# Table of Contents

- Invitation Letter ................................................................. 1
- About MDS ........................................................................... 2
  - Purpose, Mission And Goals ............................................ 2
  - MDS International Executive Committee ......................... 3
  - International Congress Oversight Committee .................. 3
  - Congress Scientific Program Committee ......................... 3
  - Congress Local Organizing Committee ............................. 3
  - Past-Presidents ................................................................. 3
  - International Medical Society for Motor Disturbances Past-Presidents ........................................... 3
  - MDS International Secretariat .......................................... 3
  - MDS Officers (2015-2017) ................................................ 3

- International Congress Information .................................. 4
  - Dates ............................................................................... 4
  - Official Language ............................................................. 4
  - Venue ............................................................................. 4
  - NEW IN 2016! ................................................................. 4
  - Exhibition ...................................................................... 4
  - Abstract Poster Information .......................................... 4
  - Events ........................................................................... 4
  - Registration .................................................................... 4
  - Registration Confirmation .............................................. 4
  - Cancellation/Refund Policy ............................................. 4
  - Group Registration ......................................................... 5
  - Registration Desk .......................................................... 5
  - Camera Policy .................................................................. 5
  - Scientific Sessions .......................................................... 5
  - Special Accessibility Needs ............................................ 5
  - Weather .......................................................................... 5
  - Housing Information ....................................................... 5

- Congress Events .................................................................. 6
- CME Information .................................................................. 6

- Daily Schedule ................................................................... 7
  - Schedule-At-A-Glance ..................................................... 7
  - Congress Session Definitions ......................................... 8
  - Sunday, June 19, 2016 ...................................................... 8
  - Monday, June 20, 2016 ...................................................... 9
  - Tuesday, June 21, 2016 ..................................................... 10
  - Wednesday, June 22, 2016 ................................................. 14
  - Thursday, June 23, 2016 .................................................. 18

- Faculty Listing .................................................................... 25
- Acknowledgements ............................................................. 28
- Education Information ....................................................... 30
- Membership Information .................................................... 33
- 2016 Important Dates ......................................................... 34
- Save The Date ..................................................................... 34
Invitation Letter

Dear Colleagues,

On behalf of the International Parkinson and Movement Disorder Society, we are pleased to formally invite you to attend the 20th International Congress of Parkinson’s Disease and Movement Disorders in Berlin, Germany from June 19-23, 2016.

Berlin is the largest city in Germany and is rich in culture and history. There is a lively entertainment scene with many cafés, restaurants, clubs and street art, as well as many museums, palaces and other historic places to visit. In addition, Berlin is a city with a long history of discoveries in medicine and innovations in medical technology.

We look forward to coming together to discuss and learn about the latest research and advancements, collaborate with colleagues and actively participate in advancing the field of Movement Disorders.

We are excited to welcome you to Berlin for the 20th International Congress and hope you will take part in this exceptional Scientific Program. We promise an unforgettable learning experience.

With kind regards,

Oscar Gershanik
President
International Parkinson and Movement Disorder Society
2015-2017

Christine Klein
Chair
Congress Scientific Program Committee
2015-2017

Claudia Trenkwalder
Co-Chair
Congress Scientific Program Committee
2016
About MDS

The International Parkinson and Movement Disorder Society (MDS) is a professional society of clinicians, scientists, and other healthcare professionals interested in Parkinson's disease, related neurodegenerative and neurodevelopmental disorders, hyperkinetic movement disorders, and abnormalities in muscle tone and motor control. The spectrum of clinical disorders represented by the Society includes, but is not limited to:

- Ataxia
- Chorea
- Dystonia
- Gait disorders
- Huntington's disease
- Myoclonus and startle
- Parkinson's disease and parkinsonism
- Restless legs syndrome
- Stiff person syndrome
- Tardive dyskinesia
- Tics and Tourette syndrome
- Tremor and essential tremor

In recent years, there has been tremendous growth in new diagnostic information, pharmacological and neurosurgical treatments for movement disorders, as well as a greater understanding of impaired motor control function. MDS offers you and your patients an essential link to this knowledge.

In 1985, The Movement Disorder Society was founded on the initiative of Professors Stanley Fahn and C. David Marsden, whose leadership and vision guided the expansion of clinical expertise and research in this field. This not-for-profit organization merged in 1992 with the International Medical Society for Motor Disturbances. Publication of the journal Movement Disorders began in 1986, and the first International Congress was held in 1990.

In 2013, The Movement Disorder Society officially changed its name to the International Parkinson and Movement Disorder Society, in order to recognize the growing importance of Parkinson's disease care and research within the field of Movement Disorders.

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
About MDS

MDS Officers (2015-2017)

President
Oscar Gershanik, Argentina

President-Elect
Christopher Goetz, USA

Secretary
Claudia Trenkwalder, Germany

Secretary-Elect
Susan Fox, Canada

Treasurer
David John Burn, United Kingdom

Treasurer-Elect
Victor Fung, Australia

Past-President
Matthew Stern, USA

MDS International Executive Committee

Paolo Barone, Italy
Daniela Berg, Germany
Bastiaan Bloem, Netherlands
Carlos Cosentino, Peru
Beom Jeon, Korea
Jeffrey Kordower, USA
Michael Okun, USA
Ryosuke Takahashi, Japan
Louis CS Tan, Singapore
Mark Stacy, USA

International Congress Oversight Committee

Chair: Philip Thompson, Australia
Günther Deuschl, Germany
Victor Fung, Australia
Oscar Gershanik, Argentina
Christopher Goetz, USA
Christine Klein, Germany
Matthew Stern, USA
Claudia Trenkwalder, Germany

Congress Scientific Program Committee

Chair: Christine Klein, Germany
Co-Chair: Claudia Trenkwalder, Germany
Charles Adler, USA
Tim Anderson, New Zealand
Vincenzo Bonifati, Netherlands
K. Ray Chaudhuri, United Kingdom
Marie-Francoise Chesselet, USA
Carlo Colosimo, Italy

Mariana AJ de Koning-Tijssen, Netherlands
Kelly Foote, USA
Steven Frucht, USA
Oscar Gershanik, Argentina
Christopher Goetz, USA
Günther Höglinger, Germany
Ole Isacson, USA
Hyder Jinnah, USA
Micaela Morelli, Italy
Elena Moro, France
Alice Nieuwboer, Belgium
Stephane Palfi, France
Irena Rektorova, Czech Republic
Raymond Rosales, Philippines
A. Jon Stoessl, Canada
Eng-King Tan, Singapore
Philip Thompson, Australia
Lars Timmermann, Germany
Yoshikazu Ugawa, Japan
Miguel Vila, Spain

Past-Presidents

2013-2015 Matthew Stern, USA
2011-2013 Günther 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 Poeve, 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
International Congress Information

Dates
Sunday, June 19 through Thursday, June 23, 2016.

Official Language
The official language of the International Congress is English.

Venue
CityCube Berlin
Messe Berlin GmbH
Messedamm 22
14055 Berlin
Germany

NEW IN 2016!
Based on feedback received from past International Congress delegates, MDS has made some changes to the 2016 program in Berlin.

Enhancing the Experience for Basic Scientists
MDS will enhance the International Congress experience for the Basic Scientist. There will be a Plenary Session entitled “Experimental Strategies in Movement Disorders (Including Parkinson’s Disease),” as well as 10-12 breakout sessions that will be of interest to the Basic Scientist. In addition, for the first time ever, there will be a Meet the Experts networking opportunity for young researchers on Tuesday, June 21. Basic Science related posters will also be specifically flagged in the poster hall and indexed together in order for delegates to be able to easily locate them.

Technology Tuesday
Due to the positive response to the Technology Symposium brought about by the MDS Task Force on Technology that took place in San Diego, CA in 2015, the International Congress will feature its first Technology Tuesday in Berlin. Technology Tuesday will feature product theatre demonstrations by our supporters, two Technology-based Parallel Sessions, and poster sessions and Guided Poster Tours with this theme.

New Faculty
In an effort to keep the International Congress Scientific Program fresh and feature up-and-coming experts in the field of Movement Disorders, MDS has invited 65 new speakers to Berlin, with faculty coming from 35 different countries worldwide.

Exhibition
Manufacturers, distributors and suppliers of products and services for physicians and researchers involved with Movement Disorders are invited to participate in the International Congress exhibition. To receive a copy of the Exhibitor Prospectus, please contact the MDS International Secretariat at congress@movementdisorders.org or visit the International Congress section of the MDS website at www.mdscongress2016.org/Congress-2016/SupportExhibit.htm. The exhibition is open to all registered delegates.

Abstract Poster Information
Poster Sessions will be featured Monday through Thursday during the International Congress to ensure delegates are given the opportunity to review as many abstracts as possible.

Please visit www.mdscongress2016.org/Congress-2016/Abstracts.htm for a detailed poster schedule, including information about the Guided Poster Tours.

Events
For more information about the events for the 20th International Congress, please see page 6.

Registration
Visit www.mdscongress2016.org/Congress-2016/Registration.htm to register online.

Fees (in USD):

<table>
<thead>
<tr>
<th></th>
<th>On or before April 15, 2016</th>
<th>From April 16 – May 18, 2016</th>
<th>From May 19 – June 23, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDS Member</td>
<td>$600</td>
<td>$650</td>
<td>$700</td>
</tr>
<tr>
<td>Non-member</td>
<td>$800</td>
<td>$850</td>
<td>$900</td>
</tr>
<tr>
<td>Junior Member/Participant*</td>
<td>$350</td>
<td>$375</td>
<td>$400</td>
</tr>
<tr>
<td>Health Professional (Non-Physician)</td>
<td>$350</td>
<td>$375</td>
<td>$400</td>
</tr>
</tbody>
</table>

The International Congress registration fee includes admission to all scientific sessions, Exhibit Hall and Poster Hall, a meeting bag with documentation and a USB of published 2016 abstracts. The registration fee excludes hotel accommodations.

*Junior Members of MDS, those born after January 1, 1986, residents, fellows and those still in training. Please fax or e-mail a copy of an official document indicating age or a letter from your employer stating training status to be eligible for this discount. Without documentation, the delegate will be charged the non-member rate (Fax:+1-514-380-5378 or e-mail: mdscongress@showcare.com within one week of submitting registration).

Registration Confirmation
Attendees who register online will receive a confirmation message immediately. Please present this confirmation at the International Congress registration desk in Berlin to receive your registration materials.

Cancellation/Refund Policy
All cancellations must be requested in writing.
Up to May 18 (final pre-registration deadline): 100% refund, minus a $75 administrative charge
From May 19 – June 9: 50% refund
From June 10 onwards: no refund
International Congress Information

Group Registration
Companies registering groups of six or more individuals should contact the MDS Registration Bureau by completing a group registration form online at www.mdscongress2016.org/Group-Registration.htm. A username and password will be sent within a day or two to allow companies to manage their own groups.

Registration Desk
Name badges, scientific session tickets and International Congress bags can be collected at the International Congress Registration Desk to be located in the Entrance Lobby MesseDamm during the following hours**:
- Saturday, June 18 16:00 – 20:00
- Sunday, June 19 7:00 – 20:00
- Monday, June 20 7:00 – 18:00
- Tuesday, June 21 7:00 – 18:00
- Wednesday, June 22 7:00 – 18:00
- Thursday, June 23 7:00 – 16:00

**Please note that these hours are subject to change. Please watch for updated schedules at www.mdscongress2016.org and look for the schedule in the Final Program.

Camera Policy
Cameras are not permitted in any of the 20th International Congress educational sessions or in the poster areas.

Scientific Sessions
The 2016 Scientific Program will incorporate Therapeutic Plenary Sessions, Plenary and Parallel Sessions, Teaching Courses, Video Sessions, Skills Workshops, Guided Poster Tours and Blue Ribbon Highlights.

Sessions will focus on the latest developments in:
- The Many Faces of Movement Disorders: Evolving Disease Concepts
- Movement Disorder topics, including, but not limited to, ataxia, chorea, dystonia, myoclonus, Parkinson’s disease, restless legs syndrome, spasticity, stereotypies, tics and tremors
- Basic Science issues, including, but not limited to, genetics, neuroimaging, neuropharmacology, surgical therapy and transplantation
- Other less common clinical conditions

Special Accessibility Needs
Delegates requiring special arrangements in order to fully participate in the International Congress should provide a written description of such needs on their registration form or e-mail congress@movementdisorders.org. To ensure appropriate accommodations, all special needs should be addressed in advance with the MDS International Secretariat.

Weather
The temperature in Berlin in June averages 12-22 degrees Celsius (54-71 degrees Fahrenheit).

Housing Information
A block of rooms is being held for delegates at various hotels in Berlin. Accommodations are limited, so please reserve your room as soon as possible.

