Final Program
International Congress of Parkinson’s Disease and Movement Disorders®
October 5-9, 2018
HONG KONG
www.mdscongress.org

International Parkinson and Movement Disorder Society
International Congress of Parkinson’s Disease and Movement Disorders®
NICE, FRANCE  SEPTEMBER 22-26, 2019
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• Abstracts
• Session Evaluations
• Poster Schedules
• Speaker Information
Welcome to Hong Kong

Dear Colleagues,

On behalf of the International Parkinson and Movement Disorder Society (MDS), we are pleased to formally welcome you to the International Congress of Parkinson’s Disease and Movement Disorders ® from October 5-9, 2018.

Hong Kong has a reputation of being a city of charm with a mix of tradition, cultural diversity and sophistication. It offers spectacular scenery and a skyline that has been regarded as the biggest visual impact of all world cities.

Each year, the International Congress attracts delegates from around the world who come to learn about the latest research and perspectives, to listen to world renowned speakers, and to be exposed to the most up-to-date information in the field of Movement Disorders. Once again, this year’s International Congress promises to bring new ideas and unparalleled networking opportunities.

With kind regards,

Christopher Goetz
President, International Parkinson and Movement Disorder Society, 2017-2019

Buz Jinnah
Chair, Congress Scientific Program Committee, 2017-2019

Beomseok Jeon
Co-Chair, Congress Scientific Program Committee, 2018

Vincent Mok
Co-Chair, Congress Scientific Program Committee, 2018
About MDS

The International Parkinson and Movement Disorder Society (MDS) is a professional society of clinicians, scientists, and other healthcare professionals who are interested in Parkinson’s disease, related neurodegenerative and neurodevelopmental disorders, hyperkinetic movement disorders, and abnormalities in muscle tone and motor control.

PURPOSE, MISSION AND GOALS

Purpose:
The objective and mission of the Society shall be to advance the neurological sciences pertaining to movement disorders; to improve the diagnosis and treatment of patients; to operate exclusively for scientific, scholarly and educational purposes; to encourage research; to provide forums, such as medical journals, scientific symposia and International Congresses, for sharing ideas and for advancing the related clinical and scientific disciplines; to encourage interest and participation in the activities of the Society among healthcare and allied professionals and scientists; and to collaborate with other related professional and lay organizations.

Mission and Goals:
To disseminate knowledge about movement disorders by:
- Providing educational programs for clinicians, scientists and the general public designed to advance scientific and clinical knowledge about movement disorders
- Sponsoring International Congresses and Symposia on movement disorders
- Collaborating with other international organizations and lay groups
- Publishing journals, videotapes and other collateral materials committed to high scientific standards and peer review

To promote research into causes, prevention and treatment of movement disorders by:
- Using the Society’s influence and resources to enhance support for research
- Facilitating the dissemination of information about research
- Encouraging the training of basic and clinical scientists in Movement Disorders and related disorders

For the purposes of favorably affecting the care of patients with movement disorders, the Society will provide expertise, advice and guidance to:
- Regulatory agencies to assist them in the approval process of safe and effective therapeutic interventions
- The public (media) and patient support groups by informing them of new research and therapeutic advances
- Governments to assist them in the development of policies that affect support of research and patient care
- Educational efforts to assist in developing standards of training in the specialty

MDS OFFICERS (2017-2019)

President
Christopher Goetz, USA

President-Elect
Claudia Trenkwalder, Germany

Secretary
Susan Fox, Canada

Secretary-Elect
Bastiaan Bloem, Netherlands

Treasurer
Victor Fung, Australia

Treasurer-Elect
Louis Tan, Singapore

Past-President
Oscar Gershanik, Argentina
About MDS

MDS INTERNATIONAL EXECUTIVE COMMITTEE
Charles Adler, USA
Daniela Berg, Germany
Shengdi Chen, People’s Republic of China
Carlos Cosentino, Peru
Joaquim Ferreira, Portugal
Mayela Rodriguez Violante, Mexico
D. James Surmeier, USA
Pille Taba, Estonia
Ryosuke Takahashi, Japan

INTERNATIONAL CONGRESS OVERSIGHT COMMITTEE
Chair: Matthew Stern, USA
Gunther Deuschl, Germany
Victor Fung, Australia
Oscar Gershanik, Argentina
Christopher Goetz, USA
Beomseok Jeon, South Korea
Hyder Jinnah, USA
Vincent Mok, Hong Kong
Claudia Trenkwalder, Germany

CONGRESS LOCAL ORGANIZING COMMITTEE
Chair: Vincent Mok
Mandy Au-Yeung
Anne Yin Yan Chan
Danny TM Chan
Germaine Hiu Fai Chan
Nelson Yuk-Fai Cheung
Ya Ke
Claire Ka Yee Lau
Michael WY Lee
Margaret KY Mak
Shirley YY Pang
Tak Lap Poon
Kin Lun Tsang
Jonas Yeung
Helen LK Yip
Ken KL Yung
Barong Zhang
Xian Lun Zhu

CONGRESS SCIENTIFIC PROGRAM COMMITTEE
Chair: Hyder Jinnah, USA
Co-Chair: Beomseok Jeon, South Korea
Co-Chair: Vincent Mok, Hong Kong
Roongroj Bhidayasiri, Thailand
Vincenzo Bonifaati, Netherlands
M. Angela Cenci Nilsson, Sweden
Shengdi Chen, People’s Republic of China
Jean-Christophe Corvol, France
Steven Frucht, USA
Emilia Gatto, Argentina
Christopher Goetz, USA
Jennifer Goldman, USA
Etienne Hirsch, France
Roland Dominic Jamora, Philippines
Han-Joon Kim, South Korea
Vladimir Kostic, Serbia
Shen-Yang Lim, Malaysia
Irene Litvan, USA
Karen Marder, USA
Wassilios Meissner, France
Elena Moro, France
Alice Nieuwboer, Belgium
Maria Stamelou, Greece
Matthew Stern, USA
Antonio Strafella, Canada
Carolyn Sue, Australia
Ryosuke Takahashi, Japan
Helio Teive, Brazil
Claudia Trenkwalder, Germany
Marie Vidailhet, France

PAST-PRESIDENTS
2015-2017 Oscar Gershanik, Argentina
2013-2015 Matthew Stern, USA
2011-2013 Gunther Deuschl, Germany
2009-2011 Philip Thompson, Australia
2007-2009 Anthony Lang, Canada
2005-2006 Andrew Lees, United Kingdom
2003-2004 C. Warren Olanow, USA
2001-2002 Werner Poewe, Austria
1999-2000 Mark Hallett, USA
1997-1998 Eduardo Tolosa, Spain
1995-1996 Joseph Jankovic, USA
1991-1994 C. David Marsden, United Kingdom
1988-1991 Stanley Fahn, USA

INTERNATIONAL MEDICAL SOCIETY FOR MOTOR DISTURBANCES
PAST-PRESIDENTS
1993-1994 C. Warren Olanow, USA
1991-1992 Bastian Conrad, Germany
1989-1990 Mark Hallett, USA
1987-1988 Mario Manfredi, Italy
1985-1986 C. David Marsden, United Kingdom

MDS INTERNATIONAL SECRETARIAT
International Parkinson and Movement Disorder Society
555 East Wells Street, Suite 1100
Milwaukee, WI 53202-3823 USA
Tel: +1 414-276-2145
Fax: +1 414-276-3349
E-mail: info@movementdisorders.org
Website: www.movementdisorders.org
CME Information

**Target Audience**
Clinicians, researchers, post-doctoral fellows, medical residents, medical students, allied health professionals with an interest in current clinical trends and approaches for diagnosis and treatment of movement disorders.

**Objectives**
1) Evaluate the pharmacological and non-pharmacological management options available for Parkinson's disease and other movement disorders
2) Discuss the diagnostic approaches and tools available for Parkinson's disease and other movement disorders
3) Describe the pathogenesis and neurobiology of Parkinson's disease and other movement disorders

**Satisfactory Completion**
Participants must complete an evaluation to receive a certificate of continuing medical education credit. Your chosen sessions must be attended in their entirety. Partial credit of individual sessions is not available.

**Accreditation Statement**
In support of improving patient care, this activity has been planned and implemented by Amedco and the International Parkinson and Movement Disorder Society. Amedco is jointly accredited by the American Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

**Credit Designation Statement**
Amedco designates this live activity for a maximum of 29.50 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**Faculty Disclosures**
All individuals in control of content for the MDS International Congress are required to disclose all relevant financial relationships. Disclosure information is available online at www.mdscongress.org and via the MDS International Congress app.

**Evaluations**
Evaluations are considered part of the course. All evaluations need to be completed by October 12, 2018. Evaluations can be done in the MDS International Congress App and online at https://event.crowdcompass.com/hongkong2018

**Claiming CME**
Please visit www.mdscongress.org to claim CME for this activity. When the requested fields are completed, a CME certificate will be provided to you via e-mail. Please be advised: International Congress CME must be claimed by November 15, 2018. Please contact education@movementdisorders.org with any questions.
Abstract Information

Abstract Publication
All regular accepted abstracts are published as a supplement to the Movement Disorders journal and are available utilizing a searchable feature on the International Congress website, www.mdscongress.org/Congress-2018/Abstracts.htm, as of October 5, 2018. Please also visit www.movementdisorders.org to download a PDF of accepted abstracts from the Movement Disorders journal.

All registered International Congress delegates will receive the published abstracts on a USB, available for pickup in the registration area.

Guided Poster Tours
Guided Poster Tours give groups of delegates an opportunity to hear discussion on a select group of abstracts in several sub-categories.

Abstracts selected for a Guided Poster Tour presentation are published as an online supplement on the 2018 International Congress website, www.mdscongress.org/Congress-2018/Abstracts.htm. These abstracts are available for download as of October 5, 2018.

Late-Breaking Abstracts
All accepted Late-Breaking Abstract posters are displayed in Hall 3FG, Saturday - Monday of the International Congress. Late-Breaking Abstract poster presentations will take place Monday, October 8, from 13:15 - 14:45 in Hall 3FG.

MDS Study Group Abstracts
All accepted MDS Study Group Abstract posters are displayed in Hall 3FG, Saturday - Monday throughout the duration of the International Congress. MDS Study Group Abstract poster presentations will take place Monday, October 8, from 13:15 - 14:45 in Hall 3FG.

Poster Sessions
Poster sessions give each delegate an opportunity to view their colleagues’ posters on the most current research in the field of Movement Disorders. Authors will be present for 1.5 hours each day to explain their work and answer questions. All accepted abstracts are presented as a poster at the 2018 International Congress.

Basic Science abstracts will be flagged within each category.
Poster sessions are held Saturday - Monday. Posters are available for viewing in Hall 3FG from 9:00 – 16:00 Saturday and Sunday, and 9:00 – 15:30 on Monday. Poster session topics and schedules vary by date; please see the complete listing of scheduled poster presentation dates and times starting on page 8.

