STOCKHOLM
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JUNE 8-12, 2014

18TH INTERNATIONAL CONGRESS OF PARKINSON'S DISEASE AND MOVEMENT DISORDERS

International Parkinson and Movement Disorder Society

FINAL PROGRAM

MDS-0414-577

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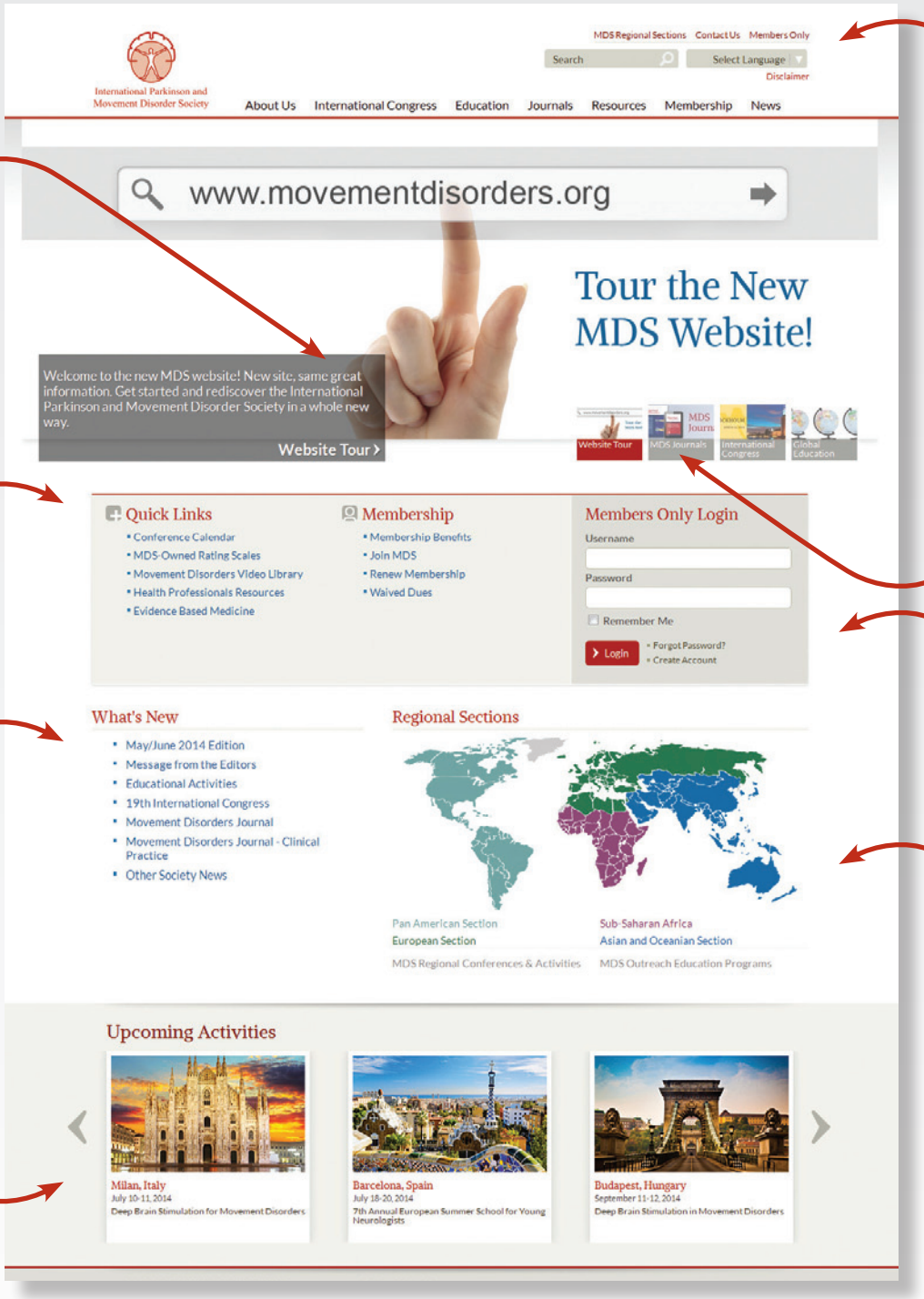
International Parkinson and Movement Disorder Society



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MDS Regional Sections and Outreach Education

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www.movementdisorders.org

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Dear Colleagues,

We would like to formally welcome you to Stockholm, Sweden! Known as the "Capital of Scandinavia", the International Parkinson and Movement Disorder Society (MDS) is excited to be hosting the 18th International Congress of Parkinson's Disease and Movement Disorders in Stockholm June 8-12, 2014.

