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www.mdscongress.org
Dear Colleagues,

We are excited to share this MDS Virtual Congress with you. In this first ever virtual congress on movement disorders, you can expect over 30 hours of educational content through our virtual platform, including plenary sessions, teaching courses and access to the accepted abstracts.

The Society made the difficult decision to replace the in-person meeting in Philadelphia with a virtual meeting, and by doing so, is rising to the occasion after the COVID-19 crisis in order to fulfill its mission. This meeting will be open to healthcare professionals across the globe and will allow delegates an opportunity to access the full International Congress Scientific Program content through a virtual platform without concern for health, welfare or travel.

The MDS Virtual Congress 2020 scientific sessions, sponsored symposia, virtual exhibits, and poster sessions will be available on demand for free until October 1, 2020 for those participants who have registered by September 16, 2020. After October 1, 2020 the Virtual Congress will continue to be available on demand for MDS Members for a limited time.

Although we will not meet together in Philadelphia this September, I am proud to see the MDS community come together virtually to achieve our mission.

Claudia Trenkwalder
President, International Parkinson and Movement Disorder Society, 2019-2021
ABOUT MDS

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

PURPOSE, MISSION AND GOALS

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

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

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

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

MDS OFFICERS (2019-2021)

President
Claudia Trenkwalder
Germany

President-Elect
Francisco Cardoso
Brazil

Secretary
Bastiaan Bloem
Netherlands

Secretary-Elect
Charles Adler
USA

Treasurer
Louis CS Tan
Singapore

Treasurer-Elect
Irene Litvan
USA

Past-President
Christopher Goetz
USA
ABOUT MDS

MDS INTERNATIONAL EXECUTIVE COMMITTEE
Shengdi Chen
Mark Edwards
Cristian Falup-Pecurariu
Joaquim Ferreira
Marina de Koning-Tijssen
Alice Nieuwboer
D. James Surmeier
Pille Taba
Mayela Rodriguez-Violante
Ruey-Meei Wu

MDS VIRTUAL CONGRESS 2020 TASK FORCE
Chairs: Vincenzo Bonifati, Netherlands
Chairs: Oscar Gershanik, Argentina
Chairs: Claudia Trenkwalder, Germany
Francisco Cardoso, Brazil
Margherita Fabbrì, Italy
Hyder Jinnah, USA
Andrew Siderowf, USA
Matthew Stern, USA
Louis Tan, Singapore

CONGRESS LOCAL ORGANIZING COMMITTEE
Chair: Matthew Stern, USA
Co-Chair: Andrew Siderowf, USA
Nabila Dahodwala, USA
Andres Deik, USA
Jill Farmer, USA
Pedro Gonzalez-Alegre, USA
Dan Kremens, USA
Tsao-Wei Liang, USA
Meredith Spindler, USA
Dan Weintraub, USA
Allison Willis, USA

PAST-PRESIDENTS
2017-2019 Christopher Goetz, USA
2015-2017 Oscar Gershanik, Argentina
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 Poeве, 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
Email: info@movementdisorders.org
Website: www.movementdisorders.org

CONGRESS SCIENTIFIC PROGRAM COMMITTEE
Chair: Vincenzo Bonifati, Netherlands
Co-Chair: Andrew Siderowf, USA
Orlando Barsottini, Brazil
Roongroj Bhidayasiri, Thailand
Per Borghammer, Denmark
Francisco Cardoso, Brazil
Pietro Cortelli, Italy
Alberto Espay, USA
Jennifer Friedman, USA
Jennifer Goldman, USA
Etienne Hirsch, France
Beomseok Jeon, South Korea
Andrea Kühn, Germany
Shen-Yang Lim, Malaysia
Karen Marder, USA
Wassilios Meissner, France
Tiago Outeiro, Germany
Maria Stamelou, Greece
Carolyn Sue, Australia
Ryosuke Takahashi, Japan
Claudia Trenkwalder, Germany
Ad-Hoc Member: Terry Ellis, USA
Ad-Hoc Member: Oscar Gershanik, Argentina
Ad-Hoc Member: Hyder Jinnah, USA
Ad-Hoc Member: Ron Postuma, Canada
Ad-Hoc Member: Veronica Santini, USA

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Website: www.movementdisorders.org
VIRTUAL CONGRESS INFORMATION

ABSTRACT POSTER INFORMATION
Beginning on September 11, 2020, Virtual Congress participants can view e-posters in the Virtual Poster Hall. Additionally, all abstracts will be published in the Movement Disorders journal e-supplement.

The MDS Virtual Congress 2020 will also feature sixteen virtual Guided Poster Tours which will be open to all participants.

EXHIBITION
Participants will have the opportunity to visit the Virtual Exhibit Hall beginning on September 12, 2020.

OFFICIAL LANGUAGE
The official language of the 2020 Virtual Congress is English.

REGISTRATION
Registration will open on July 27, 2020 and will be offered to participants at no charge. The MDS Virtual Congress 2020 scientific sessions, sponsored symposia, virtual exhibits, and the virtual poster hall will be available on-demand for free until October 1, 2020 for those participants who have registered by September 16, 2020. After October 1, 2020 the Virtual Congress will continue to be available on demand for MDS Members for a limited time.
VIRTUAL CONGRESS EVENTS

WELCOME CEREMONY
Friday, September 11, 2020
Time: 15:00 - 16:00 GMT

All participants are encouraged to attend the Virtual Congress Welcome Ceremony. MDS President Claudia Trenkwalder and other MDS leaders will introduce this inaugural event and give a preview of what to expect throughout the week.

MDS VIRTUAL VIDEO CHALLENGE
Sunday, September 13, 2020
Time: 19:30 - 22:30 GMT
Monday, September 14, 2020
Time: 2:00 - 5:00 GMT

Please join Masters of Ceremony Anthony Lang and Kapil Sethi as they host world-renowned 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 Movement Disorder 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 participants to learn from a series of unusual, very interesting patients and see how senior experts approach these types of challenging cases.

CME INFORMATION

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

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

SATISFACTORY COMPLETION
Your chosen sessions must be attended in their entirety. Partial credit of individual sessions is not available. If you are seeking continuing education credit for a specialty, it is your responsibility to contact your licensing/certification board to determine course eligibility for your board requirement.

ACCREDITATION STATEMENT
This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME). The International Parkinson and Movement Disorder Society is accredited by the ACCME to provide continuing medical education for physicians.

CREDIT DESIGNATION STATEMENT
The International Parkinson and Movement Disorder Society designates this live activity for a maximum of 28.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

CONTENT VALIDITY STATEMENT
All recommendations involving clinical medicine in MDS activities are based on evidence that is accepted within the profession of medicine as adequate justification for their indications and contraindications in the case of patients. All scientific research referred to, reported or used in CME in support or justification of a patient care recommendations conforms to the generally accepted standards of experimental design, data collection and analysis. Activities that promote recommendations, treatment or manners of practicing medicine not within the definition of CME or are knowing to have risks or dangers that outweigh the benefits or are knowing to be ineffective in the treatment of patients do not constitute valid CME.
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VIRTUAL CONGRESS SESSION DEFINITIONS

CME Accredited Sessions

2020 Virtual Congress Themed Sessions: At each annual International Congress, the Congress Scientific Program Committee selects a theme that is highlighted throughout the meeting. This year’s theme, The Combined Multidisciplinary Approach to Movement Disorders, will be showcased with international experts serving as faculty. Meeting participants can elect to attend any or all of these sessions. Themed sessions are designated in the program with 🌱.

