup>1</sup>, *W. Y. Yau*<sup>1</sup>, *J. Humphrey*<sup>1</sup>,  
*Z. Jaunmuktane*<sup>1</sup>, *P. Sivakumar*<sup>1</sup>, *J. Polke*<sup>1</sup>,  
*P. J. Tomaselli*<sup>2</sup>, *G. Devigili*<sup>3</sup>, *I. Callegari*<sup>4</sup>,  
*M. Versino*<sup>4</sup>, *V. Salpietro*<sup>1</sup>, *S. Efthymiou*<sup>1</sup>,  
*D. Kaski*<sup>1</sup>, *N. W. Wood*<sup>1</sup>, *N. S. Andrade*<sup>5</sup>,  
*A. M. Rossor*<sup>4</sup>, *A. Bronstein*<sup>1</sup>, *P. Fratta*<sup>1</sup>,  
*W. J. Marques*<sup>2</sup>, *S. Züchner*<sup>5</sup>, *M. M. Reilly*<sup>1</sup>,  
*H. Houlden*<sup>1</sup>

<sup>1</sup>London, United Kingdom, <sup>2</sup>Ribeirão Preto, Brazil,  
<sup>3</sup>Milan, <sup>4</sup>Pavia, Italy, <sup>5</sup>Miami, USA

15:45 | O3110

#### Nusinersen in infants who initiate treatment in a presymptomatic stage of Spinal Muscular Atrophy (SMA): Interim results from the phase 2 NURTURE Study

*V. A. Sansone*<sup>1</sup>, *D. C. de Vivo*<sup>2</sup>, *E. Bertini*<sup>3</sup>,  
*W.-L. Hwu*<sup>4</sup>, *T. O. Crawford*<sup>5</sup>, *K. J. Swoboda*<sup>6</sup>,  
*R. S. Finkel*<sup>7</sup>, *J. Kirschner*<sup>8</sup>, *N. Kuntz*<sup>9</sup>,  
*J. Parsons*<sup>10</sup>, *M. M. Ryan*<sup>11</sup>, *R. J. Butterfield*<sup>12</sup>,  
*H. Topaloglu*<sup>13</sup>, *T. Ben Omran*<sup>14</sup>, *Y.-J. Jong*<sup>15</sup>,  
*F. Shu*<sup>16</sup>, *S. P. Bevernage*<sup>17</sup>, *K. Johnson*<sup>17</sup>,  
*R. Foster*<sup>18</sup>, *I. Bhan*<sup>17</sup>, *S. Fradette*<sup>17</sup>, *W. Farwell*<sup>17</sup>

<sup>1</sup>Milan, Italy, <sup>2</sup>New York, NY, USA, <sup>3</sup>Rome, Italy,  
<sup>4</sup>Taipei, Taiwan, Chinese Taipei, <sup>5</sup>Baltimore, MD,  
<sup>6</sup>Boston, MA, <sup>7</sup>Orlando, FL, USA, <sup>8</sup>Freiburg, Germany,  
<sup>9</sup>Chicago, IL, <sup>10</sup>Aurora, CO, USA, <sup>11</sup>Melbourne, Australia,  
<sup>12</sup>Salt Lake City, UT, USA, <sup>13</sup>Ankara, Turkey, <sup>14</sup>Doha,  
 Qatar, <sup>15</sup>Kaohsiung, Taiwan, Chinese Taipei, <sup>16</sup>Los  
 Angeles, CA, <sup>17</sup>Cambridge, MA, USA, <sup>18</sup>Maidenhead,  
 United Kingdom



Monday, 1 July  
15:00 – 18:15

15:00 – 16:15  
Room Nord Norge

## Ageing and dementia 2

### Chairpersons:

Michael Khalil (Graz, Austria)  
Gunhild Waldemar (Copenhagen, Denmark)

15:00 | O3111

### IGFBP-2 as a novel biomarker for incident dementia

*E. McGrath<sup>1</sup>, J. Himali<sup>2</sup>, D. Levy<sup>2</sup>, S. Conner<sup>1</sup>, C. Decarli<sup>3</sup>, M. Pase<sup>4</sup>, P. Courchesne<sup>2</sup>, C. Satizabal<sup>4</sup>, R. Vasan<sup>1</sup>, A. Beiser<sup>1</sup>, S. Seshadri<sup>4</sup>*

<sup>1</sup>Boston, <sup>2</sup>Framingham, <sup>3</sup>Davis, <sup>4</sup>San Antonio, USA

15:15 | O3112

### Statins, risk of death and stroke in patients with dementia – a registry-based study

*B. Petek<sup>1</sup>, M. Villa-Lopez<sup>2</sup>, B. Winblad<sup>3</sup>, M. G. Kramberger<sup>4</sup>, M. von Euler<sup>3</sup>, H. Xu<sup>3</sup>, M. E. Eriksdotter<sup>3</sup>, S. Garcia-Ptacek<sup>3</sup>*

<sup>1</sup>Ljubljana, Slovenia, <sup>2</sup>Toronto, Canada, <sup>3</sup>Stockholm, Sweden

15:30 | O3113

### Detection of non-emotional body language: Interaction between the amygdala, insula and cerebellar vermis

*A. Sokolov<sup>1</sup>, P. Zeidman<sup>2</sup>, M. Erb<sup>3</sup>, F. Pollick<sup>4</sup>, A. Fallgatter<sup>3</sup>, P. Ryulin<sup>1</sup>, K. Friston<sup>2</sup>, M. Pavlova<sup>3</sup>*

<sup>1</sup>Lausanne, Switzerland, <sup>2</sup>London, United Kingdom, <sup>3</sup>Tübingen, Germany, <sup>4</sup>Glasgow, United Kingdom

15:45 | O3114

### Declining incidence of dementia: a national registry-based cohort study over twenty years

*L. Taudorf<sup>1</sup>, A. Nørgaard<sup>1</sup>, S. Islamoska<sup>1</sup>, K. Jørgensen<sup>1</sup>, T. M. Laurson<sup>2</sup>, G. Waldemar<sup>1</sup>*

<sup>1</sup>Copenhagen, <sup>2</sup>Aarhus, Denmark

16:00 | O3115

### Functional connectivity and microstructural alterations in regions of synaptic density loss in DLB and PDD

*T. Yousaf<sup>1</sup>, G. Dervenoulas<sup>1</sup>, G. Pagano<sup>1</sup>, C. Loane<sup>1</sup>, H. Wilson<sup>1</sup>, A. Chandra<sup>1</sup>, O. Cousins<sup>1</sup>, R. Gunn<sup>1</sup>, E. Rabiner<sup>1</sup>, F. Niccolini<sup>2</sup>, M. Esposito<sup>2</sup>, L. Ricciardi<sup>2</sup>, D. Aarsland<sup>1</sup>, M. Politis<sup>1</sup>*

<sup>1</sup>London, United Kingdom, <sup>2</sup>Naples, Italy

16:45 – 18:15  
Room Nord Norge

## Cerebrovascular diseases 5

### Chairpersons:

Gian Marco de Marchis (Basel, Switzerland)  
Karolina Skagen, (Stabekk, Norway)

16:45 | O3201

### Thrombectomy beyond 6 hours from onset of acute ischemic stroke due to large vessel occlusion

*L. Casetta<sup>1</sup>, G. Pracucci<sup>2</sup>, V. Saia<sup>3</sup>, A. Saletti<sup>1</sup>, A. de Vito<sup>1</sup>, S. Nappini<sup>2</sup>, L. Castellan<sup>4</sup>, E. Cagliari<sup>5</sup>, N. Nunzio Paolo<sup>6</sup>, S. Vallone<sup>7</sup>, R. Padolecchia<sup>3</sup>, V. Da Ros<sup>8</sup>, M. Russo<sup>9</sup>, E. Puglielli<sup>10</sup>, A. Giorgianni<sup>11</sup>, C. Serrati<sup>4</sup>, N. Limbucci<sup>2</sup>, N. Cavinini<sup>12</sup>, M. Corato<sup>6</sup>, G. Bigliardi<sup>7</sup>, T. Tassinari<sup>13</sup>, P. Amistà<sup>9</sup>, V. Di Egidio<sup>10</sup>, D. Toni<sup>8</sup>, S. Mangiafico<sup>2</sup>*

<sup>1</sup>Ferrara, <sup>2</sup>Florence, <sup>3</sup>Pietra Ligure, <sup>4</sup>Genoa, <sup>5</sup>Mestre-Venezia, <sup>6</sup>Rozzano, <sup>7</sup>Modena, <sup>8</sup>Rome, <sup>9</sup>Rovigo, <sup>10</sup>Teramo, <sup>11</sup>Varese, <sup>12</sup>Mestre, <sup>13</sup>Pietra Ligure, Italy

17:00 | O3202

### Patients with high post-endovascular treatment plasma levels of neutrophil activation markers are at higher risk of poor functional outcome, HT, and mortality

*L. Di Meglio, J.-P. Desilles, V. Ollivier, M. Solo Nomenjanahary, R. Blanc, M. Pottin, M.-C. Bouton, M. Jandrot-Perrus, B. Ho-Tin-Noe, M. Mazighi*

Paris, France

17:15 | O3203

### Hypotension during stroke thrombectomy is associated with worse functional outcome

*S. Fandler-Höfler, S. Heschl, P. Argüelles-Delgado, M. Kneihsl, E. Hassler, M. Magyar, H. Deutschmann, A. Berghold, K. Niederkorn, F. Fazekas, T. Gatteringer*

Graz, Austria

17:30 | O3204

### Impact of cerebral microbleeds on the clinical course in stroke patients on non-vitamin K antagonist oral anticoagulation

*B. Wagner, A. Polymeris, L. Hert, S. Schaede-lin, J. Lieb, C. Traenka, J. Fladt, P. A. Lyrer, S. Engelter, N. Peters*

Basel, Switzerland

17:45 | O3205

### Time trends, frequency, characteristics and prognosis of short-duration transient global amnesia

*M. Romoli<sup>1</sup>, M. A. Tuna<sup>2</sup>, L. Li<sup>2</sup>, M. Paciaroni<sup>1</sup>, F. Tordo Caprioli<sup>1</sup>, A. Lotti<sup>1</sup>, P. Eusebi<sup>1</sup>, D. Giannandrea<sup>3</sup>, S. Ricci<sup>3</sup>, M. G. Mosconi<sup>1</sup>, M. Pellizzaro Ventì<sup>1</sup>, A. Gilì<sup>1</sup>, F. Stracci<sup>1</sup>, P. Sarchielli<sup>1</sup>, L. Parnetti<sup>1</sup>, P. M. Rothwell<sup>2</sup>, P. Calabresi<sup>1</sup>*

<sup>1</sup>Perugia, Italy, <sup>2</sup>Oxford, United Kingdom, <sup>3</sup>Gubbio, Italy

18:00 | O3206

### Clinically available biomarkers as predictors of atrial fibrillation in patients with cryptogenic stroke The Nordic Atrial Fibrillation and Stroke Study (NOR-FIB)

*A. Tancin Lambert<sup>1</sup>, B. Ratajczak-Tretel<sup>1</sup>, B. Halvorsen<sup>2</sup>, V. Bjerkeli<sup>2</sup>, D. Russell<sup>2</sup>, E. C. Sandset<sup>2</sup>, H. Ihle-Hansen<sup>2</sup>, E. Eriksen<sup>2</sup>, H. Næss<sup>3</sup>, T. C. Truelsen<sup>4</sup>, K. L. Ægidius<sup>5</sup>, S. B. Krogseth<sup>6</sup>, H. Ihle-Hansen<sup>7</sup>, C. Kruuse<sup>8</sup>, K. Arntzen<sup>9</sup>, G. Eldøen<sup>10</sup>, A. Gulsvik<sup>2</sup>, F. M. W. Kurz<sup>11</sup>, M. Rezaei<sup>11</sup>, J. Sørmark<sup>12</sup>, S. Ingebrigtsen<sup>13</sup>, C. Kremer<sup>14</sup>, G. Høie<sup>15</sup>, D. Atar<sup>2</sup>, A. H. Aamodt<sup>2</sup>*

<sup>1</sup>Kalnes, <sup>2</sup>Oslo, <sup>3</sup>Bergen, Norway, <sup>4</sup>Copenhagen, <sup>5</sup>Bispebjerg, Denmark, <sup>6</sup>Tønsberg, <sup>7</sup>Bærum, Norway, <sup>8</sup>Herlev, Denmark, <sup>9</sup>Bodo, <sup>10</sup>Molde, <sup>11</sup>Stavanger, <sup>12</sup>Lillehammer, <sup>13</sup>Tromsø, Norway, <sup>14</sup>Malmö, Sweden, <sup>15</sup>Grårum, Norway

## Oral Session

 16:45 – 18:15  
 Room Lisbon

### Tournament Clinical

#### Chairpersons:

Sten Fredrikson (Stockholm, Sweden)  
 Ellisiv Mathiesen (Tromsø, Norway)  
 Ivan Rektor (Brno, Czech Republic)

16:45 | O3207

#### Semantic fluency impairment and amygdala atrophy are predictive factors for the development of Parkinson's disease dementia

*O. Cousins, G. Pagano, J. Schulz, G. Dervenoulas, H. Wilson, S. P. Caminiti, S. Polychronis, M. Politis*

London, United Kingdom

17:00 | O3208

#### Cortical abnormalities and cognitive impairment in pediatric MS patients

*E. de Meo<sup>1</sup>, L. Moiola<sup>1</sup>, M. P. Amato<sup>2</sup>, A. Ghezzi<sup>3</sup>, P. Veggiotti<sup>1</sup>, R. Capra<sup>4</sup>, M. Filippi<sup>1</sup>, M. A. Rocca<sup>1</sup>*

<sup>1</sup>Milan, <sup>2</sup>Florence, <sup>3</sup>Gallarate, <sup>4</sup>Brescia, Italy

17:15 | O3209

#### Validation of European Guidelines recommendations for prognostication of neurological outcome after cardiac arrest

*M. Moseby Knappe<sup>1</sup>, E. Westhall<sup>1</sup>, S. Backman<sup>1</sup>, I. Dragancea<sup>1</sup>, H. Friberg<sup>1</sup>, N. Nielsen<sup>1</sup>, J. Horn<sup>2</sup>, J. Kjærgaard<sup>3</sup>, T. Cronberg<sup>1</sup>*

<sup>1</sup>Lund, Sweden, <sup>2</sup>Amsterdam, The Netherlands,

<sup>3</sup>Copenhagen, Denmark

17:30 | O3210

#### The clinical features and genetic characteristics of MT-ATP6-related mitochondrial disease: a national, observational study

*Y. S. Ng<sup>1</sup>, M. Martikainen<sup>2</sup>, G. Gorman<sup>1</sup>, A. Blain<sup>1</sup>, E. Bugiardini<sup>3</sup>, A. Bunting<sup>4</sup>, A. Schaefer<sup>4</sup>, C. L. Alston<sup>1</sup>, E. L. Blakely<sup>1</sup>, I. Hughes<sup>5</sup>, A. Lim<sup>1</sup>, C. DeGoede<sup>6</sup>, M. McEntagart<sup>3</sup>, S. Spinty<sup>7</sup>, I. Horrocks<sup>8</sup>, P. Chinnery<sup>9</sup>, R. Horváth<sup>1</sup>, V. Nesbitt<sup>4</sup>, R. Fratter<sup>4</sup>, J. Poulton<sup>4</sup>, M. Hanna<sup>3</sup>, R. Pitceathly<sup>3</sup>, R. W. Taylor<sup>4</sup>, D. Turnbull<sup>1</sup>, R. McFarland<sup>1</sup>*

<sup>1</sup>Newcastle upon Tyne, United Kingdom, <sup>2</sup>Turku, Finland, <sup>3</sup>London, <sup>4</sup>Oxford, <sup>5</sup>Manchester, <sup>6</sup>Preston, <sup>7</sup>Liverpool, <sup>8</sup>Glasgow, <sup>9</sup>Cambridge, United Kingdom

17:45 | O3211

#### Structural connectivity changes in G2019S-LRRK2 gene mutation carriers without manifest Parkinson's disease

*G. Pagano, P. Vickers, J. Schulz, H. Wilson, M. Politis*

London, United Kingdom

18:00 | O3212

#### Clinical characteristics of 88 confirmed cases of anti-Ri antibody-associated syndrome

*A. Vogrig<sup>1</sup>, C. Simard<sup>1</sup>, B. Joubert<sup>1</sup>, G. Picard<sup>1</sup>, V. Rogemond<sup>1</sup>, F. Ducray<sup>1</sup>, D. Psimaras<sup>2</sup>, V. Desestret<sup>3</sup>, J. Honnorat<sup>1</sup>*

<sup>1</sup>Lyon, <sup>2</sup>Paris, <sup>3</sup>Lyon Bron, France

 17:00 – 18:30  
 Room Budapest

### Autonomic nervous system disorders; Peripheral nerve disorders

#### Chairpersons:

Walter Struhal (Tulln, Austria)  
 Nurcan Üceyler (Würzburg, Germany)

17:00 | O3213

#### Evaluation of RNA interference/gene therapy combination as potential therapeutic approach for Charcot-Marie-Tooth 2A

*E. Abati<sup>1</sup>, F. Rizzo<sup>1</sup>, S. Bono<sup>1</sup>, S. Salani<sup>1</sup>, A. Bordoni<sup>1</sup>, V. Melzi<sup>1</sup>, M.-D. Ruepp<sup>2</sup>, S. Pagliarini<sup>1</sup>, K. Barbullushi<sup>1</sup>, C. Cordiglieri<sup>1</sup>, N. Bresolin<sup>1</sup>, G. Comi<sup>1</sup>, M. Nizzardo<sup>1</sup>, S. Corti<sup>1</sup>*