Stockholm is rich in its Viking roots as the city booms with vibrancy. The city's ambiance attracts the most visitors in Scandinavia and the economy strives with the most multinational companies and the largest stock market. Accommodations of old and new are scattered throughout the largest city in Scandinavia, complete with plenty of restaurant locations to try traditional and modern Swedish cuisine. Stockholm emphasizes its use of natural resources and boasts about the natural scenery that surrounds the city.

The city hosts the annual banquet for Nobel Prize awards, which adds even more to its global recognition of emerging sciences. MDS is excited to add to Stockholm's entourage of scientific excellence, research and perspectives.

Welcome to Stockholm, and we hope you will have an unforgettable experience.

With kind regards,

Matthew Stern
President,
International Parkinson and Movement Disorder Society,
2013-2015

Victor Fung
Chair,
Congress Scientific Program Committee,
2013 - 2015

Per Odin
Co-Chair,
Congress Scientific Program Committee,
2014

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. 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, video 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

President
Matthew Stern, *USA*

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Christopher Goetz, *USA*
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Per Odin, *Sweden*
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Matthew Stern, *USA*
Antonio Strafella, *Canada*
D. James Surmeier, *USA*
Ryosuke Takahashi, *Japan*
Eng-King Tan, *Singapore*
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Hakan Widner

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2009-2011 Philip Thompson, *Australia*
2007-2009 Anthony Lang, *Canada*
2005-2006 Andrew Lees, *United Kingdom*
2003-2004 C. Warren Olanow, *USA*
2001-2002 Werner Poewe, *Austria*
1999-2000 Mark Hallett, *USA*
1997-1998 Eduardo Tolosa, *Spain*
1995-1996 Joseph Jankovic, *USA*
1991-1994 C. David Marsden, *United Kingdom*
1988-1991 Stanley Fahn, *USA*

International Medical Society for Motor Disturbances Past-Presidents

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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
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MEMBERSHIP INFORMATION

Membership Benefits

Highlights

- Annual Subscription to the print and online Journal, *Movement* Disorders
- New in 2014 – online only journal, *Movement* Disorders-Clinical Practice
- Quarterly Newsletter entitled, *Moving Along*
- Access to the Members Only online Membership Directory
- Reduced Registration rates
- Access to Members Only CME Activities and Web Resources
- Access to DVDs, Webcasts, and the MDS Video Library
- Voting Rights in MDS elections and selection of leadership representatives

Details

- JOURNALS: *Movement* Disorders is a peer-reviewed journal covering all topics of the field of basic science. Subscribers receive 14 regular issues of the journal each year. *Movement* Disorders—Clinical Practice is the new exclusively online journal from MDS. Debuting in 2014, the sister publication to *Movement* Disorders, *Movement* Disorders-Clinical Practice seeks to publish peer-reviewed articles that are focused on clinical practice and educational issues relevant to movement disorders neurology.
- NEWSLETTER: *Moving Along* - This quarterly newsletter highlights recent and ongoing Society activities, as well as offers a forum for members to exchange ideas and read about noteworthy and upcoming leaders in the field of Movement Disorders.
- DIRECTORY: An Online and Mobile Directory which lists addresses, telephone and fax numbers, and e-mail addresses for all current members.
- REDUCED REGISTRATION: A reduction in fees charged for participation in the Society's educational programs. Among these are the annual International Congress of Parkinson's Disease and Movement Disorders, and various clinical and scientific programs held separately from the Congress each year.
- CME ACTIVITIES, DVDS, TRAINING VIDEOS, and VIDEO LIBRARY: A unique selection of educational opportunities, including live and online CME/CPD activities and reference material on topics in Movement Disorders.