NEW in 2020: “Neuroscience Bridges” Plenary Session: In this session world-renowned neuroscientists provide overviews of their clinical or basic research, on topics of broad interest and relevance for the advancement of knowledge on the nervous system in physiology and pathology.

Controversies: This Plenary Session is designed to involve all Virtual Congress participants. 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.

“Highlights for 2020: Looking Towards 2021” Plenary Session: In this session MDS experts present compilations of the hottest clinical and basic research articles published in the past year in the whole field of the Movement Disorders, and expected to impact heavily on the future research.

Parallel Sessions: These concurrent sessions provide an overview of new clinical and basic research findings, state-of-the-art treatment options, and future strategies on a variety of focused topics within the field of Movement Disorders.

Plenary Sessions: These sessions provide an overview of the latest clinical and basic science research findings and state-of-the-art information relating to topics of broad interest within the field of Movement Disorders.

Skills Workshops: These concurrent sessions provide practical illustrations of clinical or scientific techniques relevant to the field of Movement Disorders through video examples and equipment demonstrations.

Special Topics in Movement Disorders: These interactive sessions address “hot” topics in science or medicine using a variety of different formats that may include lectures, video presentations, and audience interaction.

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.

Therapeutic Plenary Sessions: These sessions provide an overview of the latest, state-of-the-art treatment options in the diagnosis and management of Parkinson’s disease and other movement disorders.

Video Sessions: These concurrent sessions focus on video demonstrations to provide an overview of clinical movement disorders.

Non-CME Accredited Educational Activities

Science of Industry Sessions: These interactive sessions will provide attendees with a non-CME educational opportunity to learn about novel therapeutic agents under development by industry. Sessions may incorporate basic scientists or clinicians working in industry, and topics may address the biological rationale or development process for specific therapeutics in development within the field of Movement Disorders.

Sponsored Symposia

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

Video Challenge

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

VIRTUAL CONGRESS FACULTY ROLES

Chair: Facilitates the learnings of the session; ensures that learning objectives are met during the presentation(s), and engages the learners as needed.

CSPC Liaison: Develops the session from the onset; provides guidance to ensure that the learning objectives are met; interacts with Speakers / Presenters to ensure presentations are well integrated and overlap is minimized.

Speakers: Creates and delivers the presentation materials, and participates in the dialogue of the session.

2020 VIRTUAL CONGRESS THEME

At each annual International Congress, the Congress Scientific Program Committee selects a theme that is highlighted throughout the meeting. This year’s theme is The Combined Multidisciplinary Approach to Movement Disorders. International experts will serve as faculty, and the meeting participants can elect to attend any or all of these sessions.

Themed sessions
FRIDAY, SEPTEMBER 11, 2020

Welcome Ceremony
15:00 - 16:00 GMT
All participants are encouraged to attend the Virtual Congress Welcome Ceremony.

SATURDAY, SEPTEMBER 12, 2020

101: Therapeutic Plenary Session
Updates on Medical Management Strategies for Parkinson’s Disease: Motor Aspects
12:00 - 14:00 GMT
Chairs: Matthew B. Stern, USA
       Pille Taba, Estonia
       Oscar Gershanik, Argentina
       Alice Nieuwboer, Belgium
       Regina Katzenschlager, Austria
CSPC Liaison: Shen-Yang Lim, Malaysia
Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Discuss current management of early-stage Parkinson’s disease
2. Review the role of rehabilitation, including physical, occupational and speech therapies, and exercise in Parkinson’s disease
3. Describe current medical management strategies for advancing Parkinson’s disease (motor complications and other late-stage features)

102: Therapeutic Plenary Session
Parkinson’s Disease: Non-Motor Aspects
14:30 – 16:30 GMT
Chairs: Angelo Antonini, Italy
       Daniel Weintraub, USA
       Anette Schrag, United Kingdom
       Horacio Kaufmann, USA
       Ron Postuma, Canada
CSPC Liaison: Jennifer Goldman, USA
Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Describe the neuropsychiatric aspects of Parkinson’s disease and their management
2. Discuss the recognition and management of dysautonomia in Parkinson’s disease
3. Summarize the symptoms and management of sleep and fatigue in Parkinson’s disease

103: Therapeutic Plenary Session
Therapeutic Approaches to Chorea, Dystonia, and Myoclonus
18:00 – 20:00 GMT
Chairs: Francisco Cardoso, Brazil
       Eduardo Tolosa, Spain
       Ruth Walker, USA
       Rachel Saunders-Pullman, USA
       Yoshikazu Ugawa, Japan
CSPC Liaison: Francisco Cardoso, Brazil
Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. List the therapeutics options to manage patients with different types of chorea
2. Discuss the therapeutic management of dystonia
3. Summarize the therapeutic options for myoclonus
104: Therapeutic Plenary Session

**Neurosurgical Management of Movement Disorders**
20:30 – 22:30 GMT

*Chairs:* Günter Deuschl, Germany  
Andrea Kühn, Germany

- Technical Advances for DBS Treatment  
  Jens Volkman, Germany
- Long-term Effects of DBS on Motor and Non-motor Symptoms in Parkinson's Disease  
  Patricia Limousin, United Kingdom
- Alternative Strategies: Focused Ultrasound and Other Lesioning Techniques in Movement Disorders  
  José Obeso, Spain

*CSPC Liaison:* Andrea Kühn, Germany

*Recommended Audience:* Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss and apply new DBS techniques such as segmented leads for current steering, imaging guided programming, VTA models
2. Discuss indications of DBS and explain motor and non-motor benefits and risks
3. Discuss the pros and cons of different surgical approaches in movement disorders

102: Therapeutic Plenary Session (Encore Presentation)

**Parkinson's Disease: Non-Motor Aspects**
4:30 – 6:30 GMT

*Chairs:* Huifang Shang, Peoples Republic of China  
Louis Tan, Singapore

- Neuropsychiatric Features  
  Annette Schrag, United Kingdom
- Dysautonomia  
  Horacio Kaufmann, USA
- Sleep and Fatigue  
  Ron Postuma, Canada

*CSPC Liaison:* Jennifer Goldman, USA

*Recommended Audience:* Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe the neuropsychiatric aspects of Parkinson's disease and their management
2. Discuss the recognition and management of dysautonomia in Parkinson's disease
3. Summarize the symptoms and management of sleep and fatigue in Parkinson's disease
103: Therapeutic Plenary Session (Encore Presentation)

Therapeutic Approaches to Chorea, Dystonia, and Myoclonus
7:00 – 9:00 GMT

Chairs: Victor Fung, Australia
Ruey-Meei Wu, Taiwan
Chorea
Ruth Walker, USA
Dystonia
Rachel Saunders-Pullman, USA
Myoclonus
Yoshikazu Ugawa, Japan

CSPC Liaison: Francisco Cardoso, Brazil

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. List the therapeutic options to manage patients with different types of chorea
2. Discuss the therapeutics management of dystonia
3. Summarize the therapeutic options for myoclonus

104: Therapeutic Plenary Session (Encore Presentation)