Become an Associate Member of MDS

Join over 7,000 movement disorders professionals across the globe in working to disseminate knowledge and promote research to advance the field.

www.movementdisorders.org/associate-membership
## Poster Session Schedule (listed by abstract number)

All poster sessions will take place in Hall 3FG.

<table>
<thead>
<tr>
<th>Abstract number</th>
<th>Category</th>
<th>Presentation Date</th>
<th>Presentation Time</th>
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<tbody>
<tr>
<td>1 - 45</td>
<td>Clinical Trials and Therapy in Movement Disorders</td>
<td>Saturday, October 6</td>
<td>13:45 - 15:15</td>
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<tr>
<td>46 - 69</td>
<td>Cognitive Disorders</td>
<td>Saturday, October 6</td>
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<td>Drug-Induced Movement Disorders</td>
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<td>98 - 119</td>
<td>Education in Movement Disorders</td>
<td>Saturday, October 6</td>
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<tr>
<td>120 - 140</td>
<td>Genetics (Non-PD)</td>
<td>Saturday, October 6</td>
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<tr>
<td>141 - 142</td>
<td>History</td>
<td>Saturday, October 6</td>
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<tr>
<td>143 - 151</td>
<td>Myoclonus</td>
<td>Saturday, October 6</td>
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</tr>
<tr>
<td>152 - 181</td>
<td>Neuroimaging (Non-PD)</td>
<td>Saturday, October 6</td>
<td>13:45 - 15:15</td>
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<tr>
<td>182 - 201</td>
<td>Neuropharmacology</td>
<td>Saturday, October 6</td>
<td>13:45 - 15:15</td>
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<tr>
<td>202 - 212</td>
<td>Neurophysiology (Non-PD)</td>
<td>Saturday, October 6</td>
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<tr>
<td>213 - 432</td>
<td>Parkinson's Disease: Clinical Trials, Pharmacology and Treatment</td>
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<tr>
<td>489 - 510</td>
<td>Surgical Therapy: Other Movement Disorders</td>
<td>Saturday, October 6</td>
<td>13:45 - 15:15</td>
</tr>
<tr>
<td>511 - 587</td>
<td>Surgical Therapy: Parkinson's Disease</td>
<td>Saturday, October 6</td>
<td>13:45 - 15:15</td>
</tr>
<tr>
<td>588 - 593</td>
<td>Therapy in Movement Disorders: Gene and Cell-Based Therapies</td>
<td>Saturday, October 6</td>
<td>13:45 - 15:15</td>
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<tr>
<td>594 - 602</td>
<td>Tics/Stereotypies</td>
<td>Saturday, October 6</td>
<td>13:45 - 15:15</td>
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<tr>
<td>603 - 666</td>
<td>Ataxia</td>
<td>Sunday, October 7</td>
<td>13:45 - 15:15</td>
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<tr>
<td>667 - 686</td>
<td>Chorea (Non-Huntington's Disease)</td>
<td>Sunday, October 7</td>
<td>13:45 - 15:15</td>
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<tr>
<td>687 - 776</td>
<td>Dystonia</td>
<td>Sunday, October 7</td>
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<tr>
<td>778 - 803</td>
<td>Epidemiology</td>
<td>Sunday, October 7</td>
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<tr>
<td>805 - 838</td>
<td>Huntington's Disease</td>
<td>Sunday, October 7</td>
<td>13:45 - 15:15</td>
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<tr>
<td>839 - 920</td>
<td>Other</td>
<td>Sunday, October 7</td>
<td>13:45 - 15:15</td>
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<tr>
<td>921 - 1008</td>
<td>Parkinsonism, MSA, PSP (Secondary and Parkinsonism-Plus)</td>
<td>Sunday, October 7</td>
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<tr>
<td>1009 - 1039</td>
<td>Phenomenology and Clinical Assessment of Movement Disorders</td>
<td>Sunday, October 7</td>
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<tr>
<td>1040 - 1071</td>
<td>Quality Of Life/Caregiver Burden in Movement Disorders</td>
<td>Sunday, October 7</td>
<td>13:45 - 15:15</td>
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<tr>
<td>1072 - 1088</td>
<td>Restless Legs Syndrome and Other Sleep Disorders</td>
<td>Sunday, October 7</td>
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<tr>
<td>1089 - 1094</td>
<td>Spasticity</td>
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<td>1095 - 1158</td>
<td>Technology</td>
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<tr>
<td>1159 - 1216</td>
<td>Tremor</td>
<td>Sunday, October 7</td>
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<tr>
<td>1217 - 1286</td>
<td>Parkinson's Disease: Cognition</td>
<td>Monday, October 8</td>
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<tr>
<td>1287 - 1373</td>
<td>Parkinson's Disease: Genetics</td>
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<tr>
<td>1374 - 1514</td>
<td>Parkinson's Disease: Neuroimaging And Neurophysiology</td>
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<td>1515 - 1563</td>
<td>Parkinson's Disease: Non-Motor Symptoms</td>
<td>Monday, October 8</td>
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<td>1564 - 1757</td>
<td>Parkinson's Disease: Pathophysiology</td>
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<td>Parkinson's Disease: Psychiatric Manifestations</td>
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<tr>
<td>Tics/Stereotypies</td>
<td>594 - 602</td>
<td>Saturday, October 6</td>
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<td>Tremor</td>
<td>1159 - 1216</td>
<td>Sunday, October 7</td>
<td>13:45 - 15:15</td>
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</table>
### Guided Poster Tour Schedule

*Guided Poster Tours will begin at the poster number listed below. All tours take place in Hall 3FG.*

<table>
<thead>
<tr>
<th>SATURDAY, OCTOBER 6</th>
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<tbody>
<tr>
<td>GPT #</td>
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<td>GPT 1</td>
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<td>GPT 2</td>
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<td>GPT 3</td>
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<th>SUNDAY, OCTOBER 7</th>
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<tbody>
<tr>
<td>GPT #</td>
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<tr>
<td>GPT 4</td>
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<td>GPT 5</td>
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<td>GPT 6</td>
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<td>GPT 9</td>
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<tr>
<th>MONDAY, OCTOBER 8</th>
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<td>Poster #1531</td>
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<td>GPT 13</td>
<td>Poster #1663</td>
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MDS Pavilion

The MDS Pavilion is MDS’ interactive presentation space designed to provide International Congress attendees with a comfortable atmosphere while presenting valuable information regarding the Society. Learn about various MDS initiatives and programs, gain MDS-expert advice, and discover ways to get involved with MDS. These are Non-CME educational opportunities.

The MDS Pavilion will be located in Hall 3FG.

SATURDAY, OCTOBER 6

**LIVE Demo: How to Initiate a Movement Disorders Exam**
10:00 – 10:30
Presenters: Stanley Fahn, USA
Kapil Sethi, USA
MDS Experts will provide useful tips and advice to make the most out of your patient exam time.

**Neuroscience in the Clinic: Research in a Combination Environment**
13:15 – 13:45
Presenters: Cynthia Comella, USA
Hyder Jinnah, USA
MDS Experts will discuss best practices for integrating research into clinical applications.

SUNDAY, OCTOBER 7

**Becoming a Movement Disorder Specialist: Steps and Advice for Fellows and Young Researchers**
12:30 – 12:45
Presenters: Shilpa Chitnis, USA
Michael Okun, USA
MDS Experts will provide useful advice and answer questions about next steps for becoming a movement disorder specialist.

**Gain Tips and Advice on Advancing Your Career Within the Field of Movement Disorders. The MDS Roadmap: Personalizing Your MDS Experience**
13:15 – 13:45
Presenters: Brandon Barton, USA
Oscar Gershank, Argentina
Learn how the MDS Roadmap can help personalize your educational experience and drive career goals.

MONDAY, OCTOBER 8

**Young Members Group**
9:30 – 10:00
Presenter: Miryam Carecchio, Italy
Learn about the MDS Young Members Group and MDS young delegate offerings.

**Multidisciplinary Care: Patient Wellness**
12:00 – 12:30
Presenters: Bastiaan Bloem, Netherlands
Hanneke Kalf, Netherlands
Victor McConvey, Australia
Discuss the importance of patient diet, exercise and self-care practices as essential management tools.

**Technology in the Diagnosis, Monitoring, and Management of Movement Disorders: The 2018 International Congress Theme in Action**
14:00 – 14:30
Presenters: Alberto Espay, USA
Walter Maetzler, Germany
Review some of the 2018 International Congress Themed Session key learnings.

The MDS Pavilion is made possible by the financial support of Zambon.
International Congress Session Definitions

**Blue Ribbon Highlights**
This session provides a critical review of the best poster presentations by a panel of experts, highlighting the relevance, novelty and quality of both clinical and basic research presented by the delegates.

**Controversies**
This Plenary Session is designed to involve all International Congress attendees. Content is prepared to stimulate interest and debate among a panel of experts. Views from several angles will be addressed as discussion of pre-selected “hot” topics will be open for debate among the panelists.

**Parallel Sessions**
These concurrent sessions provide an in-depth report of the latest research findings, state-of-the-art treatment options, as well as a discussion of future strategies. Parallel sessions will have evidence-based components and incorporate the “hot” issues in Parkinson’s disease and other movement disorders.

**Plenary Sessions**
These sessions provide a broad overview of the latest clinical and basic science research findings and state-of-the-art information.

**Skills Workshops**
These clinic-based training sessions provide an educational illustration of clinical techniques and treatment procedures through demonstrations utilizing patient videotapes and proper equipment to further develop practitioners’ skills and knowledge within the field of treatment of movement disorders.

**Teaching Courses**
These educational programs provide up-to-date information focused on a single topic. The sessions highlight both the clinical and basic science of topics of relevance to Movement Disorder specialists. The sessions are unique in providing a syllabus that includes a review of the topic and the presentation slides. In addition, these programs provide ample time for questions and a discussion period at the conclusion of the presentations.

**Therapeutic Plenary Sessions**
These sessions provide the latest information regarding the scientific and clinical evidence supporting treatment options for Parkinson’s disease and other movement disorders.

**Video Sessions**
Designed to provide a broad overview of related movement disorders, the video sessions will focus on the phenomenology covering the many different kinds of movement disorders affecting the population today.

**INTERNATIONAL CONGRESS NON-CME EDUCATIONAL SESSIONS**

**Corporate Therapeutic Symposia**
These company-based informational sessions provide attendees with non-CME educational opportunities to learn the latest in therapeutics.

**Guided Poster Tours**
Guided Poster Tours give small groups of delegates an opportunity to hear discussion on a select group of abstracts in several sub-categories.

**MDS Video Challenge**
The goal of this session is for attendees to learn from a series of unusual patients and observe how senior experts approach a challenging case. A world-renowned panel of Movement Disorders experts guide attendees through these unique Movement Disorder cases as they are presented by representatives from Movement Disorder Centers around the world.

**Poster Sessions**
Poster sessions give each delegate an opportunity to view their colleagues’ posters on the most current research in the field of Movement Disorders. Authors are present for 90 minutes each day to explain their work and answer questions.