<sup>1</sup>Milan, Italy, <sup>2</sup>London, United Kingdom

17:15 | O3214

#### Long-term efficacy and safety of inotersen for hereditary transthyretin amyloidosis: 2-year results from the NEURO-TTR open-label extension study

*T. Brannagan<sup>1</sup>, M. Waddington Cruz<sup>2</sup>, A. K. Wang<sup>3</sup>, M. J. Polydefkis<sup>4</sup>, P. J. Dyck<sup>5</sup>, S. Khella<sup>6</sup>, V. Planté-Bordeneuve<sup>7</sup>, J. L. Berk<sup>8</sup>, F. Barroso<sup>9</sup>, G. Merlini<sup>10</sup>, I. Conceicao<sup>11</sup>, S. G. Hughes<sup>12</sup>, J. Kwok<sup>12</sup>, S. W. Jung<sup>12</sup>, S. Guthrie<sup>8</sup>, M. Pollock<sup>8</sup>, M. D. Benson<sup>13</sup>, M. Gertz<sup>5</sup>, T. Coelho<sup>14</sup>*

<sup>1</sup>New York, USA, <sup>2</sup>Rio de Janeiro, Brazil, <sup>3</sup>Orange, <sup>4</sup>Baltimore, <sup>5</sup>Rochester, <sup>6</sup>Philadelphia, USA, <sup>7</sup>Creteil, France, <sup>8</sup>Boston, USA, <sup>9</sup>Buenos Aires, Argentina, <sup>10</sup>Pavia, Italy, <sup>11</sup>Lisbon, Portugal, <sup>12</sup>Carlsbad, USA, <sup>13</sup>Indianapolis, USA, <sup>14</sup>Porto, Portugal

17:30 | O3215

#### Interactions between sex, age and application of nitroglycerin in tilt-induced vasovagal syncope

*M. Ghariq<sup>1</sup>, L. M. Bek<sup>1</sup>, E. van Zwet<sup>1</sup>, D. Benditt<sup>2</sup>, R. Thijs<sup>1</sup>, J. G. van Dijk<sup>1</sup>*

<sup>1</sup>Leiden, The Netherlands, <sup>2</sup>Minneapolis, USA

Monday, 1 July  
17:00 – 18:15



17:45 | O3216

**Correlation between serum IgG levels and INCAT scores in patients with CIDP receiving subcutaneous immunoglobulin (IgPro20) in the PATH study**

X. Ma<sup>1</sup>, D. R. Cornblath<sup>2</sup>, T. Yuraszeck<sup>4</sup>, O. Mielke<sup>3</sup>, V. Bril<sup>4</sup>, H.-P. Hartung<sup>5</sup>, G. Sobue<sup>6</sup>, J.-P. Lawo<sup>3</sup>, M. Praus<sup>3</sup>, B. L. Durn<sup>1</sup>, R. A. Lewis<sup>7</sup>, I. Merkies<sup>8</sup>, I. N. van Schaik<sup>9</sup>, M. A. Tortorici<sup>1</sup>

<sup>1</sup>King of Prussia, USA, <sup>2</sup>Baltimore, USA, <sup>3</sup>Marburg, Germany, <sup>4</sup>Toronto, Canada, <sup>5</sup>Düsseldorf, Germany, <sup>6</sup>Nagoya, Japan, <sup>7</sup>Los Angeles, USA, <sup>8</sup>Maastricht, <sup>9</sup>Amsterdam, The Netherlands

18:00 | O3217

**Baroreflex dysfunction is more severe in patients with a history of moderate or severe TBI than in patients after mild TBI.**

M. J. Hilz<sup>1</sup>, S. Roy<sup>1</sup>, R. Wang<sup>1</sup>, F. Ammon<sup>1</sup>, K. Hösl<sup>2</sup>, J. Markus<sup>1</sup>, D. Muresanu<sup>3</sup>

<sup>1</sup>Erlangen, <sup>2</sup>Nuremberg, Germany, <sup>3</sup>Cluj, Romania

18:15 | O3218

**Paediatric myasthenia gravis: any prognostic factor for disease remission?**

D. Vecchio<sup>1</sup>, S. Ramdas<sup>2</sup>, P. Rodriguez Cruz<sup>2</sup>, D. Hilton-Jones<sup>2</sup>, A. C. Vincent<sup>2</sup>, D. Beeson<sup>2</sup>, M. Pitt<sup>3</sup>, C. Devile<sup>3</sup>, S. Jayawant<sup>2</sup>, P. Munot<sup>3</sup>, S. Robb<sup>3</sup>, J. Palace<sup>2</sup>

<sup>1</sup>Novara, Italy, <sup>2</sup>Oxford, <sup>3</sup>London, United Kingdom

17:00 – 18:15  
Main Auditorium

**Epilepsy 1**

**Chairpersons:**

Marte Helene Bjørk (Bergen, Norway)  
Hanna Cock (London, United Kingdom)

17:00 | O3219

**Long-term consequences of recurrent febrile seizures**

J. Dreier<sup>1</sup>, Y. Sun<sup>1</sup>, J. Christensen<sup>2</sup>

<sup>1</sup>Aarhus, <sup>2</sup>Viby, Denmark

17:15 | O3220

**The slowdown of the high frequency sensory-motor cortical oscillations is associated to cortical GABAergic dysfunction and myoclonus severity in Italian ADCME families**

R. Dubbioso<sup>1</sup>, L. Tomasevic<sup>2</sup>, M. Esposito<sup>1</sup>, L. Bilo<sup>1</sup>, H. R. Siebner<sup>2</sup>, P. Striano<sup>3</sup>, A. Coppola<sup>1</sup>, F. Manganelli<sup>1</sup>

<sup>1</sup>Naples, Italy, <sup>2</sup>Copenhagen, Denmark, <sup>3</sup>Genoa, Italy

17:30 | O3221

**Panel of inflammation-associated microRNAs as genetic generalized epilepsy biomarker**

R. Ferreira, J. Chaves, C. Carvalho, A. Bettencourt, R. J. T. Chorão, R. Samões, J. M. C. F. Lopes, J. E. D. P. Ramalheira, B. Martins Da Silva, A. Martins Da Silva, P. P. Costa, B. Leal

Porto, Portugal

17:45 | O3222

**Pharmacological modification of periictal respiration and effects on SUDEP**

R. Martins, N. Lacuey, L. Villella, J. Hampson, K. Strohl, R. K. Sainju, D. Friedman, M. Nei, C. Scott, S. Schuele, J. Ogren, R. M. Harper, L. Allen, B. Diehl, L. Bateman, O. Devinsky, G. B. Richerson, S. Lhatoo

Cleveland, USA

18:00 | O3223

**Can sexual abuse and fear of birth explain the increased prevalence of Cesarean section in women with epilepsy?**

J. Vederhus, N. E. Gilhus, M. H. Bjørk, E. S. N. Husebye

Bergen, Norway

17:00 – 18:15  
Room Helsinki

**Movement disorders 2**

**Chairpersons:**

Francesca Morgante, (London, United Kingdom)

Jaime Kulisevsky (Barcelona, Spain)

17:00 | O3224

**Randomized delayed-start trial of levodopa in Parkinson's disease**

R. de Bie

Amsterdam, The Netherlands

17:15 | O3225

**Intraneural skin nerve  $\alpha$ -synuclein deposits in Multiple System Atrophy**

V. Donadio<sup>1</sup>, A. Incensi<sup>1</sup>, G. Rizzo<sup>1</sup>, F. Del Sorbo<sup>2</sup>, P. A. Tessitore<sup>3</sup>, R. Cilia<sup>2</sup>, R. Infante<sup>1</sup>, V. Vacchiano<sup>4</sup>, R. de Micco<sup>3</sup>, S. Bonvegna<sup>2</sup>, G. Pezzoli<sup>2</sup>, G. Tedeschi<sup>3</sup>, P. Liguori<sup>1</sup>

<sup>1</sup>Bologna, <sup>2</sup>Milan, <sup>3</sup>Naples, Italy

17:30 | O3226

**Multimodal imaging of neuromelanin and dopamine transporters in Parkinson's disease reveals asymmetrical relationships within the nigrostriatal system**

N. P. Lao-Kaim<sup>1</sup>, A. Martin-Bastida<sup>1</sup>, A.-A. Roussakis<sup>1</sup>, G. Searle<sup>1</sup>, Y. Xing<sup>2</sup>, R. Gunn<sup>1</sup>, S. T. Schwarz<sup>2</sup>, D. P. Auer<sup>2</sup>, P. Piccini<sup>1</sup>, R. Barker<sup>3</sup>

<sup>1</sup>London, <sup>2</sup>Nottingham, <sup>3</sup>Cambridge, United Kingdom

17:45 | O3227

**Dystonia in Europe: a survey towards care from patients' perspectives**

M. Relja<sup>1</sup>, V. Miletić<sup>1</sup>, A. Albanese<sup>2</sup>, K. Bhatia<sup>3</sup>, D. M. Dressler<sup>4</sup>, J. Ferreira<sup>5</sup>, J. K. Krauss<sup>4</sup>, E. Moro<sup>6</sup>, J. Lin<sup>3</sup>, M. Stamelou<sup>7</sup>, M. Tijssen<sup>8</sup>, M. J. D. Vidailhet<sup>9</sup>

<sup>1</sup>Zagreb, Croatia, <sup>2</sup>Milan, Italy, <sup>3</sup>London, United Kingdom, <sup>4</sup>Hanover, Germany, <sup>5</sup>Lisbon, Portugal, <sup>6</sup>Grenoble, France, <sup>7</sup>Athens, Greece, <sup>8</sup>Groningen, The Netherlands, <sup>9</sup>Paris, France

18:00 | O3228

**Selective DBS of the subthalamic nucleus improved motor and non-motor deficits without affecting weight gain in a rat model of Parkinson's disease**

H. Tibar, F. Naudet, B. Ribot, E. Faggiani, A. Benazzouz

Bordeaux, France

# 29<sup>th</sup> Alzheimer Europe Conference

## Making valuable connections

### The Hague, Netherlands

### 23–25 October 2019

[www.alzheimer-europe.org/conferences](http://www.alzheimer-europe.org/conferences)

 #29AEC



# Tuesday 2 July 2019



08:00 – 09:30  
Room Lisbon

### Interactive Session 7: The Do's and Don'ts in neuro- logic emergencies

**Chairperson:**

*Raimund Helbok (Innsbruck, Austria)*

- **Ischemic Stroke**  
*Bernd Kallmuenzer (Erlangen, Germany)*
- **Status epilepticus**  
*Felix Rosenow (Frankfurt, Germany)*
- **Subarachnoid hemorrhage**  
*Erich Schmutzhard (Innsbruck, Austria)*

**Educational content:**

This session will provide an updated recommendation on difficult treatment decisions in the acute phase of ischemic stroke, haemorrhagic stroke and status epilepticus. The concept is based on updated guideline recommendations and covers clinical scenarios which may not be precisely covered by current recommendation.

Please download the app "EAN Congress" to actively participate and vote!

08:00 – 10:00  
Main Auditorium

### Symposium 7: Neuroimaging in common neurologic disorders

**Chairpersons:**

*Massimo Filippi (Milan, Italy)*  
*Christian Enzinger (Graz, Austria)*

- **Neuroimaging in dementing disorders**  
*Mara Ten Kate (Amsterdam, The Netherlands)*
- **Neuroimaging in multiple sclerosis and other immune-mediated inflammatory disorders**  
*Christian Enzinger (Graz, Austria)*
- **Neuroimaging in epilepsy**  
*John Duncan (London, United Kingdom)*
- **Neuroimaging in neuro-oncology**  
*Riccardo Soffietti (Turin, Italy)*

**Scientific Content:**

This Symposium has been jointly organised under the auspices of the panel neuroimaging by the panels dementia and cognitive disorders, stroke, and neuro-oncology to provide state-of-the-art knowledge concerning the use of neuroimaging in the diagnosis, differential-diagnosis, selection for treatments and monitoring response to it in common neurologic disorders. A special emphasis will be laid on existing international guidelines, including a discussion of the chances and challenges involved with their use in the management of patients with these disorders. The course aims primarily at young neurologists in training, or those wishing to refresh/update their basic knowledge in the respective fields. Given the spread of topics, a good overview should be guaranteed, also enabling cross-fertilisation between different fields.

08:00 – 10:00  
Room Paris

### Symposium 8: New insights/developments in stroke treatment

**Chairperson:**

*Urs Fischer (Bern, Switzerland)*  
*Else Charlotte Sandset (Oslo, Norway)*

- **Recanalisation in acute stroke: current status and future developments**  
*Urs Fischer (Bern, Switzerland)*
- **How to improve the detection and the prevention of cardiac embolism**  
*Simona Sacco (L'Aquila, Italy)*
- **Patent Foramen Ovale (PFO) as a possible cause of stroke: how to decide, how to manage**  
*Sara Mazzucco (Oxford, United Kingdom)*
- **Intracerebral haemorrhage (ICH) treatment issues in the acute phase**  
*Adrian Parry-Jones (Manchester, United Kingdom)*

**Scientific Content:**

The symposium will cover four very topical areas in stroke research in which there have been major research advances/new information published in the last 2 years.



Tuesday, 2 July  
08:00 – 10:00



08:00 – 10:00  
Room HoC



### Hands-on Course 15: Bedside examination of the vestibular and ocular motor system – Level 2

#### Chairperson:

*Marianne Dieterich (Munich, Germany)*

- **How to take patient history**  
*Michael Strupp (Munich, Germany)*  
*Alexandre Bisdorff (Luxembourg, Luxembourg)*
- **How to examine the vestibular and ocular motor system**  
*Alexander Tarnutzer (Zurich, Switzerland)*  
*Marianne Dieterich (Munich, Germany)*
- **How to examine binocular control and pupillary function**  
*Gordon Plant (London, United Kingdom)*  
*Konrad Weber (Zurich, Switzerland)*
- **How to diagnose and treat benign paroxysmal positional vertigo**  
*Dominik Straumann (Zurich, Switzerland)*  
*Thomas Brandt (Munich, Germany)*

#### Educational Content:

This hands-on-course will demonstrate and teach the skills required for state-of-the-art bedside testing of patients with vertigo and ocular motor disorders. Each of the four stations covers a cardinal aspect of the examination: (1) history taking, (2) vestibular and ocular motor testing, (3) testing of binocular control (strabismus) and pupillary function (including differentiating between afferent and efferent deficits), and (4) provocation manoeuvres to elicit positional nystagmus (including liberation manoeuvres). Each presenter will stimulate the discussion, highlight possible variations of tests, and allow better interaction with the participants, who are encouraged to practice the demonstrated tests.

Limited to 60 persons. Please register separately – additional fees will apply.

08:30 – 10:00  
Room Nord Norge



### Special Session 10: How to use 'big data' and digital technology to improve epilepsy care and patient outcomes

#### Chairperson:

*Tony Marson (Liverpool, United Kingdom)*

- **Variability in care and the costs of inadequately coordinated care: Lessons from national and international audits**  
*Tony Marson (Liverpool, United Kingdom)*
- **Health informatics and 'big data': Using 'big data' to assess service performance and inform point of care decisions**  
*Jakob Christensen (Aarhus, Denmark)*
- **Digital technologies: Building digital epilepsy care pathways**  
*Colin Doherty (Dublin, Ireland)*

#### Scientific Content:

It is vital that neurologists that see epilepsy patients know about development in health informatics to enable them to develop services, improve efficiency and patient outcomes. Three linked talks are proposed, one on national/multinational audits that use online web systems to capture anonymised data. Most important example is the EBC Value of Treatment of Epilepsy project. The second outlines use of routinely collected health data to provide information on service performance and point of care decisions. The third addresses digital technologies such as 'apps' that can be integrated into patient pathways in order to improve responsiveness of services, diagnostic accuracy, efficiency and patient outcomes.

08:30 – 10:00  
Room CbW



### Case based Workshop 7: EAN/MDS-ES: When "playing" with dopamine goes wrong

#### Chairperson:

*Philippe Damier (Nantes, France)*

- **Tardive syndrome**  
*Bettina Balint (London, United Kingdom)*
- **Acute side effects of antipsychotics (Acute dystonia, neuroleptic malignant syndrome)**  
*Sophie Drapier (Rennes, France)*
- **L-DOPA-induced dyskinesias**  
*Philippe Damier (Nantes, France)*

#### Educational Content:

Cases will be illustrated by videos to perform a detailed analysis of the semiological presentation of the different dopaminergic drug-induced complications. Evidence based treatment options and expert opinions about the management of these complications will be discussed.

Limited to 60 participants. Please register separately – additional fees will apply.

08:30 – 10:00  
Room Sør Norge

## Career Development Session 2: Scientific writing

### Chairperson:

*Bo Norrving (Lund, Sweden)*

- **Grant writing**  
*Masud Husain (Oxford, United Kingdom)*
- **Publication of a scientific paper**  
*Bo Norrving (Lund, Sweden)*
- **How to use media to communicate in science?**  
*Elena Moro (Grenoble, France)*

### Educational Content:

by attending this course, physicians in training and researchers can learn to improve their writing skills, with a focus on:

- Grant writing
- Publication of a scientific paper, including effective ways of organizing and writing the individual sections
- How to use media to communicate in science (social networks, press releases and opinion pieces)

(Masud Husain wrote: <http://pn.bmj.com/content/15/6/474>; Bo Norrving is Editor in chief of the European Stroke Journal; Elena Moro is Editor in chief of EANpages the EAN News blog)

10:30 – 12:30  
Main Auditorium

## Plenary Symposium 4: Highlight Session



### Chairpersons:

*Günther Deuschl (Kiel, Germany)*  
*Tony Marson (Liverpool, United Kingdom)*  
*Erik Taubøll (Oslo, Norway)*

- **Multiple sclerosis**  
*Kjell Morten Myhr (Bergen, Norway)*
- **Movement disorders**  
*Ole Bjørn Tysnes (Bergen, Norway)*
- **Headache**  
*Lars Jacob Stovner (Trondheim, Norway)*
- **Cerebrovascular diseases**  
*Anne Hege Aamodt (Oslo, Norway)*
- **Epilepsy**  
*Erik Taubøll (Oslo, Norway)*

### Highlights from Lancet Neurology

After the presentation of the Congress Highlights, the winners of the Tournament for neurologists in training will be announced and receive their certificates.