Neurosurgical Management of Movement Disorders
9:30 - 11:30 GMT

Chairs: Ritsuko Hanajima, Japan
Beomseok Jeon, South Korea
Technical Advances for DBS Treatment
Jens Volkmann, Germany
Long-term Effects of DBS on Motor and Non-motor Symptoms in Parkinson's Disease
Patricia Limousin, United Kingdom
Alternative Strategies: Focused Ultrasound and Other Lesioning Techniques in Movement Disorders
Jose Obeso, Spain

CSPC Liaison: Andrea Kühn, Germany

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss and apply new DBS techniques such as segmented leads for current steering, imaging guided programming, VTA models
2. Discuss indications of DBS and explain motor and non-motor benefits and risks
3. Discuss the pros and cons of different surgical approaches in movement disorders

201: Plenary Session

Presidential Lectures
12:00 – 14:00 GMT

Chairs: Francisco Cardoso, Brazil
Claudia Trenkwalder, Germany
Stanley Fahn Lecture
Werner Poewe, Austria
C. David Marsden Lecture
Hiroshi Shibasaki, Japan
Junior Award Lectures
To Be Announced

CSPC Liaisons: Vincenzo Bonifati, Netherlands
Claudia Trenkwalder, Germany

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

MDS-ES Regional Assembly
14:00 - 14:30 GMT

All participants from Europe are encouraged to attend.

301: Parallel Session

COVID-19 and Movement Disorders
14:30 – 16:30 GMT

Chairs: Huifang Shang, Peoples Republic of China
Indu Subramanian, USA

Neurological Manifestations in patients with COVID-19
Elena Moro, France
COVID-19 in Patients with Parkinson's Disease or Movement Disorders
Alfonso Fasano, Canada
Caring of Patients with Movement Disorders in the COVID-19 Era
Esther Cubo, Spain

CSPC Liaison: Buz Jinnah, USA

Recommended Audience: Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Summarize the current knowledge about the neurological manifestations and neuropathology in subjects affected by the COVID-19
2. Summarize the clinical phenomenology and outcomes of the COVID-19 disease in patients with Parkinson's disease and other movement disorders
3. Discuss the impact of the COVID-19 pandemic on the clinical care of patients with movement disorders, and the available strategies to ensure continuity of care and best outcomes
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**302: Parallel Session**

**MSA and Pure Autonomic Failure**
14:30 – 16:30 GMT

Chairs: Howard Hurtig, USA
Ryosuke Takahashi, Japan

- Molecular Mechanisms
  Virginia Lee, USA
- The Challenge of Early Diagnosis
  Wassilios Meissner, France
- Pure / Isolated Autonomic Failure
  Lucy Norcliffe-Kaufmann, USA

CSPC Liaisons: Pietro Cortelli, Italy
Ryosuke Takahashi, Japan

Recommended Audience: Basic Scientists, Clinical Academicians, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss the role of alpha-synuclein in the initiation and progression of neurodegeneration across Parkinson’s disease and atypical parkinsonism
2. Recognize Multiple System Atrophy at an early stage
3. Recognize Pure/Isolated Autonomic failure and discuss its role in predicting the onset of other synucleinopathies (MSA, DLB, PD)

**303: Parallel Session**

**Update on Functional Movement Disorders**
14:30 – 16:30 GMT

Chairs: Mark Edwards, United Kingdom
Mark Hallett, USA

- Phenomenology
  Francesca Morgante, United Kingdom
- Electrophysiology and Imaging
  Tereza Serranova, Czech Republic
- Psychological Aspects to Aetiology and Management
  Timothy Nicholson, United Kingdom

CSPC Liaison: Beomseok Jeon, South Korea

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Recognize the phenomenology of functional movement disorders
2. Summarize the electrophysiological and imaging features of functional movement disorders
3. Discuss the psychopathology and management of functional movement disorders

**304: Parallel Session**

**Update on Genetics of Movement Disorders**
14:30 – 16:30 GMT

Chairs: Christine Klein, Germany
Carolyn Sue, Australia

- Parkinsonism
  Chih-Hsien Lin, Taiwan
- Dystonia
  Patricia Maria Carvalho Aguier, Brazil
- Ataxia
  Martin Paucar Arce, Sweden

CSPC Liaison: Carolyn Sue, Australia

Recommended Audience: Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Summarize recently identified genes related to Parkinson’s disease and parkinsonism
2. Summarize recently identified genes related to dystonia
3. Summarize recently identified genes related to ataxia

**305: Parallel Session**

**Heterogeneity of Parkinson's Disease: Clinical Phenotypes and Progression**
14:30 – 16:30 GMT

Chairs: Nabila Dahodwala, USA
Connie Marras, Canada

- Influence of the Genetic Determinants
  Clemens Scherzer, USA
- Role of Environment, Lifestyle and Comorbidities
  Connie Marras, Canada
- Lessons from Large Cohort Studies
  Rodolfo Savica, USA

CSPC Liaison: Claudia Trenkwalder, Germany

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss the influence of different genetic variants (rare/Mendelian, intermediate-effects variants such as GBA and LRRK2-G2019S, and common GWAS variants) on phenotypes and progressions of Parkinson’s disease
2. Discuss the influence of environment, diet, exercise, comorbidities and inflammation on the heterogeneity of Parkinson’s disease
3. Discuss the potential of ongoing large longitudinal cohorts-studies to understand Parkinson’s disease heterogeneity
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306: Parallel Session

Huntington’s Disease Continuum and Non-Huntington’s Choreas
14:30 – 16:30 GMT
Chairs: Joaquim Ferreira, Portugal
Amanda Krause, South Africa
The Natural History of Huntington’s Disease
G. Bernhard Landwehrmeyer, Germany
When Genetic Testing is Negative: Huntington’s Phenocopies
Amanda Krause, South Africa
A Critical Appraisal of Clinical Trials in Huntington’s Disease
Joaquim Ferreira, Portugal

CSPC Liaison: Francisco Cardoso, Brazil
Recommended Audience: Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Discuss the natural history of Huntington’s Disease
2. List the differential diagnosis of Huntington’s Disease phenocopies
3. Appraise recent clinical trials in Huntington’s Disease

402: Teaching Course

Dystonia, Ataxia, and Tics
14:30 – 16:30 GMT
Chairs: Cynthia Comella, USA
Susanne Schneider, Germany
My Approach to Dystonia
Susanne Schneider, Germany
My Approach to Ataxia
José Luiz Pedroso, Brazil
My Approach to Tic Disorders
Tamara Pringsheim, Canada

CSPC Liaison: Ron Postuma, Canada
Recommended Audience: Clinical Academicians, Practitioners, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Describe the phenomenology and diagnostic approach to dystonia
2. Describe the phenomenology and diagnostic approach to ataxia
3. Summarize the phenomenology and diagnostic approach to tic disorders

MDS-Africa Regional Assembly
17:30 - 18:00 GMT
All participants from the African continent are encouraged to attend.

401: Teaching Course

Cognitive and Psychiatric Issues in the Parkinsonian Spectrum
14:30 – 16:30 GMT
Chairs: Cristian Falup-Pecurariu, Romania
James Morley, USA
Apathy: Why, Who, and What to Do About It
Marcelo Merello, Argentina
It’s Not Just MCI / Dementia: The Many Cognitive Changes in Parkinsonism
Madeleine Sharp, Canada
Parkinson’s Disease Treatments: How do they Change Neuropsychiatric Symptoms?
Daniel Weintraub, USA

CSPC Liaison: Ron Postuma, Canada
Recommended Audience: Clinical Academicians, Practitioners, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Discuss the phenomenology and diagnostic approach to dystonia
2. Evaluate the broad spectrum of non-dementia cognitive changes in parkinsonian conditions
3. Differentiate treatment vs. disease-related effects on neuropsychiatric symptoms in Parkinson’s disease

501: Skills Workshop

A Multidisciplinary Approach for Palliative Care
18:00 – 19:30 GMT
This session aims to help providers identify and manage palliative care needs, collaborate with other allied healthcare team members, and develop advance care planning with patients, families and their caregivers.