Individual Reservations:
For individual reservations, please complete the request form found here: www.mdscongress2016.org/Congress-2016/Housing.htm

Group Reservations:
For group blocks of 10 rooms or more, please send an e-mail with your details to: mds-housing@mci-group.com.
Congress Events

Sunday, June 19, 2016
Welcome Ceremony
19:30 – 21:30
All International Congress attendees are warmly invited to attend the International Congress Welcome Ceremony at the CityCube Berlin. This event is open to all registered delegates.

Wednesday, June 22, 2016
MDS Video Challenge
19:00 – 22:00
Please join Masters of Ceremony Anthony Lang and Kapil Sethi as they host a world-renowned panel of Movement Disorders experts in guiding participants through unique Movement Disorder cases. The cases will be presented by representatives from Movement Disorder Centers around the world and discussed by the Panel of Experts. Awards will be given for the most interesting and challenging cases. Country pride will add an enjoyable spirit of competition to this event. The goal of this session is for attendees to learn from a series of unusual, very interesting patients and see how senior experts approach these types of challenging cases.

The Panel of Experts are:
Tim Anderson, Christchurch, New Zealand
Alfonso Fasano, Toronto, ON, Canada
Jennifer Friedman, Del Mar, CA, USA
Huw Morris, London, United Kingdom
Emmanuel Roze, Paris, France
This event is open to all registered delegates. For more information about the MDS Video Challenge, please contact Sarah Smith at ssmith@movementdisorders.org.

CME Information

Purpose
The purpose of the MDS International Congress is to offer a forum for clinical and basic discussion on a variety of movement disorder topics, including presentations of current research and available treatments.

Learning Objectives
Through state-of-the-art lectures, hot topic reviews, controversy debates, teaching courses, skills workshops and video sessions, participants will be better able to:

1. Describe the pathophysiology and neurobiology of Parkinson's disease and other movement disorders;
2. Discuss the diagnostic approaches and tools available for Parkinson's disease and other movement disorders;
3. Discuss the pharmacological and non-pharmacological treatment options available for Parkinson's disease and other movement disorders.

Continuing Medical Education
The International Parkinson and Movement Disorder Society is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Accreditation Statement
The International Parkinson and Movement Disorder Society designates this live activity for a maximum of 35 AMA PRA Category 1 Credits™. Physicians should claim only credit commensurate with the extent of their participation in the activity.

Target Audience
The target audience of the 20th International Congress of Parkinson's Disease and Movement Disorders includes clinicians, researchers, post-doctoral fellows, medical residents, medical students and other healthcare professionals with an interest in the current research and approaches for the diagnosis and treatment of movement disorders.

Faculty Financial Disclosure Information
It is the policy of The International Parkinson and Movement Disorder Society (MDS) to ensure balance, independence, objectivity and scientific rigor in all sponsored educational activities. All faculty participating in any MDS sponsored activities are required to disclose to the activity audience any real or apparent conflict(s) of interest that may have a direct bearing on the subject matter of the Continuing Medical Education (CME) activity. This pertains to relationships with pharmaceutical companies, biomedical device manufacturers, or other corporations who have products or services regardless of presentation topic. The intent of this policy is not to prevent a speaker with a potential conflict of interest from making a presentation. It is merely intended that any potential conflict should be identified openly so that the listeners may form their own judgments about the presentation with the full disclosure of the facts. It remains for the audience to determine whether the speaker's outside interest may reflect a possible bias in either the exposition or the conclusions presented.

Faculty financial disclosure information will be provided to participants in Berlin at the MDS booth and on the International Congress website.
## Schedule-At-A-Glance

<table>
<thead>
<tr>
<th>Sunday, June 19</th>
<th>Monday, June 20</th>
<th>Tuesday, June 21</th>
<th>Wednesday, June 22</th>
<th>Thursday, June 23</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00</td>
<td>Therapeutic Plenary Session 8:00 - 10:00</td>
<td>Plenary Session (Presidential Lectures) 8:00 - 10:00</td>
<td>Plenary Session 8:00 - 10:00</td>
<td>Plenary Session 8:00 - 9:30</td>
</tr>
<tr>
<td>8:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td>Regional Assemblies 10:00 - 11:00</td>
<td>Break 10:00 - 10:30</td>
<td>MDS Business Meeting 10:00 - 11:00</td>
<td>Controversies 10:00 - 11:00</td>
</tr>
<tr>
<td>10:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:00</td>
<td>Therapeutic Plenary Session 11:00 - 13:00</td>
<td>Plenary Session 10:30 - 12:30</td>
<td>Plenary Session 11:00 - 12:30</td>
<td>Blue Ribbon Highlights 11:00 - 12:00</td>
</tr>
<tr>
<td>11:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:00</td>
<td></td>
<td>Break/Guided Poster Tours/ Poster Sessions 12:30 - 14:00</td>
<td>Break/Guided Poster Tours/ Poster Sessions 12:30 - 14:00</td>
<td>Break/Guided Poster Tours/ Poster Sessions 12:00 - 13:30</td>
</tr>
<tr>
<td>12:30</td>
<td></td>
<td>Corporate Therapeutic Symposia 14:00 - 15:00</td>
<td>Corporate Therapeutic Symposia 14:00 - 15:00</td>
<td>Corporate Therapeutic Symposia 13:30 - 14:30</td>
</tr>
<tr>
<td>13:00</td>
<td>Break 13:00 - 14:30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14:00</td>
<td>Therapeutic Plenary Session 14:30 - 16:30</td>
<td>Break 15:00 - 15:30</td>
<td>Break 15:00 - 15:30</td>
<td>Break 14:30 - 15:00</td>
</tr>
<tr>
<td>14:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:30</td>
<td>Break 16:30 - 17:00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17:30</td>
<td>Therapeutic Plenary Session 17:00 - 19:00</td>
<td>Break 17:30 - 18:00</td>
<td>Break 17:30 - 18:00</td>
<td>Break 17:00 - 17:30</td>
</tr>
<tr>
<td>18:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20:00</td>
<td>Welcome Ceremony 19:30 - 21:30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21:30</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Scan to learn more on our website
Congress Session Definitions

**Blue Ribbon Session:**
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 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.

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

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

**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.

**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.

**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.

**Special Meeting Theme:**
At each annual International Congress, the Congress Scientific Program Committee selects a theme that is highlighted throughout the meeting. This year’s theme, *The Many Faces of Movement Disorders: Evolving Disease Concepts*, will be showcased in two Plenary Sessions, eight Parallel Sessions, one Skills Workshop, two Video Sessions and one Teaching Course. 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 .
Sunday, June 19, 2016

1101 Therapeutic Plenary Session
Update on the Treatment of Parkinson's Disease
8:00 – 10:00
Chairs: Daniela Berg
Tübingen, Germany
David John Burn
Newcastle upon Tyne, United Kingdom
8:00 Early Parkinson's Disease: Modifying the Definition of PD and Early-Stage Treatment
Daniela Berg
Tübingen, Germany
8:40 Treatment of Dementia and Depression in Parkinson's Disease
Jaime Kulisevsky
Barcelona, Spain
9:20 Treatment Strategies for Advanced Parkinson's Disease
Angelo Antonini
Venice, Italy
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 new strategies for defining Parkinson's disease and describe treatment principles for early stage Parkinson's disease
2) Recognize the issues involved in selecting the best options for treating mood disorders and cognition in Parkinson's disease
3) Describe treatment principles for advancing Parkinson's disease including non-oral therapies

1102 Therapeutic Plenary Session, cont.
Treatment of Dystonia, Ataxia and Chorea
11:00 – 13:00
Chairs: Francisco Cardoso
Belo Horizonte, Brazil
Cynthia Comella
Chicago, IL, USA
11:00 Treatment of the Dystonias
Cynthia Comella
Chicago, IL, USA
11:40 Treatment of the Ataxias
Bart Van De Warrenburg
Nijmegen, Netherlands
12:20 Treatment of the Choreas
Ruth Walker
Bronx, NY, 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) Recognize the principles of therapeutic gene silencing for movement disorders
2) Identify the principles of repairing the dopaminergic system and therapeutic-related options
3) Integrate molecular mechanisms of alpha-synuclein related neurodegeneration and potential options for therapeutic interventions

1103 Therapeutic Plenary Session
Experimental Strategies in Movement Disorders (Including Parkinson’s Disease) in Honor of Professor Eldad Melamed
14:30 – 16:30
Chairs: Patrik Brundin
Grand Rapids, MI, USA
Oscar Gerstein
Buenos Aires, Argentina
14:30 Gene Silencing Strategies
Pedro Gonzalez-Alegre
Philadelphia, PA, USA
15:10 Dopamine Replacement Strategies
Stéphane Païfi
Crestil, France
15:50 Alpha-Synuclein Modification Strategies
Patrik Brundin
Grand Rapids, MI, 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) Recognize the principles of therapeutic gene silencing for movement disorders
2) Identify the principles of repairing the dopaminergic system and therapeutic-related options
3) Integrate molecular mechanisms of alpha-synuclein related neurodegeneration and potential options for therapeutic interventions

1104 Therapeutic Plenary Session
Comprehensive Management of Parkinson's Disease: A Non-Pharmacological Perspective
17:00 – 19:00
Chairs: Georg Ebersbach
Beelitz-Heilstatten, Germany
Janis Miyasaki
Edmonton, AB, Canada
17:00 Exercise Adherence From Early to Late Disease: How Do We Manage and Monitor It?
Terry Ellis
Boston, MA, USA
17:40 Cognitive and Behavioral Interventions for Alleviating Non-Motor Symptoms
Elke Kalbe
Cologne, Germany
18:20 Palliative Care: Adopting a Holistic Approach
Janis Miyasaki
Edmonton, AB, 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) Identify methods to assess and facilitate exercise adherence from early to late disease
2) Examine the rationale, potential and current evidence for cognitive and behavioral intervention to alleviate non-motor symptoms
3) Gain a comprehensive view of the benefits of a care network to meet palliative care needs
### Monday, June 20, 2016

#### 2101  Plenary Session

**Presidential Lectures**

**8:00 – 10:00**

**Chairs:**
- Oscar Gershanik  
  Buenos Aires, Argentina
- Christopher Goetz  
  Chicago, IL, USA

**8:00**  Stanley Fahn Lecture
  Eduardo Tolosa  
  Barcelona, Spain

**8:30**  Junior Award Lecture: Clinical Science
  To be announced

**9:00**  Junior Award Lecture: Basic Science
  To be announced

**9:30**  C. David Marsden Lecture
  D. James Surmeier  
  Chicago, IL, USA

**2102  Plenary Session, cont.**

At the conclusion of this session, participants should be better able to:
1) Describe non-motor features of Parkinson's disease and differentiate a predominant non-motor type of Parkinson's disease from a primarily motor type
2) Recognize the role of age of onset in Parkinson's disease in classifying subtypes
3) Identify tailored treatment based on categorization

#### 2203  Parallel Session

**Environment and Neurodegeneration in Parkinson's Disease**

**15:30 – 17:30**

**Chairs:**
- Micaela Morelli  
  Cagliari, Italy
- Caroline Tanner  
  San Francisco, CA, USA

**15:30**  Acquired Parkinsonism: Exo-Toxins and Pharmacological Agents
  Micaela Morelli  
  Cagliari, Italy

**16:10**  Stress and Neurodegeneration: From Animal Models to Life Events
  Gerlinde Metz  
  Lethbridge, AB, Canada

**16:50**  Systemic and Local Inflammation
  Malu Tansey  
  Atlanta, GA, 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) Estimate how utilization of toxin or specific drugs of abuse may influence the manifestation of neurodegenerative diseases
2) Assess if and how exposure to stress may cause neurodegeneration
3) Identify how neuroinflammatory changes may influence disease processes

#### 2204  Parallel Session

**Customizing Treatment of Movement Disorder Patients by Phenotype**

**15:30 – 17:30**

**Chairs:**
- Georg Ebenshach  
  Beelitz-Heilstatten, Germany
- Jill Ostrem  
  Greenbrae, CA, USA

**15:30**  Optimizing Treatment of Movement Disorders Responsive to Dopaminergic Therapy
  Paolo Barone  
  Napoli, Italy

**16:10**  Differential Response to Neurostimulation in Parkinsonism(s)
  Jill Ostrem  
  Greenbrae, CA, USA

**16:50**  Differential Response to Neurostimulation in Dystonia, Chorea and Tremor
  Elena Moro  
  Grenoble, 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) Recognize the movement disorders that would benefit from targeted treatment
2) Identify the main characteristics/phenotypes of patients who will benefit most from focused treatments
3) Manage patient care by shaping the optimal medical and surgical treatment profile