Free 12-Month Trial Membership! MDS Associate Member Program

Non-Members now have the opportunity to apply for membership with the International Parkinson and Movement Disorder Society (MDS) absolutely free! Delegates of the International Congress will receive one year of membership, including member benefits*, immediately upon acceptance to the Society, for no charge at all. Eligible delegates** will be contacted approximately one month following the International Congress; wherein the International Secretariat will provide special instructions to apply online for associate membership with the Society. Interested individuals are encouraged to apply online within 30 days of contact.

**Associate members will not receive the print journal and do not have voting rights.*

***Participants paying the Non-Member registration fee will be eligible to participate in the Associate member program. This option is not available to those registering as a Junior or Health Professional participant or anyone who registered as part of a group. Only those who have not previously been members of MDS are eligible to apply.*

Join us in 2014! We expect this to be an exciting year for MDS and we look forward to bringing you news of these and other new initiatives through the *Movement* Disorders journals, *Moving Along* newsletter and the MDS website.

For further information, please contact:
International Parkinson and Movement Disorder Society
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Tel: + 1 414-276-2145
Fax: + 1 414-276-3349
E-mail: info@movementdisorders.org
Website: www.movementdisorders.org

MDS EDUCATION

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/education or e-mail education@movementdisorders.org.

Outreach Education Programs

The following outreach education programs are intended to support movement disorders conferences and meetings in underserved areas. Applications, which include a proposed program, a budget and an online form, are submitted through the MDS website. Corresponding MDS Regional Sections and the MDS Education Committee review outreach education applications throughout the year.

Developing World Education Program
MDS is committed to supporting quality movement disorders education in underserved areas worldwide. Through the Developing World Education Program (DWEP), funds are administered in a flexible support program tailored to the needs of each region. The funds can be used to sponsor faculty travel and accommodation, logistics costs or other course expenses which are approved at the time of application.

Ambassador Program
The Ambassador Program supports the travel of one or two international experts, who are MDS members, to an underserved area for the purposes of education and scientific exchange. Sponsored speakers should deliver a keynote lecture during the meeting.

Visiting Professor Program
The Visiting Professor Program supports the travel of one or two international experts, who are MDS members, to an underserved area for the purposes of education and scientific exchange. During the visit, invited experts should conduct teaching seminars in local hospitals or institutions, participate in grand rounds and/or provide input to further the understanding of movement disorders in the host country.

Online Education

Coffee Break CME
The Coffee Break CME program provides 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. Each module can be completed in a short period of time and provides the clinician with updated information relevant to their practice. Both standard approaches and new advances are highlighted.

MDS is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. MDS designates this educational activity for a maximum of 2.0 *AMA PRA Category 1 Credits™* for each module. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Journal CME
Visit the Educational Resources page on the MDS website to view a list of *Movement* Disorders journal articles available for CME credit.

MDS is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. MDS designates this educational activity for a maximum of 1.0 *AMA PRA Category 1 Credits™* for each module. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Educational DVDs and Streaming Content

As part of its educational mission to expand the availability of educational content, MDS produces enduring materials of select programming. All content listed below can be purchased through the MDS website.

18th International Congress Teaching Courses and Themed Sessions Streaming Content
The Teaching Courses and Themed Courses for the 18th International Congress will be available for purchase on the MDS website. Access will include slides, audio and video of the recorded presentations and PDF syllabi for the Teaching Courses and the Themed Courses.

18th International Congress Teaching Courses:
- Non-dopaminergic symptomatic medications for the management of Parkinson's disease
- Dystonia: A practical approach to diagnosis, measurement and management
- Movement disorders and internal medicine
- Addiction and withdrawal of dopamine replacement for Parkinson's disease
- Gait in parkinsonian syndromes and other movement disorders
- Uncommon treatable movement disorders not to be missed
- How to assess patients in clinical trials with experimental therapies for Parkinson's disease
- Autoimmune movement disorders

18th International Congress Themed Sessions, *Emerging and Experimental Therapies:*
- Cell therapy for Parkinson's disease
- Continuous dopaminergic stimulation (CDS)-based therapies for Parkinson's disease
- Development and maintenance of the nigrostriatal dopamine pathway: Novel insights and therapeutic targets
- Development of new treatments for targeting abnormal aggregation of alpha-synuclein
- Dyskinesias associated with old and new therapies for Parkinson's disease