Stefan Lorenzl, Germany
Janis Miyasaki, Canada

CSPC Liaison: Claudia Trenkwalder, Germany
Recommended Audience: Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Recognize the relevance of palliative care in movement disorders
2. Develop a multidisciplinary approach to the management of patients in advanced care
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**502: Skills Workshop**

**DBS and Functional Communication in Parkinson's Disease: Insights and Intervention**

18:00 – 19:30 GMT

In this interactive session, the faculty will examine the impact of Deep Brain Stimulation on speech intelligibility in Parkinson’s disease. Evidence-based interventions will be compared to optimize functional communication.

Elina Tripoliti, United Kingdom
Michelle Froche, USA

CSPC Liaison: Terry Ellis, USA

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Examine the impact of Deep Brain Stimulation on speech intelligibility in Parkinson’s disease
2. Compare treatment strategies to optimize functional communication in Parkinson’s disease

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**503: Skills Workshop**

**Imaging in Parkinson's Disease**

18:00 – 19:30 GMT

In this interactive session, the faculty will review the nuts and bolts of how radioisotope imaging, MRI, and ultrasonography are used for diagnosis and prognostication in Parkinson’s disease.

Marios Politis, United Kingdom
Klaus Seppi, Austria

CSPC Liaison: Per Borghammer, Denmark

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe how PET and SPECT are used for the diagnosis, prognostication, and as progression markers of Parkinson’s disease
2. Describe the application of anatomical and functional MRI, and ultrasonography in the diagnosis, prognostication, and as progression markers of Parkinson’s disease

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**504: Skills Workshop**

**Phenomenology of Movement Disorders for Young Neurologists: Semiological Tricks and Pitfalls**

18:00 – 19:30 GMT

In this interactive session, the faculty will discuss tricks and maneuvers they employ in clinical practice for the detection and examination of movement disorders.

Mona Obaid, Saudi Arabia
Mayela Rodríguez Volante, Mexico

CSPC Liaison: Oscar Gershankin, Argentina

Recommended Audience: Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Explore the phenomenology of movement disorders
2. Apply semiological tricks to better detect and examine movement disorders

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**601: Special Topics in Movement Disorders**

**Big Data Analytics in Clinical Research for Movement Disorders**

18:00 – 19:30 GMT

In this session the Faculty will discuss the impact of big data analytics in the current clinical research on Parkinson's disease and other movement disorders, as well as the potential implications of the research findings in the clinical management.

Ivo Dinov, USA
Allison Willis, USA

CSPC Liaison: Roongroj Bhidayasiri, Thailand

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe the concept of big data analytics and the impact in clinical research in the field of Movement Disorders
2. Discuss findings from studies based on big data analytics, and their potential implications in the clinical management

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**602: Special Topics in Movement Disorders**

**Revisiting the Role of Non-Neuronal Cells in Parkinson's Disease**

18:00 – 19:30 GMT

In this interactive session, the faculty will discuss recent data suggesting that brain non-neuronal cells, including glial and inflammatory cells, are involved in the pathogenesis and pathophysiology of Parkinson’s disease.

Antonella Consiglio, Spain
David Sulzer, USA

CSPC Liaison: Etienne Hirsch, France

Recommended Audience: Basic Scientists, Clinical Academicians, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss the roles for non-neuronal cells in the pathophysiology of Parkinson’s disease
2. Describe the putative roles for non-neuronal cells in the pathogenesis

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**701: Video Session**

**Gait Disorders**

18:00 – 19:30 GMT

In this interactive session, participants will gain knowledge on different gait disorders through illustrative videos. Key features of gait disorders and different treatment strategies will be discussed, including surgical interventions.

Nir Giladi, Israel
Evzen Ruzicka, Czech Republic

CSPC Liaison: Andrea Kühn, Germany

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Review the clinical features of normal gait and recognize key abnormalities of gait disorders
2. Recognize specific dysfunction in gait disorders, discuss differential diagnosis and the respective therapeutic management
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**702: Video Session**

**Tardive Syndromes and Other Drug Induced Movement Disorders**

18:00 – 19:30 GMT

In this interactive session, the faculty will demonstrate iatrogenic movement disorders in a case-based format, highlighting acute, chronic, and tardive syndromes, emphasizing phenotypic features that can be overlooked or misattributed to other disorders. Pearls and pitfalls of drug-related complications will be discussed.

Hubert Fernandez, USA
Deborah Hall, USA

CSPC Liaison: Alberto Espay, USA

Recommended Audience: Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Recognize typical and atypical forms of tardive syndromes and distinguish from mimics
2. Identify clinical clues associated with drug-induced movement disorders

**MDS Video Challenge (non CME)**

19:30 – 22:30 GMT

Please join Masters of Ceremony Anthony Lang and Kapil Sethi as they host world-renowned 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 Movement Disorder 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 participants to learn from a series of unusual, very interesting patients and see how senior experts approach these types of challenging cases.

Featured Experts:
Bettina Balint, Germany
Orlando Barsottini, Brazil
Kailash Bhatia, United Kingdom
Francisco Cardoso, Brazil
Roberto Erro, Italy
Alberto Espay, USA
Alfonso Fasano, Canada
Jennifer Friedman, USA
Victor Fung, Australia
Christos Ganos, Germany
Dan Healy, Ireland
Marina Koning-Tijssen, Netherlands
Manju Kurian, United Kingdom
Tim Lynch, Ireland
Stephen Reich, USA
Maria Stamelou, Greece
202: Plenary Session

**Treatable, Rare Movement Disorders Not to Miss**
12:00 – 14:00 GMT

Chairs:
- Victor Fung, Australia
- Mayela Rodriguez-Violante, Mexico

Clinical Approach
Jennifer Friedman, USA

Diagnostic Workup
Manju Kurian, United Kingdom

Current and Future Treatments
Buz Jinnah, USA

CSPC Liaison: Maria Stamelou, Greece

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Appraise clinically a patient with a suspected treatable, rare movement disorder and recognize clinical clues not to be missed
2. Decide, determine and interpret the necessary investigations for a patient with a suspected treatable, rare movement disorder
3. Apply current therapies and identify upcoming new therapy options for rare movement disorders

203: Plenary Session

**Parkinson’s Disease Biomarkers: A Multidisciplinary Approach**
12:00 – 14:00 GMT

Chairs:
- Per Borghammer, Denmark
- Andrew Siderowf, USA

Update on Imaging Biomarkers for Parkinson’s Disease
A. Jon Stoessl, Canada

Clinical Utility of Fluid Biomarkers for Parkinson’s Disease
Brit Mollenhauer, Germany

Peripheral Pathology as a Parkinson’s Disease Biomarker
Charles Adler, USA

CSPC Liaison: Andrew Siderowf, USA

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Evaluate the clinical value of imaging biomarkers, including emerging PET and SPECT ligands and MRI
2. Describe current status of biochemical biomarkers for Parkinson’s disease
3. Summarize recent developments in peripheral tissue assays for alpha-synuclein pathology in Parkinson’s disease