Good-bye words & Presentation EAN 2020 Paris.

13:00 – 14:30  
Room Nord Norge

## Special Session 11: Using health registries in neurology: the Norwegian experience

### Chairperson:

*Siri Eldevik Håberg, Deputy director  
Centre for Fertility and Health  
Norwegian Institute of Public Health,  
(Oslo, Norway)*

- **The Norwegian health registries**  
*Siri Eldevik Håberg (Oslo, Norway)*
- **How can MS registries help to improve MS treatment?**  
*Maura Pugliatti (Ferrara, Italy)*
- **National stroke registry data as basis for simulating patient flow**  
*Kim Rand (Lørenskog, Norway)*
- **The "Health atlas" – using quality registries to improve quality and reduce regional differences**  
*Olav Helge Førde (Tromsø, Norway)*

### Scientific Content:

The Scandinavian countries with their unique, all-covering population registries and national health insurance policies have the fundamentals, legislation and infrastructure necessary for forming national health registries and quality registries. Such registries offer excellent opportunities for epidemiologically based research, planning of future health service tasks and quality improvement measures. This session focuses on ways in which some of our registries have contributed and will in the future contribute with important data on neurological disorders and treatment. The session will give an overview on the national policy and focus on traditional epidemiological use of nationwide registries and novel ways to visualise regional variations in treatment quality and to simulate patient flow in the future based on present day epidemiological registry data. The special session is co-sponsored by the Norwegian Brain Council and the Norwegian Institute of Public Health.

Tuesday 2 July  
08:30 – 16:30



13:00 – 14:30  
Room CbW

### Case-based Workshop 8: Challenging neurogenetics phenotypes: acute presenta- tion, management and diagnoses not to miss

**Chairperson:**

*Henry Houlden (London, United Kingdom)*

- **Assessment, differential diagnosis, investigations and management of likely neurogenetic disorders**  
*Lasse Pihlstrøm (Oslo, Norway)*
- **Rapid onset CNS disorders, focussing on ataxia, parkinsonism and white matter**  
*Mathias Toft (Oslo, Norway)*
- **Rapid and Progressive onset of likely inherited seizure disorders, from childhood through to adult onset**  
*Henry Houlden (London, United Kingdom)*

**Educational Content:**

Neurogenetic disorders can present acutely which can make diagnosis, management, treatment and prognosis even harder to make under strained conditions in the acutely unwell patient. A number of examples of this exist in the press as delays in diagnosis and lack of guidelines are highlighted and many of these disorders are diagnosed late. Most neurologists find this area difficult and the disorders that make up the lectures outline the most prevalent. The lectures will also give neurologists an understanding on how to detect the underlying genetic disorders and a framework on which to manage conditions.

Limited to 60 participants. Please register separately – additional fees will apply.

13:00 – 14:30  
Room Lisbon

### Interactive Session 8: Epileptic seizure semiology: What can be inferred from ictal behavioural manifesta- tions for clinical practice?

**Chairperson:**

*Margitta Seeck (Geneva, Switzerland)*

- **Temporal lobe epilepsy**  
*Milan Brázdil (Brno, Czech Republic)*
- **Frontal lobe epilepsy**  
*Hajo Hamer (Erlangen, Germany)*
- **Insular epilepsy**  
*Lorella Minotti (Grenoble, France)*
- **Generalized epilepsy**  
*Margitta Seeck (Geneva, Switzerland)*

**Educational Content:**

This session will focus on lateralising and localising values of distinct behavioural manifestations in focal and generalised seizures. Lectures will be based on high-quality video-recordings of typical as well as rare ictal manifestations with a discussion of their occurrence during the seizure (chronology), and what it means. Typical differential diagnostic features of seizures in focal and generalised epilepsies will be covered and discussed, including combined epilepsy, introduced in new ILAE classification of epilepsies. Seizures in four selected patients will be presented and discussed with the audience. This session is targeted on general neurologists and shall contribute to more accurate diagnostics of epilepsy in the everyday clinical practice.

13:00 – 16:30  
Room Paris

### Teaching Course 15: Eye movements and vesti- bular function in critical care, emergency and ambulatory neurology – Level 2

**Chairperson:**

*Alessandra Rufa (Siena, Italy)*

- **Eye movements and vestibular function in critical care and emergency neurology**  
*Alexander Tarnutzer (Baden, Switzerland)*
- **Eye movements in cognitive and neurodegenerative disorders**  
*Chrystalina Antoniadou (Oxford, United Kingdom)*
- **Eye Movements in muscles, nerves, neuromuscular junction, and functional neurological disorders**  
*Alessandra Rufa (Siena, Italy)*

**Educational Content:**

The first lecture will start with basic examination of eye movement and vestibular function, and identification of basic deficits in ocular motor and vestibular function. This will then lead to disorders of ocular motor and vestibular function in critical care and emergency neurology. The second lecture will discuss disorders of ocular motor and vestibular function in dementias, parkinsonism, cerebellar ataxia, and prion diseases. The third lecture will discuss disorders of ocular motor and vestibular function in myopathies, neuropathies, neuromuscular disorders, and functional neurological disorders.

13:00 – 16:30  
Room Svalbard

### Teaching Course 16: Traumatic Brain Injury, stroke and subarachnoid haemorrhage – How to make an impact in neurocritical care management and research – Level 2

**Chairperson:**

*Ronny Beer (Innsbruck, Austria)*

- **Acute management of TBI, including an outlook on forthcoming TBI trials**  
*Ronny Beer (Innsbruck, Austria)*
- **Neuroimaging, CSF and plasma biomarkers in TBI**  
*Virginia Newcombe (Cambridge, United Kingdom)*
- **Spreading depolarizations and spreading ischemia in TBI, stroke and SAH**  
*Sebastian Major (Berlin, Germany)*
- **Hypothermia for TBI, anoxic ischemic encephalopathy and stroke**  
*Bernd Kallmuenzer (Erlangen, Germany)*

**Educational Content:**

Acute traumatic brain injury (TBI) and Subarachnoid haemorrhage (SAH) are usually considered the domain of neurosurgeons. However, neurologists can make an impact and should get more involved. This Teaching Course starts with a clinical overview of the state-of-the-art management of TBI in the intensive care setting, including data from recent TBI management trials, followed by a comprehensive review of new advancements in neuroimaging and biomarkers. We then give a detailed account of the pathophysiological mechanisms in TBI, SAH and stroke, with particular emphasis on spreading depolarisations and spreading ischemia. Finally, data from recent trials on hypothermia in TBI and other neurocritical care conditions will be presented.

13:00 – 16:30  
Room Jan Mayen 1



### Teaching Course 17: Congenital myasthenic syndromes and the myotonic dystrophies: Diagnostics and possible treatment – Level 3

**Chairpersons:**

*Sissel Løseth (Tromsø, Norway)*

*Kristin Ørstavik (Oslo, Norway)*

- **Congenital myasthenic syndromes (CMS)- clinical and genetic variety and possible treatment**  
*Jacqueline Palace (Oxford, United Kingdom)*
- **The role of Clinical neurophysiology in diagnosing CMS and Myotonic disorders**  
*Sissel Løseth (Tromsø, Norway)*
- **Myotonic dystrophy 1 and 2 (DM1 and 2) – diagnosis, recommendations for care and future treatment options**  
*Cornelia Kornblum (Bonn, Germany)*
- **Interview with a patient and a caregiver on the impacts of Myotonic dystrophy 1**  
*Kristin Ørstavik (Oslo, Norway)*

**Educational Content:**

The participants will get an update on the latest knowledge on genetic variants of CMS and learn how the symptoms are reflected in the different genetic subtypes both in children and adults. They will learn how clinical neurophysiology can be used in diagnosing CMS and hear about the latest advances in treatment of these rare conditions. In the second part we will focus on DM1 and 2 giving a short overview of diagnostics including clinical neurophysiology. This part will focus on the new recommendations for follow-up especially in DM1 and to what extent these conditions affect many organs and thereby leads to a huge impact both on patients and their care-givers. Possible future treatment options are discussed. We will end this TC with an interview with a young man with DM1 and a lecture from a woman who wrote a book about living with DM1 in the family.

13:00 – 16:30  
Room Sør Norge

### Teaching Course 18: Testing of cognitive functions by the neurologist – Level 1

**Chairperson:**

*Armin Schnider (Geneva, Switzerland)*

- **Testing cognitive functions with a view on anatomy**  
*Armin Schnider (Geneva, Switzerland)*
- **Clinical dementia testing: methods and meaning**  
*Eric Salmon (Liège, Belgium)*
- **How to explore confused patients**  
*Jacques Luauté (Lyon, France)*
- **When standardised neuropsychological testing is needed**  
*Lisa Cipolotti (London, United Kingdom)*
- **Discussion, Q&A**  
*All speakers*

**Educational Content:**

While the physical exam is a standard part of neurological training, many neurologists do not feel at ease when it comes to evaluating cognitive dysfunctions.

This teaching course presents methods to clinically explore cognitive functions and to interpret the results with comparable functional and anatomical reliability as the physical exam. It covers the following topics:

- Mental status testing by the neurologist (“bedside testing”): methods to test cognitive functions and anatomical significance of the results.
- Mental testing of patients suspected of suffering from a dementing illness: what tests are useful, what questions can they answer, and what do the results mean?
- Methods to explore patients with disturbed consciousness and patients in a confusional state (delirium). How should these states be documented to follow the clinical course of the patients?

Tuesday, 2 July  
13:00 – 16:30



- When is it necessary to have standardized and quantified evaluation of cognitive functions? In what ways does it differ from “bedside testing” by the neurologist?

All lectures will use examples of clinical cases.

The teaching course should be of interest to neurologists in training and to established neurologist who do not (yet) feel at ease when it comes to evaluating cognitive dysfunctions.

15:00 – 16:30  
Room Lisbon

### Controversy 3: Controversies in pain research: small fiber patho- logy and fibromyalgia, objective markers of pain

#### Chairperson:

*Nadine Attal  
(Boulogne Billancourt, France)*

- **PRO: Small-fiber pathology:  
Could it account for fibromyalgia?**  
*Nurcan Üceyler (Würzburg, Germany)*
- **CON: Small-fiber pathology:  
Could it account for fibromyalgia?**  
*Andrea Truini (Rome, Italy)*

- **PRO: Is there an objective imaging  
marker of pain?**  
*Ulrike Bingel (Hamburg, Germany)*

- **CON: Is there an objective imaging  
marker of pain?**  
*André Mouraux (Louvain, Belgium)*

#### Educational Content:

Part 1: Fibromyalgia has been shown to be associated with small-fiber pathology. The question is whether there is a causal link between the two conditions. The two speakers will present opposing views.

Part 2: Pain is clearly subjective. Imaging represents a new method to look into a black box. The question is whether imaging tools can be used as an objective marker for the subjective response pain. The two speakers will present opposing views.

## 7<sup>TH</sup> CONGRESS OF THE INTERNATIONAL SOCIETY OF INTRAOPERATIVE NEUROPHYSIOLOGY AND EDUCATIONAL COURSE

# ISIN 2019 VIENNA

**ISIN 2019** Vienna-Austria  
October 28 – November 2, 2019



**Congress president:**  
Dr. Klaus Novak

**Conference Organiser:**  
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## Oral Session

08:30 – 10:00  
Room Svalbard

### Late breaking News

#### Chairpersons:

Nils Erik Gilhus (Bergen, Norway)  
Marie Vidailhet (Paris, France)

Presentations will be announced in the online programme.

08:30 – 10:00  
Room Berlin

### Epilepsy 2

#### Chairpersons:

Dag Aurlien (Stavanger, Norway)  
Louise Tyvaert (Nancy, France)

08:30 | O4101

**Imitators of epileptic seizures: a video challenge for non-epileptologists experienced physicians**

*G. Battaqlia, L. Giuliano, G. Mainieri, A. Guccione, G. La Delfa, V. Sofia, M. Zappia*  
Catania, Italy

08:45 | O4102

**VNS responders have a significant higher amount of deep sleep – The Adenosine Hypothesis**

*S. Hödl, E. Carrette, A. Meurs, F. Dewaele, S. Carrette, R. Raedt, P. A. Boon, K. Vonck*  
Ghent, Belgium

09:00 | O4103

**Language delay in children of mothers with epilepsy is associated with the use of antiepileptic drugs – The Norwegian Mother and Child Cohort Study**

*E. S. N. Husebye, A. K. Daltveit, O. Spigset, N. E. Gilhus, M. H. Bjørk*  
Bergen, Norway

09:15 | O4104

**Quality appraisal of guidelines for diagnosis and treatment of rare and complex epilepsies: preliminary results of a survey among partners of the**

**EpiCARE - a European Reference Network for rare and complex epilepsies**

*T. Kobulashvili<sup>1</sup>, F. Brigo<sup>2</sup>, S. Lattanzi<sup>3</sup>, G. Zimmermann<sup>4</sup>, F. Vigeveno<sup>4</sup>, N. Specchio<sup>4</sup>, I. Brambilla<sup>2</sup>, T. Marson<sup>5</sup>, H. Cross<sup>6</sup>, E. Trinka<sup>1</sup>*

<sup>1</sup>Salzburg, Austria, <sup>2</sup>Verona, <sup>3</sup>Ancona, <sup>4</sup>Rome, Italy, <sup>5</sup>Liverpool, <sup>6</sup>London, United Kingdom

09:30 | O4105

**Predictive performances of STESS and EMSE in a Norwegian adult status epilepticus cohort**

*L. B. Ulvin, E. Taubøll, K. B. Olsen, K. Heuser*  
Oslo, Norway

09:45 | O4106

**Effects of an epilepsy-specific digital treatment (emyna) on depression: Results of a randomized controlled trial**

*B. Meyer, M. Zenker*  
Hamburg, Germany

08:30 – 10:15  
Room Amsterdam

### MS and related disorders 2

#### Chairpersons:

Elisabeth Celius (Oslo, Norway)  
Bernhard Hemmer (Munich, Germany)

08:30 | O4107

**Open Label Extension (OLE) of Phase 2 Multicenter Study of Ublituximab (UTX), a Novel Glycoengineered Anti-CD20 Monoclonal Antibody (mAb), in Patients with Relapsing Forms of Multiple Sclerosis (RMS)**

*E. Fox<sup>1</sup>, S. Wray<sup>2</sup>, R. Shubin<sup>3</sup>, K. Mok<sup>4</sup>, S. Power<sup>4</sup>, J. Bosco<sup>4</sup>, M. Weiss<sup>4</sup>, J. Eubanks<sup>4</sup>*  
<sup>1</sup>Round Rock, <sup>2</sup>Knoxville, <sup>3</sup>Pasadena, <sup>4</sup>New York, USA

08:45 | O4108

**Free light chains in the cerebrospinal fluid. Comparison of different methods to determine intrathecal synthesis**

*H. Hegen<sup>1</sup>, J. Walde<sup>1</sup>, D. Milosavljevic<sup>2</sup>, F. Aboulenein-Djamshidian<sup>2</sup>, S. Makbule<sup>3</sup>, H. Tumani<sup>3</sup>, F. Deisenhammer<sup>4</sup>, S. Presslauer<sup>2</sup>*  
<sup>1</sup>Innsbruck, <sup>2</sup>Vienna, Austria, <sup>3</sup>Ulm, Germany

09:00 | O4109

**Efficacy of autologous hematopoietic stem cell transplantation in secondary progressive multiple sclerosis**

*A. Mariottini, S. Filippini, M. Grammatico Di Tullio, B. Forci, C. Innocenti, A. Barilaro, A. Fani, R. Saccardi, L. Massacesi, A. M. Repice*  
Florence, Italy

09:15 | O4110

**Comparative long-term efficacy of beta interferons and azathioprine in relapsing-remitting multiple sclerosis: single center retrospective 25-year evaluation**

*C. Mechi, A. Mariottini, M. Pasca, B. Forci, E. Magnani, A. Barilaro, A. M. Repice, L. Massacesi*  
Florence, Italy

09:30 | O4111

**Axonal degeneration as substrate of fractional anisotropy abnormalities in multiple sclerosis cortex**

*P. Preziosa<sup>1</sup>, S. Kiljan<sup>2</sup>, M. D. Steenwijk<sup>2</sup>, A. Meani<sup>1</sup>, W. D. van de Berg<sup>2</sup>, G. Schenk<sup>2</sup>, M. A. Rocca<sup>1</sup>, M. Filippi<sup>1</sup>, J. Geurts<sup>2</sup>, L. E. Jonkman<sup>2</sup>*  
<sup>1</sup>Milan, Italy, <sup>2</sup>Asterdam, The Netherlands

09:45 | O4112

**Modulation of large-scale functional networks occurs in MS patients starting fingolimod or natalizumab: a 2-year resting state functional connectivity study**

*M. A. Rocca, P. Preziosa, C. Marchetti, P. Valsasina, G. C. Riccitelli, M. Rodegher, L. Moiola, G. Comi, M. Filippi*  
Milan, Italy

10:00 | O4113

**Efficacy of satralizumab (SA237) as add-on therapy in pre-specified additional analyses of SAKuraSky, a double-blind placebo-controlled Phase 3 study in patients with neuromyelitis optica spectrum disorders (NMOSD)**