MDS EDUCATION

- Examples of video-documented outcomes of cell and gene therapy
- Gene silencing for movement disorders
- Gene therapy for Parkinson's disease and movement disorders
- How to assess patients in clinical trials with experimental therapies for Parkinson's disease
- How to avoid stem cell tourism and misuse of cell and gene therapies
- Improving clinical translation of cell therapy for movement disorders
- Invasive therapies for Parkinson's disease: A video-based presentation
- New developments in Deep Brain Stimulation (DBS)

2014 MDS Video Challenge Streaming Content
At the 2014 MDS Video Challenge, held on June 11, 2014 at the 18th International Congress, unique movement disorders cases were presented by representatives from Movement Disorder Centers around the world and are discussed by two teams of senior experts in the field. The goal of the MDS Video Challenge was to have attendees learn from a series of unusual, intriguing cases and to see how senior experts approach and handle them.

Streaming access to the 2014 MDS Video Challenge will be available for purchase on the MDS website.

Content from Previous Congresses
The following Teaching Courses, Themed Sessions and MDS Video Challenges from the 15th, 16th and 17th International Congresses are available to order on the MDS website.

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.

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. Interested organizations or institutions may apply to MDS to request permission to use the curriculum.

MDS Video Library
This Members Only library consists of video supplements from the *Movement* Disorders journal since 1986. You may search the Video Library by keyword, author, volume and issue or a combination of these fields.

Live Courses

Through the MDS Regional Sections, MDS offers a robust list of live course learning opportunities. Below is a sample of upcoming courses offered through MDS. Please note that dates and locations are subject to change. For the most up-to-date list of live courses, please visit www.movementdisorders.org/education.

- Basic Scientists Summer School; Taipei; July 13-15, 2014
- 7th Annual MDS-ES Summer School for Young Neurologists; Barcelona, Spain; July 18-20, 2014
- Deep Brain Stimulation for Movement Disorders; Budapest, Hungary; September 11-12, 2014
- MDS-PAS School for Young Neurologists; Buenos Aires, Argentina; September 11-13, 2014
- 2nd Annual Allied Health Professionals Summer School; Torres Vedras (Lisbon), Portugal; September 25-27, 2014
- Genetics of Parkinson's Disease and other Parkinsonian Syndromes in Clinical Practice; Athens, Greece; October 3-4, 2014
- 50 Years of Progressive Supranuclear Palsy; Munich, Germany; October 10-11, 2014
- 4th Asian and Oceanian Parkinson's Disease and Movement Disorders Congress; Pattaya, Thailand; November 28-30, 2014
- Deep Brain Stimulation for Movement Disorders; Milan, Italy; December 2014
- MDS-PAS School for Young Neurologists; Atlanta, GA, USA; February 20-22, 2015
- Teaching Course on Diagnosis and Treatment of Cognitive Dysfunction in Movement Disorders; Newcastle upon Tyne, UK; Spring 2015
- Fostering New Directions in Parkinson's Research; White Plains, New York, USA; Spring 2015
- Deep Brain Stimulation for Movement Disorders; Barcelona, Spain; March 5-6, 2015
- Evidence Based Medicine Update on Treatments for Parkinson's Disease; Salvador da Bahia, Brazil; March 13, 2015
- Deep Brain Stimulation for Movement Disorders; Grenoble, France; September 10-11, 2015
- Allied Health Team Training for Parkinson's Disease; Campinas, Brazil; 2015

MDS EDUCATION

Rating Scales and Training Videos

Rating Scales
MDS provides rating scales and related resources published in the *Movement* Disorders journal to physicians, researchers and health professionals interested in Parkinson's disease and other movement disorders. By making these scales available, MDS works to improve the diagnosis of movement disorders and patient care, as well as increase the validity and reliability of research studies. You can access the rating scales below online by visiting: www.movementdisorders.org/publications/rating_scales. Links to the MDS-UPDRS and UDysRS training programs and rating scales use permission forms are also available through the rating scales link. Licensing fees are free for individual use, but fees may apply for government, nonprofit or industry-funded research.