307: Parallel Session

**Innovative Models in the Integrated Management of Parkinson’s Disease**
14:30 – 16:30 GMT

Chairs:
- Bastiaan Bloem, Netherlands
- Terry Ellis, USA

Interdisciplinary Team Models of Care in Parkinson’s Disease
Jennifer Goldman, USA

An Integrated Telemedicine Approach in Parkinson’s Disease
Mark Guttman, Canada

Integrated Palliative Care in Parkinson’s Disease: Timing Matters
Maya Katz, USA

CSPC Liaison: Terry Ellis, USA

Recommended Audience: Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe interdisciplinary team models of care to optimize the management of Parkinson’s disease
2. Discuss innovative models on integrated care using telehealth in Parkinson’s disease
3. Describe a palliative care model integrated over the disease continuum in Parkinson’s disease

308: Parallel Session

**Sleep Disorders in Parkinsonism: Science and Clinical Aspects**
14:30 – 16:30 GMT

Chairs:
- Roongroj Bhidayasiri, Thailand
- Ron Postuma, Canada

Basic Science Aspects of RBD
Pierre Luppi, France

Clinical Aspects of RBD
Ambra Stefani, Austria

Sleep Disorders in Atypical Parkinsonism
Federica Provini, Italy

CSPC Liaison: Per Borghammer, Denmark

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe the pathophysiology and neuropathology underlying RBD
2. Describe clinical manifestations of RBD, their relationship with other clinical features, and management
3. Describe prominent sleep disorders in atypical parkinsonisms, their relation with other clinical features, and management
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309: Parallel Session

Update on Recent Clinical Trials
14:30 – 16:30 GMT

Chairs: Hubert Fernandez, USA
Oscar Gershank, Argentina
Parkinson’s Disease
Tatyana Simuni, USA
Atypical Parkinsonian Disorders
Günter Höglinger, Germany
Huntington’s Disease
Blair Leavitt, Canada

CSPC Liaison: Wassilios Meissner, France

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss recent clinical trials in Parkinson’s disease
2. Review recent clinical trials for atypical parkinsonian disorders
3. Discuss recent clinical trials for hyperkinetic movement disorders

310: Parallel Session

The Crossroads of Spasticity and Ataxia
14:30 – 16:30 GMT

Chairs: Orlando Barsottini, Brazil
Brent Fogel, USA

Clinical Syndromes and Diagnostic Evaluation
To Be Announced
Biological Basis
Brent Fogel, USA
Management
Carlos Henrique Camargo, Brazil

CSPC Liaison: Buz Jinnah, USA

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe the clinical features and diagnostic workup of syndromes that feature spasticity and ataxia
2. Summarize the pathogenesis of spasticity and ataxia
3. Describe management strategies for clinical syndromes that combine spasticity and ataxia

311: Parallel Session

Advanced Multi-Modal Imaging and Big Imaging Data in Parkinson’s Disease
14:30 – 16:30 GMT

Chairs: A. Jon Stoessl, Canada
Antonio Strafella, Canada

Multi-Modal Imaging of the Braak Stages and Parkinson’s Disease Subtypes
Per Borghammer, Denmark

Multi-Modal Imaging for Diagnosis, Prognosis and Progression
Jee-Young Lee, South Korea

Simulating Parkinson’s Disease in Computer Models and Using A.I. for Big Imaging Data
Alain Dagher, Canada

CSPC Liaison: Per Borghammer, Denmark

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe how multi-modal imaging enables visualization of damage to distinct neurotransmitter systems in Parkinson’s disease
2. Describe how multi-modal MRI and other imaging techniques are used for diagnosis, prognostication, and as progression markers
3. Describe computer simulations of Parkinson’s disease and how artificial intelligence algorithms allow in-depth analysis of very large imaging datasets

403: Teaching Course

Atypical Parkinsonisms: Clinical Overview
14:30 – 16:30 GMT

Chairs: Carlo Colosimo, Italy
John Duda, USA

PSP/CBD
Marina Picillo, Italy

MSA
Han-Joon Kim, South Korea

Clinical Look-Alikes
Kailash Bhatia, United Kingdom

CSPC Liaison: Ron Postuma, Canada

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Evaluate the clinical spectrum and imaging features of PSP/CBD
2. Evaluate the clinical spectrum and imaging features of MSA
3. Discuss the disorders which can clinically mimic PSP, CBD, and MSA
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404: Teaching Course

Update on Neurosurgery for Movement Disorders
14:30 – 16:30 GMT

Chairs: Elena Moro, France
       Michael Okun, USA

DBS for Parkinson’s Disease: Who, Where, and How?
Michael Okun, USA

DBS for Dystonia: Who, Where, and How?
Andrea Kühn, Germany

DBS and Lesioning in Tremor
Günther Deuschl, Germany

CSPC Liaison: Ron Postuma, Canada

Recommended Audience: Basic Scientists, Clinical Academicians, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Identify good candidates for DBS surgery in PD, the best surgical target, and novel types of segmented lead technology
2. Identify good candidates for DBS in dystonia, the outcome over the long term, and novel types of adaptive stimulation
3. Identify how to select candidates for surgery in tremor, how to use DBS, and when surgical vs. ultrasound lesioning should be used

901: Science of Industry (non-CME)

Antisense Oligonucleotides for Treating Movement Disorders
14:30 – 16:30 GMT

See page page 26 for complete session information.

506: Skills Workshop

Botulinum Toxins: A Case-Based Approach
18:00 – 19:30 GMT

In this interactive session, the faculty will use a case-based approach to describe the use of botulinum toxins for the most common forms of dystonia and spasticity.

Carlo Colosimo, Italy
Andres Deik, USA

CSPC Liaison: Buz Jinnah, USA

Recommended Audience: Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe optimal strategies for the application of botulinum toxins for the more common forms of dystonia such as cervical dystonia, blepharospasm, and limb dystonia
2. Describe the optimal strategies for the application of botulinum toxins for the treatment of the more common forms of spasticity affecting the upper and lower limb

507: Skills Workshop

New Perspectives on Phenotype-Genotype Relationships
18:00 – 19:30 GMT

In this interactive session, faculty will describe various types of genotype-phenotype relationships, how to apply genetic testing for diagnosis in different movement disorders, and several online tools available for understanding the outcomes of genetic testing.

Pedro Gonzalez-Alegre, USA
Joanne Trinh, Germany

CSPC Liaison: Buz Jinnah, USA

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe the sometimes complex relationships between various genotypes and their associated phenotypes
2. Describe some of the tools available to help the clinician make better use of the results of genetic testing for diagnosis
603: Special Topics in Movement Disorders

Physical Exercise and Parkinson’s Disease
18:00 – 19:30 GMT
In this interactive session, the faculty will discuss the role of physical exercise in modifying the risk of developing Parkinson’s disease and the disease progression.

Terry Ellis, USA
Priya Jagota, Thailand
CSPC Liaison: Beomseok Jeon, South Korea
Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Discuss the role of physical exercise in modifying the risk for developing Parkinson’s disease
2. Discuss the role of exercise in modifying Parkinson’s disease progression

604: Special Topics in Movement Disorders

Setting Up Your Telemedicine Clinic
18:00 – 19:30 GMT
In this interactive session, participants will gain practical knowledge on the resources needed to set up a telemedicine clinic. Faculty will also discuss both the advantages and disadvantages of this interface for delivery of care and highlight obstacles, potential pitfalls, and opportunities for future enhancements.