#### 2205  Parallel Session

**Plasticity in Parkinson's Disease: From Animal Models to the Clinic**

**15:30 – 17:30**

**Chairs:**
- Jeffrey Kordower  
  Chicago, IL, USA
- D. James Surmeier  
  Chicago, IL, USA

**15:30**  Electrophysiological Plasticity of Basal Ganglia Circuitry
  D. James Surmeier  
  Chicago, IL, USA

**16:10**  Synaptic Plasticity of Denervated Striatal Neurons
  Rosario Moratalla  
  Madrid, Spain

**Recommended Audience:** Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees
### Monday, June 20, 2016

| 2205 | Parallel Session | 16:50 | Modulation of Plasticity in Parkinson’s Disease Patients
Yoshikazu Ugawa
Fukushima, Japan |
| 2207 | Parallel Session | 15:30 | So You Think You Know About Dementia and Lewy Bodies?
15:30 – 17:30
Chairs: Clive Ballard
London, United Kingdom
Murat Emre
Tesukije, Turkey |
| 2208 | Parallel Session | 16:50 | PRRT2-Associated Diseases: Across the Clinical and Molecular Spectrum
Darius Ebrahimi-Fakhari
Boston, MA, USA |

#### Role of Mitophagy in Movement Disorders
15:30 – 17:30
Chairs: Marta Martinez Vicente
Barcelona, Spain
Miquel Vila
Barcelona, Spain

15:30 | Mitochondrial Quality Control by Mitophagy in Parkinson’s Disease
Edward Fon
Montreal, QC, Canada |

16:10 | Mitochondrial Turnover in Parkinson’s Disease: Is it All About Autophagy?
Aleksandar Rakovic
Lübeck, Germany |

16:50 | Role of Mitophagy in Huntington’s Disease
Marta Martinez Vicente
Barcelona, Spain |

#### Cross Generational and Pleiotropic Phenotypes
15:30 – 17:30
Chairs: Christopher Goetz
Chicago, IL, USA
Laurie Ozellus
Charlestown, MA, USA

15:30 | Fragile X-Associated Disorders
Deborah Hall
Chicago, IL, USA |

16:10 | ATP1A3 and ADCY5
Niccolò Emanuele Mencacci
London, United Kingdom |

#### Myoclonus: Clinical Spectrum, Electrophysiology and Treatment
15:30 – 17:30
Chairs: Marina De Koning-Tijssen
Groningen, Netherlands
Philip Thompson
Adelaide, SA, Australia

15:30 | Cortical, Subcortical, Brainstem and Spinal Myoclonus: Clinical Recognition and Differential Diagnosis
John Caviness
Scottsdale, AZ, USA |

16:10 | Role of Electrophysiology in Recognition and Classification of Myoclonus
Hiroshi Shibasaki
Kyoto, Japan |

16:50 | New Diagnostic Strategies and an Update on Therapy
Marina De Koning-Tijssen
Groningen, Netherlands |
Monday, June 20, 2016

**2309 Teaching Course**

At the conclusion of this session, participants should be better able to:
1) Recognize the clinical features associated with each subtype of myoclonus and generate a classification-oriented differential diagnosis
2) Identify the electrodiagnostic tools in the assessment of and categorization of myoclonus-associated disorders
3) Review the evidence for first-, second-, and third-line treatment options for cortical vs. subcortical myoclonus

**2310 Teaching Course**

**Surgical Management of Movement Disorders**
**15:30 – 17:30**

Chairs: Kelly Foote Gainesville, FL, USA Lars Timmermann Cologne, Germany

15:30 Superficial or Deep Brain Stimulation: Mechanism of Action, Target Choice, Procedures
Kelly Foote Gainesville, FL, USA

16:10 Surgery for Parkinson’s Disease: When, How and For How Long
Lars Timmermann Cologne, Germany

16:50 Surgery for Dystonia and Other Hyperkinetic Disorders: Indications and Outcomes
Takaomi Taira Tokyo, 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) Describe the mechanism of action for superficial, transcranial and deep brain stimulation, their action at target and circuit levels, the surgical procedures
2) Recognize which patients with Parkinson’s disease can be addressed to surgery, how to assess the individual risk/benefit ratio and what is the expected outcome
3) Recognize which patients with dystonia or other hyperkinetic disorders can be addressed to surgery, how to assess the individual risk/benefit ratio and what is the expected outcome

**2411 Skills Workshop**

**Examination and Interpretation of Eye Movements**
**18:00 – 19:30**

In this interactive session, attendees will learn how to examine eye movements, to recognize disorders of saccades, pursuit and vestibular eye movements, and interpret these findings in relation to clinical phenotype.

Tim Anderson Christchurch, New Zealand Janet Rucker New York, NY, 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) Perform core eye movement examination, including assessment of saccades, pursuit, gaze holding, convergence, and vestibulo-ocular reflex function
2) Recognize disorders of saccades, pursuits, and vestibulo-ocular reflex function in patients with movement disorders
3) Identify nystagmus types (such as various forms of jerk nystagmus, pendular nystagmus) and other eye intrusions (for example square wave jerks and saccadic oscillations) pertinent to the movement disorders

**2412 Skills Workshop**

**How to Publish in Movement Disorders Journal**
**18:00 – 19:30**

In this skills workshop, attendees will become more familiar with the review and decision making process of the Society’s sister journals. This will include a discussion of whether articles are best targeted to MDJ or MDCP, how a decision is made to transfer between journals, and the review process: assignment to Associate Editor, decision on whether to send out for review, assignment of reviewers, Associate Editor decision, final editorial decision, revision and submission.

Marcelo Merello Buenos Aires, Argentina José Obeso Madrid, Spain

**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 whether articles are better targeted to MDJ or MDCP
2) Describe the process that takes place during review, including initial submission, assignment of editors and reviewers or decision to reject without review, editorial discussion, revision and re-assessment
3) Recognize the factors contributing to a final decision to accept, reject or transfer

**2413 Skills Workshop**

**Differential Diagnosis and Treatment of Speech and Voice**
**18:00 – 19:30**

At the end of this session, participants should gain knowledge about how to examine speech and voice related symptoms in clinic, elicit relevant signs and signpost related tests and identify hyperkinetic, hypokinetic and ataxic dysarthria from experts in the field.

Julia Johnson London, United Kingdom Serge Pinto Aix-en-Provence, 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) Recognize what speech and voice problems occur in Parkinson’s disease, Parkinsonism and dystonia
2) Examine speech and voice related symptoms in clinic, elicit relevant signs and signpost related tests. Identify hyperkinetic, hypokinetic and ataxic dysarthria
3) Describe how to manage dysarthria and related syndromes in Parkinson’s disease
At the conclusion of this session, participants should be better able to:
1) Identify clinical clues to the differential diagnosis of acquired, sporadic and hereditary ataxias
2) Recognize the systematic clinical work-up of ataxias
3) Describe clinical symptoms typically associated with ataxias of different etiologies

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

How to Examine: A Clinician Perspective - Bedside Examination
18:00 – 19:30
In this session, participants will learn how to examine patients with movement disorders, how to assess facial and limb movements and distinguish them from normal behaviors, analyze gait and postural impairments, and will be provided with various techniques of assessments.

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 examination strategies and techniques that best elicit and facilitate identification of movement disorders
2) Distinguish different movement disorders of the face and limbs revealed by examination strategies and techniques
3) Outline an approach to the examination of posture and gait, and have knowledge of clinical clues that identify the causative movement disorder

Ataxia: Familial and Sporadic
18:00 – 19:30
This video session will provide the participants with the expertise to perform a systematic clinical work-up of acquired, sporadic and hereditary ataxias.

Henry Houlden
London, United Kingdom
Maria-Jesus Sobrido
Sanitaria de Santiago de Compostela, Spain

Recommended Audience: Clinical academicians, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1) Develop a practical way to observe, analyze movements and select muscles for botulinum toxin injection in complex cases of dystonia, spasticity and other movement disorders
2) Recommend injection techniques and targeting for complex cases of dystonia, spasticity and other movement disorders
3) Integrate the role of physiologic and similar testing in analyzing movement disorders and selecting muscles for chemodenervation

Advanced Use of Botulinum Toxin
18:00 – 19:30
In this session, participants will learn a practical way to analyze complex cases of dystonia and spasticity, as they select muscles for targeting, using recommended botulinum toxin injection techniques.

Katharine Alter
University Park, MD, USA
Joerg Wissel
Berlin, Germany

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

Challenges in Clinicogenetic Correlations: One Gene - Many Phenotypes; One Phenotype - Many Genes
18:00 – 19:30
In this video session, participants will learn how to recognize complex phenotypes of the same monogenic mutations and how to deal with identical clinical presentations of different genetic mutations. At the end of the session, participants will better understand the current role of genetics in movement disorders.

Kailash Bhatia
London, United Kingdom
Vladimir Kostic
Belgrade, Serbia

Recommended Audience: Clinical academicians, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1) Recognize complex phenotypes of monogenic mutations
2) Recognize identical clinical presentations of different genetic mutations
3) Discuss the complexity of the evolving role of genetics in movement disorders

Rare Genetic and Metabolic Disorders
18:00 – 19:30
In this session, participants will learn how to diagnose rare genetic and metabolic movement disorders, both in children and adults and watch examples of their clinical phenotypes.

Anna Aggarwal
Mumbai, India
Roongroj Bhidayasiri
Bangkok, Thailand

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 examination strategies and techniques that best elicit and facilitate identification of movement disorders
2) Distinguish different movement disorders of the face and limbs revealed by examination strategies and techniques
3) Outline an approach to the examination of posture and gait, and have knowledge of clinical clues that identify the causative movement disorder

How to Examine: A Clinician Perspective - Bedside Examination
18:00 – 19:30
In this session, participants will learn how to examine patients with movement disorders, how to assess facial and limb movements and distinguish them from normal behaviors, analyze gait and postural impairments, and will be provided with various techniques of assessments.

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 clinical clues to the differential diagnosis of acquired, sporadic and hereditary ataxias
2) Recognize the systematic clinical work-up of ataxias
3) Describe clinical symptoms typically associated with ataxias of different etiologies

Ataxia: Familial and Sporadic
18:00 – 19:30
This video session will provide the participants with the expertise to perform a systematic clinical work-up of acquired, sporadic and hereditary ataxias.

Henry Houlden
London, United Kingdom
Maria-Jesus Sobrido
Sanitaria de Santiago de Compostela, Spain

Recommended Audience: Clinical academicians, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1) Develop a practical way to observe, analyze movements and select muscles for botulinum toxin injection in complex cases of dystonia, spasticity and other movement disorders
2) Recommend injection techniques and targeting for complex cases of dystonia, spasticity and other movement disorders
3) Integrate the role of physiologic and similar testing in analyzing movement disorders and selecting muscles for chemodenervation

Advanced Use of Botulinum Toxin
18:00 – 19:30
In this session, participants will learn a practical way to analyze complex cases of dystonia and spasticity, as they select muscles for targeting, using recommended botulinum toxin injection techniques.

Katharine Alter
University Park, MD, USA
Joerg Wissel
Berlin, Germany

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

Challenges in Clinicogenetic Correlations: One Gene - Many Phenotypes; One Phenotype - Many Genes
18:00 – 19:30
In this video session, participants will learn how to recognize complex phenotypes of the same monogenic mutations and how to deal with identical clinical presentations of different genetic mutations. At the end of the session, participants will better understand the current role of genetics in movement disorders.

Kailash Bhatia
London, United Kingdom
Vladimir Kostic
Belgrade, Serbia

Recommended Audience: Clinical academicians, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1) Recognize complex phenotypes of monogenic mutations
2) Recognize identical clinical presentations of different genetic mutations
3) Discuss the complexity of the evolving role of genetics in movement disorders
Tuesday, June 21, 2016

3101 Plenary Session
Genotype Meets Phenotype
8:00 – 10:00

Chairs: Christine Klein
Lübeck, Germany
Carolyn Sue
Sydney, NSW, Australia

8:00 Hereditary Movement Disorders: Reconciling Genotypes and Phenotypes
Hyder Jinnah
Atlanta, GA, USA

8:40 Phenotyping vs. Genotyping in Ataxias: New Diagnostic Approaches
Henry Paulson
Ann Arbor, MI, USA

9:20 When One Phenotype Has Many Genotypes: Implications for Diagnosis in Dystonia
Carolyn Sue
Sydney, NSW, Australia

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 often complex relationships between genotypes and phenotypes
2) Recognize new developments in molecular diagnosis for inherited movement disorders using ataxia as an example
3) Identify how advances in modern genetics have modified our view of Mendelian genetics using dystonia as an example

3102 Plenary Session, cont.
Translational Aspects of iPSC Models: New Treatment Approaches for Parkinson's Disease
Ole Hacson
Belmont, MA, USA

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

At the conclusion of this session, participants should be better able to:
1) Describe different model systems to develop new treatment approaches for Parkinson's disease
2) Identify new insights into the pathophysiology of Parkinson's disease
3) Recognize how to translate basic science findings into clinical practice