**INTERNATIONAL CONGRESS FACULTY ROLES**

Speaker / Presenter: Creates and delivers the presentation materials, and participates in the dialogue of the session.
Chair: Facilitates the learnings of the session, ensures that learning objectives are met during the presentation(s), and engages the learners as needed.
Liaison: Develops the session from the onset and provides guidance to ensure that the overall objectives are met.

**2018 INTERNATIONAL CONGRESS THEME**
At each annual International Congress, the Congress Scientific Program Committee selects a theme that is highlighted throughout the meeting. This year’s theme, Technology in the Diagnosis, Monitoring, and Management of Movement Disorders, will be showcased in two Plenary Sessions, six Parallel Sessions, one Skills Workshop, one Teaching Course, and one Video Session. International experts will serve as faculty, and the meeting participants can elect to attend any or all of these sessions. Themed sessions are designated in the program with 🎯.
<table>
<thead>
<tr>
<th>Time</th>
<th>Friday, October 5</th>
<th>Saturday, October 6</th>
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Friday, October 5, 2018

1101  Therapeutic Plenary Session

Update on Management Strategies for Parkinson’s Disease
8:00 – 10:00

Location: Hall 5G
Chairs: Shengdi Chen, People’s Republic of China
       Alice Nieuwboer, Belgium

8:00  Early Pharmacologic Management
     Olivier Rascol, France

8:40  Role of Rehabilitation and Exercise
     Colleen Canning, Australia

9:20  Later Stage Parkinson’s Disease
     Anthony Lang, Canada

Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss management in early Parkinson’s disease including potential disease modifying strategies
2. Review current role of rehabilitation and exercise including physical, occupational and speech therapies
3. Describe management strategies for advanced Parkinson’s disease, including invasive interventions

CSPC Liaison: Roland Dominic Jamora, Philippines

MDS-AOS Regional Assembly
10:00 – 11:00
Location: Convention Hall A
All delegates from Asia and Oceania are encouraged to attend.

MDS-ES Regional Assembly
10:00 – 11:00
Location: Convention Hall B
All delegates from Europe are encouraged to attend.

MDS-PAS Regional Assembly
10:00 – 11:00
Location: Convention Hall C
All delegates from Pan America are encouraged to attend.

1102  Therapeutic Plenary Session, cont.

Pharmacologic Management of Dystonia and Tremor: An Under-Utilized Approach?
11:00
Tiago Mestre, Canada

Botulinum Toxin for Dystonia and Tremor: Old Standards and New Opportunities
11:40
Raymond Rosales, Philippines

Surgical Intervention for Dystonia and Tremor: Past, Present and Future
12:20
Jens Volkmann, Germany

Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Select a management strategy for pharmacologic treatment of dystonia and tremor
2. Recognize and apply botulinum toxin as a treatment for dystonia and tremor
3. Evaluate and select candidates with dystonia and tremor for surgical intervention

CSPC Liaison: Steven Frucht, France

1103  Therapeutic Plenary Session

Update on Management Strategies for Hypermobility Movement Disorders: Tics, Myoclonus, and Restless Legs Syndrome
14:30 – 16:30

Location: Hall 5G
Chairs: Raymond Rosales, Philippines
       Claudia Trenkwalder, Germany

14:30  Update on the Management Strategy of Tics: Differential Diagnosis and New Therapeutic Approaches
       Andreas Hartmann, France

15:10  Update on the Management Strategy of Myoclonus: Common and Rare Causes and New Therapeutic Approaches
       Marina De Koning-Tijssen, Netherlands

15:50  Update on Restless Legs Syndrome: Pathophysiological Concepts and Evidenced Based Therapy
       Juliane Winkelmann, Germany

Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Summarize the current state of the art in the treatment of movement disorders with DBS
2. Identify advantages and disadvantages of lesion-based therapies for movement disorders
3. Describe the most recent advances in DBS surgery for movement disorders

CSPC Liaison: Elena Moro, France

1104  Therapeutic Plenary Session

Update on Neurosurgical Management of Movement Disorders
17:00 – 19:00

Location: Hall 5G
Chairs: Danny Chan, Hong Kong
       Elena Moro, France

17:00  Deep Brain Stimulation Surgery for Movement Disorders: Where Do We Stand
       Patricia Limousin, United Kingdom

17:40  Current Role of Lesions in the Management of Movement Disorders
       José Obeso, Spain

18:20  Current Trends and New Horizons in Neurosurgery for Movement Disorders
       Andres Lozano, Canada

Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Summarize the current state of the art in the treatment of movement disorders with DBS
2. Identify advantages and disadvantages of lesion-based therapies for movement disorders
3. Describe the most recent advances in DBS surgery for movement disorders

CSPC Liaison: Elena Moro, France

Welcome Ceremony
19:30 – 21:30
Location: Grand Hall
Saturday, October 6, 2018

2101 Plenary Session

Presidential Lectures
8:00 – 10:00
Location: Hall 5G
Chairs: Christopher Goetz, USA
Claudia Trenkwalder, Germany
8:00 Stanley Fahn Lecture: Dystonia or Dystonias: Hybrid Wonder and Mystery
Marie Vidalhlet, France
Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees
At the conclusion of this session, participants should better be able to:
Illustrate and conceptualize dystonia as a complex network disorder with clinical diversity and expanding boundaries. Appraise lessons from clinical experience and treatment approaches to gain perspective of new treatment modalities based on insight into pathophysiology.

9:00 Junior Lecture Awards
Stefan Lang, Canada
Elie Matar, Australia
Seyed-Mohammad Fereshtehnejad, Canada

9:30 C. David Marsden Lecture: 3D Human Brain Organoids: Towards a Better Disease Model
Eng-King Tan, Singapore
Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
Recognize the limitations of current invitro and invivo models of Parkinson's disease, evaluate the concepts and challenges in the generation of 3D human brain organoids, and review the potential applications of 3D human brain organoids in medical disease including Parkinson's disease
CSPC Liaison: Hyder Jinnah, USA

The MDJ Paper of the Year and Honorary Member Awards will also be presented at the beginning of this session.

2102 Themed Plenary Session

Modulation of Gene Expression and Neurodegenerative Movement Disorders
10:30 – 12:30
Location: Hall 5G
Chairs: Christine Klein, Germany
Baorong Zhang, People's Republic of China
10:30 Overview of Epigenetics and Its Impact on Neurodegeneration
Tiago Outeiro, Germany
11:10 Overview of Non-Coding Genetic Elements and Their Impact on Neurodegeneration
Menno Creyghton, Netherlands
11:50 Therapeutic Implications of Epigenetic and Non-Coding Modulatory Elements
Wim Mandemakers, Netherlands
Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Describe the basic principles of epigenetics and their possible implications for neurodegeneration (including pathogenesis, biomarkers, and therapeutic targets)
2. Summarize current knowledge on the role of non-coding genetic sequences in the pathogenesis of Parkinson's disease (cis-regulatory DNA elements, genetic enhancers, non-coding RNAs)
3. Discuss the therapeutic potential of manipulating epigenetic mechanisms and non-coding genetic elements for neurodegenerative diseases
CSPC Liaison: Vincenzo Bonifati, Netherlands

Guided Poster Tours

13:45 – 15:15
Guided Poster Tour 1: Clinical Trials and Therapy in Movement Disorders
Guided Poster Tour 2: Parkinson's Disease: Clinical Trials, Pharmacology and Treatment
Guided Poster Tour 3: Surgical Therapy: Parkinson's Disease
Location: Hall 3FG

Poster Session

13:45 – 15:15
Abstract Numbers: 1 – 602
Location: Hall 3FG

2203 Parallel Session

Ethical Issues and Novel Technologies for the Practicing Clinician
15:30 – 17:30
Location: Room S421
Chairs: Beomseok Jeon, South Korea
Kapil Sethi, USA
15:30 Ethical Issues in Movement Disorders
Wolfgang Oertel, Germany
16:10 Ethical Issues with Genetic Testing in the Next Generation Sequencing Era
Christine Klein, Germany
16:50 The Role of the Clinician In the Era of Advanced Diagnostic Testing
Beomseok Jeon, South Korea
Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Discuss basic ethical issues relevant to the management of patients with movement disorders
2. Describe the ethical concerns with genetic testing in the next generation sequencing era
3. Describe the ethical concerns for advanced diagnostic testing in the diagnosis and management of movement disorders
CSPC Liaison: Beomseok Jeon, South Korea
### Saturday, October 6, 2018

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
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<th>Chairs</th>
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<th>Audience</th>
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</table>
| **2204 Parallel Session**<br><br>Location: Hall 5G<br>Chairs: Olivier Rasoul, France<br>Don Cleveland, USA<br>15:30 – 17:30 | Novel Technology-Based Therapies on the Horizon | Theatre 2 | Seung-Jae Lee, South Korea | 16:50 Genetic Testing in the Next-Generation Sequencing Era<br>Location: Theatre 1<br>Chairs: Nobutaka Hattori, Japan<br>Baorong Zhang, People's Republic of China | Basic scientists, Clinical academicians, Practitioners, Students/Residents/Trainees<br>Recommended Audience: Basic scientists, Clinical academicians, Practitioners, Students/Residents/Trainees | At the conclusion of this session, participants should be better able to: 1. Describe the rationale and current status of immune therapy for Parkinson's disease and other neurodegenerative disorders that involve abnormal protein accumulation 2. Describe the rationale and current status of novel genetic technologies for treatment of inherited neurological disorders 3. Describe the rationale and potential for modulating protein clearance mechanism such as autophagy for treatment of Parkinson's disease and related disorders involving abnormal protein accumulation. |}

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### Parallel Session 2206

**What's New in Genetics of Movement Disorders**

**15:30 – 17:30**

**Location:** Theatre 1<br>**Chairs:** Nobutaka Hattori, Japan<br>Baorong Zhang, People's Republic of China<br>**15:30** Parkerion's Disease and Parkinsonism<br>Vincenzo Bonifati, Netherlands<br>**16:10** Hyperkinetic Movement Disorders<br>Carolyn Sue, Australia<br>**16:50** Genetic Testing in the Next-Generation Sequencing Era<br>Martha Rance, USA<br>**CSPC Liaison:** Vincenzo Bonifati, Italy<br>**Recommended Audience:** Basic scientists, Clinical academicians, Practitioners, Students/Residents/Trainees<br>**At the conclusion of this session, participants should be better able to:** 1. Describe a practical approach to the diagnosis of movement disorders in children<br>2. Identify recent progress in linking GBA mutations to disease mechanisms and their implication for treatment trials<br>3. Discuss current genetic testing methods for the diagnosis of movement disorders<br>**CSPC Liaison:** Hyder Jinnah, USA