The following rating scales are currently available:
- Global Assessment Scale for Wilson's Disease (GAS for WD)
- Global Dystonia Scale
- Non-Motor Symptoms Scale (NMSQ) + (Includes NMSQ)
- Quality of Life Essential Tremor Questionnaire (QUEST)
- Rating Scale for Psychogenic Movement Disorders (PMD)
- Rush Dyskinesia Rating Scale *
- Rush Videobased Tic Rating Scale
- UFMG Sydenham's Chorea Rating Scale (USCRS)
- Unified Dyskinesia Rating Scale (UDysRS) + *
- Unified Dystonia Rating Scale (UDRS)
- Unified Multiple System Atrophy Rating Scale (UMSARS)
- Unified Parkinson's Disease Rating Scale (MDS-UPDRS) + *

Asterisk (*) indicates scale was developed by MDS;
Plus symbol (+) indicates translations of the scale are available.

Training Videos
MDS publishes several audiovisuals, which are available for sale from the MDS International Secretariat. All materials are available in DVD format. Special reduced rates are available to MDS members. For more information or to place an order, visit www.movementdisorders.org/publications/estore.php.

The titles that are currently available for purchase include:
Instructional Video for Motor Fluctuation Diaries in Parkinson's Disease
Authored by C.G. Goetz, M. Grobman, L. Blasucci, and G.T. Stebbins, this instructional video demonstrates the 3 states of Parkinson's disease, off, on, and on with dyskinesia, with the intent to assist patients in completion of their motor fluctuation diaries. This video is 15 minutes.

Toronto-Western Spasmodic Torticollis Rating Scale TWSTRS Training Video
Authored by C. Comella, S. Bressman, C.G. Goetz, and A. Lang, this instructional video demonstrates the 10 categories in the TWSTRS scale with verbal and visual examples of scoring in each category. This video is approximately 1 hour and 25 minutes.

Unified Dyskinesia Rating Scale Teaching Program (UDysRS)
Authored by C.G. Goetz, John G. Nutt and G.T. Stebbins. This teaching program provides guidelines and rating examples of the Unified Dyskinesia Rating Scale, a new scale used for evaluating Parkinson's disease. This video is approximately 52 minutes.

Utility of an Objective Dyskinesia Rating Scale for Parkinson's Disease: (Rush Dyskinesia Rating Scale)
Authored by Goetz, et al. *Movement* Disorders Volume 9, Video Supplement. 2. This video provides guidelines and rating examples of the Rush Dyskinesia Rating Scale, a scale widely used for evaluating dyskinesias in Parkinson's disease. This video is approximately 17 minutes.

Unified Parkinson's Disease Rating Scale Training Video
(1995) Authored by C. G. Goetz, G.T. Stebbins, T. Chmura, S. Fahn, H. Klawans, and C. D. Marsden, this video demonstrates the different categories of the motor section of the UPDRS, with verbal and visual examples of scoring in each category. This video is approximately 1 hour.

Standardized Training Tools for the UPDRS Activities of Daily Living Scale (UPDRS Part II)
(2003) Authored by C.G. Goetz, P.A. Lewitt, and M. Weidenman. *Movement* Disorders Volume 18, Video Supplement. 2. This video provides suggestions on the application and interview techniques for Part II of the UPDRS with patient examples and guidelines for raters. This video is approximately 1 hour and 15 minutes.

The International Parkinson and Movement Disorder Society's Unified Parkinson's Disease Rating Scale (MDS-UPDRS) Training Video (2010)
The International Parkinson and Movement Disorder Society (MDS)-sponsored new version of the UPDRS is founded on the critique that was formulated by the Task Force for Rating Scales in Parkinson's disease (*Mov Disord* 2003;18:738-750). The MDS-UPDRS has four parts: Part I (non-motor experiences of daily living), Part II (motor experiences of daily living), Part III (motor examination) and Part IV (motor complications). This video is approximately 2 hours and 5 minutes.