3203 Parallel Session
Applications of Cutting Edge Technology in Movement Disorders
15:30 – 17:30

Chairs: Alexandra Nelson
San Francisco, CA, USA
Elena Moro
Grenoble, France

15:30 Optogenetics and Gene Editing
Alexandra Nelson
San Francisco, CA, USA

16:10 Non-Invasive Stimulation Strategies
Yuichiro Shirata
Göttingen, Germany

16:50 Adaptive Neuromodulation
Aysegul Gunduz
Gainesville, FL, 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) Explain how novel, powerful tools such as optogenetics and gene editing are being used to elucidate the cellular and circuit mechanisms of movement disorders
2) Describe potential therapeutic applications of rTMS and tDCS in the management of Parkinson's disease
3) Explore emerging applications of closed loop “smart DBS” both as a research tool and an enhanced therapeutic modality for neurocircuitry disorders

3204 Parallel Session
Penetrance of Mutations in Movement Disorder Genes: Clues to Endogenous Disease Protection?
15:30 – 17:30

Chairs Matthew Farrer
Vancouver, BC, Canada
Christine Klein
Lübeck, Germany

15:30 Mechanisms of Reduced Penetrance in the Dystonias
Laurie Ozelius
Charlestown, MA, USA

16:10 Factors Influencing Penetrance of Parkinson's Disease Genetic Determinants (LRRK2 and GBA)
Matthew Farrer
Vancouver, BC, Canada

16:50 Genetic and Environment Risk Factors: Accomplices in Parkinson's Disease Manifestation
Alexis Elbaz
Villejuif, 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) Summarize current knowledge about factors and mechanisms influencing penetrance in the dystonias
2) Discuss penetrance estimates for the most prevalent genetic determinants of Parkinson's disease (LRRK2 and GBA)
3) Debate the respective roles of genetic and environmental risk factors in Parkinson's disease etiology

3205 Parallel Session
Role of Developmental Factors in the Etiology and Future Therapy of Parkinson's Disease
15:30 – 17:30

Chairs: Thomas Perlmann
Stockholm, Sweden
Alain Prochiantz
Paris, France

15:30 Homeoprotein Signaling in Neuronal Development and Degeneration
Alain Prochiantz
Paris, France
### Tuesday, June 21, 2016

<table>
<thead>
<tr>
<th>Session No.</th>
<th>Parallel Session</th>
<th>Time</th>
<th>Title and Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>3205</td>
<td>Parallel Session</td>
<td>16:10</td>
<td>NURR1 in Parkinson Disease: From Pathogenesis to Therapeutic Potential. Thomas Perlmann. Stockholm, Sweden. Recommended Audience: Basic scientists, Clinical academicians, Students/Residents/Trainees. At the conclusion of this session, participants should be better able to: 1) Recognize the role of developmental factors in the etiology of Parkinson’s disease 2) Address the question whether it is already time for translation of basic research results to clinic 3) Identify the active role of developmental factors in adulthood and their impact on autophagy and mitochondria with respect to their possible therapeutic value.</td>
</tr>
<tr>
<td>3206</td>
<td>Parallel Session</td>
<td>16:10</td>
<td>What is the Current State Regarding Advances in Basic Science and Parkinson's? Ryosuke Takahashi. Kyoto, Japan. 16:50 Translating Pearls of Basic Science to the Wisdom of the Clinic in Parkinson's Disease. David Standaert. Birmingham, AL, 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 the latest advances in basic science related to Parkinson's disease 2) Recognize the latest advances in basic science related to Parkinson's disease (models, pathophysiology as well as the future and unmet needs) 3) Identify the translational efforts at converting basic science based benchside knowledge to bedside clinical medicine related to therapy and investigational techniques.</td>
</tr>
<tr>
<td>3207</td>
<td>Parallel Session</td>
<td>15:30</td>
<td>Evidence Based Medicine Update. Joaquim Ferreira. Lisbon, Portugal. Susan Fox. Toronto, ON, Canada. 15:30 MDS-EBM Update on Parkinson’s Disease Treatments. Rob De Bie. Amsterdam, Netherlands. 16:10 MDS-EBM Update on Tremor. Joaquim Ferreira. Lisbon, Portugal. 16:40 MDS-EBM Update on RLS. Birgit Högl. Innsbruck, Austria. At the conclusion of this session, participants should be better able to: 1) Describe the latest advances in the therapy (motor and non-motor) as well as high quality clinical trials of Parkinson’s disease 2) Describe the overview of the latest clinical trials and their implications in Huntington’s disease 3) Comprehend the etiology, phenomenology and management of secondary forms of choreas.</td>
</tr>
<tr>
<td>3208</td>
<td>Parallel Session</td>
<td>15:30</td>
<td>Late-Breaking Advances in Clinical, Basic and Translational Science. David Brooks. London, United Kingdom. Michael Okun. Gainesville, FL, USA. At the conclusion of this session, participants should be better able to: 1) Identify the genetics and pathophysiology of Huntington’s disease 2) Describe the overview of the latest clinical trials and their implications in Huntington’s disease 3) Comprehend the etiology, phenomenology and management of secondary forms of choreas.</td>
</tr>
<tr>
<td>3209</td>
<td>Teaching Course</td>
<td>15:30</td>
<td>Biomarkers for Parkinson’s Disease. Charles Adler. Scottsdale, AZ, USA. Daniela Berg. Tübingen, Germany. At the conclusion of this session, participants should be better able to: 1) Describe the Evidence Based Medicine process and methodology 2) List MDS-EBM recommendations for treatments in Parkinson’s disease, RLS and tremor 3) Discuss the gaps in therapies for common movement disorders.</td>
</tr>
</tbody>
</table>
Tuesday, June 21, 2016

3309 Teaching Course

At the conclusion of this session, participants should be better able to:
1) Recognize the importance of pre-motor or prodromal phase of Parkinson’s disease
2) Discuss possible genetic, CSF, blood, saliva, and tissue biopsy biomarkers of Parkinson’s disease
3) Describe neuroimaging methods for Parkinson’s disease diagnosis and disease progression

3310 Teaching Course

Botulinum Toxin Treatment of Movement Disorders
15:30 – 17:30
Chairs: Cynthia Comella
Chicago, IL, USA
Raymond Rosales
Manila, Philippines
15:30 How to Inject Botulinum Toxin for Optimal Outcome in Dystonia, Emphasizing Common Focal Dystonias: Blepharospasm and Cervical Dystonia
Raymond Rosales
Manila, Philippines
16:10 Botulinum Toxin for the Treatment of Occupational Dystonias
David Simpson
New York, NY, USA
16:50 The Many Causes of Secondary Non-Response to Botulinum Toxin for the Treatment of Dystonia
Austen Moore
Liverpool, United Kingdom

Recommended Audience: Clinical academicians, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1) Describe the techniques and methods of injection for common focal dystonias, blepharospasm and cervical dystonia that will maximize benefit and minimize side effects
2) Recognize the pattern of muscle activation in the occupational dystonias for optimal muscle selection
3) Explain the common and uncommon causes for secondary failure of botulinum toxin for dystonia

3411 Parallel Session

Wearable Sensors, Mobile Applications and Big Data Analytics in Movement Disorders
18:00 – 19:30
Chairs: Alberto Espay
Cincinnati, OH, USA
Per Odin
Bremerhaven, Germany
18:00 Wearables
Jochen Klucken
Bremerhaven, Germany
18:30 Mobile Applications
Per Odin
Bremerhaven, Germany
19:00 Technology Assessment for Gaits and Falls
Jeffrey Hausdorff
Tel Aviv, 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) Describe emerging applications of wearable sensor technologies relevant to the diagnosis, prognosis and quality of life assessment of Parkinson’s disease patients
2) Identify promising applications of mobile devices for prevention/prediction and continuous monitoring of movement disorders
3) Provide an overview of the opportunities and hurdles for application of technology-enabled solutions for real-time gait analysis and fall prevention

3412 Skills Workshop

Phenotyping of Parkinson’s Disease: Neuroimaging Meets Neurophysiology
18:00 – 19:30
In this session, participants will learn about methodologies and principles of advanced MRI and non-invasive brain stimulation and how these techniques can be combined to modulate brain plasticity and enhance our understanding of various phenotypes of Parkinson’s disease.
Walter Paulus
Göttingen, Germany
Irena Rektorova
Brno, Czech Republic

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

At the conclusion of this session, participants should be better able to:
1) Gain insight in the rationale for various forms of exercise using concepts of motor learning and exercise physiology
2) Describe how technology can facilitate contemporary exercise delivery in Parkinson’s disease
3) Gain evidence-based recommendations on efficacy and dosing of different types of exercise
**Tuesday, June 21, 2016**

<table>
<thead>
<tr>
<th>Session ID</th>
<th>Type</th>
<th>Title</th>
<th>Time</th>
<th>Speaker(s)</th>
<th>Location(s)</th>
<th>Audience</th>
</tr>
</thead>
<tbody>
<tr>
<td>3414</td>
<td>Skills Workshop</td>
<td>Optimizing the Management of the DBS Patient</td>
<td>18:00 – 19:30</td>
<td>Maria Fiorella Contarino, Den Haag, Netherlands, Suniel Kalia, Toronto, ON, Canada</td>
<td>Toronto, ON, Canada</td>
<td>Recommended Audience: Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees</td>
</tr>
<tr>
<td>3415</td>
<td>Skills Workshop</td>
<td>Practical Issues in Neuroimaging</td>
<td>18:00 – 19:30</td>
<td>Danna Jennings, New Haven, CT, USA, Klaus Seppi, Innsbruck, Austria</td>
<td>Toronto, ON, Canada</td>
<td>Recommended Audience: Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees</td>
</tr>
<tr>
<td>3516</td>
<td>Video Session</td>
<td>Unusual Movement Disorders</td>
<td>18:00 – 19:30</td>
<td>Victor Fung, Sydney, NSW, Australia, Stephen Reich, Baltimore, MD, USA</td>
<td>London, United Kingdom</td>
<td>Recommended Audience: Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees</td>
</tr>
<tr>
<td>3517</td>
<td>Video Session</td>
<td>Pediatric Movement Disorders</td>
<td>18:00 – 19:30</td>
<td>Jennifer Friedman, Del Mar, CA, USA, Manju Kurian, London, United Kingdom</td>
<td>London, United Kingdom</td>
<td>Recommended Audience: Clinical academicians, Practitioners, Students/Residents/Trainees</td>
</tr>
<tr>
<td>3518</td>
<td>Video Session</td>
<td>Diagnosis and Treatment of Functional Movement Disorders</td>
<td>18:00 – 19:30</td>
<td>Mark Edwards, London, United Kingdom, Mark Hallett, Bethesda, MD, USA</td>
<td>Bethesda, MD, USA</td>
<td>Recommended Audience: Clinical academicians, Practitioners, Students/Residents/Trainees</td>
</tr>
<tr>
<td>3519</td>
<td>Video Session</td>
<td>Movement Disorders in Musicians</td>
<td>18:00 – 19:30</td>
<td>Steven Frucht, New York, NY, USA, Hans Christian Jabusch, Dresden, Germany</td>
<td>Berlin, Germany</td>
<td>Recommended Audience: Basic scientists, Clinical academicians, Non-physician Health Professionals, Practitioners, Students/Residents/Trainees</td>
</tr>
</tbody>
</table>
Wednesday, June 22, 2016

**4101 Plenary Session**

**Novel Technologies for Medical Decision Support: The Dawn of Stratified and Digitalized Medicine in Parkinson's Disease**

**8:00 – 9:30**

Chairs: Thomas Gasser, Tübingen, Germany
Rejko Krüger, Esch-sur-Alzette, Luxembourg

- **8:00** Genetic Stratification and Deep Phenotyping for Precision Medicine Approaches in Parkinson's Disease
Rejko Krüger, Esch-sur-Alzette, Luxembourg

**4102 Plenary Session**

**Movement Disorders Grand Rounds**

**10:00 – 12:00**

In this interactive session, movement disorder experts will examine interesting common and complex patients. Attendees will learn how they formulate diagnoses and manage these interesting and challenging patients.