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### Parallel Session 2207

**Late Breaking News in Movement Disorders**

**15:30 – 17:30**

**Location:** Convention Hall B<br>**Chairs:** Michael Okun, USA<br>Ryosuke Takahashi, Japan<br>**15:30** IPS Cells: An Old and New Approach for Understanding and Treating Movement Disorders?<br>Ryosuke Takahashi, Japan<br>**16:10** GBA Mutations: A Basis for Individualized Therapy in Parkinson's Disease?<br>Nir Giladi, Israel<br>**16:50** Can Understanding LRRK2 Lead to New Therapies?<br>Chih-Hsien Lin, Taiwan<br>**Recommended Audience:** Basic scientists, Clinical academicians, Practitioners, Students/Residents/Trainees<br>**At the conclusion of this session, participants should be better able to:** 1. Explain the potential role of IPS cells for understanding and treating Parkinson’s disease<br>2. Identify recent progress in linking GBA mutations to disease mechanisms and their implication for treatment trials<br>3. Describe approaches for disease modifying therapy in PD with LRRK2 as target for therapeutic trials<br>**CSPC Liaison:** Claudia Trenkwalder, Germany
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<th>Speaker(s)</th>
<th>Location</th>
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<tr>
<td>15:30</td>
<td><strong>2309 Teaching Course</strong></td>
<td>Gait Abnormalities in Movement Disorders</td>
<td>Convention Hall A</td>
<td>Bastiaan Bloem, Netherlands, Barry Snow, New Zealand</td>
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<td>16:10</td>
<td>Gait Problems in Parkinsonism and Frontal Lobe Gait Disorders</td>
<td>Simon Lewis, Australia</td>
<td>Convention Hall C</td>
<td>Bastiaan Bloem, Netherlands, Barry Snow, New Zealand</td>
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<td>16:50</td>
<td>Gait Problems in Hyperkinetic Movement Disorders</td>
<td>Alfonso Fasano, Canada</td>
<td>Convention Hall C</td>
<td>Bastiaan Bloem, Netherlands, Barry Snow, New Zealand</td>
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<td>15:30</td>
<td><strong>2310 Teaching Course</strong></td>
<td>Movement Disorders Meets Psychiatry</td>
<td>Convention Hall C</td>
<td>Mark Edwards, United Kingdom, Jon Stone, United Kingdom</td>
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<td>16:10</td>
<td>Functional Movement Disorders</td>
<td>Mark Edwards, United Kingdom</td>
<td>Convention Hall C</td>
<td>Mark Edwards, United Kingdom</td>
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<td>16:50</td>
<td>Movement Disorders in Psychiatric Patients</td>
<td>Peter Kempster, Australia</td>
<td>Convention Hall C</td>
<td>Mark Edwards, United Kingdom, Jon Stone, United Kingdom</td>
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**2310 Teaching Course**

At the conclusion of this session, participants should be better able to:
1. Recognize the main psychiatric disturbances in patients with different movement disorders
2. Discuss the clinical features and psychiatric background of functional movement disorders
3. Describe movement disorders in psychiatric disorders including side effects of drugs

CSPC Liaison: Helo Teive, Brazil

**2311 Teaching Course**

At the conclusion of this session, participants should be better able to:
1. Identify new motion sensor systems for analysis, diagnosis, and assessment of tremor
2. Describe the advantages and disadvantages of technology-based assessments, and estimate its accuracy and test-re-test reliability
3. Integrate the classical criteria and new instruments for tremor characterization and assessment

CSPC Liaison: Emilia Gatto, Belgium

**2411 Skills Workshop**

Traditional Methods vs. Novel Technologies for Assessing Tremor

**2412 Skills Workshop**

Practical Use of the MDS-UPDRS: A Global Effort

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<tr>
<td>18:00</td>
<td><strong>2411 Skills Workshop</strong></td>
<td>Traditional Methods vs. Novel Technologies for Assessing Tremor</td>
<td>Convention Hall C</td>
<td>Dietrich Haubenberger, USA, Fatta Nahab, USA</td>
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<tr>
<td>18:00</td>
<td><strong>2412 Skills Workshop</strong></td>
<td>Practical Use of the MDS-UPDRS: A Global Effort</td>
<td>Room S221</td>
<td>Vincent Mok, Hong Kong, Glenn Stubbins, USA</td>
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</tbody>
</table>

**2413 Skills Workshop**

Integrative Medicine and Multidisciplinary Care

At the conclusion of this session, participants should be better able to:
1. Identify the value and efficacy of integrated care management for different stages of Parkinson's disease and other common movement disorders
2. Appraise the scientific basis of non-pharmacological interventions of Parkinson's disease and other common movement disorders
3. Optimize strategies and logistics to implement patient-centered care in movement disorder clinics

CSPC Liaison: Maria Stamelou, Greece
**Saturday, October 6, 2018**

### 2414 Skills Workshop Room

**Novel Scientific Tools For Advancing the Understanding of Movement Disorders**  
18:00 – 19:30

**Location:** Convention Hall B  
Tomas Björklund, Sweden  
Alexandra Nelson, USA

*In this interactive session, the presenters will discuss novel emerging technologies that can be utilized for both basic and therapeutic research on movement disorders. Two types of technologies will be in focus, on one hand, circuit manipulation via optogenetics and chemogenetics and, on the other hand, editing of genomic DNA via CRISPR/Cas9 methodology.*

**Recommended Audience:** Basic scientists, Clinical academicians, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe possible applications of optogenetics and chemogenetics to study the pathophysiology of movement disorders
2. Define the basic principles of CRISPR/Cas9 methodology for editing genomic DNA
3. Describe the technical and biological requirements that need to be fulfilled for a fruitful application of the above technologies

**CSPC Liaison:** M. Angela Cenci Nilsson, Sweden

### 2516 Video Session

**Unusual Movement Disorders**  
18:00 – 19:30

**Location:** Hall 5G  
Carlos Cosentino, Peru  
Francesca Morgante, Italy

*In this interactive session, the faculty will present videos of less common inherited and acquired movement disorders and provide an approach of how to generate a reasonable differential diagnosis. Appropriate investigations and treatment will be discussed.*

**Recommended Audience:** Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Recognize less common inherited movement disorders
2. Recognize less common acquired or idiopathic movement disorders
3. Describe an approach to the differential diagnosis of unusual movement disorders

**CSPC Liaison:** Shen-Yang Lim, Malaysia

### 2515 Video Session

**Showcases From Asia**  
18:00 – 19:30

**Location:** Theatre 2  
Cid Czarina Diesta, Philippines  
Shen-Yang Lim, Malaysia

*In this interactive session, the presenters will present and discuss movement disorders that are more common in the Asian population.*

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Recognize hereditary movement disorders which are more common in Asians
2. Recognize acquired movement disorders which are related with environment or culture in Asians
3. Discuss how geographical origin or ethnic background can influence differential diagnosis

**CSPC Liaison:** Beomseok Jeon, South Korea

### 2517 Video Session

**How to Examine: A Clinician’s Perspective of Bedside Examination**  
18:00 – 19:30

**Location:** Theatre 1  
Niall Quinn, United Kingdom  
Stephen Reich, USA

*This interactive session will demonstrate how to identify valuable clues during various portions of an examination, and how to prompt responses without preconception.*

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe optimal techniques to elicit a comprehensive history
2. Develop best techniques to elicit an informative examination
3. Develop appropriate reasoning to achieve accurate diagnoses

**CSPC Liaison:** Irene Litvan, USA

### 2518 Video Session

**Ataxia**  
18:00 – 19:30

**Location:** Convention Hall A  
Orlando Barsottini, Brazil  
Kinya Ishikawa, Japan

*In this interactive session using video and case examples, participants will gain knowledge of the clinical features and differential diagnoses of various ataxia syndromes along with ways to diagnosis and manage these ataxias.*

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Identify clinical features in the differential diagnosis of acquired, sporadic, and hereditary ataxias
2. Review the systematic work up of the ataxias
3. Discuss examination strategies to elicit and facilitate the diagnosis of ataxia signs and symptoms

**CSPC Liaison:** Jennifer Goldman, USA
Sunday, October 7, 2018

3101 Plenary Session
Update on Recent Clinical Trials
8:00 – 9:30
Location: Hall 5G
Chairs: Carolyn Sue, Australia
Louis Tan, Singapore
8:00 Update on Clinical Trials in Parkinson’s Disease: Motor
Thomas Foltynyi, United Kingdom
8:30 Update on Clinical Trials in Parkinson’s Disease: Non-Motor
Karen Marder, USA
9:00 Update on Clinical Trials in Atypical Parkinsonian Disorders
Wassilios Meissner, France

Recommended Audience: Basic scientists, Clinical academicians,
Non-physician Health Professionals, Practitioners, Students/
Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss recent clinical trials in Parkinson’s disease
2. Review recent clinical trials for non-motor features of Parkinson’s disease
3. Discuss recent clinical trials for atypical parkinsonian disorders
CSPC Liaison: Jennifer Goldman, USA

MDS Business Meeting
9:30 – 10:30
Location: Theatre 2
All delegates are encouraged to attend.

3102 Plenary Session, cont.
At the conclusion of this session, participants should be better able to:
1. Identify how experts use the clinical history and exam to formulate their diagnosis in movement disorders cases
2. Identify how experts use diagnostic testing in the differential diagnosis of movement disorders
3. Identify how experts plan therapies for movement disorder patients
CSPC Liaison: Hyder Jinnah, USA

Guided Poster Tours
13:45 – 15:15
Guided Poster Tour 4: Ataxia
Guided Poster Tour 5: Dystonia
Guided Poster Tour 6: Chorea
(Non-Huntington’s Disease)
Guided Poster Tour 7: Parkinsonism, MSA, PSP
(Secondary and Parkinsonism-Plus)
Guided Poster Tour 8: Technology
Guided Poster Tour 9: Tremor
Location: Hall 3FG

Poster Session
13:45 – 15:15
Abstract Numbers: 603-1216
Location: Hall 3FG

3103 Parallel Session
Advances in Stem Cells and Parkinson’s Disease
15:30 – 17:30
Location: Theatre 2
Chairs: Dimitri Krainc, USA
Ken Yung, Hong Kong
15:30 Human Stem Cells: Options Available
Jeffrey Kordower, USA
16:10 Modeling Pathogenesis of Parkinson’s Disease
Dimitri Krainc, USA
16:50 Stem Cells for Therapeutics: Fantasy or Reality?
Anne Rosser, United Kingdom

Recommended Audience: Basic scientists, Clinical academicians,
Non-physician Health Professionals, Practitioners, Students/
Residents/Trainees

In this interactive session, MDS experts will examine interesting common and complex patients. The audience will learn how they formulate diagnoses and manage these interesting and challenging patients.