*T. Yamamura<sup>1</sup>, I. Kleiter<sup>2</sup>, K. Fujihara<sup>3</sup>, J. Palace<sup>4</sup>, B. Greenberg<sup>5</sup>, B. Zakrzewska-Pniewska<sup>6</sup>, F. Patti<sup>7</sup>, C.-P. Tsai<sup>8</sup>, A. Saiz<sup>9</sup>, M. Haramura<sup>1</sup>, Y. Terada<sup>1</sup>, Y. Kawata<sup>1</sup>, J. de Seze<sup>10</sup>*

<sup>1</sup>Tokyo, Japan, <sup>2</sup>Bochum, Germany, <sup>3</sup>Koriyama, Japan, <sup>4</sup>Oxford, United Kingdom, <sup>5</sup>Dallas, USA, <sup>6</sup>Warsaw, Poland, <sup>7</sup>Catania, Italy, <sup>8</sup>Taipei, Taiwan, Chinese Taipei, <sup>9</sup>Barcelona, Spain, <sup>10</sup>Strasbourg, France

Tuesday, 2 July  
08:45 – 10:00



08:45 – 10:00  
Room Jan Mayen 1

### Movement disorders 3

#### Chairpersons:

*Inge Marie Skogserd (Oslo, Norway)*  
*Evžen Růžička (Prague, Czech Republic)*

08:45 | O4114

**Efficacy of NDO612 for nocturnal problems and early morning OFF: A blinded rater study of 2 dosing regimens**  
*F. Stocchi<sup>1</sup>, W. Poewe<sup>2</sup>, S. Oren<sup>3</sup>, C. Durlach<sup>4</sup>, K. Kiebertz<sup>5</sup>, C. Olanow<sup>6</sup>*

<sup>1</sup>Rome, Italy, <sup>2</sup>Innsbruck, Austria, <sup>3</sup>Rehovot, Israel, <sup>4</sup>Rehovot, France, <sup>5</sup>Rochester, USA, <sup>6</sup>New York, USA

09:00 | O4115

**Cortical FDG-PET patterns predict long-term motor progression and disability milestones in Parkinson's disease**

*A. Pilotto<sup>1</sup>, A. Imarisio<sup>1</sup>, E. Premi<sup>1</sup>, S. P. Caminiti<sup>2</sup>, L. Presotto<sup>2</sup>, A. Sala<sup>2</sup>, R. Turrone<sup>1</sup>, R. Grasso<sup>1</sup>, A. Alberici<sup>1</sup>, B. Paghera<sup>1</sup>, M. C. Rizzetti<sup>1</sup>, B. Borroni<sup>1</sup>, D. Perani<sup>2</sup>, A. Padovani<sup>1</sup>*

<sup>1</sup>Brescia, Italy, <sup>2</sup>Milan, Italy

09:15 | O4116

**Design of an open-label, adaptive multiple-dose study to investigate the PK/PD of RG6042 in CSF and plasma following intrathecal administration in patients with HD**

*P. Sanwald Ducray<sup>1</sup>, E. J Wild<sup>2</sup>, A. Portron<sup>1</sup>, Y. Yamamoto<sup>1</sup>, K. Marsh<sup>3</sup>, G. Palermo<sup>1</sup>, L. Boak<sup>1</sup>, S. Schobel<sup>1</sup>*

<sup>1</sup>Basel, Switzerland, <sup>2</sup>London, United Kingdom,

<sup>3</sup>Welwyn Garden City, United Kingdom

09:30 | O4117

**Camptocormia in Parkinson's disease – impaired kinesthesia of the trunk extensors**

*R. Wolke, J. Kutzt-Buschbeck, G. Deuschl, N. G. Margraf*

*Kiel, Germany*

09:45 | O4118

**Structural changes in non-manifesting GBA mutation carriers and GBA mutation carriers with Parkinson's disease**

*T. Yousaf, M. Kershaw, V. C. Suarez Contreras, G. Pagano, P. Vickers, M. Politis*

*London, United Kingdom*

## DAWN OF NEW headache treatments

IHC  
2019

5-8 September | Dublin, Ireland, Convention Centre Dublin

Bringing together colleagues in the field of headache medicine, to learn about the latest advances in headache treatment and share knowledge with our colleagues from around the world

### KEY DATES

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Late breaking abstract submission opens – 1 July 2019

Late breaking abstract submission closes – 31 July 2019



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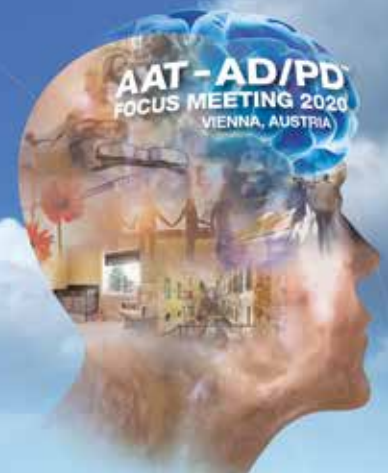
2-5 APRIL 2020 | VIENNA, AUSTRIA

[www.aat-adpd.kenes.com](http://www.aat-adpd.kenes.com)

### ORGANIZING COMMITTEE

Ezio Giacobini, Switzerland, Co-President  
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## 15<sup>th</sup> International Congress of Neuroimmunology

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Programme



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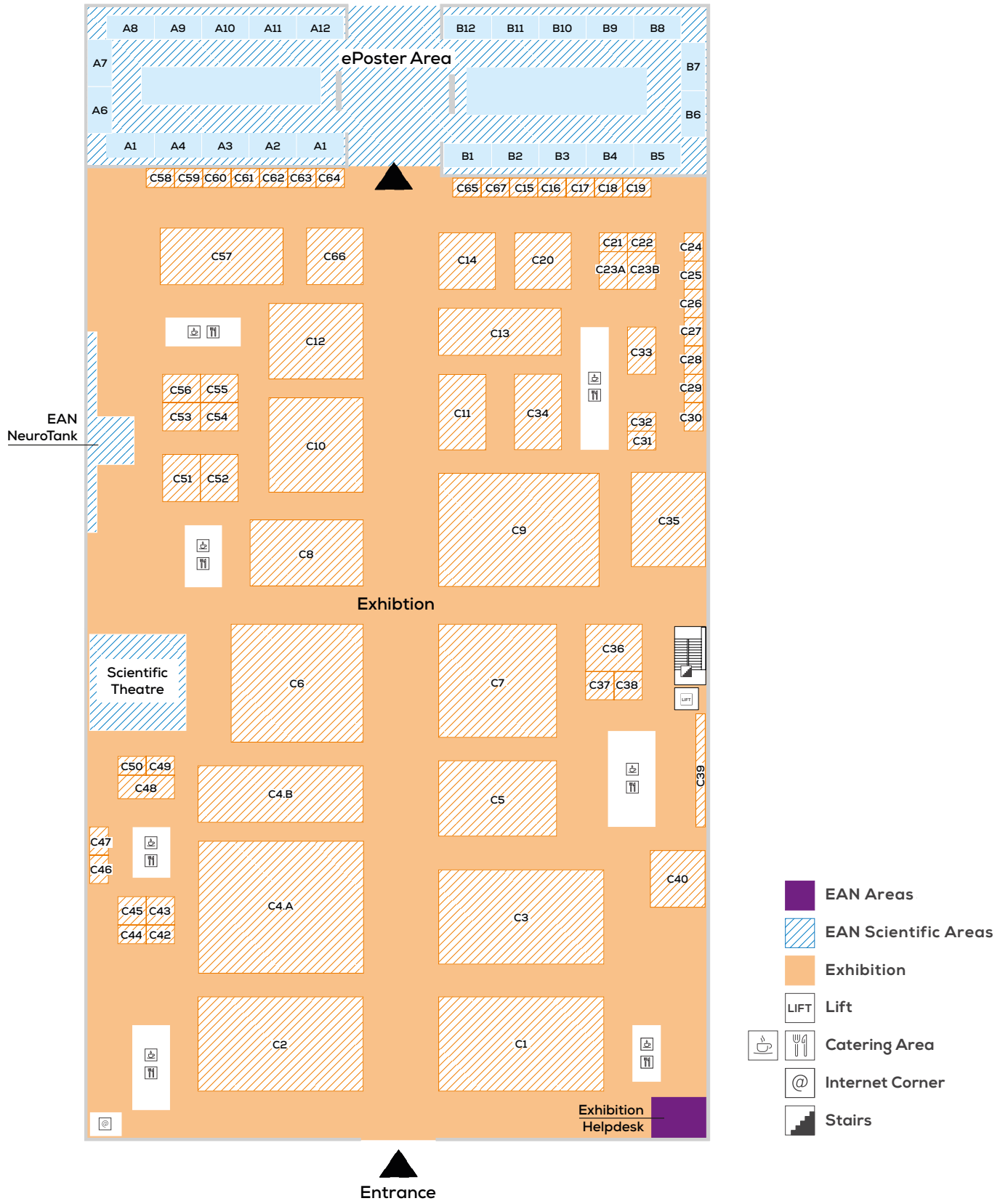


## Exhibitors

Name	Booth Number	Name	Booth Number
AbbVie	C57	Ever Neuro Pharma GmbH	C14
Adelphi Communications	C56	g.tec medical engineering GmbH	C64
Aequus Research Ltd	C22	Hoffmann-La Roche	C5/C7
AFAN	C30	ICNMD	C25
Akcea Therapeutics	C66	Icometrix	C59
Alexion	C20	Impeto Medical	C18
Alnylam	C11	Janssen Neuroscience	C36
American Academy of Neurology	C62	Journal of Medicine and Life	C27
AveXis	C33	Karger Publishers	C32
BIAL	C8	Livanova	C23b
Biogen	C2	Medday Pharmaceuticals SA	C34
Bioprojet	C17	Merck	C9/C35
Boston Scientific	C38	Mitsubishi Tanabe Pharma	C51
British Medical Journal	C31	Movement Disorders Society	C65
CeGat GmbH	C37	Natus Medical Incorporated	C48
Celgene International	C10	Novartis Pharma AG	C1/C3
Cephalon - Scan-Med. als Norway	C58	OPTOMED OY	C63
Deymed Diagnostic SRO	C43	Pfizer	C40
Dystonia Europe	C50	Pharnext	C55
ECTRIMS	C15	PTC Therapeutics	C21
EFAS	C24	Quanterix	C42
EFIC - European Pain Federation	C26	Retrophin Europe Limited	C45
EFNA	C52	Sanofi Genzyme	C6
EFNR/WFNR	C46	Teva	C4a/C4b
EHDN	C44	Turkish Neurological Society	C19
Eli Lilly	C13	Veriton	C49
EpiCare	C60	Wiley	C23a
ERN NEURO-NMD	C61	Wisepress	C39
ERN RND	C61	Wolters Kluwer	C54
ESNCH	C67	World Federation of Neurology (WFN/WCN)	C16
European Brain Council	C28	Zambon	C12
European Charcot Foundation	C29	Zero Gravity Skin	C53
European Headache Federation	C47		



# Exhibition Floorplan



An invitation to physicians and nurses to attend a Satellite Symposium at the  
5<sup>th</sup> EAN Congress, sponsored by Novartis



## Calcitonin gene-related peptide monoclonal antibodies for migraine prevention:

### What the neurologist needs to know

**Saturday 29 June 2019**

**13:00–14:30**

**Room Lisbon**

**Norges Varemesse**

**Lillestrøm, Norway**

This event is organised in accordance with The Association of the Pharmaceutical Industry (LMI) in Norway's local code. Novartis does not cover any costs related to your attendance at the event. Novartis may offer a light meal/refreshments at the event in accordance with local code.

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#### **Welcome and introduction**

Dr Andreas Gantenbein (*RehaClinic, Bad Zurzach, Switzerland*)

#### **How novel targets are changing migraine prevention**

Dr Patricia Pozo Rosich (*Vall d'Hebron University Hospital, Barcelona, Spain*)

#### **Who is the right patient for migraine prevention with calcitonin gene-related peptide monoclonal antibodies?**

Dr Andreas Gantenbein and Professor Dr Heinz Wiendl (*University Hospital Münster, Münster, Germany*)

#### **A patient perspective: living with calcitonin gene-related monoclonal antibodies and why they make a difference**

Audrey Craven (*Migraine Association of Ireland, Dublin, Ireland*)

#### **Managing migraine prevention in every-day practice**

Dr Jack Schim (*University of California San Diego and The Neurology Center of Southern California, CA, USA*) and Dr Peter McAllister (*New England Institute for Neurology and Headache, Stamford, CT, USA*)

#### **Panel discussion and Q&A**

Moderated by Dr Andreas Gantenbein and Dr Patricia Pozo Rosich

#### **Closing remarks**

Dr Patricia Pozo Rosich



# GENE THERAPY IN NEUROMUSCULAR DISEASES: A JOURNEY FROM BENCH TO BEDSIDE

**Saturday 29 June 2019, 13:00 – 14:30**

Svalbard Room  
Norges Varemesse  
Lillestrøm, Norway

*(Lunch boxes will be provided)*

## **Faculty:**

Dr Sean Wallace (Chair)  
Dr Brian Kaspar  
Prof Eugenio Mercuri  
Joana Claverol

This AveXis-sponsored satellite symposium at the 5th EAN Congress will explore the latest advances in gene therapy (GT) research and its potential application for treating neuromuscular diseases in clinical practice, thereby taking the treatment from bench to bedside. Experts will also explore the clinical practicalities and considerations of GT as a real-world treatment.

<b>Time</b>	<b>Presentation Title</b>	<b>Speaker</b>
13:00 – 13:05	<b>Welcome and introduction</b>	<i>Dr Sean Wallace (Chair)</i>
13:05 – 13:25	<b>Delivering cutting-edge science in neurology</b>	<i>Dr Brian Kaspar</i>
13:25 – 13:45	<b>The impact of gene therapy on clinical practice</b>	<i>Prof Eugenio Mercuri</i>
13:45 – 14:05	<b>Practical considerations for the management of gene therapy</b>	<i>Joana Claverol</i>
14:05 – 14:25	<b>Speaker panel discussion</b>	<i>All faculty Facilitated by Chair</i>
14:25 – 14:30	<b>Symposium close</b>	<i>Dr Sean Wallace</i>



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Alnylam-Sponsored Symposium at the  
**European Academy of Neurology (EAN) 2019 Congress**

Oslo, Norway | Saturday, 29 June 2019 | 13:00–14:30 | Jan Mayen 1



# hATTR AMYLOIDOSIS

## — UNRAVELED: —

Linking a Mixed Presentation to One Disease

### FACULTY

**Symposium Chair: Yesim G. Parman, MD**



Professor of Neurology  
Istanbul University  
Istanbul Faculty of Medicine  
Neurology Department  
Neuromuscular Unit

**Theodoros Kyriakides, MB, ChB, BSc (Hons), FRCP (Lon)**



Senior Consultant Neurologist  
Head of Clinic A, Director of Neuropathology Lab  
Professor, Cyprus School of Molecular Medicine  
Cyprus Institute of Neurology and Genetics  
Professor of Neurology University of Nicosia

**Astrid J. Terkelsen, MD, DrMedSc, PhD**



Associate Professor  
Danish Pain Research Center and  
Department of Neurology  
Aarhus University Hospital

### JOIN US TO LEARN ABOUT

the multisystem manifestations and high burden of disease in patients with hereditary transthyretin-mediated (hATTR) amyloidosis

### AGENDA

- A Mixed Spectrum of One Disease
- The Genetics of a Multisystem Hereditary Disease
- The Range of Polyneuropathy: A Deeper Look at Autonomic Manifestations

## Satellite Symposia Programmes

13:00 – 14:30  
 Room Lisbon

### NOVARTIS

#### Calcitonin gene-related peptide monoclonal antibodies for migraine prevention: what the neurologist needs to know

##### Chairpersons:

*Patricia Pozo Rosich (Barcelona, Spain)*

*Andreas Gantenbein (Bad Zurzach, Switzerland)*

##### • Welcome and Introductions

*Andreas Gantenbein (Bad Zurzach, Switzerland)*

##### • How novel targets are changing migraine prevention

*Patricia Pozo Rosich (Barcelona, Spain)*

##### • Who is the right patient for migraine prevention with Calcitonin gene-related peptide monoclonal antibodies?

*Andreas Gantenbein (Bad Zurzach, Switzerland)*

*Heinz Wiendl (Münster, Germany)*

##### • A patient perspective: living with Calcitonin gene-related peptide monoclonal antibodies and why they make a difference

*Audrey Craven (Dublin, Ireland)*

##### • Managing migraine prevention in every-day practice

*Jack Schim (San Diego, USA)*

*Peter McAllister (Stamford, USA)*

##### • Panel Q&A

*All, facilitated by Patricia Pozo Rosich (Barcelona, Spain) and*

*Andreas Gantenbein (Bad Zurzach, Switzerland)*

##### • Summary

*Patricia Pozo Rosich (Barcelona, Spain)*

13:00 – 14:30  
 Room Paris

### BIOGEN

#### Multiple Sclerosis diagnostic challenges and cognitive impairment in a changing world

##### Chairperson:

*Trygve Holmøy (Oslo, Norway)*

##### • Introduction

*Trygve Holmøy (Oslo, Norway)*

##### • Changing demographics: diagnostic challenges and Multiple Sclerosis mimickers

*Bassem Yamout (Beirut, Lebanon)*

*Majda Thurnher (Vienna, Austria)*

##### • Q&A

##### • Recommendations for cognitive screening: reality or utopia?

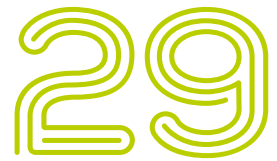
*Ralph Benedict (New York, USA)*

*Carlo Tornatore (Washington DC, USA)*

##### • Closing

*Trygve Holmøy (Oslo, Norway)*

Saturday, 29 June  
13:00 – 14:30



13:00 – 14:30  
Room Svalbard

**AVEXIS**  
**Gene therapy in neuro-muscular diseases:  
a journey from bench to bedside**

**Chairperson:**  
*Sean Wallace (Oslo, Norway)*

- **Welcome and introduction**  
*Sean Wallace (Oslo, Norway)*
- **Delivering cutting-edge science in neurology**  
*Brian Kaspar (Columbus, USA)*
- **The impact of gene therapy on clinical practice**  
*Eugenio Mercuri (Rome, Italy)*
- **Practical considerations for the management of gene therapy**  
*Joana Claverol (Barcelona, Spain)*
- **Speaker panel discussion**  
*All faculty, facilitated by chair*
- **Symposium close**  
*Sean Wallace (Oslo, Norway)*

13:00 – 14:30  
Room Jan Mayen 1

**ALNYLAM  
PHARMACEUTICALS**  
**Hereditary transthyretin amyloidosis (hATTR)  
Unraveled: Linking a Mixed Presentation to  
One Disease**

**Chairperson:**  
*Yesim G. Parman (Istanbul, Turkey)*

- **A Mixed Spectrum of One Disease**  
*Theodoros Kyriakides (Nicosia, Cyprus)*
- **The Genetics of a Multisystem Hereditary Disease**  
*Yesim G Parman (Istanbul, Turkey)*
- **The Range of Polyneuropathy:  
A Deeper Look at Autonomic Manifestations**  
*Astrid J. Terkelsen (Aarhus, Denmark)*

Satellite symposium at the 5<sup>th</sup> EAN Congress, sponsored by Novartis.  
Invitation to physicians and nurses attending EAN.