Piu Chan, People’s Republic of China
Nijdeka Okubadejo, Nigeria
Meredith Spindler, USA
CSPC Liaison: Alberto Espay, USA
Recommended Audience: Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Apply readily available technology resources into an interface for telemedicine
2. Recognize the challenges and opportunities of a telemedicine clinic

605: Special Topics in Movement Disorders

How to Become a Successful Movement Disorders Specialist
18:00 – 19:30 GMT
In this interactive session, participants will gain insight on the best approaches to pursue a career in Movement Disorders.

Beomseok Jeon, South Korea
Pille Taba, Estonia
CSPC Liaison: Oscar Gershanik, Argentina
Recommended Audience: Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Choose the right career path, and acquire the necessary skills to become a successful Movement Disorders Specialist
2. Recognize the importance of searching for good mentors when pursuing specialization

703: Video Session

Eye Movement Disorders
18:00 – 19:30 GMT
In this interactive session, attendees will learn bedside examination techniques, recognize categories of abnormal eye movements, and become familiar with ocular and oculomotor abnormalities in many movement disorders.

Tim Anderson, New Zealand
Joyce Liao, USA
CSPC Liaison: Shen-Yang Lim, Malaysia
Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Undertake a bedside neuro-opthalmological examination relevant to movement disorders
2. Describe characteristic clinical ocular and eye movement abnormalities that aid diagnosis in common and uncommon movement disorders

704: Video Session

Movement Disorder Emergencies
18:00 – 19:30 GMT
In this interactive session, the faculty will show videos of hypokinetic and hyperkinetic movement disorder emergencies, and discuss the practical management of these conditions.

Steven Frucht, USA
Asha Kishore, India
CSPC Liaison: Roongroj Bhidayasiri, Thailand
Recommended Audience: Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Recognize clinical settings and signs of hypokinetic and hyperkinetic movement disorder emergencies, including those related to device-aided therapies
2. Outline management strategies of various movement disorder emergencies
TUESDAY, SEPTEMBER 15, 2020

204: Plenary Session

Neuroscience Bridges
12:00 – 14:00 GMT
Chairs: Vincenzo Bonifati, Netherlands
       Etienne Hirsch, France
Speakers: Karl Deisseroth, USA
          Beth Stevens, USA
CSPC Liaison: Vincenzo Bonifati, Netherlands
              Etienne Hirsch, France
Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

312: Parallel Session

The Evolving Spectrum of Movement Disorder Tauopathies
14:30 – 16:30 GMT
Chairs: Adam Boxer, USA
       Maria Stamelou, Greece
       Clinical Spectrum
       Maria Stamelou, Greece
       Biomarkers
       James Rowe, United Kingdom
       Therapeutic Pipeline
       Adam Boxer, USA
CSPC Liaison: Wassilios Meissner, France
Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Recognize the spectrum of movement disorder tauopathies
2. Discuss biomarkers for movement disorder tauopathies
3. Describe the therapeutics pipeline for movement disorder tauopathies

313: Parallel Session

Essential Tremor, Dystonia and Their Relationships
14:30 – 16:30 GMT
Chairs: Kailash Bhatia, United Kingdom
       Louis Tan, Singapore
       The Phenotypic Spectrum of Essential Tremor-Plus Syndromes
       Franziska Hopfner, Germany
       The Phenotypic Spectrum of Tremor in Dystonias
       Aasef Shaikh, USA
       Differentiating Essential Tremor-Plus and Dystonic Tremor: Neurophysiological Tools
       Maja Kojovic, Slovenia
CSPC Liaison: Maria Stamelou, Greece
Recommended Audience: Clinical Academicians, Practitioners, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Describe and recognize the phenotypic spectrum of essential tremor-plus syndromes
2. Examine and identify the characteristics of tremor in a patient with dystonia
3. Evaluate neurophysiological tools for the differential diagnosis of essential tremor and dystonia syndromes

314: Parallel Session

Microbiome and the Gut-Brain Axis
14:30 – 16:30 GMT
Chairs: Carolyn Sue, Australia
       Ruey-Meei Wu, Taiwan
       The Gut Microbiome in Health and Disease
       Filip Scheperjans, Finland
       The Gut Microbiome in the Pathogenesis of Parkinson’s Disease
       Heinz Reichmann, Germany
       Perspectives for Clinical Management
       Ai Huey Tan, Malaysia
CSPC Liaison: Carolyn Sue, Australia
Recommended Audience: Basic Scientists, Clinical Academicians, Students/Residents/Trainees
At the conclusion of this session, participants should be better able to:
1. Summarize the scientific evidence for the role of the gut microbiome in health and disease
2. Appraise animal studies investigating the role of the gut microbiome in the pathogenesis of Parkinson’s disease
3. Appraise clinical studies investigating the role of the gut microbiome in the pathogenesis of Parkinson’s disease
315: Parallel Session

DNA Repeat Expansions: Old and New Forms
14:30 – 16:30 GMT
Chairs: Thomas Klockgether, Germany
Henry Paulson, USA
Genotypes and Phenotypes
Thomas Klockgether, Germany
Molecular Mechanisms
Henry Paulson, USA
Emerging Therapeutics Avenues
Edward Wild, United Kingdom
CSPC Liaison: Jennifer Friedman, USA
Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Recognize the genetic and clinical spectrum of repeat expansions in movement disorders
2. Describe the molecular mechanisms of repeat expansion disorders
3. Describe the emerging therapeutic avenues for repeat expansion disorders

317: Parallel Session

Gene-Driven Therapies Under Development for Parkinson’s Disease
14:30 – 16:30 GMT
Chairs: Etienne Hirsch, France
Dan Kremens, USA
At the Crossroads Between Gaucher’s and Parkinson’s Disease
Ellen Sidransky, USA
LRRK2 Inhibition as a Target for Intervention in Parkinson’s Disease
Elisa Greggio, USA
Alpha-synuclein Aggregation as a Target for Therapeutic Intervention
Daniel Otzen, Denmark
CSPC Liaison: Tiago Outeiro, Germany
Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss the role of GBA1 as a genetic risk factor and target for intervention in Parkinson’s disease
2. Discuss the current status of LRRK2 inhibition as a therapeutic strategy for Parkinson’s disease
3. Compare different possible therapeutic strategies targeting alpha-synuclein aggregation

316: Parallel Session

Dementia with Lewy Bodies (DLB)
14:30 – 16:30 GMT
Chairs: Melissa Armstrong, USA
Karen Marder, USA
Genetics Insights to the Pathogenesis
Rita Guerreiro, United Kingdom
Imaging
Kejal Kantarci, USA
Diagnosis and Management
Melissa Armstrong, USA
CSPC Liaison: Karen Marder, USA
Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Recognize the role of genetic variants in the pathogenesis of Lewy Body disorders
2. Discuss the role of imaging in differential diagnosis of Lewy Body disorders
3. Identify multidisciplinary approaches to Lewy Body disorders