Chairs: Christine Klein, Lübeck, Germany
Claudia Tenkwalder, Kassel, Germany

- **10:45** The Spectrum of Tauopathies: Synucleinopathies and Neurodegeneration
Irene Litvan, San Diego, CA, USA

**4203 Parallel Session**

**The Clinical Spectrum of Synucleinopathies and Tauopathies**

**15:00 – 17:00**

Chairs: Günter Höglinger, Munich, Germany
Irene Litvan, La Jolla, CA, USA

- **15:00** The spectrum of Tauopathies: Progressive Supranuclear Palsy (PSP) and Corticobasal Degeneration (CBD)

15:40 The Spectrum of Gliarial Synucleinopathies: Multiple System Atrophy (Type Parkinson / Cerebellar Type / Benign MSA)
Wassilios Meissner, Bordeaux, France

**4204 Parallel Session**

**Non-Motor Issues in Parkinsonism**

**15:00 – 17:00**

Chairs: Carlo Colosimo, Rome, Italy
Tanya Simuni, Chicago, IL, USA

- **15:00** Psychiatric Disorders in Parkinsonism
David John Burn, Newcastle upon Tyne, United Kingdom

16:20 Fatigue and Sleepiness
Tanya Simuni, Chicago, IL, USA

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

1) Identify the broad spectrum of psychiatric disorders presenting in Parkinsonism
2) Recognize the symptoms of autonomic disorders and their treatments in Parkinsonism
3) Examine the pathophysiology and epidemiology of sleepiness and fatigue in Parkinsonism
**Wednesday, June 22, 2016**

<table>
<thead>
<tr>
<th>Session Code</th>
<th>Session Title</th>
<th>Time</th>
<th>Chairs</th>
<th>Presentations</th>
</tr>
</thead>
</table>
| 4205         | **Parallel Session** **Prodromal Parkinson's Disease - Cohorts, Underlying Science and Future Trials** | 15:00 – 17:00 | Alejandro Iranzo  
Barcelona, Spain  
Matthew Stern  
Philadelphia, PA, USA | 15:00: Prodomal Parkinson's Disease Cohorts  
Claudia Trenkwalder  
Kassel, Germany  
15:40: Impaired Gastric Motility, Intestinal Dysfunction and Hyposmia in REM Sleep Behavior Disorder Patients - the Search For a Primary Endpoint  
Alejandro Iranzo  
Barcelona, Spain  
16:20: Gastrointestinal and Autonomic Dysfunction in Animal Models  
Penny Hallett  
Charlestown, MA, USA |
| 4206         | **Parallel Session** **What's New in Tremor?**                                | 15:00 – 17:00 | Gunther Deuschn  
Kiel, Germany  
Anthony Lang  
Toronto, ON, Canada | 15:00: Should We Redefine Essential Tremor?  
Rodger Elble  
Springfield, IL, USA  
15:40: What is Dysmetric Tremor?  
Anthony Lang  
Toronto, ON, Canada  
16:20: Surgical Treatments for Tremor  
Andres Lozano  
Toronto, ON, Canada |
| 4207         | **Parallel Session** **Striatal Interneurons and Pathophysiology of Movement Disorders** | 15:00 – 17:00 | D. James Surmeier  
Chicago, IL, USA  
Antonio Pisani  
Rome, Italy | 15:00: Striatal Interneuronal Networks Controlling Movement  
James Tepper  
Newark, NJ, USA  
15:40: Striatal Cholinergic Interneurons Play a Key Role in Dystonia  
Antonio Pisani  
Rome, Italy  
16:20: Why Cholinergic Interneurons Still Matter in Parkinson's Disease  
Stephanie Cragg  
Oxford, United Kingdom |
| 4208         | **Parallel Session** **Complex Gait Disorders: Mechanisms, Evaluation and Treatment** | 15:00 – 17:00 | Andres Ceballos-Baumann  
Munich, Germany  
Alice Nieuwboer  
Heverlee, Belgium | 15:00: New Insights in the Neural Circuitry Involved in Gait and Balance Disorders  
Veronique Vanderhorst  
Boston, MA, USA  
15:40: Mechanisms Underlying Freezing of Gait and Higher Order Gait Disorders  
Alice Nieuwboer  
Heverlee, Belgium  
16:10: Novel Concepts in the Evaluation and Management of Complex Gait Disorders  
Bastiaan Bloem  
Nijmegen, Netherlands |
| 4309         | **Teaching Course** **Complex Phenotypes and Genotypes - Seeing the Wood for the Trees** | 15:00 – 17:00 | Sarah Tabrizi  
London, United Kingdom  
Eng-King Tan  
Singapore | 15:00: Huntington's Disease and HD-Like Disorders  
Sarah Tabrizi  
London, United Kingdom  
15:40: Ataxias  
Katrin Buerg  
Kassel, Germany |
Wednesday, June 22, 2016

4310  Teaching Course [TICKET]
Cerebellar Ataxias: The Essentials
15:00 – 17:00

Chairs: Tetsuo Ashizawa
Alexandra Durr

15:00  Genetic Ataxias: Overview and Diagnostic Approach
Alexandra Durr
Paris, France

15:40  MSA-C and Other Degenerative Ataxias
Thomas Klockgether
Bonn, Germany

16:20  Immune-Mediated and Other Acquired Ataxias
Tetsuo Ashizawa
Gainesville, FL, 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) Identify that some ataxias are immune-mediated and what are the clues to their diagnosis
2) Identify clinical characteristics that aid in narrowing the differential diagnosis in the ataxias and focus genetic testing
3) Recognize the expanding spectrum of HSP presentation and identify particular clinical features that can aid diagnosis of type and targeted genetic testing

4411  Skills Workshop [TICKET]
Lessons From My Patients
17:30 – 19:00

In this interactive session, the faculty will present clinical cases from their own practice and discuss the lessons learned when critical reappraisal of clinical features has lead to a revision of diagnosis and change in management.

Orlando Barsottini
Sao Paolo, Brazil

Thomas Kimber
Adelaide, SA, Australia

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 value of critical review of cases where diagnosis and management have been revised
2) Identify common pitfalls in the evaluation of movement disorders
3) Recognize the merits of reassessing clinical features and management

4412  Skills Workshop [TICKET]
Neurology Without Borders
17:30 – 19:00

This session will provide participants with an understanding of the new technologies available to widen the practice of neurology and how to use them.

Esther Cubo Delgado
Burgos, Spain

Mark Guttmann
Toronto, ON, Canada

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 available technologies to expand neurology practice
2) Discuss the application of teleneurology in education and in managing patients with movement disorders
3) Describe strategies for implementation of telemedicine beyond borders

4413  Skills Workshop [TICKET]
Pain in Parkinson’s Disease: Insights and Management
17:30 – 19:00

This session will provide participants with an overview of how pain is currently understood in PD. Participants will also learn about validated and clinical measurement tools on how to rate pain and identify emerging pharmacological and non-pharmacological management strategies on how to alleviate it.

Santiago Perez Lloret
Buenos Aires, Argentina

Michele Tinazzi
Verona, Italy

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 pathophysiology, prevalence and clinical manifestation of different types of pain in Parkinson’s disease
2) Gain insight in pain rating scales that are validated for Parkinson’s disease as a basis for pain management
3) Identify emerging pharmacological and non-pharmacological management strategies of pain

4414  Skills Workshop [TICKET]
MDS - UPDRS/UDysRS
17:30 – 19:00

This session will be a practical and interactive survey of two core scales utilized in the clinical care and research efforts of Parkinson’s disease, the MDS revision of the Unified Parkinson’s Rating Scale (MDS-UPDRS) and the Unified Dyskinesia Rating Scale (UDysRS). The faculty will review the sections of each scale, their conceptual framework, and offer practical recommendations on the efficient application of these rating measures.

Annette Schrag
London, United Kingdom

Glenn Stebbins
Chicago, IL, USA

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) Complete ratings on the MDS-UPDRS and UDysRS
2) Describe the conceptual constructs of the MDS-UPDRS and UDysRS
3) Explain to patients and caregivers the role they play in the MDS-UPDRS and UDysRS assessments
Wednesday, June 22, 2016

4415 Skills Workshop [TICKET]

**Presenting the MDS Genotype Phenotype Toolbox**

17:30 – 19:00

This session is intended to familiarize participants with the new nomenclature and classification of inherited movement disorders and with the use of the MDS online toolbox relating genotypes and phenotypes.

Christina Lill
Lübeck, Germany

Connie Marras
Toronto, ON, 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) Describe the limitations of the current nomenclature and classification of genetic movement disorders
2) Describe the proposed solution by the MDS Task Force on Genetics and understand its limitations and perspectives
3) Recognize the value of the online tool being developed by MDS for addressing genotype-phenotype relationships and implications for diagnosis

4516 Video Session [TICKET]

**What If It’s Not Huntington’s Disease?**

17:30 – 19:00

During this interactive session, clinicians will receive updated tips how to recognize the phenomenology of Huntington’s disease and other disorders (Huntington’s disease-like syndromes) in which chorea is the initial main clinical feature. At the end of the session participants will be able to outline the appropriate approach and diagnostic work-up for patients with chorea.

Anne-Catherine Bachoud-Levi
Creteil, France

Anna Bentivoglio
Rome, Italy

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 phenomenology of Huntington’s disease and other disorders in which chorea is the main clinical feature
2) Recognize the clinical features of Huntington’s disease-like (HDL) syndromes
3) Outline appropriate approach and diagnostic work-up for patients with chorea

4517 Video Session [TICKET]

**Drug-Induced Movement Disorders**

17:30 – 19:00

In this session, participants will be alerted to recognize common and some uncommon acute, subacute and tardive drug-induced movement disorders and describe their associated neurological features.

Mohit Bhatt
Mumbai, India

Pille Taba
Tartu, Estonia

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) Identify clues leading to the suspicion of drug-induced movement disorders
2) Distinguish common and some uncommon acute, subacute and tardive or chronic drug-induced movement disorders
3) Recognize psycho-stimulant induced movement disorders and associated neurologic features

4518 Video Session [TICKET]

**Update on Paroxysmal Movement Disorders / Fluctuating Movement Disorders**

17:30 – 19:00

In this session, participants will be shown video cases of various forms of paroxysmal dyskinesia (classical forms and variants), as they differentiate, in an algorithm, the other fluctuating disorders (including epilepsy partialis).

Beomseok Jeon
Seoul, Korea

Emmanuel Roze
Paris, 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) Characterize the forms of paroxysmal dyskinesia (classical forms and variants)
2) Approach, using an algorithm, the diagnosis and the etiology of paroxysmal movement disorders
3) Define the differential diagnostic points in epilepsy partialis and the look-alikes
Thursday, June 23, 2016

5101 Plenary Session

RLS, RBD - New Approaches to Movement Disorders in Sleep
8:00 – 9:30

Chairs: Birgit Högl
Innsbruck, Austria
Wolfgang Oertel
Marburg, Germany

8:00 RLS - A Neurodevelopment Disorder of the Basal Ganglia? Update on Pathophysiology and Genetics
Juliane Winkelmann
München, Germany

8:30 Neuropathology and Pathophysiology of RBD
Bradley Boeve
Rochester, MN, USA

9:00 Assessments of RBD in Clinical Practice – New Tools
Isabelle Arnulf
Paris, 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) Review current pathophysiological concepts and the neurodevelopmental component of RLS related to the genetic architecture and environmental factors
2) Describe neuropathological findings of neurodegeneration in REM sleep behavior disorder
3) Recognize the basics for quantitative EMG assessment, video-PSG and scales for assessment of RBD and appreciate some of the available computerized tools

5102 Controversies in Movement Disorders

10:00 – 11:00

Chairs: Christopher Goetz
Chicago, IL, USA
Marie Vidalhbet
Paris, France

10:00 Genotype Should Influence Treatment Decisions in the Clinic (YES)
Norbert Bruggemann
Lübeck, Germany

10:15 Genotype Should Influence Treatment Decisions in the Clinic (NO)
Eduardo Tolosa
Barcelona, Spain

10:30 All Dopamine Agonists are Basically the Same in Terms of Parkinson's Disease Treatment (YES)
Olivier Rascol
Toulouse, France

10:45 All Dopamine Agonists are Basically the Same in Terms of Parkinson's Disease Treatment (NO)
K. Ray Chaudhuri
London, United Kingdom

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:
Topic 1:
1) Recognize how movement disorder phenotypes have different genetic causes
2) Evaluate whether shared phenotypes with different genetic causes leads to treatment decisions
3) Compare treatment outcomes among shared phenotypes with different genotype etiologies

Topic 2:
1) Recognize the neurochemical and pharmacokinetic differences among dopamine agonists
2) Evaluate the relative clinical impact of different dopamine agonists
3) Design a treatment plan for patients receiving agonist therapy

5103 Blue Ribbon Highlights

11:00 – 12:00

Chairs: C. Warren Olanow
New York, NY, USA
Louis Tan
Singapore

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.