# Relentless in MS: the continuing mission to stop disease activity

**Sunday 30 June, 12:15–13:15**

Room Lisbon,  
Norway Convention & Exhibition Centre,  
Oslo, Norway

## **Chair's opening and welcome**

Prof. Kjell-Morten Myhr (*University of Bergen, Bergen, Norway*)

## **Early warnings: can we do more for younger patients with MS?**

Dr Kumaran Deiva (*University Hospitals of Paris-Sud, France*)

## **Signal to noise: how do we better detect the transition to SPMS?**

Dr Martin Duddy (*Newcastle University, Newcastle, UK*)

## **Focusing our efforts: how can we meet the individual needs of our patients?**

Prof. Amit Bar-Or (*University of Pennsylvania, Philadelphia, USA*)

## **Q&A and closing remarks**

All faculty

This event is organized in accordance with The Association of the Pharmaceutical Industry (LMI) in Norway's local code. Novartis does not cover your costs related to attending the event. Novartis may offer a light meal/refreshments at event in accordance with local code. Novartis processes personal data in accordance with Personal Information Act and GDPR. We respect your rights to access the personal information stored about you. You have the right to request correcting or deleting such information, as well as requesting the removal of personal data about you, please contact [dataprivacy.nordics@novartis.com](mailto:dataprivacy.nordics@novartis.com) or visit [www.novartis.no](http://www.novartis.no).





We invite you to come along to our Satellite Symposia at the 5th EAN Congress. Whether you have an interest in Multiple Sclerosis or Spinal Muscular Atrophy, we have some hot topics and expert presenters to keep you informed. Choose your area of interest from the timetables presented.



**A WARM WELCOME  
TO EAN 2019  
FROM BIOGEN**

## Multiple Sclerosis Satellite Symposium

### MS diagnostic challenges and cognitive impairment in a changing world

Oslo, Saturday June 29th – 13.00-14.30 – Room Paris, Norges Varemesse congress centre

13:00-13:10	Introduction Chair	<b>Trygve Holmøy</b> Akershus University Hospital, Lørenskog, Norway
13:10-13:50	Changing demographics: diagnostic challenges and MS mimickers	<b>Bassem Yamout</b> American University of Beirut, Beirut, Lebanon <b>Majda Thurnher</b> Medical University of Vienna, Vienna, Austria
13:50-13:55	Q&A	
13:55-14:25	Recommendations for cognitive monitoring: reality or utopia?	<b>Ralph Benedict</b> Jacobs School of Medicine and Biomedical Sciences University of Buffalo, Buffalo, NY <b>Carlo Tornatore</b> Georgetown University Medical Center, Washington, DC
14:25-14:30	Closing Chair	<b>Trygve Holmøy</b> Akershus University Hospital, Lørenskog, Norway

## Spinal Muscular Atrophy Satellite Symposium

### Spinal muscular atrophy in adults: patient management in the new therapeutic area

Oslo, Sunday June 30th – 12:15-13:15 – Jan Mayen 1 Room, Norges Varemesse congress centre

12:15-12:20	Welcome and introduction	<b>Valeria Sansone (Chair)</b> NEuroMuscular Omnicentre (NEMO), Milan, Italy
12:20-12:35	Natural history studies and real-world evidence in treated adults	<b>Susanne Petri</b> Hannover Medical School, Hannover, Germany
12:35-12:50	Transition of care from paediatrics to adults	<b>Valeria Sansone</b> NEuroMuscular Omnicentre (NEMO), Milan, Italy
12:50-13:05	How can we manage patients' treatment expectations in later-onset SMA?	<b>Vivian Drory</b> Tel Aviv Sourasky Medical Center, Tel Aviv, Israel
13:05-13:15	Discussion and Q&A	<b>All faculty</b>



# NOVEL TALES OF THE UNEXPECTED: UNCOVERING THE PATH TO EARLIER DIAGNOSIS IN NEUROMUSCULAR DISEASES

**SUNDAY 30 JUNE 2019, 13:00–14:30**

Sør Norge, Thon Hotel, Norges Varemesse, Lillestrøm

Satellite Symposium at the 5<sup>th</sup> EAN Congress

Oslo, 29 June–2 July, 2019

**A SANOFI  
GENZYME  
SYMPOSIUM**

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April 2019

**SANOFI GENZYME** 

# Optimism and opportunities with anti-CGRP biologics in migraine

- where are we today?



**Sunday, 30 June 2019**

**13:45–14:45**

Room Lisbon

## Programme



Migraine in 2019: what are the greatest unmet needs?

Messoud Ashina, Denmark

Anti-CGRP biologics:  
a new era for migraine prevention



Anthony Dickenson, UK



Changing pathways, changing lives:  
taking control of migraine management

Zaza Katsarava, Germany

The right treatment for  
the right patients



Patricia Pozo Rosich, Spain



Closing remarks

Messoud Ashina, Denmark

## Satellite Symposia Programmes

---

12:15 – 13:15  
 Room Lisbon

**NOVARTIS**  
**Relentless in Multiple Sclerosis:  
 the continuing mission to stop disease activity**

**Chairperson:**

*Kjell-Morten Myhr (Bergen, Norway)*

- **Chair's opening and welcome**  
*Kjell-Morten Myhr (Bergen, Norway)*
- **Early warnings: can we do more for younger patients with Multiple Sclerosis?**  
*Kumaran Deiva (Le Kremlin Bicetre, France)*
- **Signal to noise: how do we better detect the transition to Secondary progressive Multiple Sclerosis?**  
*Martin Duddy (Newcastle, United Kingdom)*
- **Focusing our efforts: how can we meet the individual needs of our patients?**  
*Amit Bar-Or (Philadelphia, USA)*
- **Q&A and closing remarks**  
*All faculty*

12:15 – 13:15  
 Room Jan Mayen 1

**BIOGEN**  
**Spinal muscular atrophy in adults: patient  
 management in the new therapeutic era**

**Chairperson:**

*Valeria Sansone (Milan, Italy)*

- **Opening and introduction**  
*Valeria Sansone (Milan, Italy)*
- **Natural history studies and real-world evidence in treated adults**  
*Susanne Petri (Hannover, Germany)*
- **Transition of care from paediatrics to adults**  
*Valeria Sansone (Milan, Italy)*
- **How can we manage patients' treatment expectations in later-onset spinal muscular atrophy?**  
*Vivian Drory (Tel Aviv, Israel)*
- **Discussion and Q&A**  
*All faculty*

Sunday, 30 June  
13:00 – 14:45



13:00 – 14:30  
Room Sør Norge

## SANOFI GENZYME

### Novel tales of the unexpected: Uncovering the path to earlier diagnosis in muscular diseases

**Chairperson:**

*Peter Young (Bad Feilnbach, Germany)*

- **Symposium introduction**  
*Peter Young (Bad Feilnbach, Germany)*
- **Case 1: Unknown progressive respiratory insufficiency**  
*Stephan Wenninger (Munich, Germany)*
- **Case 2: Obstacles on the road to diagnosis**  
*Anthony Behin (Paris, France)*
- **Case 3: Magnetic Resonance Imaging: the magnifying glass of accurate diagnosis**  
*Jordi Diaz Manera (Barcelona, Spain)*
- **Muscle disease diagnosis: an exercise in deduction**  
*Peter Young (Bad Feilnbach, Germany)*
- **Closing remarks/take home messages**  
*Peter Young (Bad Feilnbach, Germany)*

13:45 – 14:45  
Room Lisbon

## TEVA

### Optimism and opportunities with anti-CGRP (Calcitonin Gene-Related Peptide) biologics in migraine – where are we today?

**Chairperson:**

*Messoud Ashina (Copenhagen, Denmark)*

- **Migraine in 2019: what are the greatest unmet needs?**  
*Messoud Ashina (Copenhagen, Denmark)*
- **Anti-CGRP (Calcitonin Gene-Related Peptide) biologics: a new era for migraine prevention**  
*Anthony Dickenson (London, United Kingdom)*
- **Changing pathways, changing lives: taking control of migraine management**  
*Zaza Katsarava (Unna, Germany)*
- **The right treatment for the right patients**  
*Patricia Pozo-Rosich (Barcelona, Spain)*
- **Closing remarks**  
*Messoud Ashina (Copenhagen, Denmark)*

# The MS paradigm – Can we do better?

---

**Sunday 30 June 2019**

**13:45 - 14:45**

**Room Paris**

Refreshments will be served

---

## **Expert panel:**

*Gavin Giovannoni (UK)*

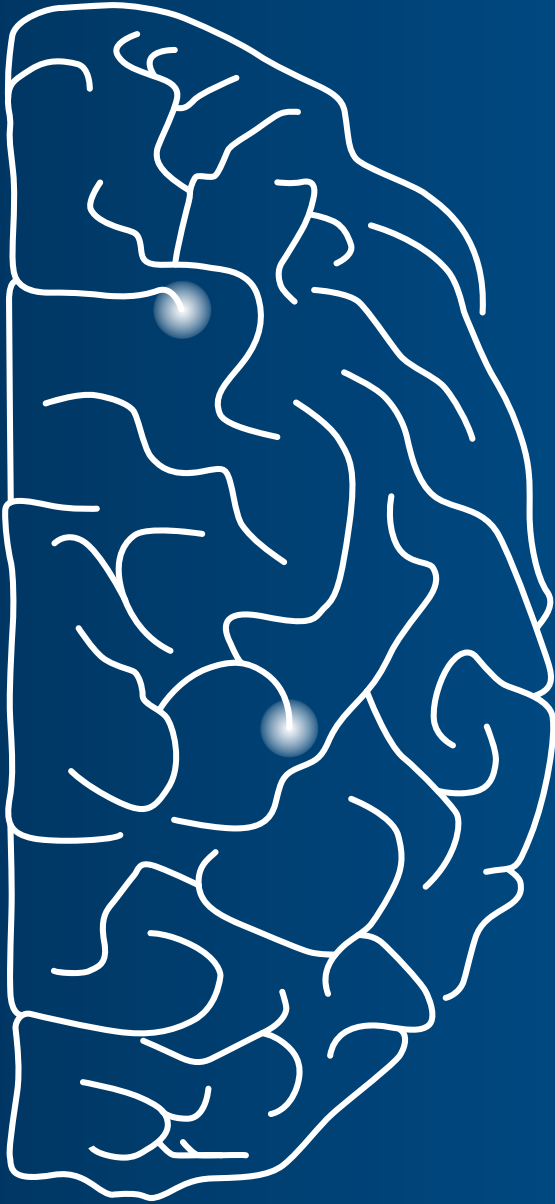
*Ralf Gold (DE)*

*Patrick Vermersch (FR)*

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## **Join us to discuss:**

- Can we minimise time to diagnosis and treatment initiation?
  - What are the implications of early, high-efficacy treatment?
  - How can regular monitoring and holistic MS care preserve long-term patient function?
- 



**Bial**

Keeping life  
in mind.

**ean**  
the home of neurology

Satellite Symposium at the  
5<sup>th</sup> Congress of the European  
Academy of Neurology 2019

# BEYOND MOTOR WEARING-OFF:

## WHAT HAVE WE LEARNED?

### AGENDA

**Professor Werner Poewe**

INNSBRUCK, AUSTRIA

Chairman's introduction

**Professor Angelo Antonini**

PADUA, ITALY

The spectrum of wearing-OFF:  
motor features

**Professor K Ray Chaudhuri**

LONDON, UK

The spectrum of wearing-OFF:  
non-motor features

**Professor Maria C Rodríguez Oroz**

PAMPLONA, SPAIN

Non-invasive treatment options  
for wearing-OFF

Panel discussion

Lunch bags available for symposium attendees

Sunday  
30<sup>th</sup> June 2019  
13:45-14:45

Svalbard Room  
Norway Convention &  
Exhibition Centre, Oslo

This symposium is organised and fully sponsored by BIAL  
ON/APR19/G/076 Date of preparation: April 2019

# YOU ARE CORDIALLY INVITED TO THE MERCK EVENTS AT THE 5TH EAN CONGRESS

## Forum Talks

Scientific Theatre, Exhibition Hall,  
Norges Varemesse, Oslo, Norway

### Family planning for patients with multiple sclerosis

Kerstin Hellwig, Germany

16:30–16:45, Saturday 29 June 2019

### Cladribine Tablets real-world experience: the Finnish experience

Hanna Kuusisto, Finland

09:45–10:00, Sunday 30 June 2019

### Managing switching between high-efficacy treatments in relapsing multiple sclerosis: lessons from Cladribine Tablets

Celia Oreja-Guevara, Spain

16:15–16:30, Monday 1 July 2019

## Satellite Symposium

Room Lisbon,  
Norges Varemesse, Oslo, Norway

### Recent advancements in the management of relapsing multiple sclerosis

Co-chairs: Giancarlo Comi, Italy and Elisabeth Celius, Norway

Kerstin Hellwig, Germany  
Bassem Yamout, Lebanon

13:45–14:45,  
Monday 1 July 2019

**MAVENCLAD**<sup>®</sup>: Abbreviated Summary of Product Characteristics **MAVENCLAD**<sup>®</sup> (cladribine tablets) Presentations: MAVENCLAD 10 mg tablets

**QUALITATIVE AND QUANTITATIVE COMPOSITION** Each tablet contains 10 mg of cladribine

**INDICATIONS**  
MAVENCLAD is indicated for the treatment of adult patients with highly active relapsing multiple sclerosis (MS) as defined by clinical or imaging features.

**DOSE AND ADMINISTRATION**  
Treatment with MAVENCLAD must be initiated and supervised by a physician experienced in the treatment of MS. The recommended cumulative dose of MAVENCLAD is 3.5 mg/kg body weight over 2 years, as one treatment course of 1.75 mg/kg/year. Each treatment course consists of two treatment weeks, one at the beginning of the first month and one at the beginning of the second month of the respective treatment year. Each treatment week consists of 4 or 5 days of treatment at 10 mg or 20 mg as 3 single daily doses, depending on body weight. Following completion of the two treatment courses, no further cladribine treatment is required in Years 3 and 4. Re-initiation of therapy after Year 4 has not been studied. Lymphocyte counts must be normal before initiating MAVENCLAD in Year 1 or at least 800 cells/mm<sup>3</sup> before initiating MAVENCLAD in Year 2. If necessary, the treatment course in Year 2 can be delayed for up to 6 months to allow for recovery of lymphocytes. If this recovery takes more than 6 months, the patient should not receive MAVENCLAD any more.

**CONTRAINDICATIONS**  
Hypersensitivity to cladribine or any of the excipients, infection with human immunodeficiency virus, active chronic infection (tuberculosis or hepatitis), initiation of treatment in immunocompromised patients, including patients currently receiving immunosuppressive or myelosuppressive therapy, active malignancy, moderate or severe renal impairment or in pregnancy and breastfeeding.

**PRECAUTIONS**  
Cladribine's mode of action is closely linked to a reduction in lymphocyte count. The effect on lymphocyte count is dose-dependent. Decreases in neutrophil count, red blood cell count, haematocrit, haemoglobin or platelet count have also been observed in clinical studies, although these parameters usually remain within normal limits. Lymphocyte counts must be determined prior to therapy in Years 1 and 2, and at 2 and 6 months after start of treatment in each treatment year. Cladribine can reduce the body's immune defence and may increase the likelihood of infections. HIV infection, active tuberculosis and active hepatitis must be excluded before initiation of cladribine. Screening for latent infections, including tuberculosis and hepatitis B and C, must be performed prior to initiation of therapy in Years 1 and 2. A delay in initiation of cladribine should also be considered in patients with an acute infection until the infection has been adequately treated. Vaccination of patients negative for varicella zoster virus antibodies is recommended prior to initiation of MAVENCLAD therapy; treatment with MAVENCLAD must be postponed for 4 to 6 weeks to allow for the full effect of vaccination to occur. The incidence of herpes zoster was increased in patients on cladribine; anti-herpes prophylaxis should be considered during Grade 4 lymphopenia. Cases of progressive multifocal leukoencephalopathy have been reported for parenteral cladribine in patients treated for hairy cell leukaemia with a different treatment regimen. In the clinical study database of cladribine in MS (1,976 patients, 8,650 patient-years) no case of PML has been reported. Baseline magnetic resonance imaging (MRI) should be performed before initiating MAVENCLAD. Malignancies were observed more frequently in cladribine-treated patients than in patients who received placebo in clinical trials. In patients who require blood transfusion, irradiation of cellular blood components is recommended prior to administration to prevent transfusion-related graft-versus-host disease. In patients previously treated with immunomodulatory or immunosuppressive medicinal products, the mode of action and duration of effect of the other medicinal product should be considered prior to initiation of MAVENCLAD. When switching from another MS medicinal product, a baseline MRI should be performed, usually within 3 months. Use of MAVENCLAD is not recommended in patients with moderate or severe hepatic impairment. MAVENCLAD contains sorbitol. Patients with hereditary problems of fructose intolerance should not take this medicinal product.