Recommended Audience: Basic scientists, Clinical academicians,
Non-physician Health Professionals, Practitioners, Students/
Residents/Trainees

3203 Parallel Session, cont.
At the conclusion of this session, participants should be better able to:
1. Describe the history and technological advances in stem cell biology
2. Explain how stem cells can be used to study the pathogenesis of Parkinson’s disease
3. Discuss the current status of stem cell therapy including challenges and pitfalls
CSPC Liaison: Karen Marder, USA

3204 Parallel Session
Technologies to Advance Neuromodulation Therapy for Movement Disorders
15:30 – 17:30
Location: Theatre 1
Chairs: Volker Coenen, Germany
Takaomi Taira, Japan
15:30 New Engineering Technologies
Alberto Priori, Italy
16:10 New Surgical Strategies
Volker Coenen, Germany
16:50 New Technologies for Patient Selection
Maria Contarino, Netherlands

Recommended Audience: Basic scientists, Clinical academicians,
Non-physician Health Professionals, Practitioners, Students/
Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe the most recent advances in neuromodulation technologies including closed loop and adaptive stimulation and steerable electrodes
2. Compare emerging trends in surgical strategies including intraoperative imaging, local field potentials, or networks
3. Define the new developments to improve patient selection for neuromodulation therapies including imaging, biomarkers and genetics
CSPC Liaison: Elena Moro, France
Sunday, October 7, 2018

**3205 Parallel Session [TICKET]**

Visual Hallucinations in Parkinson’s Disease and Lewy Body Dementias: From Mechanism to Management  
**15:30 – 17:30**

**Location:** Room 5421  
**Chairs:** Jennifer Goldman, USA  
Daniel Weintraub, USA

At the conclusion of this session, participants should be better able to:
1. Discuss current theories of visual hallucinations in Parkinson’s disease and Lewy body dementias
2. Describe neuroimaging findings associated with visual hallucinations in Parkinson’s disease and Lewy body dementias
3. Review management strategies for visual hallucinations in Parkinson’s disease and Lewy body dementias

**CSPEC Liaison:** Jennifer Goldman, USA

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents

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**3206 Parallel Session [TICKET], cont.**

Prodromal Parkinson’s Disease  
**15:30 – 17:30**

**Location:** Convention Hall B  
**Chairs:** Daniela Berg, Germany  
Etienne Hirsch, France

At the conclusion of this session, participants should be better able to:
1. Identify clinical genetic and imaging features for prodromal Parkinson’s disease
2. Explain the pathophysiological basis for prodromal Parkinson’s disease
3. Discuss future clinical trial design and strategies for disease modification

**CSPEC Liaison:** Jennifer Goldman, USA

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents

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**3207 Parallel Session [TICKET]**

Challenges in Clinicogenetic Correlations: One Gene – Many Phenotypes; One Phenotype – Many Genes  
**15:30 – 17:30**

**Location:** Room S221  
**Chairs:** Vincenzo Bonifati, Netherlands  
Hyder Jinnah, USA

15:30  One Gene – Many Phenotypes  
**Roberto Erro, Italy**

16:10  One Phenotype – Many Genes  
**Marialuisa Quadri, Netherlands**

16:50  Clinical Implications – Diagnosis and Management Strategies  
**Eng King Tan, Singapore**

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

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**3208 Parallel Session [TICKET]**

Understanding and Managing Complex Gait Disorders in Parkinson’s Disease  
**15:30 – 17:30**

**Location:** Hall 5G  
**Chairs:** Nir Giladi, Israel  
Alice Nieuwboer, Belgium

15:30  The Interplay Between Walking Ability and Cognitive Function  
**Lynn Rochester, United Kingdom**

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

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**3209 Teaching Course [TICKET]**

Wearable Technology and Machine Learning for Quantitative Evaluation of Parkinson’s Disease  
**15:30 – 17:30**

**Location:** Convention Hall A  
**Chairs:** Roongroj Bhidayasiri, Thailand  
Alberto Espay, USA

15:30  Wearable Sensors and Smart Phones: Can They Be Diagnostic Tools?  
**Alberto Espay, USA**

16:10  Machine Learning and Large-Scale Sensor-Based Analysis for Parkinson’s Disease  
**Bjoern Eskofier, Germany**

16:50  Wearable Technology for Monitoring Patients at Home  
**Roongroj Bhidayasiri, Thailand**

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

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**3210 Teaching Course [TICKET]**

Managing Complex Gait and Postural Instability: A Balancing Act?  
**16:10**

**Location:** Colum Mackinnon, USA

**Recommended Audience:** Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

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**3211 Teaching Course [TICKET]**

Assessment and Therapeutic Options for Complex Gait Disorders: A Contemporary View  
**16:50**

**Location:** Bastiaan Bloem, Netherlands

**Recommended Audience:** Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

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**3212 Teaching Course [TICKET]**

Their Mechanism to Management of Movement Disorders in Parkinson’s Disease and Lewy Body Dementias  
**15:30 – 17:30**

**Location:** Hall 5G  
**Chairs:** John-Paul Taylor, United Kingdom

15:30  The Interplay Between Walking Ability and Cognitive Function  
**Lynn Rochester, United Kingdom**

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees
Sunday, October 7, 2018

**3310 Teaching Course [TICKET]**

**Update on Huntington's Disease and Other Choreas**
15:30 – 17:30

Location: Convention Hall C
Chairs: Emilia Gatto, Argentina
Hui Fang Shang, People's Republic of China

15:30 Huntington's Disease Clinical Recognition and Differential Diagnosis of Chorées
Hui Fang Shang, People's Republic of China

16:10 Current Concepts of Huntington's Disease Pathogenesis
Alexandra Durr, France

16:50 Symptomatic and Disease Modifying Treatments for Chorea and Huntington's Disease
Hitoshi Okazawa, Japan

Recommended Audience: Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Recognize the clinical features of Huntington’s disease subtypes and generate a classification-oriented differential diagnosis
2. Discuss disease mechanisms and genetic modifiers for Huntington's disease
3. Describe symptomatic therapies for chorea and emerging strategies to address Huntington's disease progression

CSPC Liaison: Jean-Christophe Corvol, France

**3411 Skills Workshop [TICKET]**

**Urogenital Dysfunction in Parkinson’s Disease**
18:00 – 19:30

Location: Theatre 2
Onanong Jitkritsadakul, Thailand
Jalesh Panicker, United Kingdom

In this interactive session, participants will learn how to investigate and treat bladder and sexual dysfunction in patients with Parkinson's disease.

Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Identify the basis of bladder and sexual dysfunction in Parkinson's disease
2. Recognize the impact of bladder and sexual dysfunction on quality of life for patient and partner
3. Determine evidence-based and state-of-the-art management strategies for bladder and sexual dysfunction in Parkinson's disease

CSPC Liaison: Shen-Yang Lim, Malaysia

**3412 Skills Workshop [TICKET]**

**Atypical Parkinson Disorders: Multiple System Atrophy and Corticobasal Degeneration / Progressive Supranuclear Palsy**
18:00 – 19:30

Location: Hall 5G
Han-Joon Kim, South Korea
Maria Stamelou, Greece

In this interactive session, attendees will learn how to diagnose and treat the different atypical parkinsonian disorders.

Recommended Audience: Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Summarize the importance of accurate diagnosis and clinical examination of muscle patterns involved for optimal BoNT treatment of movement disorders
2. Apply state-of-the-art BoNT procedures for focal dystonias, spasticity and other disorders
3. Recognize more challenging cases and how to deal with them

CSPC Liaison: Hyder Jinnah, USA

**3413 Skills Workshop [TICKET]**

**Botulinum Toxins**
18:00 – 19:30

Location: Convention Hall A
Ryuji Kaji, Japan
Erle Chuen-Hian Lim, Singapore

In this interactive session participants will discuss strategies for the use of Botulinum toxins in various movement disorders.

Recommended Audience: Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Interpret key features and construct appropriate strategies, and explore common pitfalls of the evaluation process that they have learned from experience.

CSPC Liaison: Jean-Christophe Corvol, France

**3414 Skills Workshop [TICKET]**

**Lessons from My Patients**
18:00 – 19:30

Location: Convention Hall C
Cynthia Comella, USA
Oscar Gershanik, Argentina

In this interactive session, the presenters will analyze important clinical history and exam management approaches, recognize key features to determine appropriate strategies, and explore common pitfalls of the evaluation process that they have learned from experience.

Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Critique pertinent clinical history and examinations when diagnosis and management are in doubt
2. Interpret key features and construct appropriate diagnostic and management strategies
3. Identify common pitfalls in the evaluation of movement disorders

CSPC Liaison: Roongroj Bhidayasiri, Thailand
### Sunday, October 7, 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Location</th>
<th>Presenter(s)</th>
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<tbody>
<tr>
<td>18:00</td>
<td><strong>Rare Autoimmune and Infectious Movement Disorders Not to Miss</strong></td>
<td>Convention Hall B</td>
<td>Bettina Balint, United Kingdom</td>
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<td>Mahit Bhatt, India</td>
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<td>In this interactive session, the presenters will discuss the diagnosis of</td>
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<td>movement disorder presentations of antibody-related disease providing red</td>
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<td>flags and syndromic approaches to facilitate a rapid recognition and diagnosis</td>
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<td>of an autoimmune disorder taking into account that early therapeutic</td>
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<td>intervention improves long-term prognosis and may be life-saving. On the</td>
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<td>other hand, presenters will be provide the clinical tips to recognize</td>
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<td>movement disorders associated with infections, a very debilitating disorder in</td>
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<td>several areas around the world.</td>
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<td>Recommended Audience: Basic scientists, Clinical academicians, Non-physician</td>
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<td>Health Professionals, Practitioners, Students/Residents/Trainees</td>
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<td>At the conclusion of this session, participants should be better able to:</td>
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<td>1. Recognize autoimmune and infectious rare movement disorders</td>
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<td>2. Discuss diagnostic tests for autoimmune and infectious rare movement</td>
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<td>3. Describe therapeutic options for autoimmune and infectious rare movement</td>
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<td>CSPC Liaison: Emilia Gatto, Argentina</td>
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<td><strong>Tremor Update</strong></td>
<td>Room S221</td>
<td>Günther Deuschl, Germany</td>
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<td>Rodger Elble, USA</td>
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<td>In this interactive session, participants will learn the history and</td>
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<td>evolution, as well as a more updated view of the definition and classification</td>
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<td>of all types of tremors.</td>
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<td>Recommended Audience: Basic scientists, Clinical academicians, Non-physician</td>
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<td>Health Professionals, Practitioners, Students/Residents/Trainees</td>
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<td>At the conclusion of this session, participants should be better able to:</td>
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<td>1. Summarize the history and evolution of the term “essential tremor”</td>
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<td>2. Describe the recently proposed changes in the definitions and classifications of all tremors</td>
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<td>3. Outline areas of ongoing uncertainty in the differential diagnosis of various tremors</td>
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<td>CSPC Liaison: Steven Frucht, USA</td>
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<td></td>
<td><strong>Challenges in Movement Disorders Education: A Comparison of Africa and Asia</strong></td>
<td>Room S421</td>
<td>Njideka Okubadejo, Nigeria</td>
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<td>18:00 – 19:30</td>
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<td>Louis Tan, Singapore</td>
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<td>A core mission of the International Parkinson and Movement Disorder Society</td>
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<td>is to educate its members and the community throughout the world. In this</td>
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<td>interactive session, the participants will learn approaches to movement</td>
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<td>disorder education and training in Asia and Sub-Saharan Africa. The Asian and</td>
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<td>Oceanic section of MDS has grown and evolved considerably in recent years</td>
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<td>serving as a foundation for education and training, while new initiatives in</td>
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<td>Sub-Saharan Africa are evolving.</td>
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<td>Recommended Audience: Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees</td>
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<td>At the conclusion of this session, participants should be better able to:</td>
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<td>1. Describe the current and past movement disorder educational activities</td>
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<td>taking place in Sub-Saharan Africa</td>
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<td>2. Describe the current and past movement disorder educational activities</td>
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<td>taking place in Asia</td>
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<td>3. Identify the potential strategies for enhancing movement disorder training</td>
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<td>in different parts of the world</td>
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<td>CSPC Liaison: Matthew Stern, USA</td>
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<td><strong>Eye Movements</strong></td>
<td>Theatre 1</td>
<td>Ji-Soo Kim, South Korea</td>
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<td>18:00 – 19:30</td>
<td></td>
<td>Aasef Shaikh, USA</td>
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<td>In this interactive session, attendees will learn how to examine eye</td>
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<td>movements, to recognize characteristic eye movement abnormalities and to</td>
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<td>interpret these findings in relation to clinical phenotype.</td>
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<td>Recommended Audience: Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees</td>
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<td>At the conclusion of this session, participants should be better able to:</td>
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<td>1. Apply bedside examination of eye movements for the differential diagnosis</td>
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<td>of movement disorders</td>
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<td>2. Identify typical eye movement abnormalities of fixation, saccades, pursuit,</td>
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<td>vergence and vestibular function</td>
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<td>3. Recognize characteristic eye movement abnormalities in movement disorders</td>
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<td>CSPC Liaison: Wassilios Meissner, France</td>
<td></td>
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</tr>
</tbody>
</table>
Monday, October 8, 2018