MDS REGIONAL SECTIONS

European Section

The MDS European Section (MDS-ES) serves MDS members who live in Europe as well as select countries in Northern Africa and the Middle East. The MDS-ES Executive Committee is chaired by Prof. Olivier Rascol of Toulouse University Hospital in Toulouse, France. The MDS-ES Education Committee is chaired by Prof. Angelo Antonini of the Institute of Neurology, IRCCS San Camillo in Venice, Italy. During the past year, MDS-ES educational activities have been held in The Netherlands, United Kingdom, Italy, France, Serbia and Morocco. The official MDS-ES website includes a wealth of programming and Section information, including section leadership and mission, details about MDS Regional Development initiatives and access to MDS-ES/EFNS European diagnosis and management recommendations. One can also find information on fellowships, links to scholarly papers and keynote publications and a calendar of events.

For more information about the MDS-ES, please visit www.movementdisorders.org/regional_sections/es/.

Asian and Oceanian Section

The MDS Asian and Oceanian Section (MDS-AOS) serves MDS members from the majority of the Asian continent, as well as Australia, New Zealand and Oceania. The MDS-AOS Executive Committee is chaired by Dr. Louis Tan of the National Neuroscience Institute in Singapore. The MDS-AOS Education Committee is co-chaired by Prof. Madhuri Behari of the All India Institute of Medical Sciences in New Delhi, India and Prof. Shen-Yang Lim of the University of Malaya in Kuala Lumpur, Malaysia. The Asian and Oceanian Section was formed in 2006 at the 10th International Congress of Parkinson's Disease and Movement Disorders in Kyoto, Japan. Since its foundation, MDS-AOS has developed educational programs in India, Sri Lanka, China, Malaysia, the Philippines, Vietnam, Myanmar, Thailand and the United Arab Emirates among other locations. The official MDS-AOS website includes programming and Section information, including details about AOS Regional Partners, leadership, the AOS Training Fellowship Program and a calendar of events.

In 2014, the MDS-AOS is holding the *4th Asian and Oceanian Parkinson's Disease and Movement Disorders Congress (AOPMC)* in Pattaya, Thailand November 28-30, 2014. Please visit www.movementdisorders.org/aopmc2014 for more information.

For further information on MDS-AOS or its educational opportunities, please visit www.movementdisorders.org/regional_sections/aos/.

Pan American Section

The MDS Pan American Section (MDS-PAS) is composed of members who live in the countries of the Western Hemisphere. The MDS- PAS Executive Committee is chaired by Dr. Jorge Juncos of Emory University in Atlanta, GA, USA. The MDS-PAS Education Committee is chaired by Dr. Irene Litvan of the University of California San Diego in San Diego, CA, USA. The MDS-PAS supports educational programming throughout the entire region and has recently held courses in the United States and Chile. The official MDS-PAS website includes a variety of programming and section information including details about the Regional Needs Assessment Survey, PAS Fellowship Program and MDS-PAS calendar of events.