405: Teaching Course

Parkinson’s Disease Biomarkers
14:30 – 16:30 GMT
Chairs: Shengdi Chen, People’s Republic of China
Brit Mollenhauer, Germany
What Makes a Good Biomarker?
Michele Hu, United Kingdom
Key Updates in Fluid and Tissue Biomarkers of Parkinson’s Disease
Alice Chen-Picotin, USA
Key Updates in Imaging Biomarkers
Kathleen Poston, USA
CSPC Liaison: Ron Postuma, Canada
Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss different types and uses of biomarkers in Parkinson’s disease
2. Summarize key updates in the field of Parkinson’s disease fluid and tissue biomarkers
3. Summarize updates in the field of Parkinson’s disease neuroimaging biomarkers
TUESDAY, SEPTEMBER 15, 2020

406: Teaching Course

**Autonomic Disturbances in Movement Disorders**
14:30 – 16:30 GMT

Chairs: Pietro Cortelli, Italy
David Goldstein, USA

Physiology and Pathophysiology
David Goldstein, USA

Clinical Evaluation and Diagnostic Tests
Valeria Iodice, United Kingdom

Management
Pietro Cortelli, Italy

CSPC Liaison: Ron Postuma, Canada

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Recognize the important movement disorders associated with autonomic dysfunction
2. Discuss clinical testing for autonomic dysfunction in movement disorders
3. Evaluate pathophysiology and treatment options for autonomic dysfunction in movement disorders

509: Skills Workshop

**How to Use the MDS-UPDRS**
18:00 – 19:30 GMT

In this interactive session, movement disorders experts will facilitate the understanding of participants on the core elements of the MDS-UPDRS and enable them to become fluent in the grading system. Participants will have an opportunity to practice on test cases and determine how to use this standardized measure to optimize clinical and research evaluations, train others in a standardized assessment of Parkinson’s disease, and increase communication amongst providers.

Emilia Gatto, Argentina
Matej Skorvanek, Slovakia

CSPC Liaison: Veronica Santini, USA

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Evaluate patients and participants in clinical and research settings with the MDS-UPDRS
2. Practice using the MDS-UPDRS through interactive exercises and test cases

510: Skills Workshop

**Lessons From My Patients**
18:00 – 19:30 GMT

In this interactive session, experienced clinical specialists will discuss important lessons they have learned from patients, analyzing the important clinical features of the history and examination that aided in the diagnosis, as well as pitfalls of the evaluation process. Faculty will also discuss approaches to management and key features that assist in determining appropriate strategies.

Cynthia Comella, USA
Marie Vidailhet, France

CSPC Liaisons: Tove Henriksen, Denmark
Veronica Santini, USA

Recommended Audience: Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Interpret and critique the pertinent historical and examination elements that may be advantageous when diagnosis and management are elusive
2. Identify common pitfalls in the evaluation of movement disorders

508: Skills Workshop

**Genetic Testing, Counseling and Ethical Issues**
18:00 – 19:30 GMT

In this interactive session, the faculty will discuss basic issues regarding genetic testing and counseling for movement disorders, including the rationale, process, challenges and ethical concerns, such as privacy and testing minors, that may arise. Faculty will provide insights regarding ethical aspects of genetics in movement disorders in the next generation sequencing era. Case examples will be used to illustrate the pros and cons of genetic testing, ethical considerations, and challenges faced by clinicians, geneticists, and patients and their families.

Roy Alcalay, USA
Christine Klein, Germany
Avi Orr-Urtreger, Israel

CSPC Liaisons: Jennifer Goldman, USA
Karen Marder, USA

Recommended Audience: Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss genetic testing and counseling for movement disorders, including the “when, what, why, and how”
2. Recognize the ethical issues relevant to genetic testing and the management of patients with movement disorders

502: Science of Industry (non-CME)

**Immunotherapy for Proteinopathies**
14:30 - 16:30 GMT

See page page 26 for complete session information.

509: Skills Workshop

**How to Use the MDS-UPDRS**
18:00 – 19:30 GMT

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Evaluate patients and participants in clinical and research settings with the MDS-UPDRS
2. Practice using the MDS-UPDRS through interactive exercises and test cases
TUESDAY, SEPTEMBER 15, 2020

606: Special Topics in Movement Disorders

Autonomic Dysfunction: Pathophysiology and Advanced Testing
18:00 – 19:30 GMT

In this interactive session, the pathophysiology and advanced methods for investigating, diagnosing and imaging cardiovascular, gastrointestinal and urogenital systems in Parkinson’s disease and atypical parkinsonism will be illustrated. Participants will be able to discuss the relevance of advanced diagnostic techniques to define and manage neurogenic orthostatic hypotension, gastrointestinal and urogenital dysfunctions.

Ryuji Sakakibara, Japan
Paola Sandroni, USA

CSPC Liaison: Pietro Cortelli, Italy

Recommended Audience: Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Assess the pathophysiology of neurogenic orthostatic hypotension, gastrointestinal and urogenital autonomic dysfunctions
2. Interpret the results of advanced investigations for planning appropriate management of these autonomic dysfunctions

607: Special Topics in Movement Disorders

IPCs and Organoids for Parkinson’s Disease
18:00 – 19:30 GMT

In this session, the technology of induced pluripotent stem cells (iPS) and brain organoids as innovative tools for Parkinson’s disease modeling and development of novel therapies will be discussed.

Wado Akamatsu, Japan
Eng-King Tan, Singapore

CSPC Liaison: Ryosuke Takahashi, Japan

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Illustrate the application of human pluripotent stem cell technology and brain organoids to study the molecular mechanisms of Parkinson’s disease
2. Discuss the potential of human pluripotent stem cell and organoid technologies for the development of novel therapies for Parkinson’s disease

608: Special Topics in Movement Disorders

Metals and Calcium in my Brain
18:00 – 19:30 GMT

In this interactive session the presenters will discuss clinical and imaging aspects of movement disorders related to iron, copper, manganese, and calcium brain accumulation. The audience will learn important tips to clinically distinguish different forms of these disorders and the available treatment options.

Annu Aggarwal, India
Miryam Carecchio, Italy

CSPC Liaison: Orlando Barsottini, Brazil

Recommended Audience: Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss the phenotypic spectrum of movement disorders associated with brain metal accumulations
2. Recognize different imaging hallmarks of these disorders

609: Special Topics in Movement Disorders

Nutrition and Microbiome in Health and Neurodegenerative Disease
18:00 – 19:30 GMT

In this interactive session, faculty will discuss nutrition and the microbiome in health and disease. They will present research on nutrition and dietary patterns and their effects on maintaining health and the development of disease, cognitive decline, and parkinsonism. Faculty will discuss the microbiome and how it relates to the pathogenesis of Parkinson’s disease, different fecal and blood microbiota in animal and human models, and implications for research and clinical care.

John Duda, USA
Qin Xiao, People’s Republic of China

CSPC Liaison: Jennifer Goldman, USA

Recommended Audience: Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe how nutrition and different dietary patterns influence both health and disease
2. Discuss the role of the microbiome in the pathogenesis of Parkinson’s disease, highlighting evidence from animal models to human studies

705: Video Session

Pediatric Hyperkinetic Movement Disorders: Approach to a Child Who Moves Too Much
18:00 – 19:30 GMT

In this interactive session, the presenters will demonstrate with illustrative videos the wide phenotypic spectrum of hyperkinetic pediatric movement disorders. The audience will also observe video cases of potentially treatable hyperkinetic pediatric movement disorders that are important not to miss.