4101  Plenary Session

Advances in Huntington's Disease
8:00 – 9:30
Location:  Hall 5G
Chairs:  Karen Marder, USA

8:00 Novel Diagnostic Criteria for Huntington's Disease
Christopher Ross, USA

8:30 Clinical, Brain Imaging, and Wet Biomarkers for Monitoring of Huntington's Disease Progression
Emilia Gatto, Argentina

9:00 From Bench to Bedside: New Therapeutic Approaches for Huntington's Disease
Beverly Davidson, USA

Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe novel diagnostic criteria for Huntington's disease
2. Identify clinical, brain imaging, and biomarkers for the diagnosis of Huntington's disease and to monitor disease progression
3. Discuss new therapeutic approaches in Huntington's disease
CSPC Liaison: Jean-Christophe Corvol, France

4102  Plenary Session, cont.

11:20 Technology Based Assessments to Enhance Remote Monitoring in Parkinson's Disease
Anat Mirelman, Israel

Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Evaluate the rationale and context for use of biometric monitoring devices in clinical research
2. Describe the opportunities, challenges, and limitations of implementation of novel objective technology based measures in observational studies and clinical trials in Huntington's disease
3. Evaluate the potential for technology based assessments to facilitate remote monitoring in Parkinson's disease
CSPC Liaison: Karen Marder, USA

Guided Poster Tours

13:15 – 14:45
Guided Poster Tour 10: Parkinson's Disease: Genetics
Guided Poster Tour 11: Parkinson's Disease: Neuroimaging and Neuropathology
Guided Poster Tour 12: Parkinson's Disease: Non-Motor Symptoms
Guided Poster Tour 13: Parkinson's Disease: Pathophysiology

Location:  Hall 3FG

Poster Session

13:15-14:45
Abstract Numbers: 1217-1818
Location:  Hall 3FG

Poster Session

13:15-14:45
Abstract Numbers: 1217-1818
Location:  Hall 3FG

4203  Parallel Session

New Imaging Frontiers in Movement Disorders
15:00 – 17:00
Location:  Theatre 1
Chairs:  Stephane Lehericy, France
Antonio Strafella, Canada

15:00 MRI, Ultra-High Field and Iron Imaging
Stephane Lehericy, France

15:40 Imaging Neurotransmitter Receptors
Maria Cecilia Peralta, Argentina

16:20 New Frontiers in Molecular Imaging
Makoto Higuchi, Japan

Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Explain existing and emerging MRI-based methods in the diagnosis or monitoring of patients with movement disorders
2. Describe the role of neurotransmitter-based imaging methods in the diagnosis or monitoring of movement disorders
3. Summarize novel imaging-based methods in the diagnosis or monitoring of movement disorders
CSPC Liaison: Antonio Strafella, Canada

4204  Parallel Session

Special Topics in Movement Disorders
15:00 – 17:00
Location:  Convention Hall A
Chairs:  Steven Frucht, USA
Rachel Saunders-Pullman, USA

15:00 Gender Differences
Rachel Saunders-Pullman, USA

15:40 Regional, Racial and Ethnic Differences
Roland Dominic Jamora, Philippines

16:20 In-Hospital Consultations
Tim Anderson, New Zealand

Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees
### Monday, October 8, 2018

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Location</th>
<th>Chairs</th>
<th>Time</th>
<th>Description</th>
</tr>
</thead>
</table>
| **4204** | **Parallel Session**<br>Complementary and Alternative Medicine in Parkinson’s Disease | Theatre 2 | Benzi Kluger, USA<br>Vincent Mok, Hong Kong | 15:00 – 17:00 | At the conclusion of this session, participants should be better able to:  
1. Describe the epidemiology and risk factors for movement disorders in men and women  
2. Relate genetic and environmental risk factors to differences in prevalence and incidence of movement disorders  
3. Define the diagnosis and treatment of emergency room and intensive care movement disorder consultations  
CSPC Liaison: Steven Frucht, USA |
| **4205** | **Parallel Session**<br>Tardive Syndromes: A Re-Emerging Crisis? | Convention Hall C | Vladimir Kostic, Serbia<br>Louis Tan, Singapore | 15:00 | At the conclusion of this session, participants should be better able to:  
1. Recognize the causes, incidence and prevalence of tardive syndromes  
2. Recognize usual and unusual tardive syndromes, and differentiate them from their mimics  
3. Formulate a treatment paradigm for patients with tardive syndromes  
CSPC Liaison: Karen Marder, USA |
| **4206** | **Parallel Session**<br>The Microbiome-Gut-Brain Axis and Parkinson’s Disease | Convention Hall B | Yuk Fai Cheung, Hong Kong<br>Shen-Yang Lim, Malaysia | 15:00 | At the conclusion of this session, participants should be better able to:  
1. Describe non-dopaminergic lesions in Parkinson disease including acupuncture, Chinese Herbs, Ayurvedic Medicine  
2. Describe evidence both for and against Western CAM in Parkinson’s disease including marijuana and mucuna supplements  
3. Summarize the human factors, mass media effects, and our recommendation for complementary alternative medicine to patients with Parkinson’s disease  
CSPC Liaison: Beomseok Jeon, South Korea |
| **4207** | **Parallel Session**<br>Fatal Attraction Between Tau and Alpha Synuclein in Parkinson’s Disease Pathology | Room S421 | Glenda Halliday, Australia<br>Günter Höglinger, Germany | 15:00 | At the conclusion of this session, participants should be better able to:  
1. Explain the basic concepts of microbiome research and appreciate the role of the microbiome in human health and disease  
2. Appraise the potential role of the microbiome in Parkinson’s disease and related disorders, based on clinical studies  
3. Discuss the gut-brain axis in Parkinson’s disease pathogenesis, based on studies from animals  
CSPC Liaison: Etienne Hirsch, France |
| **4309** | **Teaching Course**<br>Treatable Movement Disorders Not to Miss | Hall 5G | Emilia Gatto, Argentina<br>Yih-Pu Wu, Taiwan | 15:00 | Treatable Early-Onset Disorders with Chorea and Dystonia |

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees
Monday, October 8, 2018

### 4309 Teaching Course [Ticket](#) cont.

#### 15:40
- **Treatable Early-Onset Disorders with Ataxia and Spasticity**
  - Helio Teive, Brazil

#### 16:20
- **Treatable Early-Onset Disorders with Parkinsonism**
  - Yih-Ru Wu, Taiwan

**Recommended Audience:** Basic scientists, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

**Description**

At the conclusion of this session, participants should be better able to:

1. Recognize, diagnose and treat juvenile chorea and dystonia
2. Describe and differentiate juvenile ataxia and spasticity, including management options
3. Discuss the diagnosis and management of Parkinsonism in young patients

**CSPC Liaison:** Emilia Gatto, Argentina

This course will be videotaped and developed into an online MDS education module that will be available in January free to members.

### 4310 Teaching Course [Ticket](#)

**Management of Parkinson’s Disease: Advanced and Invasive Therapies**

#### 15:00 – 17:00

**Location:** Room 5221

**Chairs:**
- Stephen Reich, USA
- Lars Timmermann, Germany

#### 15:00
- **Advanced Medical Therapies and When to Consider Patients for Invasive Therapies**
  - Maria Rodriguez-Oroz, Spain

#### 15:40
- **Deep Brain Stimulation and Other Surgical Interventions**
  - Lars Timmermann, Germany

#### 16:20
- **Infusion Therapies**
  - Regina Katzenschlager, Austria

**Recommended Audience:** Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:

1. Recognize when more invasive therapies for the management of advanced Parkinson’s disease should be considered
2. Explain the risks and benefits of Deep Brain Stimulation and other surgical interventions
3. Describe the risks and benefits of continuous subcutaneous apomorphine and levodopa intestinal gel

**CSPC Liaison:** Maria Stamelou, Greece

### 4411 Skills Workshop [Ticket](#)

**Atypical Presentations of Common Movement Disorders**

#### 17:30 – 19:00

**Location:** Convention Hall B
  - Barry Snow, New Zealand
  - Pille Taba, Estonia

**In this interactive session, the presenters will discuss the various clinical presentations of Parkinson’s disease and other parkinsonian syndromes, identify unusual features of ataxic disorders including well-known genetic ataxias, and discuss atypical presentations of well-known genetic disorders.**

**Recommended Audience:** Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:

1. Describe the various clinical presentations of Parkinson’s disease and other parkinsonian syndromes
2. Describe the sometimes unusual presentations of other movement disorders
3. Describe atypical presentations of well-known genetic disorders

**CSPC Liaison:** Han-Joon Kim, South Korea

### 4412 Skills Workshop [Ticket](#)

**How to Become a Successful Movement Disorder Specialist**

#### 17:30 – 19:00

**Location:** Room 5421

- Shengdi Chen, People’s Republic of China
- Esther Gobo, Spain
- Stanley Fahn, USA

**This workshop will provide the participant the opportunity to meet and discuss how to successfully approach becoming a movement disorder specialist. The goals will include an interactive review of steps to take to pursue a career in movement disorders as well as how to become an effective leader.**