**INTERACTIONS**  
MAVENCLAD contains hydroxypropylbetadex, which may be available for complex formation with other medicinal products, potentially leading to an increase in bioavailability of such a product. It is recommended that administration of any other oral medicinal product be separated from that of MAVENCLAD by at least 3 hours. Initiation of cladribine treatment is contraindicated in immunocompromised patients because of a risk of additive effects on the immune system. The use of MAVENCLAD with interferon beta results in an increased risk of lymphopenia. Additive haematological adverse reactions may be expected if cladribine is administered prior to, or concomitantly with, other substances that affect the haematological profile. Treatment with MAVENCLAD should not be initiated within 4 to 6 weeks after vaccination with live or attenuated live vaccines because of a risk of active vaccine infection. Inhibition of breast cancer resistance protein (BCRP or ABCG2) in the gastrointestinal tract may increase the oral bioavailability and systemic exposure of cladribine. The bioavailability, intracellular distribution and renal elimination of cladribine may theoretically be altered by potent equilibrative nucleoside (ENT1) and concentrative nucleoside (CNT3) transporter inhibitors. It is recommended that co-administration of potent ENT1, CNT3 or BCRP inhibitors be avoided. A possible decrease in cladribine exposure should be considered if potent BCRP or P-glycoprotein transporter inducers are co-administered. It is unknown whether cladribine may reduce the effectiveness of systemically acting hormonal contraceptives (see below).

**FERTILITY, PREGNANCY, LACTATION**  
Before initiation of treatment in both Years 1 and 2, women of childbearing potential and males who could potentially father a child should be counselled regarding the potential for serious risk to the fetus and the need for effective contraception. In women of childbearing potential, pregnancy must be excluded before the initiation of MAVENCLAD in Years 1 and 2, and prevented by use of effective contraception during cladribine treatment and for at least 6 months after the last dose. Women using systemically acting hormonal contraceptives should add a barrier method during cladribine treatment and for at least 4 weeks after the last dose in each treatment year. Women who become pregnant during therapy with MAVENCLAD should discontinue treatment. Male patients must take precautions to prevent pregnancy of their partner during cladribine treatment and for at least 6 months after the last dose. Cladribine could cause congenital malformations when administered during pregnancy. Studies in animals have shown reproductive toxicity. MAVENCLAD is contraindicated in pregnant women. It is not known whether cladribine is excreted in human milk. Because of the potential for serious adverse reactions in breastfed infants, breastfeeding is contraindicated during treatment with MAVENCLAD and for 1 week after the last dose.

**UNDESIRABLE EFFECTS**  
The most clinically relevant adverse reactions reported in patients with MS who received MAVENCLAD at the recommended cumulative dose of 3.5 mg/kg over 2 years in clinical studies were lymphopenia and herpes zoster. Very common: lymphopenia. Common: oral herpes, dermatomal herpes zoster, decrease in neutrophil count, rash, alopecia. Very rare: tuberculosis. Prescribers should consult the Summary of Product Characteristics in relation to other adverse reactions.

**MARKETING AUTHORISATION HOLDER**  
Merck Europe B.V. Gustav Mahlerplein 102, 1082 MA Amsterdam, The Netherlands

**MARKETING AUTHORISATION NUMBER(S)**: EU/1/17/1212/001, EU/1/17/1212/002, EU/1/17/1212/003, EU/1/17/1212/004, EU/1/17/1212/005, EU/1/17/1212/006

Detailed information on this medicinal product is available on the website of the European Medicines Agency <http://www.ema.europa.eu>.

Date of Summary of Product Characteristics: July 2018

Date of preparation of abbreviated Summary of Product Characteristics: July 2018





## Satellite Symposia Programmes

Sunday, 30 June  
13:45 – 14:45



13:45 – 14:45  
Room Paris

### **ROCHE** The Multiple Sclerosis paradigm – can we do better?

**Expert panel:**

*Gavin Giovannoni (London, United Kingdom)*

*Ralf Gold (Bochum, Germany)*

*Patrick Vermersch (Lille Cedex, France)*

• **Join us to discuss:**

- Can we minimise time to diagnosis and treatment initiation?
- What are the implications of early, high-efficacy treatment?
- How can regular monitoring and holistic Multiple Sclerosis care preserve long-term patient function?

13:45 – 14:45  
Room Svalbard

### **BIAL** Beyond motor wearing-OFF: What have we learned?

**Chairperson:**

*Werner Poewe (Innsbruck, Austria)*

- **Introduction**  
*Werner Poewe (Innsbruck, Austria)*
- **The Spectrum of wearing-OFF: Motor features**  
*Angelo Antonini (Padua, Italy)*
- **The Spectrum of wearing-OFF: Non-motor features**  
*K. Ray Chaudhuri (London, United Kingdom)*
- **Non-invasive treatment options for wearing-OFF**  
*Maria C. Rodríguez-Oroz (Barakaldo, Spain)*
- **Panel discussion**  
*All*

## Satellite Symposia Programmes

Sunday, 30 June  
18:30 – 20:00

18:30 – 20:00  
Room Lisbon

### SUNOVION From "OFF" To "ON" – Treating "OFF" Episodes In Parkinson's Disease

**Chairperson:**

*Fabrizio Stocchi (Rome, Italy)*

- **Phenomenology And Clinical Significance Of "OFF" Episodes in Parkinson's Disease**  
*Werner Poewe (Innsbruck, Austria )*
- **Current Approaches To The Treatment Of "OFF" Episodes in Parkinson's Disease**  
*Olivier Rascol (Toulouse Cedex, France)*
- **New Therapies For The Acute Treatment Of "OFF" Episodes In Parkinson's Disease**  
*Fabrizio Stocchi (Rome, Italy)*
- **Panel Discussion**  
*All*

18:30 – 20:00  
Room Paris

### ELI LILLY Successfully navigating the practice of migraine prevention

**Chairperson:**

*Manjit Matharu (London, United Kingdom)*

- **Chairman introduction – Guidelines (2019)**  
*Manjit Matharu (London, United Kingdom)*
- **Calcitonin Gene-Related Peptide monoclonal antibodies: What can we expect from treatment?**  
*Gisela Terwint (Leiden, The Netherlands)*
- **Patient outcomes and clinical assessment. How do I measure effect?**  
*Jan Brandes (Nashville, USA)*
- **Panel discussion, Questions & Answers and Close**  
*All faculty*

Sunday, 30 June  
18:30 – 20:00

30

18:30 – 20:00  
Room Svalbard

## UCB

### Childhood to adulthood transition in Neurology: How to best orchestrate the transition within epilepsy

#### Chairperson:

*Morten Lossius (Oslo, Norway)*

- **Chairman opening**  
*Morten Lossius (Oslo, Norway)*
- **Challenges and solutions during the transition from childhood to adulthood in neurological disorders**  
*Alessandro Simonati (Verona, Italy)*

- **How to ensure an holistic, seamless transition in epilepsy. Integrated perspectives on challenges and needs from the patient and the physician**  
*Rima Nabbout (Paris, France)*  
*Andreas Schulze-Bonhage (Freiburg, Germany)*
- **Facilitated discussion with Panel & Audience**  
*Morten Lossius (Oslo, Norway)*  
*Rima Nabbout (Paris, France)*  
*Guido Rubboli (Dianalund, Denmark)*  
*Susanne Schubert-Bast (Frankfurt, Germany)*  
*Andreas Schulze-Bonhage (Freiburg, Germany)*  
*Alessandro Simonati (Verona, Italy)*  
*Caregiver*

Satellite Symposium at the 5th EAN Congress

# Successfully navigating the practice of migraine prevention

Sunday 30th June 2019 | 18:30 – 20:00 | Room Paris, Norges Varemesse | Oslo, Norway

## SYMPOSIUM OBJECTIVES

- Review 2019 guidelines with focus on CGRP monoclonal antibodies
- Understand the clinical approach to treating migraine
- Discuss clinical meaningfulness of data and management

## SYMPOSIUM CHAIR

Manjit Matharu, MD, PhD, FRCP (United Kingdom)

## AGENDA

- 18:30 – 18:45** Chairman introduction – Guidelines (2019)  
**Manjit Matharu, MD, PhD, FRCP (United Kingdom)**
- 18:45 – 19:15** CGRP monoclonal antibodies: What can we expect from treatment?  
**Gisela Terwindt, MD, PhD (The Netherlands)**
- 19:15 – 19:45** Patient outcomes and clinical assessment: How do I measure effect?  
**Jan Brandes, MD (United States)**
- 19:45 – 20:00** Panel discussion, questions & answers and close  
**All faculty**

## Satellite Symposia Programmes

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12:15 – 13:15  
 Room Lisbon

### CELGENE

#### Therapeutic Inertia in Multiple Sclerosis: A Call to Action!

**Chairperson:**

*Xavier Montalban (Toronto, Canada)*

- **Welcome and Introductions**  
*Xavier Montalban (Toronto, Canada)*
- **What is Therapeutic Inertia in Multiple Sclerosis Care?**  
*Gustavo Saposnik (Toronto, Canada)*
- **Optimising Decision Making in Multiple Sclerosis to Overcome Therapeutic Inertia**  
*Volker Limmroth (Cologne, Germany)*
- **Defined Therapeutic Goals for Better Treatment Choices**  
*Patrick Vermersch (Lille, France)*
- **Meeting Close**  
*Xavier Montalban (Toronto, Canada)*

12:15 – 13:15  
 Room Jan Mayen 1

### ZAMBON

#### Optimizing levodopa therapy: searching for the evidence, looking beyond the data

**Chairpersons:**

*Tove Henriksen (Copenhagen, Denmark)*

*Gaëtan Garraux (Liege, Belgium)*

- **How to manage Parkinson's Disease progression: from evidence-based to empiric decision**  
*Javier Pagonabarraga (Barcelona, Spain)*
- **Interactive patient case series: treatment challenges in mid- to late-stage Parkinson's Disease**
  1. Early-fluctuating Parkinson's Disease patient
  2. Fluctuating patient Parkinson's Disease patient*Gaëtan Garraux (Liege, Belgium)*
- **Take home messages**  
*Tove Henriksen (Copenhagen, Denmark)*

Monday, 1 July  
13:00 – 14:30



13:00 – 14:30  
Room Svalbard

## AKCEA Navigating the Accurate Diagnosis of Rare Neuropathies

**Chairperson:**  
*Ole Suhr (Umeå, Sweden)*

- **Embarking on a diagnostic journey:  
The importance of differential diagnosis in rare neuropathies**  
*Yesim Parman (Istanbul, Turkey)*
- **A compass to lead the way: The role of genetic testing in  
diagnosing hereditary neuropathies**  
*Violaine Planté-Bordeneuve (Créteil, France)*
- **In deep water: The risk and burden of hereditary transthyretin  
amyloidosis (hATTR) with polyneuropathy**  
*Ole Suhr (Umeå, Sweden)*
- **Stemming the tide: Monitoring polyneuropathy disease  
progression in the real world**  
*Márcio Neves Cardoso (Porto, Portugal)*
- **Questions & Answers**

13:00 – 14:30  
Room Sør Norge

## ALEXION How can we improve patient outcomes in difficult-to-treat myasthenia gravis? An interactive discussion

**Chairperson:**  
*John Vissing (Copenhagen, Denmark)*

- **Welcome and introduction**  
*John Vissing (Copenhagen, Denmark)*
- **What does difficult-to-treat myasthenia gravis look like?  
A clinical guide**  
*John Vissing (Copenhagen, Denmark)*
- **What lies beneath? The pathophysiology and treatment  
of anti-AChR (Acetylcholine Receptor) antibody-positive  
myasthenia gravis**  
*Heinz Wiendl (Münster, Germany)*
- **Putting complement inhibition into practice:  
What does the evidence say?**  
*Saiju Jacob (Birmingham, United Kingdom)*
- **Panel discussion, questions and close**  
*All*



In Multiple Sclerosis—

# GREY MATTERS, TOO

Think White and Grey to Complete the Picture

## Satellite Symposium at the 5<sup>th</sup> EAN Congress

### Therapeutic Inertia in Multiple Sclerosis: A Call to Action!

Room Lisbon

Monday 1<sup>st</sup> July 2019, 12:15–13:15

Chair: *Xavier Montalban – Toronto, Canada*

#### What is Therapeutic Inertia in Multiple Sclerosis Care?

*Gustavo Saposnik – Toronto, Canada*

#### Optimising Decision Making in Multiple Sclerosis to Overcome Therapeutic Inertia

*Volker Limmroth – Cologne, Germany*

#### Defined Therapeutic Goals for Better Treatment Choices

*Patrick Vermersch – Lille, France*

## 3-Day Satellite Sessions at the 5<sup>th</sup> EAN Congress

Room Budapest

Saturday 29<sup>th</sup> June 2019, 16:15–16:45

#### How to Interpret Published Data?

*Maria Pia Sormani – Genoa, Italy*

Sunday 30<sup>th</sup> June 2019, 09:30–10:00

#### How to Apply McDonald 2017 Criteria?

*Hans-Peter Hartung – Düsseldorf, Germany*

Tuesday 2<sup>nd</sup> July 2019, 10:00–10:30

#### Are Brain Atrophy and Cognition Important in the Treatment of Early Multiple Sclerosis?

*Dawn Langdon – London, UK*



# How can we improve patient outcomes in difficult-to-treat myasthenia gravis?

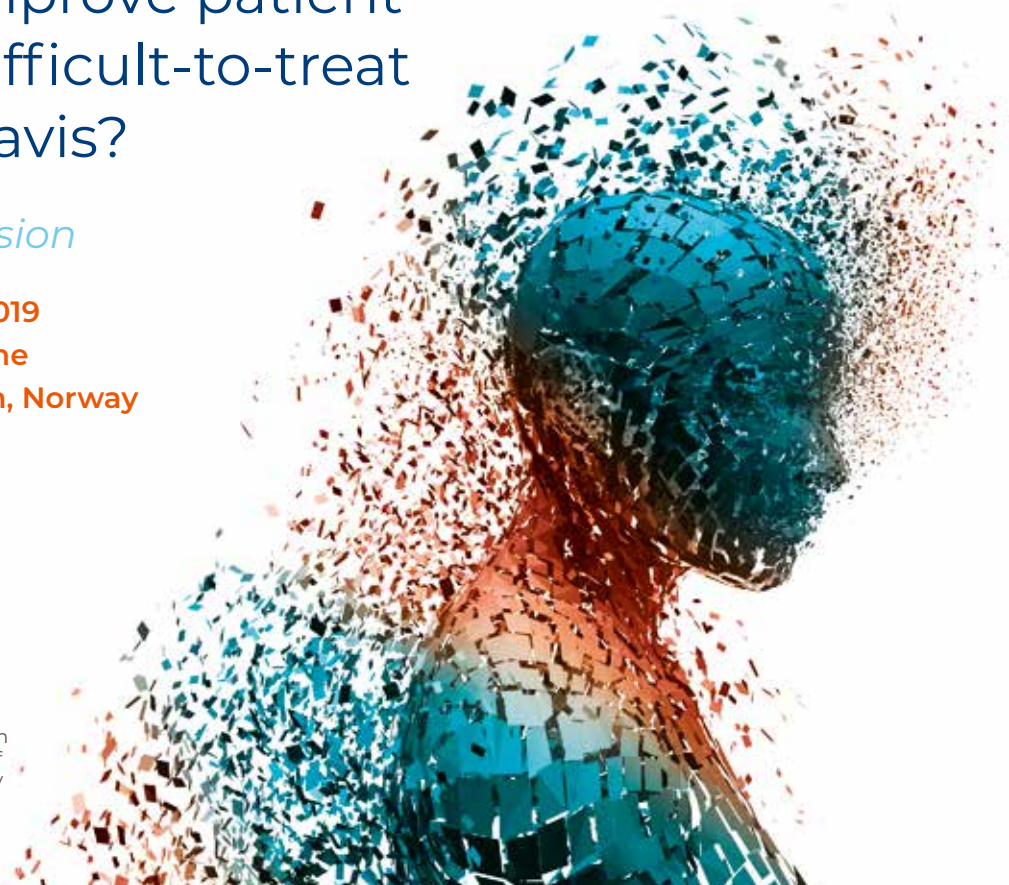
*An interactive discussion*

**13:00–14:30, Monday 1 July 2019**  
**Sør Norge, ground floor of the**  
**Thon Hotel Arena, Lillestrøm, Norway**

Lunch will be provided



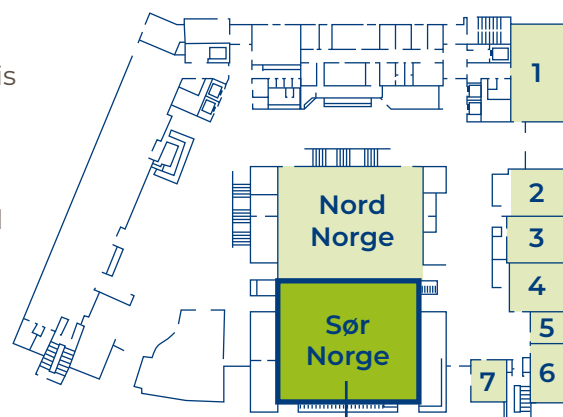
Lunchtime satellite symposium organized and sponsored by Alexion Pharmaceuticals on the occasion of the 5th European Academy of Neurology (EAN) congress, Lillestrøm, Norway