Presenters: Marie-Francoise Chesselet
Los Angeles, CA, USA
Caroline Tanner
San Francisco, CA, 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) Review recent developments in the basic science field of movement disorders
2) Discuss an overview of recent clinical developments
3) Define an overall perspective on current topics of interest in movement disorders

5204 Parallel Session

The Interface of Autoimmunity and Movement Disorders
15:00 – 17:00

Chairs: Hyder Jinnah
Atlanta, GA, USA
Andrew McKeon
Rochester, MN, USA

15:00 Antibodies in Movement Disorders: Clinical Approach, Pitfalls, Future Challenges
Andrew McKeon
Rochester, MN, USA

15:40 Gluten-Associated Neurological Disorders and Related Immune-Mediated Conditions
Marios Hadjivassiliou
Sheffield, United Kingdom

16:20 New and Emerging Disorders
Bettina Balint
London, United Kingdom

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 a spectrum of antibodies associated with movement and sleep disorders phenotypes
2) Describe evidence both for and against gluten-associated neurological disorders
3) Describe recently discovered antibodies and the evidence needed to link them with movement and sleep disorders phenotypes

5205 Parallel Session

Lysosomal Alterations as a Unifying Theme Underlying Parkinson's Disease and Related Synucleinopathies
15:00 – 17:00

Chairs: Roy Alcalay
New York, NY, USA
Marie-Francoise Chesselet
Los Angeles, CA, USA

15:00 Lysosomal Alterations as a Unifying Theme Underlying Parkinson's Disease and Related Synucleinopathies
Andrew McKeon
Rochester, MN, USA

15:40 Autoimmunity and Related Synucleinopathies
Andrew McKeon
Rochester, MN, USA

16:20 Movement Disorders, cont.
K. Ray Chaudhuri
London, United Kingdom

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 how movement disorder phenotypes have different genetic causes
2) Evaluate whether shared phenotypes with different genetic causes leads to treatment decisions
3) Compare treatment outcomes among shared phenotypes with different genotype etiologies

Topic 1:
1) Recognize the neurochemical and pharmacokinetic differences among dopamine agonists
2) Evaluate the relative clinical impact of different dopamine agonists
3) Design a treatment plan for patients receiving agonist therapy
**Thursday, June 23, 2016**

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Chairs</th>
<th>Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>5205</td>
<td>Parallel Session</td>
<td>GBA-Related Parkinson's Disease: Intermediate Phenotypes and Biomarkers</td>
<td>Nobutaka Hattori, Tokyo, Japan</td>
</tr>
<tr>
<td>5206</td>
<td>Parallel Session</td>
<td>Endemic Atypical Parkinsonism</td>
<td>John Steele, Covina, CA, USA</td>
</tr>
<tr>
<td>5207</td>
<td>Parallel Session</td>
<td>The Cerebellum in Health and Disease</td>
<td>Mark Hallett, Bethesda, MD, USA</td>
</tr>
<tr>
<td>5208</td>
<td>Parallel Session</td>
<td>IPS Modeling and Cell Therapy</td>
<td>Steven Finkbeiner, San Francisco, CA, USA</td>
</tr>
<tr>
<td>5209</td>
<td>Parallel Session</td>
<td>Primary Familial Brain Calcification (PFBC): Genes, Phenotypes, and Mechanisms</td>
<td>Vladimir Kostic, Belgrade, Serbia</td>
</tr>
</tbody>
</table>

**Session Details:**

**5205**
- **Time:** 15:40 – 17:00
- **Title:** GBA-Related Parkinson's Disease: Intermediate Phenotypes and Biomarkers
- **Chairs:** Nobutaka Hattori, Tokyo, Japan

**5206**
- **Time:** 15:00 – 17:00
- **Title:** Endemic Atypical Parkinsonism
- **Chairs:** Nobutaka Hattori, Tokyo, Japan; Raymond Rosales, Manila, Philippines

**5207**
- **Time:** 15:00 – 17:00
- **Title:** The Cerebellum in Health and Disease
- **Chairs:** Mark Hallett, Bethesda, MD, USA; Mario-Ubaldo Manto, Brussels, Belgium

**5208**
- **Time:** 15:00 – 17:00
- **Title:** IPS Modeling and Cell Therapy
- **Chairs:** Steven Finkbeiner, San Francisco, CA, USA; Ole Isacson, Belmont, MA, USA

**5209**
- **Time:** 15:00 – 17:00
- **Title:** Primary Familial Brain Calcification (PFBC): Genes, Phenotypes, and Mechanisms
- **Chairs:** Vladimir Kostic, Belgrade, Serbia; Ana Westenberger, Lübeck, Germany
### Genetic Testing for Movement Disorders: Which, Why, and When

**15:00 – 17:00**

**Chairs:**
- Vincenzo Bonifati
- Rotterdam, Netherlands
- Christian Wider
- Lausanne, Switzerland

**15:00** Parkinson’s Disease
- Vincenzo Bonifati
- Rotterdam, Netherlands

**15:40** Dystonia
- Christian Wider
- Lausanne, Switzerland

**16:20** Spinocerebellar Ataxias
- Ebba Lohmann
- Istanbul, Turkey

**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) Review the Mendelian genes known to cause Parkinson’s disease to determine if there is an indication for routine genetic testing
2) Review the Mendelian genes known to cause isolated dystonia and discuss whether gene testing should be used clinically to guide approaches to therapy
3) Review the Mendelian genes that cause Spinocerebellar Ataxias to determine if there is a clinical use of genetic testing and how that should be accomplished: individual tests or comprehensive panel

### Movement Disorder Emergencies: Recognition and Management

**15:00 – 17:00**

**Chairs:**
- Stewart Factor
- Atlanta, GA, USA
- Heinz Reichmann
- Dresden, Germany

**15:00** Hyperkinetic Emergencies
- Carlo Colosimo
- Rome, Italy

**15:40** Hypokinetic Emergencies
- Shen-Yang Lim
- Selangor, Malaysia

**16:20** Long Term Treatment Strategies in Recurrent Emergencies
- Stewart Factor
- Atlanta, GA, 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) Recognize the clinical features, and outline immediate management strategies in patients with movement disorders who require emergent interventions
2) Recognize the risk or precipitating factors and prodromal symptoms or signs that are associated with specific forms of movement disorder emergencies
3) Recognize and employ appropriate treatment for neuropsychiatric emergencies associated with movement disorder conditions
### Faculty Listing

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Location</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aarsland, Dag</td>
<td>Stavanger, Norway</td>
<td>2207</td>
<td></td>
</tr>
<tr>
<td>Adler, Charles</td>
<td>Scottsdale, AZ, USA</td>
<td>3309</td>
<td></td>
</tr>
<tr>
<td>Aggarwal, Anu</td>
<td>Mumbai, India</td>
<td>2517</td>
<td></td>
</tr>
<tr>
<td>Alcalay, Roy</td>
<td>New York, NY, USA</td>
<td>5205</td>
<td></td>
</tr>
<tr>
<td>Alter, Katharine</td>
<td>University Park, MD, USA</td>
<td>2414</td>
<td></td>
</tr>
<tr>
<td>Anderson, Tim</td>
<td>Christchurch, New Zealand</td>
<td>2411, 3206</td>
<td></td>
</tr>
<tr>
<td>Antonini, Angelo</td>
<td>Venice, Italy</td>
<td>1101</td>
<td></td>
</tr>
<tr>
<td>Arnulf, Isabelle</td>
<td>Paris, France</td>
<td>5101</td>
<td></td>
</tr>
<tr>
<td>Ashizawa, Tetsuo</td>
<td>Gainesville, FL, USA</td>
<td>4310</td>
<td></td>
</tr>
<tr>
<td>Bachoud-Levi, Anne-Catherine</td>
<td>Cretel, France</td>
<td>4516</td>
<td></td>
</tr>
<tr>
<td>Balint, Bettina</td>
<td>London, United Kingdom</td>
<td>5204</td>
<td></td>
</tr>
<tr>
<td>Ballard, Clive</td>
<td>London, United Kingdom</td>
<td>2207</td>
<td></td>
</tr>
<tr>
<td>Barone, Paolo</td>
<td>Napoli, Italy</td>
<td>2204</td>
<td></td>
</tr>
<tr>
<td>Barsottini, Orlando</td>
<td>Sao Paolo, Brazil</td>
<td>4411</td>
<td></td>
</tr>
<tr>
<td>Bentivoglio, Anna</td>
<td>Rome, Italy</td>
<td>4516</td>
<td></td>
</tr>
<tr>
<td>Berardelli, Alfredo</td>
<td>Rome, Italy</td>
<td>5207</td>
<td></td>
</tr>
<tr>
<td>Berg, Daniela</td>
<td>Tübingen, Germany</td>
<td>1101, 3309</td>
<td></td>
</tr>
<tr>
<td>Bhatia, Kailash</td>
<td>London, United Kingdom</td>
<td>2515</td>
<td></td>
</tr>
<tr>
<td>Bhatt, Mohit</td>
<td>Mumbai, India</td>
<td>4517</td>
<td></td>
</tr>
<tr>
<td>Bhidayasiri, Roongroj</td>
<td>Bangkok, Thailand</td>
<td>2517</td>
<td></td>
</tr>
<tr>
<td>Bloem, Bastiaan</td>
<td>Nijmegen, Netherlands</td>
<td>4208</td>
<td></td>
</tr>
<tr>
<td>Boeve, Bradley</td>
<td>Rochester, MN, USA</td>
<td>5101</td>
<td></td>
</tr>
<tr>
<td>Bonifati, Vincenzo</td>
<td>Rotterdam, Netherlands</td>
<td>5310</td>
<td></td>
</tr>
<tr>
<td>Brooks, David</td>
<td>London, United Kingdom</td>
<td>3208, 3309</td>
<td></td>
</tr>
<tr>
<td>Brueggemann, Norbert</td>
<td>Lübeck, Germany</td>
<td>5102</td>
<td></td>
</tr>
<tr>
<td>Brundin, Patrik</td>
<td>Grand Rapids, MI, USA</td>
<td>1103</td>
<td></td>
</tr>
<tr>
<td>Buerk, Katrin</td>
<td>Kassel, Germany</td>
<td>4309</td>
<td></td>
</tr>
<tr>
<td>Burn, David John</td>
<td>Newcastle upon Tyne, United Kingdom</td>
<td>1101, 4204</td>
<td></td>
</tr>
<tr>
<td>Cardoso, Francisco</td>
<td>Belo Horizonte, Brazil</td>
<td>1102</td>
<td></td>
</tr>
<tr>
<td>Caviness, John</td>
<td>Scottsdale, AZ, USA</td>
<td>2309</td>
<td></td>
</tr>
<tr>
<td>Ceballos-Baumann, Andres</td>
<td>Munich, Germany</td>
<td>4208</td>
<td></td>
</tr>
<tr>
<td>Chaudhuri, K. Ray</td>
<td>London, United Kingdom</td>
<td>2102, 5102</td>
<td></td>
</tr>
<tr>
<td>Chesselet, Marie-Francoise</td>
<td>Los Angeles, CA, USA</td>
<td>5103, 5205</td>
<td></td>
</tr>
<tr>
<td>Colosimo, Carlo</td>
<td>Rome, Italy</td>
<td>4204, 5311</td>
<td></td>
</tr>
<tr>
<td>Comella, Cynthia</td>
<td>Chicago, IL, USA</td>
<td>1102, 3310</td>
<td></td>
</tr>
<tr>
<td>Contarino, Maria Fiorella</td>
<td>Den Haag, Netherlands</td>
<td>3414</td>
<td></td>
</tr>
<tr>
<td>Cortelli, Pietro</td>
<td>Bologna, Italy</td>
<td>4204</td>
<td></td>
</tr>
<tr>
<td>Cragg, Stephanie</td>
<td>Oxford, United Kingdom</td>
<td>4207</td>
<td></td>
</tr>
<tr>
<td>Cubo Delgado, Esther</td>
<td>Burgos, Spain</td>
<td>4412</td>
<td></td>
</tr>
<tr>
<td>De Bie, Rob</td>
<td>Amsterdam, Netherlands</td>
<td>3207</td>
<td></td>
</tr>
<tr>
<td>De Koning-Tijssen, Marina</td>
<td>Groningen, Netherlands</td>
<td>2309</td>
<td></td>
</tr>
<tr>
<td>Deuschl, Günther</td>
<td>Kiel, Germany</td>
<td>4206</td>
<td></td>
</tr>
<tr>
<td>Durr, Alexandra</td>
<td>Paris, France</td>
<td>4310</td>
<td></td>
</tr>
<tr>
<td>Earhart, Gammon</td>
<td>St. Louis, MO, USA</td>
<td>3413</td>
<td></td>
</tr>
<tr>
<td>Ebersbach, Georg</td>
<td>Beelitz-Heilstetten, Germany</td>
<td>1104, 2204</td>
<td></td>
</tr>
<tr>
<td>Ebrahimi-Fakhari, Darius</td>
<td>Boston, MA, USA</td>
<td>2208</td>
<td></td>
</tr>
<tr>
<td>Edwards, Mark</td>
<td>London, United Kingdom</td>
<td>3518</td>
<td></td>
</tr>
<tr>
<td>Elbaz, Alexis</td>
<td>Villejuif, France</td>
<td>3204</td>
<td></td>
</tr>
<tr>
<td>Elble, Rodger</td>
<td>Springfield, IL, USA</td>
<td>4206</td>
<td></td>
</tr>
<tr>
<td>Ellis, Terry</td>
<td>Boston, MA, USA</td>
<td>1104</td>
<td></td>
</tr>
<tr>
<td>Emre, Murat</td>
<td>Tresuikiye, Turkey</td>
<td>2207</td>
<td></td>
</tr>
<tr>
<td>Espay, Alberto</td>
<td>Cincinnati, OH, USA</td>
<td>3211, 3516</td>
<td></td>
</tr>
<tr>
<td>Evans, Andrew</td>
<td>Hawthorn, VIC, Australia</td>
<td>4101</td>
<td></td>
</tr>
<tr>
<td>Factor, Stewart</td>
<td>Atlanta, GA, USA</td>
<td>5311</td>
<td></td>
</tr>
<tr>
<td>Farrer, Matthew</td>
<td>Vancouver, BC, Canada</td>
<td>3204</td>
<td></td>
</tr>
<tr>
<td>Ferreira, Joaquim</td>
<td>Lisbon, Portugal</td>
<td>3207</td>
<td></td>
</tr>
<tr>
<td>Finkbeiner, Steven</td>
<td>San Francisco, CA, USA</td>
<td>5208</td>
<td></td>
</tr>
<tr>
<td>Fon, Edward</td>
<td>Montreal, QC, Canada</td>
<td>2206</td>
<td></td>
</tr>
<tr>
<td>Foote, Kelly</td>
<td>Gainesville, FL, USA</td>
<td>2310</td>
<td></td>
</tr>
<tr>
<td>Fox, Susan</td>
<td>Toronto, ON, Canada</td>
<td>2102, 3207</td>
<td></td>
</tr>
<tr>
<td>Friedman, Jennifer</td>
<td>Del Mar, CA, USA</td>
<td>3517</td>
<td></td>
</tr>
<tr>
<td>Frucht, Steven</td>
<td>New York, NY, USA</td>
<td>3519</td>
<td></td>
</tr>
<tr>
<td>Fung, Victor</td>
<td>Sydney, NSW, Australia</td>
<td>3516</td>
<td></td>
</tr>
<tr>
<td>Gasser, Thomas</td>
<td>Tübingen, Germany</td>
<td>4101</td>
<td></td>
</tr>
<tr>
<td>Gershnik, Oscar</td>
<td>Buenos Aires, Argentina</td>
<td>1103, 2101</td>
<td></td>
</tr>
<tr>
<td>Goetz, Christopher</td>
<td>Chicago, IL, USA</td>
<td>2101, 2208, 5102</td>
<td></td>
</tr>
<tr>
<td>Golbe, Lawrence</td>
<td>New Brunswick, NJ, USA</td>
<td>5206</td>
<td></td>
</tr>
<tr>
<td>Gonzalez-Alegre, Pedro</td>
<td>Philadelphia, PA, USA</td>
<td>1103</td>
<td></td>
</tr>
</tbody>
</table>
Faculty Listing