**Recommended Audience:** Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:

1. Recognize the best approaches to become an excellent movement disorder specialist
2. Describe the best approaches to succeed in academia and practice
3. Identify essential aspects of becoming an effective leader

**CSPC Liaison:** Irene Litvan, USA

### 4413 Skills Workshop [Ticket](#)

**Speech Analysis and Therapy**

#### 17:30 – 19:00

**Location:** Convention Hall A

- Hanneke Kalf, Netherlands
- Serge Pinto, France

**In this interactive session, the presenters will examine speech and voice related symptoms, identify and test forms of dysarthria, and describe new forms of technology for speech/swallowing evaluation.**

**Recommended Audience:** Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:

1. Examine speech and voice related symptoms of movement disorders
2. Describe current and emerging technologies for speech/swallowing evaluation
3. Summarize treatment strategies that may be applied for different speech disorders

**CSPC Liaison:** Antonio Strafella, Canada

### 4414 Skills Workshop Room [Ticket](#)

**Spasticity Update**

#### 17:30 – 19:00

**Location:** Theatre 2

- David Simpson, USA
- Giovanni Stevanin, France

**In this interactive session, participants will discuss new developments in the diagnosis and treatment of different types of spasticity.**

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:

1. Recognize the varied clinical manifestations of different spasticity disorders, hereditary and acquired
2. Describe the biological mechanisms that may cause spasticity
3. Summarize current and emerging treatments for different types of spasticity

**CSPC Liaison:** Hyder Jinnah, USA
### Monday, October 8, 2018

<table>
<thead>
<tr>
<th>Session Code</th>
<th>Video Session Title</th>
<th>Time</th>
<th>Location</th>
<th>Speakers</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>4515</td>
<td>Practical Strategies for Tai Chi and Other Exercise Therapies for Parkinson's Disease</td>
<td>17:30 – 19:00</td>
<td>Convention Hall C</td>
<td>Madeleine Hackney, USA Margaret Mak, Hong Kong</td>
<td>In this interactive session, the presenters will discuss the exercise and Tai Chi options in managing people with Parkinson's disease, and appraise the evidence on efficacy and dosing of exercise and Tai Chi. Participants will also be shown video cases of various forms of exercise and Tai Chi for people with Parkinson's disease. Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees At the conclusion of this session, participants should be better able to: 1. Recognize the breadth of exercise and Tai Chi options in managing Parkinson's disease 2. Appraise the evidence on the efficacy and dosing of exercise and Tai Chi for Parkinson's disease 3. Formulate strategies for integrating exercise and Tai Chi into the comprehensive management of people with Parkinson's disease CSPC Liaison: Vincent Mak, Hong Kong</td>
</tr>
<tr>
<td>4517</td>
<td>Psychogenic Movement Disorders</td>
<td>17:30 – 19:00</td>
<td>Hall 5G</td>
<td>Kathrin LaFaver, USA Jon Stone, United Kingdom</td>
<td>In this interactive session, participants will review clinical information and video demonstrations in an interactive format to aid in the recognition of psychogenic movement disorders of all types. Recommended Audience: Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees At the conclusion of this session, participants should be better able to: 1. Recognize in a patterned approach the clinical profiles of hyperkinetic psychogenic movement disorders 2. Describe the clinical characteristics of psychogenic Parkinsonism and other hypokinetic psychogenic movement disorders 3. Identify the common social, psychological, medical, and legal circumstances associated with psychogenic movement disorders CSPC Liaison: Vladimir Kostic, Serbia</td>
</tr>
<tr>
<td>4516</td>
<td>Movement Disorder Emergencies</td>
<td>17:30 – 19:00</td>
<td>Room S221</td>
<td>Mandy Au-Yeung, Hong Kong Steven Frucht, USA</td>
<td>In this interactive session, the presenters will discuss common occurrences and signs in movement disorder emergency conditions, and demonstrate management strategies for Parkinsonian as well as non-Parkinsonian emergencies. Recommended Audience: Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees At the conclusion of this session, participants should be better able to: 1. Recognize clinical settings and signs in movement disorder emergencies 2. Outline management strategies of Parkinson-related emergencies 3. Outline management strategies of common non-Parkinsonian emergencies CSPC Liaison: Roongroj Bhidayasiri, Thailand</td>
</tr>
<tr>
<td>4518</td>
<td>Challenging Cases in DBS</td>
<td>17:30 – 19:00</td>
<td>Theatre 1</td>
<td>Anna Castrioto, France Riaan Van Coller, South Africa</td>
<td>In this interactive session, the presenters will discuss how to recognize and manage issues in movement disorder patients with DBS. These challenging cases will span from the indication for DBS to dealing with post-operative problems directly or indirectly related to DBS. Parkinson, dystonia and tremor DBS patients will be presented and discussed between faculty and audience. Recommended Audience: Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees At the conclusion of this session, participants should be better able to: 1. Recognize common and uncommon challenges in managing DBS patients with movement disorders 2. Identify diagnostic clues and treatment options in difficult DBS cases 3. Apply available strategies in managing challenging DBS cases CSPC Liaison: Elena Moro, France</td>
</tr>
</tbody>
</table>

### MDS Video Challenge Pre-Event Gathering
- **Time:** 19:00 – 20:00
- **Location:** Hall 5F

### MDS Video Challenge
- **Time:** 20:00 – 22:00
- **Location:** Hall 5G

See International Congress Mobile App for more information.
### Tuesday, October 9, 2018

<table>
<thead>
<tr>
<th>Time</th>
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<th>Chairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>5101</td>
<td>Plenary Session</td>
<td>Hall 5G</td>
<td>Oscar Gershanik, Argentina</td>
</tr>
<tr>
<td></td>
<td><strong>Biomarkers for Parkinson’s Disease</strong></td>
<td></td>
<td>Shu-Leong Ho, Hong Kong</td>
</tr>
<tr>
<td>8:00</td>
<td>What Makes a Good Biomarker?</td>
<td></td>
<td>Brit Mollenhauer, Germany</td>
</tr>
<tr>
<td>8:30</td>
<td>Body Fluid and Tissue Biomarkers: Current and Future</td>
<td></td>
<td>Douglas Galasko, USA</td>
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<tr>
<td>9:00</td>
<td>Imaging Biomarkers: Current and Future</td>
<td></td>
<td>Antonio Strafella, Canada</td>
</tr>
</tbody>
</table>

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Define the characteristics of a good biomarker for Parkinson’s disease
2. Describe proposed body fluid and tissue biomarkers for predicting or monitoring clinical features of Parkinson’s disease
3. Summarize the role of neuroimaging for predicting or monitoring clinical features of Parkinson’s disease

CSPC Liaison: Emilia Gatto, Argentina

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
<th>Chairs</th>
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<tbody>
<tr>
<td>5102</td>
<td>Plenary Session</td>
<td>Hall 5G</td>
<td>Anthony Lang, Canada</td>
</tr>
<tr>
<td></td>
<td><strong>Controversies in Movement Disorders</strong></td>
<td></td>
<td>Victor Fung, Australia</td>
</tr>
<tr>
<td>10:00</td>
<td>Is DBS Superior to Lesioning in Movement Disorders Therapy? (YES)</td>
<td></td>
<td>Elena Moro, France</td>
</tr>
<tr>
<td>10:15</td>
<td>Is DBS Superior to Lesioning in Movement Disorders Therapy? (NO)</td>
<td></td>
<td>Takaomi Taira, Japan</td>
</tr>
<tr>
<td>10:30</td>
<td>Does Parkinson’s Disease Start in the Gut? (YES)</td>
<td></td>
<td>Kathleen Shannon, USA</td>
</tr>
<tr>
<td>10:45</td>
<td>Does Parkinson’s Disease Start in the Gut? (NO)</td>
<td></td>
<td>Roberto Cilia, Italy</td>
</tr>
</tbody>
</table>

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe the advantages and disadvantages of different surgical therapies for movement disorders
2. Explain “gut-brain axis” proposed by Braak and the evidence supporting or refuting

CSPC Liaison: Ryosuke Takahashi, Thailand

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<th>Chairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>5103</td>
<td>Plenary Session</td>
<td>Hall 5G</td>
<td>M. Angela Cenci Nilsson, Sweden</td>
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<tr>
<td></td>
<td>Blue Ribbon Highlights</td>
<td></td>
<td>Un Kang, USA</td>
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<tr>
<td>11:00</td>
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</table>

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees

This session will provide a critical review of the best poster presentations by a panel of experts, highlighting the relevance, novelty, and quality of both clinical and basic research presented by delegates.

At the conclusion of this session, participants should be better able to:
1. Review recent developments in the basic sciences of Movement Disorders
2. Review recent developments in clinical diagnosis or monitoring of Movement Disorders
3. Explain how recent developments may impact our treatment of Movement Disorders

CSPC Liaison: Hyder Jinnah, USA

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See International Congress mobile app for full faculty listing.
Corporate Therapeutic Symposia

These company-based informational sessions will provide attendees with non-CME educational opportunities to learn the latest in therapeutics.

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<tr>
<th>Date</th>
<th>Session</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRIDAY, OCTOBER 5, 2018</td>
<td>Sunovion: Pathophysiology of OFF: Implications for Increasing Recognition of Motor Fluctuations</td>
<td>13:15-14:15</td>
<td>Convention Hall C</td>
</tr>
<tr>
<td></td>
<td>SATURDAY, OCTOBER 6, 2018  Bial: Targeting COMT as the Levodopa Add-On Treatment for Parkinson’s Disease</td>
<td>12:45-13:45</td>
<td>Convention Hall C</td>
</tr>
<tr>
<td></td>
<td>Britannia Pharmaceuticals, LTD: Right Patient, Right Therapy, Right Time? Does the Treatment Paradigm for Parkinson’s Patients Reflect the Evidence?</td>
<td>12:45-13:45</td>
<td>Convention Hall A</td>
</tr>
<tr>
<td></td>
<td>Biogen: PSP</td>
<td>Disease and Diagnosis</td>
<td>12:45-13:45</td>
</tr>
<tr>
<td></td>
<td>GE Healthcare: Clinical experience with Ioflupane (123I) SPECT imaging in Parkinson’s disease and latest PPMI research update</td>
<td>12:45-13:45</td>
<td>Convention Hall C</td>
</tr>
</tbody>
</table>

Young Delegates Reception - Sunday, October 7

19:30 - 21:00 • Oasis+Concord III Room at the Renaissance Harbour View Hotel Hong Kong

Sponsored by Acorda Therapeutics

MDS invites all Young Delegates at the International Congress to attend the Young Delegates Reception. Join your colleagues at the Renaissance Harbour View Hotel for a networking event.
Acknowledgements

The International Congress of Parkinson’s Disease and Movement Disorders® wishes to acknowledge the following commercial supporters:

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The International Congress of Parkinson’s Disease and Movement Disorders® Scientific Program is supported through unrestricted medical education grants from Abbott, Ipsen Innovation and Roche
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28429-SJM-INF-0618-0234 | Item approved for global use.
Pathophysiology of OFF:
Implications for Increasing Recognition of Motor Fluctuations

Friday, October 5, 2018
13:15-14:15
Lunch to be provided - optional

Hong Kong Convention and Exhibition Centre
Convention Hall C

Program:
• Welcome & Introductions - Stuart Isaacson, MD
• Non-motor Complications of PD - Nobutaka Hattori, MD, PhD
• Gastrointestinal Dysfunction and Motor Fluctuations - Stuart Isaacson, MD
• Panel Discussion
Acorda Therapeutics is committed to improving the lives of people with Parkinson’s. We are proud to be a platinum sponsor at the 22nd International Congress of Parkinson’s Disease and Movement Disorders.
PSP Disease and Diagnosis

Join us for an engaging panel discussion about Progressive Supranuclear Palsy

Convention Hall A, Level 1
Sunday, Oct. 7th, 12:45pm-1:45pm
FP Pharmaceutical Corp. is pleased to be a supporter of the International Congress of Parkinson’s Disease and Movement Disorders.