## PROGRAM

- 13:00–13:15** Welcome and introduction  
**John Vissing (Denmark)**
- 13:15–13:30** What does difficult-to-treat myasthenia gravis look like? A clinical guide  
**John Vissing (Denmark)**
- 13:30–13:45** What lies beneath? The pathophysiology and treatment of anti-AChR antibody-positive myasthenia gravis  
**Heinz Wiendl (Germany)**
- 13:45–14:00** Putting complement inhibition into practice: What does the evidence say?  
**Saiju Jacob (UK)**
- 14:00–14:30** Panel discussion, questions and close  
**All**

Ground floor of the Thon Hotel Arena



■ Lecture room/SSC

■ Meeting rooms

- 1 Romerike
- 2 Oslo II
- 3 Oslo I
- 4 Rogaland
- 5 Telemark
- 6 Nordland
- 7 Hedmark

Location of the Lunchtime satellite symposium organized and sponsored by Alexion Pharmaceuticals

## Satellite Symposia Programmes

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13:45 – 14:45  
Room Lisbon

### MERCK

#### Recent advancements in the management of relapsing multiple sclerosis

##### Chairpersons:

*Giancarlo Comi (Milano, Italy)*

*Elisabeth Celius (Oslo, Norway)*

- **Welcome and objectives**  
*Elisabeth Celius (Oslo, Norway)*
- **Family planning in multiple sclerosis**  
*Kerstin Hellwig (Bochum, Germany)*
- **Managing high disease activity in multiple sclerosis: what have we learned from Cladribine Tablets clinical trials?**  
*Bassem Yamout (Beirut, Lebanon)*
- **Cladribine Tablets: Nordic real-world experience**  
*Elisabeth Celius (Oslo, Norway)*
- **Concluding remarks and Q&A**  
*Giancarlo Comi (Milano, Italy)*

13:45 – 14:45  
Room Jan Mayen 1

### EVERPHARMA

#### Innovative treatment options for Traumatic Brain Injuries (TBI)

##### Chairperson:

*Erich Schmutzhard (Innsbruck, Austria)*

- **Treatment of traumatic brain injury (TBI) with Cerebrolysin - enhances neurological and cognitive recovery**  
*Michael Chopp (Detroit, USA)*
- **Challenges and Advances in Neurotrauma Treatment**  
*Martin Rakusa (Maribor, Slovenia)*
- **New Vistas in TBI Research - Results from CAPTAIN studies and the multidimensional methodology**  
*Johannes Vester (Krailling, Germany)*



Monday, 1 July  
18:30 – 20:00

1

18:30 – 20:00  
Room Svalbard

**ABBVIE**  
**Optimizing Care in Advanced Parkinson's Disease – Past Insights, Current Practices, and Future Prospects**

**Chairperson:**

*Per Odin (Lund, Sweden)*

- **Welcome and Introductions**  
*Per Odin (Lund, Sweden)*
- **Understanding the Progression and Burden of Advanced Parkinson's Disease**  
*Maja Trost (Ljubljana, Slovenia)*
- **Identification, Referral, and the Team Approach: Improving Patient Care**  
*Angelo Antonini (Padua, Italy)*
- **Continuous Dopaminergic Stimulation: From Concept to Reality**  
*Regina Katzenschlager (Vienna, Austria)*
- **Strategies for Treatment Selection: Which Device-Aided Therapy for Which Patient?**  
*Robert Jech (Prague, Czech Republic)*
- **Panel Discussion**  
*All*
- **Q & A**  
*All*

**Bial**

Keeping  
life in  
mind.



We exist since 1924  
to give you more and better health.  
Caring for your life,  
is more than a mission, it's our dream.  
This dream remains as alive today as in the beginning.  
And we know that the only way to realize it, is by innovating.  
Innovation is the energy that feeds the dream.  
That drives us to search for new medicines.  
And keeps us working around the world.  
Always caring for your health.

# YOU ARE CORDIALLY INVITED TO THE MERCK SATELLITE SYMPOSIUM AT THE 5TH EAN CONGRESS

## Recent advancements in the management of relapsing multiple sclerosis

**Co-chairs: Giancarlo Comi, Italy  
and Elisabeth Celius, Norway**

13:45-14:45, Monday 1 July 2019  
Room Lisbon, Norges Varemesse, Oslo, Norway

### Welcome and objectives

Elisabeth Celius, Norway

### Family planning in multiple sclerosis

Kerstin Hellwig, Germany

### Managing high disease activity in multiple sclerosis: what have we learned from Cladribine Tablets clinical trials?

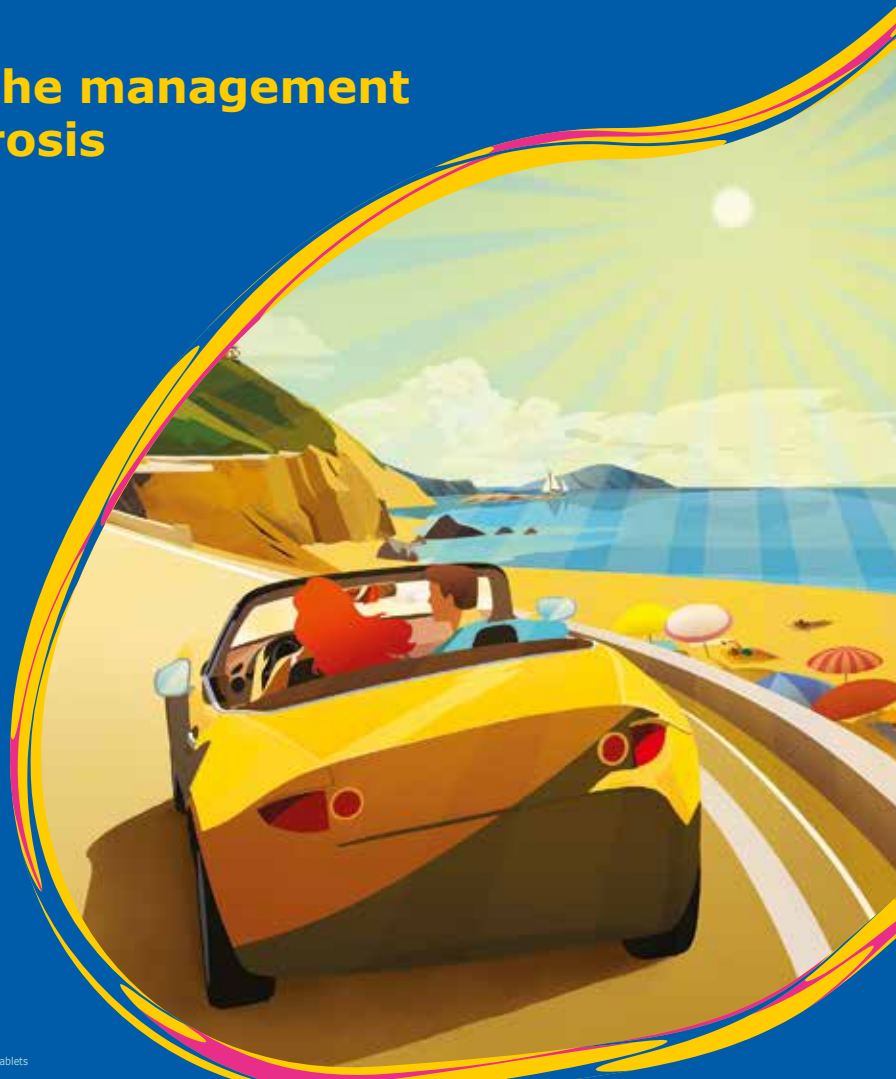
Bassem Yamout, Lebanon

### Cladribine Tablets: Nordic real-world experience

Elisabeth Celius, Norway

### Concluding remarks and Q&A

Giancarlo Comi, Italy



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**INTERACTIONS**

MAVENCLAD contains hydroxypropylbetadex, which may be available for complex formation with other medicinal products, potentially leading to an increase in bioavailability of such a product. It is recommended that administration of any other oral medicinal product be separated from that of

MAVENCLAD by at least 3 hours. Initiation of cladribine treatment is contraindicated in immunocompromised patients because of a risk of additive effects on the immune system. The use of MAVENCLAD with interferon beta results in an increased risk of lymphopenia. Additive haematological adverse reactions may be expected if cladribine is administered prior to, or concomitantly with, other substances that affect the haematological profile. Treatment with MAVENCLAD should not be initiated within 4 to 6 weeks after vaccination with live or attenuated live vaccines because of a risk of active vaccine infection. Inhibition of breast cancer resistance protein (BCRP or ABCG2) in the gastrointestinal tract may increase the oral bioavailability and systemic exposure of cladribine. The bioavailability, intracellular distribution and renal elimination of cladribine may theoretically be altered by potent equilibrative nucleoside (ENT1) and concentrative nucleoside (CNT3) transporter inhibitors. It is recommended that co-administration of potent ENT1, CNT3 or BCRP inhibitors be avoided. A possible decrease in cladribine exposure should be considered if potent BCRP or P-glycoprotein transporter inducers are co-administered. It is unknown whether cladribine may reduce the effectiveness of systemically acting hormonal contraceptives (see below).

**FERTILITY, PREGNANCY, LACTATION**

Before initiation of treatment in both Years 1 and 2, women of childbearing potential and males who could potentially father a child should be counselled regarding the potential for serious risk to the fetus and the need for effective contraception. In women of childbearing potential, pregnancy must be excluded before the initiation of MAVENCLAD in Years 1 and 2, and prevented by use of effective contraception during cladribine treatment and for at least 6 months after the last dose. Women using systemically acting hormonal contraceptives should add a barrier method during cladribine treatment and for at least 4 weeks after the last dose in each treatment year. Women who become pregnant during therapy with MAVENCLAD should discontinue treatment. Male patients must take precautions to prevent pregnancy of their partner during cladribine treatment and for at least 6 months after the last dose. Cladribine could cause congenital malformations when administered during pregnancy. Studies in animals have shown reproductive toxicity. MAVENCLAD is contraindicated in pregnant women. It is not known whether cladribine is excreted in human milk. Because of the potential for serious adverse reactions in breastfed infants, breastfeeding is contraindicated during treatment with MAVENCLAD and for 1 week after the last dose.

**UNDESIRABLE EFFECTS**

The most clinically relevant adverse reactions reported in patients with MS who received MAVENCLAD at the recommended cumulative dose of 3.5 mg/kg over 2 years in clinical studies were lymphopenia and herpes zoster. Very common: lymphopenia. Common: oral herpes, dermatomal herpes zoster, decrease in neutrophil count, rash, alopecia. Very rare: tuberculosis. Prescribers should consult the Summary of Product Characteristics in relation to other adverse reactions.

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Merck Europe B.V., Gustav Mahlerplein 102, 1082 MA Amsterdam, The Netherlands

**MARKETING AUTHORISATION NUMBER(S)**: EU/1/17/1212/001, EU/1/17/1212/002, EU/1/17/1212/003, EU/1/17/1212/004, EU/1/17/1212/005, EU/1/17/1212/006

Detailed information on this medicinal product is available on the website of the European Medicines Agency <http://www.ema.europa.eu>.

Date of Summary of Product Characteristics: July 2018

Date of preparation of abbreviated Summary of Product Characteristics: July 2018

Full **MAVENCLAD**<sup>®</sup> SmPC (July 2018) is available at the Merck booth

This meeting is initiated, funded and organized by Merck

GBPMLR/CLA/0319/0024 | Approval date: April 2019

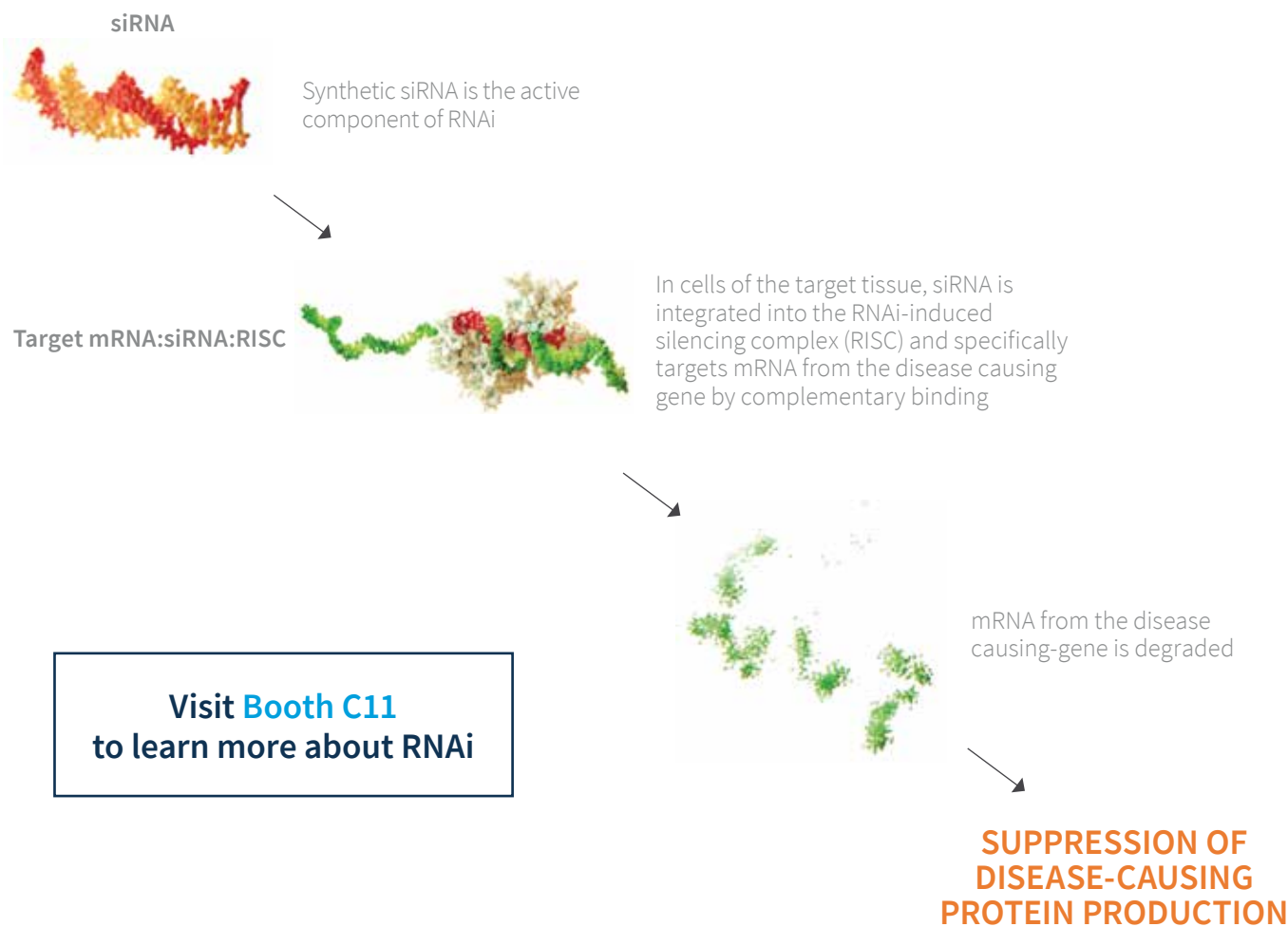
201904-MED-23-v.01 | Approval date: April 2019

# RNAi: Innovative Nobel Prize-winning technology that targets disease at its source

RNA interference (RNAi) harnesses a natural biological pathway for the regulation of gene expression<sup>1-3</sup>

## How RNAi works<sup>3</sup>

Based on Bumcrot D, et al. *Nature Chem Biol.* 2006; 2(12):711-719



Using synthetic siRNAs to directly suppress production of pathogenic proteins, RNAi is an innovative class of medicine that specifically targets the disease at its source<sup>3</sup>

- References:** 1. Chi X, Gatti P, Papoian T. Safety of antisense oligonucleotide and siRNA-based therapeutics. *Drug Discov Today.* 2017;22(5):823-833;  
2. Deleavey GF, Damha MJ. Designing chemically modified oligonucleotides for targeted gene silencing. *Chem Biol.* 2012;19(8):937-954;  
3. Bumcrot D, Manoharan M, Kotliansky V, et al. RNAi therapeutics: a potential new class of pharmaceutical drugs. *Nature Chem Biol.* 2006;2(12):711-719

mRNA, messenger RNA; RISC, RNA-induced silencing complex; RNA, ribonucleic acid; RNAi, RNA interference; siRNA, small interfering RNA

Developed and produced by Alnylam Pharmaceuticals

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CHALLENGE ACCEPTED



# 3-Days Satellite Sessions

Programme





# TREATING THE BRAIN IN MS: A NO BRAINER?

Please join the Sanofi Genzyme 3-Day satellite session at the 5<sup>th</sup> EAN Congress

**SATURDAY, 29 JUNE 2019, 10:00 - 10:30**

**Title:** MS: Out of the Brain?

**Speaker:** Prof. Cristiana Granziera, Switzerland

**SUNDAY, 30 JUNE 2019, 16:15 - 16:45**

**Title:** Normal brain atrophy rates in MS, a Brainwave?

**Speaker:** Prof. Gavin Giovannoni, UK

**MONDAY, 1 JULY 2019, 09:30 - 10:00**

**Title:** Wrap your brain around quality of life in MS

**Speaker:** Prof. Veronica Popescu, Belgium

**Location:** Norges Varemesse, Room Helsinki

## 3-Days Satellite Session Programme

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### SANOFI GENZYME

Treating the brain in Multiple Sclerosis:  
a no brainer?