Greene, Paul  
New York, NY, USA  
4102

Gunduz, Aysegul  
Gainesville, FL, USA  
3203

Guttman, Mark  
Toronto, ON, Canada  
4412

Hadjivassiliou, Marios  
Sheffield, United Kingdom  
5204

Hall, Deborah  
Chicago, IL, USA  
2208

Hallett, Penny  
Charlestown, MA, USA  
4205

Hattori, Nobutaka  
Tokyo, Japan  
5206

Hausdorff, Jeffrey  
Tel Aviv, Israel  
3211

Healy, Dan  
Dublin, Ireland  
2518

Helmich, Rick  
Nijmegen, Netherlands  
5207

Högl, Birgit  
Innsbruck, Austria  
3207, 5101

Höglinger, Günter  
Munich, Germany  
4203

Houlden, Henry  
London, United Kingdom  
2516

Iranzo, Alejandro  
Barcelona, Spain  
4205

Isacson, Ole  
Belmont, MA, USA  
3102, 5208

Jabusch, Hans Christian  
Dresden, Germany  
3519

Jennings, Danna  
New Haven, CT, USA  
3415

Jeon, Beomsueok  
Seoul, Korea  
4518

Jinnah, Hyder  
Atlanta, GA, USA  
3101, 5204

Johnson, Julia  
London, United Kingdom  
2413

Kalbe, Elke  
Cologne, Germany  
1104

Kalia, Suneil  
Toronto, ON, Canada  
3414

Kimber, Thomas  
Adelaide, SA, Australia  
4411

Klein, Christine  
Lübeck, Germany  
3101, 3204, 4102

Klockgether, Thomas  
Bonn, Germany  
4310

Klucken, Jochen  
Erlangen, Germany  
3211

Kordower, Jeffrey  
Chicago, IL, USA  
2205

Kostic, Vladimir  
Belgrade, Serbia  
2515, 5209

Krueger, Rejko  
Esch-sur-Alzette, Luxembourg  
4101

Kulisevsky, Jaime  
Barcelona, Spain  
1101

Kumar, Kishore  
St. Leonards, NSW, Australia  
4309

Kurian, Manju  
London, United Kingdom  
3517

Laguna Tuset, Ariadna  
Barcelona, Spain  
3205

Landwehrmeyer, Georg  
Ulm, Germany  
3206

Lang, Anthony  
Toronto, ON, Canada  
4206

Lee, Lillian  
Quezon City, Philippines  
5206

Lill, Christina  
Lübeck, Germany  
4415

Lim, Shen-Yang  
Selangor, Malaysia  
5311

Litvan, Irene  
La Jolla, CA, USA  
4203

Lohmann, Ebba  
Istanbul, Turkey  
5310

Lozano, Andres  
Toronto, ON, Canada  
4206

Lunnan, Katie  
Exeter, United Kingdom  
3102

Lynch, Timothy  
Dublin, Ireland  
2102

Manto, Mario-Ubaldo  
Brussels, Belgium  
5207

Marras, Connie  
Toronto, ON, Canada  
4415

Martinez Vicente, Marta  
Barcelona, Spain  
2206

McKeon, Andrew  
Rochester, MN, USA  
5204

Meissner, Wassilios  
Bordeaux, France  
4203

Mencacci, Niccolò  
London, United Kingdom  
2208

Merello, Marcelo  
Buenos Aires, Argentina  
2412

Metz, Gerlinde  
Lethbridge, AB, Canada  
2203

Mirelman, Anat  
Tel Aviv, Israel  
3413

Miyasaka, Janis  
Edmonton, AB, Canada  
1104

Mollenhauer, Brit  
Kassel, Germany  
2102

Moore, Austen  
Liverpool, United Kingdom  
3310

Moratalla, Rosario  
Madrid, Spain  
2205

Morelli, Micaela  
Casilari, Italy  
2203

Moro, Elena  
Grenoble, France  
2204, 3203

Nelson, Alexandra  
San Francisco, CA, USA  
3203

Nicolas, Gaël  
Rouen, France  
5209

Nieuwboer, Alice  
Heverlee, Belgium  
4208

Obeso, José  
Madrid, Spain  
2412

Otin, Per  
Bremerhaven, Germany  
3211

Oertel, Wolfgang  
Marburg, Germany  
3208, 5101

Okun, Michael  
Gainesville, FL, USA  
3208

Olanow, C. Warren  
New York, NY, USA  
5103

Ostrem, Jill  
Greenbrae, CA, USA  
2204
# Faculty Listing

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ozelius, Laurie</td>
<td>Charlestown, MA, USA</td>
<td>2208, 3204</td>
</tr>
<tr>
<td>Palfi, Stephane</td>
<td>Creteil, France</td>
<td>1103</td>
</tr>
<tr>
<td>Paulson, Henry</td>
<td>Ann Arbor, MI, USA</td>
<td>3101</td>
</tr>
<tr>
<td>Paulus, Walter</td>
<td>Göttingen, Germany</td>
<td>3412</td>
</tr>
<tr>
<td>Perez Lloret, Santiago</td>
<td>Buenos Aires, Argentina</td>
<td>4413</td>
</tr>
<tr>
<td>Perlmann, Thomas</td>
<td>Stockholm, Sweden</td>
<td>3205</td>
</tr>
<tr>
<td>Pinto, Serge</td>
<td>Aix-en-Provence, France</td>
<td>2413</td>
</tr>
<tr>
<td>Pisani, Antonio</td>
<td>Rome, Italy</td>
<td>4207</td>
</tr>
<tr>
<td>Poewe, Werner</td>
<td>Innsbruck, Austria</td>
<td>4102</td>
</tr>
<tr>
<td>Postuma, Ron</td>
<td>Montreal, Canada</td>
<td>3309</td>
</tr>
<tr>
<td>Pramstaller, Peter</td>
<td>Bolzano, Italy</td>
<td>4102</td>
</tr>
<tr>
<td>Prochiantz, Alain</td>
<td>Paris, France</td>
<td>3205</td>
</tr>
<tr>
<td>Rakovic, Aleksandar</td>
<td>Lübeck, Germany</td>
<td>2206</td>
</tr>
<tr>
<td>Rascol, Olivier</td>
<td>Toulouse, France</td>
<td>5102</td>
</tr>
<tr>
<td>Reich, Stephen</td>
<td>Baltimore, MD, USA</td>
<td>3516</td>
</tr>
<tr>
<td>Reichmann, Heinz</td>
<td>Dresden, Germany</td>
<td>5311</td>
</tr>
<tr>
<td>Rektorova, Irena</td>
<td>Brno, Czech Republic</td>
<td>3412</td>
</tr>
<tr>
<td>Rosales, Raymond</td>
<td>Manila, Philippines</td>
<td>3310, 5206</td>
</tr>
<tr>
<td>Roze, Emmanuel</td>
<td>Paris, France</td>
<td>4518</td>
</tr>
<tr>
<td>Rucker, Janet</td>
<td>New York, NY, USA</td>
<td>2411</td>
</tr>
<tr>
<td>Sampaio, Cristina</td>
<td>Princeton, NJ, USA</td>
<td>3206</td>
</tr>
<tr>
<td>Schmidt, Alexander</td>
<td>Berlin, Germany</td>
<td>3519</td>
</tr>
<tr>
<td>Schrag, Anette</td>
<td>London, United Kingdom</td>
<td>4414</td>
</tr>
<tr>
<td>Seppi, Klaus</td>
<td>Innsbruck, Austria</td>
<td>3415</td>
</tr>
<tr>
<td>Shang, Hui Fang</td>
<td>ChengDu, Peoples Republic of China</td>
<td>3206</td>
</tr>
<tr>
<td>Shibasaki, Hiroshi</td>
<td>Kyoto, Japan</td>
<td>2309</td>
</tr>
<tr>
<td>Shirota, Yuichiro</td>
<td>Göttingen, Germany</td>
<td>3203</td>
</tr>
<tr>
<td>Sidransky, Ellen</td>
<td>Bethesda, MD, USA</td>
<td>5205</td>
</tr>
<tr>
<td>Simon, David</td>
<td>Boston, MA, USA</td>
<td>4101</td>
</tr>
<tr>
<td>Simpson, David</td>
<td>New York, NY, USA</td>
<td>3310</td>
</tr>
<tr>
<td>Simuni, Tanya</td>
<td>Chicago, IL, USA</td>
<td>4204</td>
</tr>
<tr>
<td>Sobrido, Maria-Jesus</td>
<td>Sanitaria de Santiago de Compostela, Spain</td>
<td>2516</td>
</tr>
<tr>
<td>Stamoulou, Maria</td>
<td>Athens, Greece</td>
<td>4102</td>
</tr>
<tr>
<td>Standaert, David</td>
<td>Birmingham, AL, USA</td>
<td>3208</td>
</tr>
<tr>
<td>Stebbins, Glenn</td>
<td>Chicago, IL, USA</td>
<td>4414</td>
</tr>
<tr>
<td>Steele, John</td>
<td>Covina, CA, USA</td>
<td>5206</td>
</tr>
<tr>
<td>Stefanis, Leonidas</td>
<td>Papagou, Greece</td>
<td>5205</td>
</tr>
<tr>
<td>Stern, Matthew</td>
<td>Philadelphia, PA, USA</td>
<td>4205</td>
</tr>
<tr>
<td>Sue, Carolyn</td>
<td>Sydney, NSW, Australia</td>
<td>3101</td>
</tr>
<tr>
<td>Surmeier, D. James</td>
<td>Chicago, IL, USA</td>
<td>2101, 2205, 4207</td>
</tr>
<tr>
<td>Taba, Pille</td>
<td>Tartu, Estonia</td>
<td>4517</td>
</tr>
<tr>
<td>Tabrizi, Sarah</td>
<td>London, United Kingdom</td>
<td>4309</td>
</tr>
<tr>
<td>Taira, Takaomi</td>
<td>Tokyo, Japan</td>
<td>2310</td>
</tr>
<tr>
<td>Takahashi, Ryosuke</td>
<td>Kyoto, Japan</td>
<td>3208</td>
</tr>
<tr>
<td>Tan, Eng-King</td>
<td>Singapore</td>
<td>3102, 4309</td>
</tr>
<tr>
<td>Tan, Louis</td>
<td>Singapore</td>
<td>5103</td>
</tr>
<tr>
<td>Tanner, Caroline</td>
<td>San Francisco, CA, USA</td>
<td>2203, 5103</td>
</tr>
<tr>
<td>Tansey, Malu</td>
<td>Atlanta, GA, USA</td>
<td>2203</td>
</tr>
<tr>
<td>Tepper, James</td>
<td>Newark, NJ, USA</td>
<td>4207</td>
</tr>
<tr>
<td>Thompson, Philip</td>
<td>Adelaide, SA, Australia</td>
<td>2309, 4411</td>
</tr>
<tr>
<td>Timmermann, Lars</td>
<td>Koeln, Germany</td>
<td>2310</td>
</tr>
<tr>
<td>Tinazzi, Michele</td>
<td>Verona, Italy</td>
<td>4413</td>
</tr>
<tr>
<td>Tolosa, Eduardo</td>
<td>Barcelona, Spain</td>
<td>2101, 5102</td>
</tr>
<tr>
<td>Trenkwalder, Claudia</td>
<td>Kassel, Germany</td>
<td>2102, 4102, 4205</td>
</tr>
<tr>
<td>Ugawa, Yoshikazu</td>
<td>Fukushima, Japan</td>
<td>2205</td>
</tr>
<tr>
<td>Van De Warrenburg, Bart</td>
<td>Nijmegen, Netherlands</td>
<td>1102</td>
</tr>
<tr>
<td>Vanderhorst, Veronique</td>
<td>Boston, MA, USA</td>
<td>4208</td>
</tr>
<tr>
<td>Verstreken, Patrik</td>
<td>Leuven, Belgium</td>
<td>3102</td>
</tr>
<tr>
<td>Vidalhiet, Marie</td>
<td>Paris, France</td>
<td>2518, 5102</td>
</tr>
<tr>
<td>Vila, Miquel</td>
<td>Barcelona, Spain</td>
<td>2206</td>
</tr>
<tr>
<td>Wade-Martins, Richard</td>
<td>Oxford, United Kingdom</td>
<td>5208</td>
</tr>
<tr>
<td>Walker, Ruth</td>
<td>Bronx, NY, USA</td>
<td>1102</td>
</tr>
<tr>
<td>Westenberger, Ana</td>
<td>Lübeck, Germany</td>
<td>5209</td>
</tr>
<tr>
<td>Wider, Christian</td>
<td>Lausanne, Switzerland</td>
<td>5310</td>
</tr>
<tr>
<td>Winkelmann, Juliane</td>
<td>München, Germany</td>
<td>5101</td>
</tr>
<tr>
<td>Wissel, Joerg</td>
<td>Berlin, Germany</td>
<td>2414</td>
</tr>
<tr>
<td>Zhang, Su-Chun</td>
<td>Madison, WI, USA</td>
<td>5208</td>
</tr>
</tbody>
</table>
Acknowledgements