Serena Galosi, Italy
Toni Pearson, USA

CSPC Liaisons: Orlando Barsottini, Brazil
Jennifer Friedman, USA

Recommended Audience: Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Describe the phenotypic spectrum of hyperkinetic movement disorders in children
2. Recognize potentially treatable hyperkinetic pediatric movement disorders
WEDNESDAY, SEPTEMBER 16, 2020

205: Plenary Session

**Digital Health Technologies in Movement Disorders**

12:00 – 14:00 GMT

**Chairs:**
- Roongroj Bhidayasiri, Thailand
- Christopher Goetz, USA

**Digital Health Technologies: The Toolbox in 2020**
- Walter Maetzler, Germany

**Digital Technologies for Diagnosis and Disease Monitoring**
- Bastiaan Bloem, Netherlands

**Digital Health Pathway for Personalized and Integrated Care**
- Alberto Espay, USA

**CSPC Liaison:** Roongroj Bhidayasiri, Thailand

**Recommended Audience:** Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Summarize the digital health technologies available for research and clinical care of movement disorders
2. Discuss opportunities and challenges of digital health technologies for diagnosis and disease monitoring in clinical trials and patients management
3. Discuss the concept of digital health pathway for patient-centered integrated care

206: Plenary Session

**Translational Insights into New Parkinson’s Disease-Modifying Therapies**

12:00 – 14:00 GMT

**Chairs:**
- Joseph Jankovic, USA
- Tiago Outeiro, Germany

**Lysosomal Dysfunction in Parkinson’s Disease: From Genetics to the Bedside**
- Leonidas Stefanis, Greece

**The Immune System as a Target for Intervention in Parkinson’s Disease**
- Malu Tansey, USA

**Antibody-Based Therapies: Present and Future**
- Eliezer Masliah, USA

**CSPC Liaison:** Tiago Outeiro, Germany

**Recommended Audience:** Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss the potential of lysosome-targeted therapies in Parkinson’s disease
2. Discuss the role of the immune system as a target for intervention in Parkinson’s disease
3. Summarize the status of antibody-based therapies for Parkinson’s disease

207: Plenary Session

**Controversies in Movement Disorders**

14:30 - 16:30 GMT

**Chairs:**
- Tove Henriksen, Denmark
- Irene Litvan, USA

**Antibodies Panels are Under-Utilized in Movement Disorders Diagnosis (YES)**
- Bettina Balint, Germany

**Antibodies Panels are Under-Utilized in Movement Disorders Diagnosis (NO)**
- Francisco Cardoso, Brazil

**Clinical Judgement vs. A.I. Algorithms: A.I. Will Outperform the Clinical Neurologist in the Near Future (YES)**
- Roongroj Bhidayasiri, Thailand

**Clinical Judgement vs. A.I. Algorithms: A.I. Will Outperform the Clinical Neurologist in the Near Future (NO)**
- Christopher Goetz, USA

**CSPC Liaison:** Vincenzo Bonifati, Netherlands

**Recommended Audience:** Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Debate the advantages and disadvantages of antibodies panels in movement disorders diagnosis
2. Debate whether artificial intelligence will outperform clinical judgement in the near future
WEDNESDAY, SEPTEMBER 16, 2020

**208: Plenary Session**

*Highlights from 2020: Looking Toward 2021*

14:30 – 16:30 GMT

**Chairs:**
- Vincenzo Bonifati, Netherlands
- Claudia Trenkwalder, Germany
- Ryosuke Takahashi, Japan
- Basic Science: Parkinson’s Disease
- Carolyn Sue, Australia
- Basic Science: Other Movement Disorders
- Shen-Yang Lim, Malaysia
- Clinical Studies: Parkinson’s Disease
- Orlando Barsottini, Brazil
- Clinical Studies: Other Movement Disorders

**CSPC Liaisons:**
- Vincenzo Bonifati, Netherlands
- Claudia Trenkwalder, Germany

**Recommended Audience:** Basic Scientists, Clinical Academicians, Practitioners, Non-Physician Health Professionals, Students/Residents/Trainees

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

1. Critically review high-impact scientific discoveries in the field of Movement Disorders published in the past year, and important areas of scientific focus for 2021 research
2. Critically review high-impact clinical studies in the field of Movement Disorders published in the past year, and important ongoing trials with anticipated completion in 2020

**MDS-PAS Regional Assembly**

22:30 – 23:00 GMT

All participants from Pan America are encouraged to attend.
NON-CME EDUCATIONAL ACTIVITIES

SCIENCE OF INDUSTRY SESSION (NON-CME):
These interactive sessions will provide participants with a non-CME educational opportunity to learn about novel therapeutic agents under development by industry. Sessions may incorporate basic scientists or clinicians working in industry, and topics may address the biological rationale or development process for specific therapeutics in development within the field of Movement Disorders.

MONDAY, SEPTEMBER 14, 2020

901 Science of Industry (non-CME)

**Antisense Oligonucleotides for Treating Movement Disorders**
14:30 - 16:30 GMT

**Chairs:**
- Stanley Fahn, USA
- Buz Jinnah, USA

**Biological Basis**
- Stefan Pulst, USA

**Preclinical Treatment Pipeline**
- To Be Announced

**Current Status of Clinical Development**
- Lauren Boak, Switzerland

**CSPC Liaisons:**
- Wassilios Meissner, France
- Tiago Outeiro, Germany

**Recommended Audience:** Basic Scientists, Clinical Academicians, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss the biological basis for using antisense oligonucleotides as treatment for movement disorders
2. Summarize the results of preclinical studies using antisense oligonucleotides for treating movement disorders
3. Discuss the current status of clinical trials using antisense oligonucleotides for treating movement disorders

TUESDAY, SEPTEMBER 15, 2020

902 Science of Industry (non-CME)

**Immunotherapy for Proteinopathies**
14:30 - 16:30 GMT

**Chairs:**
- Wassilios Meissner, France
- Tiago Outeiro, Germany

**Biological Basis**
- Andrew Siderowf, USA

**Update on Preclinical Studies**
- Warren Hirst, USA

**Current Status of Clinical Development**
- Wagner Zago, USA

**CSPC Liaisons:**
- Wassilios Meissner, France
- Tiago Outeiro, Germany

**Recommended Audience:** Basic Scientists, Clinical Academicians, Practitioners, Students/Residents/Trainees

At the conclusion of this session, participants should be better able to:
1. Discuss the biological basis for immunotherapy in neurological disease
2. Summarize the results of preclinical studies based on immunotherapy strategies for treating movement disorders
3. Summarize the current status of clinical trials based on immunotherapy strategies for treating movement disorders

SPONSORED SYMPOSIA
Join daily at 16:30 GMT for our Sponsored Symposia. These industry-based informational sessions provide attendees with non-CME educational opportunities to learn the latest in therapeutics.

SATURDAY, SEPTEMBER 12
- AbbVie
- ACADIA Pharmaceuticals, Inc.
- Sunovion Pharmaceuticals, Inc.
- Zambon

SUNDAY, SEPTEMBER 13
- Acorda Therapeutics
- Bial
- Genentech, a Member of the Roche Group
- Medtronic

MONDAY, SEPTEMBER 14
- Neurocrine Biosciences, Inc.
- Sanofi Genzyme

TUESDAY, SEPTEMBER 15
- Teva
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Joseph Jankovic, USA 206
Beomseok Jeon, South Korea 101, 605
Hyder Jinnah, USA 202, 901
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Christine Klein, Germany 304, 508
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Jee-Young Lee, South Korea 311
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