Hong Kong
October 5 - 9, 2018

We dedicate ourselves to distribution of Selegiline in Japan.

The International Parkinson and Movement Disorder Society acknowledges Veritable LP for their assistance in managing its investment portfolio.
A VIEW INTO PARKINSON’S

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*Fictional patient for illustration only.
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References:

Achieved prescriber information:
- Neupro® is a thin, matrix-type transdermal patch. Neupro® 2 mg/24 h transdermal patch releases 2 mg of ropinirole over 24 hours; 10 cm² patch contains 4.5 mg of ropinirole. Neupro® 8 mg/24 h transdermal patch releases 8 mg of ropinirole over 24 hours; 20 cm² patch contains 9 mg of ropinirole. Neupro® 6 mg/24 h transdermal patch releases 6 mg of ropinirole over 24 hours; 30 cm² patch contains 13.5 mg of ropinirole. Neupro® 8 mg/24 h transdermal patch releases 8 mg of ropinirole over 24 hours; 40 cm² patch contains 18 mg of ropinirole. Therapeutic Indications: To treat the signs and symptoms of idiopathic Parkinson’s disease, either with or without concurrent levodopa therapy. Dosage: Neupro® is applied to the skin once a day. The patch remains on the skin for 24 hours and will then be replaced by a new one at a different application site.
- In the early stage of Parkinson’s disease to use as monotherapy, treatment is initiated with single daily dose of 2 mg/24 h. Dose will be increased by weekly increments of 2 mg/24 h, up to a maximum of 8 mg/24 h. In the advanced stage of Parkinson’s disease and in use in combination with levodopa, treatment initiation is at 4 mg/24 h. Dose will be increased by weekly increments of 2 mg/24 h, up to a maximum dose of 16 mg/24 h. Method of administration: The patch should be applied to clean, dry, intact healthy skin. Reapplication to the same site within 14 days should be avoided. Neupro® should not be placed on skin that is red, inflamed or damaged. The patch should be pressed down firmly with the palm of the hand for about 20 to 30 seconds, so that it sticks well. In the event that a patch will fall off, a new patch should be applied for the remainder of the 24 hour dosing interval. You should change your patch at around the same time every day. The patch should not be cut into pieces. Contraindications: Hypersensitivity to ropinirole or any of the excipients. Neupro® should be removed prior to any magnetic Resonance Imaging or cardioversion to avoid burns. Precautions: Dopamine agonists are known to cause hypertension, and monitoring of blood pressure is recommended. Where somnolence or sudden sleep onset occurs, or where there is persistent, spreading or serious skin rash at the application site, consider dose reduction or termination of therapy. Rationale of the patch application minimize the risk of skin reactions. In case of generalized skin reactions associated with the use of Neupro® discontinue treatment. Avoid exposure to direct sunlight until the skin is healed. If treatment is to be withdrawn, it should be gradually reduced to avoid symptoms of neuroleptic malignant syndrome, impulse control disorders (including pathological gambling, increased libido, hypersexuality, compulsive spending or buying, binge eating or compulsive eating), and abnormal thinking and behaviour have been reported in patients treated with Neupro®. Caution is advised when treating patients with severe hepatic impairment. Eye examinations are recommended if vision abnormalities occur. Interactions: Neuroleptics (e.g., phenothiazines, butyrophenones, thioxanthenes, metoclopramide may diminish the effectiveness of Neupro®, and coadministration should be avoided. Caution should be advised when patients are taking sedating medicinal products or other central nervous system depressants (e.g., benzodiazepines, antidepressants, antipsychotics) or alcohol in combination with ropinirole. Neupro® may potentiate the dopaminergic adverse reactions of levodopa and may cause and/or exacerbate pre-existing dyskinesia, as described with other dopamine agonists. The incidence of some dopaminergic adverse events, such as hallucinations, dyskinesia, and peripheral oedema generally is higher when given in combination with levodopa. Undesirable effects: Very common side effects include nausea, vomiting, somnolence, dizziness, headache and application site reactions. Common side effects include perception disturbances, insomnia, sleep disorder, nightmares, abnormal dreams, impulse-control disorders, disturbances of consciousness, dyskinesia, dizziness, postural hypotension, nystagmus, vertigo, palpitating, orthostatic hypotension, hypertension, hiccups, constipation, dry mouth, dyspepsia, hypothermia, erythema, pruritus, asthenic conditions, peripheral oedema, tinnitus, weight decreased, CPK increased in Japanese patients. Storage conditions: Do not store above 30°C, 1 cartridges in the original package.
Neupro® rotigotine transdermal patch

- Once daily dose for full 24 hours
- Improves early morning motor function
- 2X More likely to wake up ON vs placebo
- 3X Greater improvement in sleep quality vs placebo
- 3X Reduced in depressive symptoms
- 9X Reduced in Pain


Abbreviated prescribing information: Presentation: Neupro® is a thin, multi-layered square transdermal patch. Neupro® 3 mg/24 h transdermal patch releases 3 mg of rotigotine over 24 hours; 10 cm² patch contains 4.5 mg of rotigotine. Neupro® 6 mg/24 h transdermal patch releases 6 mg of rotigotine over 24 hours; 20 cm² patch contains 9 mg of rotigotine. Neupro® 9 mg/24 h transdermal patch releases 6 mg of rotigotine over 24 hours; 30 cm² patch contains 13.5 mg of rotigotine. Neupro® 9 mg/24 h transdermal patch releases 8 mg of rotigotine over 24 hours; 40 cm² patch contains 18 mg of rotigotine. Therapeutic Indications: To treat the signs and symptoms of idiopathic Parkinson’s disease, either with or without concurrent levodopa therapy. Dosage: Neupro® is applied to the skin once a day. The patch remains on the skin for 24 hours and will then be replaced by a new one at a different application site. In the early stage of Parkinson’s disease to use as monotherapy, treatment is initiated with a single daily dose of 2 mg/24 h. Dose will be increased by weekly increments of 2 mg/24 h up to a maximum of 8 mg/24 h. In the advanced stage of Parkinson’s disease and use in combination with levodopa, treatment initiation is at 4 mg/24 h. Dose will be increased by weekly increments of 2 mg/24 h up to a maximum dose of 16 mg/24 h. Method of administration: The patch should be applied to clean, dry, intact healthy skin. Reapplication to the same site within 14 days should be avoided. Neupro® should not be placed on skin that is red, irritated, or damaged. The patch should be pressed down firmly with the palm of the hand for about 20 to 30 seconds, so that it sticks well. In the event that a patch should fall off, a new patch should be applied for the remainder of the 24 hour dosing interval. You should change your patch at around the same time every day. The patch should not be cut into pieces. Contraindications: Hypersensitivity to rotigotine or to any of the excipients. Neupro® should be removed prior to any magnetic Resonance Imaging or cardiovascular to avoid burns. Precautions: Dopamine agonists are known to cause hypotension, and monitoring of blood pressure is recommended. Where somnolence or sudden sleep onset occurs, or where there is persistent, spreading or severe skin rash at the application site, consider dose reduction or termination of therapy. Retain the site of patch application to minimize the risk of skin reactions. In case of generalized skin reactions associated with the use of Neupro®, discontinuous treatment. Avoid exposure to direct sunlight until the skin is healed. If treatment is to be withdrawn, it should be gradually reduced to avoid symptoms of neuropsychiatric syndrome, Impulse control disorders (including pathological gambling, increased libido, hyposexuality, compulsive spending or buying, binge eating and compulsive eating), and abnormal thinking and behaviour have been reported in patients treated with Neupro®. Caution is advised when treating patients with severe hepatic impairment. Eye examinations are recommended if vision abnormalities occur. Interactions: Neuroleptics (e.g., phenothiazines, butyrophenones, thioxanthenes) or metoclopramide may diminish the effectiveness of Neupro®, and coadministration should be avoided. Caution should be advised when patients are taking interfering medications or other central nervous system depressants (e.g., benzodiazepines, antipsychotics, antidepressants) or alcohol in combination with rotigotine. Neupro® may potentiate the dopaminergic adverse reaction of levodopa and may cause an exacerbation of existing dystonias, as described with other dopamine agonists. The incidence of some dopaminergic adverse events, such as hallucinations, dyskinesia, and peripheral oedema generally is higher when given in combination with levodopa. Unwelcome effects: Very common side effects include nausea, vomiting, somnolence, diziness, headache, and application site reactions. Common side effects include dizziness, decreased appetite, and peripheral oedema. Neupro® may significantly increase the risk of increased Japanese patients. Storage conditions: Do not store above 30°C, store in the original package.
The 5th World Parkinson Congress offers a unique, international, interdisciplinary forum for all who are researching, treating, or living with Parkinson’s disease.

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TARGETING COMT AS THE LEVODOPA ADD-ON TREATMENT FOR PARKINSON’S DISEASE

SATURDAY 6th OCTOBER 2018
12H45 - 13H45

Professor Werner Poewe
Innsbruck, Austria
Chairman’s Introduction

Professor Matthew Stern
Philadelphia, United States
Levodopa – Can we improve the gold standard?

Professor Olivier Rascol
Toulouse, France
Opicapone – Exploiting the potential of COMT inhibition

Professor Daniela Berg
Kiel, Germany
Optimising dopaminergic therapy – a case-based perspective

Round Table Discussion

This symposium is organised and fully sponsored by Bial
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The Vercise™ PC Deep Brain Stimulation (DBS) System is indicated for use in unilateral or bilateral stimulation of the subthalamic nucleus (STN) or internal globus pallidus (GP) for treatment of levodopa-responsive Parkinson’s disease which is not adequately controlled with medication and also for treatment of intractable primary and secondary dystonia, for persons 7 years of age and older.

Thalamic stimulation using the Boston Scientific Vercise™ PC DBS System is indicated for the suppression of tremor not adequately controlled by medications in patients diagnosed with Essential Tremor or Parkinson’s disease.

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