The International Congress Oversight Committee of the 20th International Congress of Parkinson's Disease and Movement Disorders wishes to acknowledge and thank the following companies for their support:

**Platinum Level**

- Abbvie
- ACADIA Pharmaceuticals
- Acorda Therapeutics
- Bial
- Britannia Pharmaceuticals Ltd
- Cynapsus
- Ipsen
- Medtronic
- Teva
- UCB
- Zambon

**Silver Level**

- Boston Scientific

**Bronze Level**

- Adamas

Above companies are confirmed as of December 21, 2015.
COMING SOON

For your patients with paroxysmal movement disorders associated with Glucose transporter type-1 deficiency syndrome (Glut1 DS)

A Global Phase 3 study to assess the safety and efficacy of UX007 (triheptanoin)

For more information, email glut1study@ultragenyx.com
Education Information

To better fulfill its global mission of advancing the neurological sciences as they relate to the field of Movement Disorders, MDS is continually expanding its educational portfolio. This growing portfolio offers an increasing variety of high caliber continuing medical education and continuing professional development opportunities in movement disorders. For more information about the opportunities listed in this section, please visit www.movementdisorders.org/MDS/Education.htm or e-mail education@movementdisorders.org.

New E-Learning Portal
In alignment with our mission to advance the education of medical professionals worldwide, improve diagnosis and treatment, and encourage research in Parkinson disease and all other movement disorders, MDS is proud to offer a full spectrum of e-learning educational opportunities to members and non-members alike.

These MDS e-learning courses will now be presented using a new custom Learning Management System (LMS) software. This new system creates a single portal that houses all MDS educational activities, and allows all users to review their progress, retrieve certificates and keep track of their e-learning CME credits. If you have any questions regarding the new e-learning portal and virtual educational opportunities, please e-mail e-learning@movementdisorders.org or visit e-Learning Program Manager Katie Rash at the MDS booth.

Outreach Education Programs

Developing World Education Program (DWEP)
MDS recognizes that some countries do not have access to trained Movement Disorder Specialists and are restricted by size and/or resources from establishing a training program. Therefore, the Developing World Education Program is designed to address the needs of those countries and build rapport with local area societies that have no existing relationship with MDS.

DWEP’s are intended to support three course formats: a stand-alone course, courses joined with other local/regional meetings, and a series of courses over an extended timeframe.

Ambassador Program
This program supports the travel of one or two international experts who are MDS members to an underserved area for the purposes of education and intellectual exchange.

The MDS Ambassador Program supports members as keynote/plenary speakers at a non-MDS sponsored regional or national meeting in a disadvantaged country. Sponsored speakers/faculty will work with the Ambassador Program host to develop material that is relevant and comprehensible to participants and meets the specified learning objectives of the meeting.

Visiting Professor Program
This program supports the travel of one or two international experts who are MDS members to an underserved area for the purposes of education and intellectual exchange.

The MDS Visiting Professor Program supports members in conducting teaching seminars or giving grand-rounds in local hospitals, and/or providing input for further development in the field of movement disorders in an underserved country.

Virtual Professor Program
This program supports the virtual attendance of one or two international experts to an area of need that does not allow the physical attendance of such experts (i.e. countries on the list U.S. travel warnings or hard to travel to regions). Sponsored speakers will develop materials relevant and comprehensible to participants and deliver these materials virtually using a webinar software.

Parkinson and Movement Disorders Curriculum
The Parkinson and Movement Disorders Curriculum provides an overview of movement disorders and a clinical approach to the evaluation and management of common movement disorders. This curriculum is specially developed for trainees, internists, general neurologists and other clinicians interested in acquiring a basic understanding of movement disorders. Some of the curriculum materials have been translated to Spanish and Portuguese.

Online CME Activities
All of the following CME activities are offered through the MDS e-learning portal:

Journal CME
These modules offer CME credit for the review of Movement Disorders Journal articles. MDS is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide certified continuing medical education for physicians. MDS designates these educational activities for a maximum of 1.0 AMA PRA Category 1 Credit™ each. Upon successful completion of a Journal CME activity, users will receive a CME certificate documenting their achievement.

Coffee Break CME
This program was designed to provide continuing education critical to providing the best care possible. Scientific content is presented in a modular format, where each module is focused on a single topic which can be completed in a short period of time, providing the clinician with updated information relevant to their practice. Both standard approaches and new advances are highlighted.

The scope of this program includes modules on: parkinsonism, tremor, dystonia, chorea, and other topics as identified. After users have registered for a module, they are able to log in to the site as many times as needed to view all the material. At the beginning and completion of each module, participants are asked content-related questions to gauge their learning.

MDS is accredited by the ACCME to certify 2.0 AMA PRA Category 1 Credit™ for each module. Upon successful completion of a Coffee Break CME activity, users will receive a CME certificate documenting their achievement.

Device Aided Medical Therapies
Device-Aided Medical Therapies in Parkinson’s Disease is an online course series designed by a panel of worldwide specialists around the main practical issues involved with device-aided treatments of Parkinson’s disease. Each module takes approximately one hour to complete.

This course series, provided as ten separate modules, addresses issues such as identifying patients who may or may not benefit from the treatment, recognizing the titration and the monitoring of clinical response, recognizing the main complications and managing them, and comparing these treatments with conventional oral dopaminergic therapies, as well as against each other.
**Education Information**

*cont. from p. 30*

MDS designates these educational activities for a maximum of 1.0 AMA PRA Category 1 Credit™ each. Upon successful completion of a Device-Aided Medical Therapy activity, users will receive a CME certificate documenting their achievement.

**Other Online Education Resources**

MDS provides a variety of online educational activities in addition to streaming video and CME programming. The following educational tools are available on the MDS website.

**Fundamentals of Movement Disorders**

The goal of this new video series is to provide residents an overview of movement disorders with a clinical approach to the evaluation and management of common disorders. The 31 presentations, delivered by expert physicians from around the world, cover the fundamental topics in movement disorders to help provide a base knowledge for residents. All Fundamentals of Movement Disorders presentations are offered through the MDS e-learning portal.

**MDS Video Library**

This members only library consists of video supplements from the *Movement Disorders Journal* since 1986. Videos can be searched by keyword, author, volume and issue or a combination of these fields.

**Multimedia Streaming Courses**

The following courses are available for purchase from past International Congresses.

- 18th International Congress Teaching Course Streaming Content
- 18th International Congress Themed Session Streaming Content
- 18th International Congress MDS Video Challenge Streaming Content
- 17th International Congress Teaching Course Streaming Content
- 17th International Congress Themed Session Streaming Content
- 17th International Congress MDS Video Challenge Streaming Content
- 16th International Congress Teaching Course Streaming Content
- 16th International Congress Themed Course Streaming Content
- 16th International Congress MDS Video Games Streaming Content

No courses at the 19th International Congress in San Diego were recorded and no courses at the 20th International Congress in Berlin will be recorded. For prices and ordering information please visit: [www.movementdisorders.org/E-store.htm](http://www.movementdisorders.org/E-store.htm)

**2016 MDS Education Calendar**

*Dates and Locations are subject to change. For a complete up-to-date list of courses, visit [www.movementdisorders.org/MDS/education.htm](http://www.movementdisorders.org/MDS/education.htm)*

- **Management of Advanced Parkinson's Disease with Infusion Therapies**
  - February 17-18, 2016
  - Lund, Sweden

- **MDS-ES Winter School for Young Neurologists**
  - February 26-28, 2016
  - Aarhus, Denmark

- **SYNERGIES**
  - March 10, 2016
  - Manila, Philippines

- **Pathogenesis and Management of Pain in Parkinson's Disease**
  - April 18-19, 2016
  - Padua, Italy

- **MDS-PAS Movement Disorders School for Neurology Residents**
  - April 30-May 1, 2016
  - Atlanta, GA, USA

- **Allied Health Team Training for Parkinson's Disease**
  - May 12-14, 2016
  - Columbus, OH, USA

- **Parkinson's Disease and Other Movement Disorders: A Practical Approach**
  - May 21, 2016
  - Houston, TX, USA

- **A Comprehensive Review of Movement Disorders for the Clinical Practitioner**
  - July 31-August 1, 2016
  - Aspen, CO, USA
Advancing DBS Therapy

Choose between the Vercise DBS System with 25-year battery longevity or the Vercise PC DBS system - the smallest non-rechargeable platform on the market. Both equipped with Multiple Independent Current Control (MICC) technology.

*As of December 2015

The Boston Scientific Deep Brain Stimulation (DBS) Systems are indicated for use in unilateral or bilateral stimulation of the subthalamic nucleus (STN) or internal globus pallidus (GPi) 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 DBS Systems are indicated for the suppression of tremor not adequately controlled by medications in patients diagnosed with Essential Tremor or Parkinson's disease. All cited trademarks are the property of their respective owners. CAUTION: The law restricts these devices to sale by or on the order of a physician. Indications, contraindications, warnings and instructions for use can be found in the product labeling supplied with each device. Information for the use only in countries with applicable health authority product registrations.
Become a Member of MDS

Meet & Collaborate with over 6,000 colleagues across the globe and become a part of a Medical and Educational community dedicated to disseminating knowledge and promoting research to advance the field of Movement Disorders.

MDS Members receive the following benefits:

- **Peer Reviewed Journals:** Movement Disorders and Movement Disorders – Clinical Practice
- **Quarterly Newsletter:** Moving Along
- **Reduced Course Registration Rates**
- **Online Resources:** CME Activities; Streaming Content; Training Videos; And a Video Library with over 1,800 searchable videos

**NON-MEMBER OPPORTUNITIES**
Free One-Year Trial Membership
Open to Eligible International Congress Delegates

**ASSOCIATE MEMBERSHIP**
Non-members attending the International Congress have the opportunity to receive membership with MDS absolutely free for a year. Eligible participants will be invited by email in September to apply for free Associate membership. Interested individuals are encouraged to apply online within 30 days of contact.

Learn more at www.movementdisorders.org/membership.htm or contact the International Secretariat:

MDS International Secretariat
555 East Wells Street, Suite 1100
Milwaukee, WI 53202 USA
Tel: +1 414-276-2145
Fax: +1 414-276-3349
E-mail: info@movementdisorders.org
2016 Important Dates

April 1, 2016
Late-Breaking Abstracts Submission Deadline

April 15, 2016
Early Registration Deadline

May 18, 2016
Final Pre-Registration Deadline

June 19-23, 2016
20th International Congress of Parkinson’s Disease and Movement Disorders

Save The Date

21th International Congress of Parkinson’s Disease and Movement Disorders

Vancouver, BC, Canada
June 4-8, 2017