#### Saturday, 29 June 2019

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10:00 – 10:30  
Room Helsinki

- **Multiple Sclerosis, out of the Brain?**  
*Christina Granziera (Basel, Switzerland)*

#### Sunday, 30 June 2019

---

16:15 – 16:45  
Room Helsinki

- **Normal brain atrophy rates in Multiple Sclerosis, a brainwave?**  
*Gavin Giovannoni (London, United Kingdom)*

#### Monday, 01 July 2019

---

09:30 – 10:00  
Room Helsinki

- **Wrap your brain around quality of life in Multiple Sclerosis**  
*Veronica Popescu (Pelt, Belgium)*

## 3-Days Satellite Session Programme

### CELGENE

#### Saturday, 29 June 2019

16:15 – 16:45  
Room Budapest

- **How to Interpret Published Data?**  
*Maria Pia Sormani (Genoa, Italy)*

#### Sunday, 30 June 2019

09:30 – 10:00  
Room Budapest

- **How to Apply McDonald 2017 Criteria?**  
*Hans-Peter Hartung (Düsseldorf, Germany)*

#### Tuesday, 02 July 2019

10:00 – 10:30  
Room Budapest

- **Are Brain Atrophy and Cognition Important in the Treatment of Early Multiple Sclerosis?**  
*Dawn Langdon (London, United Kingdom)*



In Multiple Sclerosis—

# GREY MATTERS, TOO

Think White and Grey to Complete the Picture



## 3-Day Satellite Sessions at the 5<sup>th</sup> EAN Congress

Room Budapest

### Saturday 29<sup>th</sup> June 2019

16:15–16:45    **How to Interpret Published Data?**  
*Maria Pia Sormani – Genoa, Italy*

### Sunday 30<sup>th</sup> June 2019

09:30–10:00    **How to Apply McDonald 2017 Criteria?**  
*Hans-Peter Hartung – Düsseldorf, Germany*

### Tuesday 2<sup>nd</sup> July 2019

10:00–10:30    **Are Brain Atrophy and Cognition Important in the Treatment of Early Multiple Sclerosis?**  
*Dawn Langdon – London, UK*





# From “OFF” To “ON” – Treating “OFF” Episodes In Parkinson’s Disease

*Organized And Supported By Sunovion*

Sunday, June 30

18:30 – 20:00

Optional hors d’oeuvres will be provided


Norges Varmesse – Norway Convention and Exhibition Centre  
Room Lisbon

## **Program:**

- Phenomenology And Clinical Significance Of “OFF” Episodes In Parkinson’s Disease  
Werner Poewe, MD, PhD (Austria)
- Current Approaches To The Treatment Of “OFF” Episodes In Parkinson’s Disease  
Olivier Rascol, MD, PhD (France)
- New Therapies For The Acute Treatment Of “OFF” Episodes In Parkinson’s Disease  
Fabrizio Stocchi, MD, PhD (Italy)
- Panel Discussion – All

This is an educational, non-CME program sponsored by Sunovion Pharmaceuticals Inc. and the speakers are paid consultants of Sunovion.



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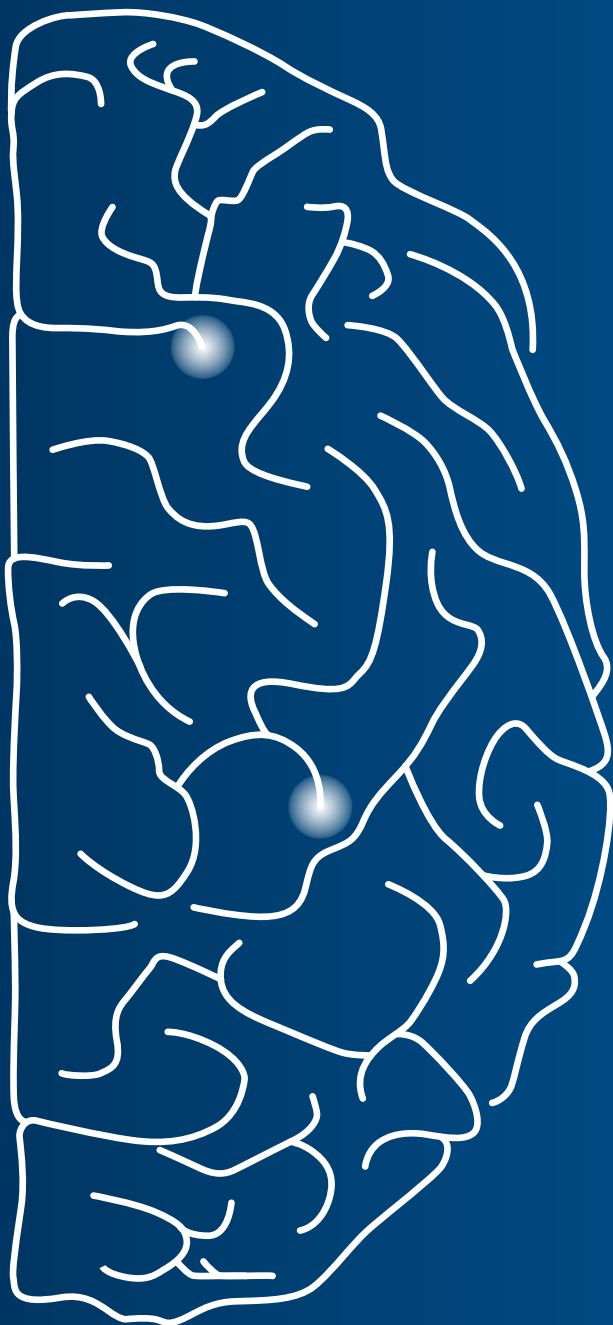
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# Forum Talk

Programmes





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## **Early Alzheimer's disease: Towards drug-biomarker co-development**

*Speaker: Andrea Vergallo (France)*

Saturday 29 June 2019

16:15 - 16:30

Scientific Theater (Exhibit Hall)

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## **Understanding spinal muscular atrophy: How far have we come?**

*Speaker: Eugenio Mercuri (Italy)*

Sunday 30 June 2019

16:15 - 16:30

Scientific Theater (Exhibit Hall)

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## **Aware of rare: What's new in Huntington's disease?**

*Speaker: Bernhard Landwehrmeyer (Germany)*

Monday 1 July 2019

09:45 - 10:00

Scientific Theater (Exhibit Hall)

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# YOU ARE CORDIALLY INVITED TO THE MERCK FORUM TALKS AT THE 5TH EAN CONGRESS

Scientific Theatre, Exhibition Hall,  
Norges Varemesse, Oslo, Norway

## Family planning for patients with multiple sclerosis

**Kerstin Hellwig, Germany**

16:30–16:45, Saturday 29 June 2019

## Cladribine Tablets real-world experience: the Finnish experience

**Hanna Kuusisto, Finland**

09:45–10:00, Sunday 30 June 2019

## Managing switching between high-efficacy treatments in relapsing multiple sclerosis: lessons from Cladribine Tablets

**Celia Oreja-Guevara, Spain**

16:15–16:30, Monday 1 July 2019



**MAVENCLAD<sup>®</sup>**: Abbreviated Summary of Product Characteristics. **MAVENCLAD<sup>®</sup>** (cladribine tablets) Presentations: MAVENCLAD 10 mg tablets

**QUALITATIVE AND QUANTITATIVE COMPOSITION** Each tablet contains 10 mg of cladribine

#### INDICATIONS

MAVENCLAD is indicated for the treatment of adult patients with highly active relapsing multiple sclerosis (MS) as defined by clinical or imaging features.

#### DOSE AND ADMINISTRATION

Treatment with MAVENCLAD must be initiated and supervised by a physician experienced in the treatment of MS. The recommended cumulative dose of MAVENCLAD is 3.5 mg/kg body weight over 2 years, as one treatment course of 1.75 mg/kg/year. Each treatment course consists of two treatment weeks, one at the beginning of the first month and one at the beginning of the second month of the respective treatment year. Each treatment week consists of 4 or 5 days of treatment at 10 mg or 20 mg as a single daily dose, depending on body weight. Following completion of the two treatment courses, no further cladribine treatment is required in Years 3 and 4. Re-initiation of therapy after Year 4 has not been studied. Lymphocyte counts must be normal before initiating MAVENCLAD in Year 1 or at least 800 cells/mm<sup>3</sup> before initiating MAVENCLAD in Year 2. If necessary, the treatment course in Year 2 can be delayed for up to 6 months to allow for recovery of lymphocytes. If this recovery takes more than 6 months, the patient should not receive MAVENCLAD any more.

#### CONTRAINDICATIONS

Hypersensitivity to cladribine or any of the excipients. Infection with human immunodeficiency virus, active chronic infection (tuberculosis or hepatitis), initiation of treatment in immunocompromised patients, including patients currently receiving immunosuppressive or myelosuppressive therapy, active malignancy, moderate or severe renal impairment or in pregnancy and breastfeeding.

#### PRECAUTIONS

Cladribine's mode of action is closely linked to a reduction in lymphocyte count. The effect on lymphocyte count is dose-dependent. Decreases in neutrophil count, red blood cell count, haematocrit, haemoglobin or platelet count have also been observed in clinical studies, although these parameters usually remain within normal limits. Lymphocyte counts must be determined prior to therapy in Years 1 and 2, and at 2 and 6 months after start of treatment in each treatment year. Cladribine can reduce the body's immune defence and may increase the likelihood of infections. HIV infection, active tuberculosis and active hepatitis must be excluded before initiation of cladribine. Screening for latent infections, including tuberculosis and hepatitis B and C, must be performed prior to initiation of therapy in Years 1 and 2. A delay in initiation of cladribine should also be considered in patients with an acute infection until the infection has been adequately treated. Vaccination of patients negative for varicella zoster virus antibodies is recommended prior to initiation of MAVENCLAD therapy; treatment with MAVENCLAD must be postponed for 4 to 6 weeks to allow for the full effect of vaccination to occur. The incidence of herpes zoster was increased in patients on cladribine; anti-herpes prophylaxis should be considered during Grade 4 lymphopenia. Cases of progressive multifocal leukoencephalopathy have been reported for parenteral cladribine in patients treated for hairy cell leukaemia with a different treatment regimen. In the clinical study database of cladribine in MS (1,976 patients, 8,650 patient-years) no case of PML has been reported. Baseline magnetic resonance imaging (MRI) should be performed before initiating MAVENCLAD. Malignancies were observed more frequently in cladribine-treated patients than in patients who received placebo in clinical trials. In patients who require blood transfusion, irradiation of cellular blood components is recommended prior to administration to prevent transfusion-related graft-versus-host disease. In patients previously treated with immunomodulatory or immunosuppressive medicinal products, the mode of action and duration of effect of the other medicinal product should be considered prior to initiation of MAVENCLAD. When switching from another MS medicinal product, a baseline MRI should be performed, usually within 3 months. Use of MAVENCLAD is not recommended in patients with moderate or severe hepatic impairment. MAVENCLAD contains sorbitol. Patients with hereditary problems of fructose intolerance should not take this medicinal product.

#### INTERACTIONS

MAVENCLAD contains hydroxypropylbetadex, which may be available for complex formation with other medicinal products, potentially leading to an increase in bioavailability of such a product. It is recommended that administration of any other oral medicinal product be separated from that of MAVENCLAD by at least 3 hours. Initiation of cladribine treatment is contraindicated in immunocompromised patients because of a risk of additive effects on the immune system. The use of MAVENCLAD with interferon beta results in an increased risk of lymphopenia. Additive haematological adverse reactions may be expected if cladribine is administered prior to, or concomitantly with, other substances that affect the haematological profile. Treatment with MAVENCLAD should not be initiated within 4 to 6 weeks after vaccination with live or attenuated live vaccines because of a risk of active vaccine infection. Inhibition of breast cancer resistance protein (BCRP or ABCG2) in the gastrointestinal tract may increase the oral bioavailability and systemic exposure of cladribine. The bioavailability, intracellular distribution and renal elimination of cladribine may theoretically be altered by potent equilibrative nucleoside (ENT1) and concentrative nucleoside (CNT) transporter inhibitors. It is recommended that co-administration of potent ENT1, CNT3 or BCRP inhibitors be avoided. A possible decrease in cladribine exposure should be considered if potent BCRP or P-glycoprotein transporter inducers are co-administered. It is unknown whether cladribine may reduce the effectiveness of systemically acting hormonal contraceptives (see below).

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The most clinically relevant adverse reactions reported in patients with MS who received MAVENCLAD at the recommended cumulative dose of 3.5 mg/kg over 2 years in clinical studies were lymphopenia and herpes zoster. Very common: Lymphopenia. Common: oral herpes, dermatomal herpes zoster, decrease in neutrophil count, rash, alopecia. Very rare: tuberculosis. Prescribers should consult the Summary of Product Characteristics in relation to other adverse reactions.

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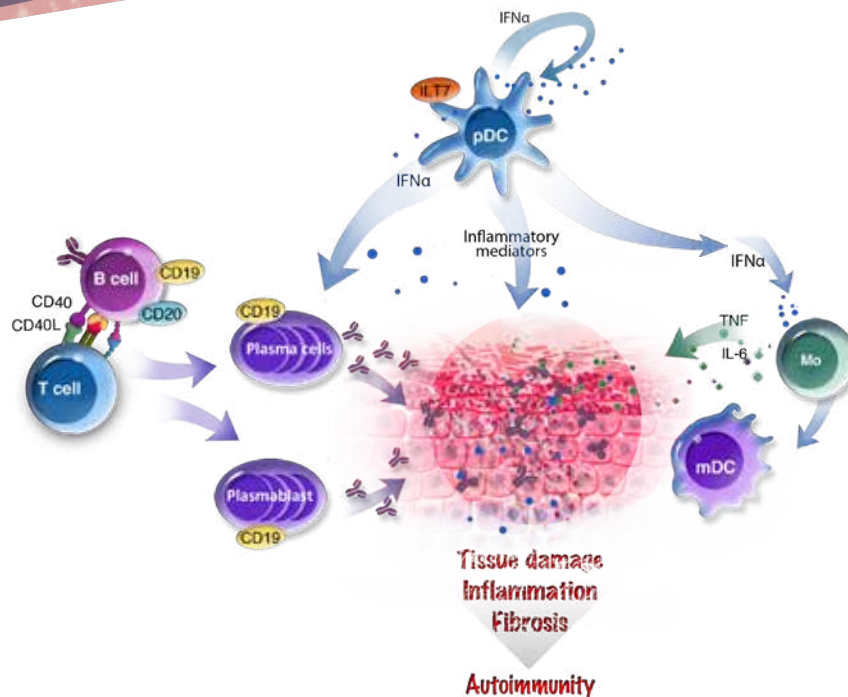
GBPMLR/CLA/0319/0024a | Approval date: April 2019

201904-MED-22-v.01 | Approval date: April 2019

# VIELA BIO

## Our Mission

Pioneering and advancing treatments for severe inflammation and autoimmune diseases by selectively targeting shared critical pathways that are the root cause of disease



Led by a team of global leaders in inflammation and autoimmunity, Viela Bio strives to be a fully integrated biotechnology company, helping millions of patients worldwide.

We are defined by our core competencies including deep therapeutic knowledge and operational effectiveness. Viela Bio, driven by our talented research and development team, is currently focused on:

- 🦋 **Delivering the inebilizumab phase 2 clinical study**
- 🦋 **Efficiently developing the early stage portfolio**
- 🦋 **Exploring existing and novel pathways to develop next generation inflammation and autoimmune therapies**

**Please join us for a Forum Talk at the 5<sup>th</sup> EAN Congress on our N-Momentum Study in NMOSD.**

**Sunday, 30 June 2019 from 16:30-16:45 in the Scientific Theater**

## Forum Talk Programmes

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### EXHIBITION - SCIENTIFIC THEATRE

Overview of forum talk programmes organised by industry partners in the scientific theatre within the exhibition. Additional talks reserved after the date of printing will be announced on-site.

**Saturday, 29 June 2019**

16:15 – 16:30

**ROCHE**

- **Early Alzheimer's disease: Towards drug-biomarker co-development**  
*Andrea Vergallo (Paris, France)*

**Sunday, 30 June 2019**

09:30 – 09:45

**ALNYLAM  
PHARMACEUTICALS**

- **Acute hepatic porphyria: A potentially fatal cause of peripheral neuropathy or encephalopathy.**  
A practical perspective from an expert centre.  
*Elena Pischik (St. Petersburg, Russia)*

**Monday, 01 July 2019**

09:45 – 10:00

**ROCHE**

- **Aware of rare: what's new in Huntington's Disease?**  
*Bernhard Landwehrmeyer (Ulm, Germany)*

**Saturday, 29 June 2019**

16:30 – 16:45

**MERCK**

- **Family planning for patients with multiple sclerosis**  
*Kerstin Hellwig (Bochum, Germany)*

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09:45 – 10:00

**MERCK**

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*Hanna Kuusisto (Hämeenlinna, Finland)*

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16:15 – 16:30

**MERCK**

- **Managing switching between high efficacy treatments in relapsing multiple sclerosis: lessons from Cladribine Tablets**  
*Celia Oreja-Guevara (Madrid, Spain)*

**Sunday, 30 June 2019**

16:15 – 16:30

**ROCHE**

- **Understanding spinal muscular atrophy: how far have we come?**  
*Eugenio Mercuri (Rome, Italy)*

**Sunday, 30 June 2019**

16:30 – 16:45

**VIELA BIO**

- **N-Momentum Study Design**  
*Orhan Aktas (Dusseldorf, Germany)*





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Final Programme



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