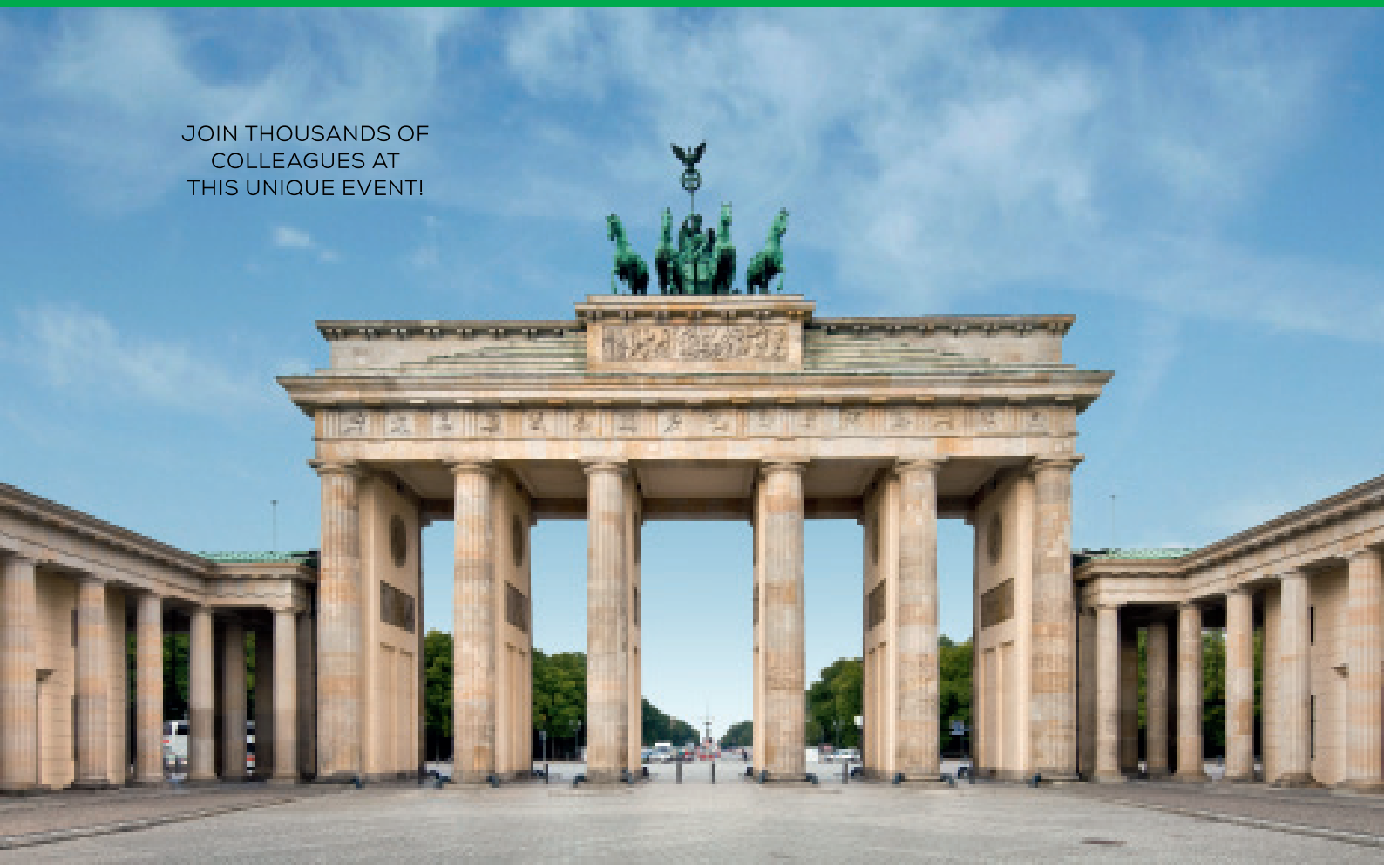
For additional information on the MDS-PAS or its educational programming, please visit www.movementdisorders.org/regional_sections/pas/.

european academy of neurology
ean

1ST CONGRESS
JUNE 20-23, 2015
OF THE
EUROPEAN ACADEMY OF NEUROLOGY

BERLIN, GERMANY

JOIN THOUSANDS OF COLLEAGUES AT THIS UNIQUE EVENT!



www.eaneurology.org/berlin2015

CONTINUING MEDICAL EDUCATION (CME) INFORMATION

Purpose

The purpose of the 18th International Congress of Parkinson's Disease and *Movement* Disorders 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

Target Audience

The target audience of the 18th 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.

Accreditation Statement

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

An application has been made to the European Accreditation Council for Continuing Medical Education (EACCME®) for continuing medical education accreditation of this event.

Credit Designation

The International Parkinson and Movement Disorder Society designates this educational 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.

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 whose products or services are related to the subject matter of the 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 Stockholm.

Claiming CME Credit

To claim CME credit for participation in the 18th International Congress of Parkinson's Disease and Movement Disorders, participants must complete and submit an online CME Request Form. This form will be available beginning June 10th.

Instructions for claiming credit:

- After June 10, 2014, please visit: www.mdscongress2014.org/registration/cme.
- Log in after reading the instructions on the page. You will need your International Congress File Number which is located on your name badge, registration confirmation or e-mail congress@movementdisorders.org.
- Follow the on-screen instructions to claim CME credit for the sessions you attended.
- You may print your certificate from your home or office, or save it as a PDF for your records.

If you have any questions or need help claiming credit, please contact the MDS International Secretariat at education@movementdisorders.org.

INTERNATIONAL CONGRESS INFORMATION A-Z

Abstracts

All accepted abstracts are presented as a poster at the 2014 International Congress, and published in an electronic supplement to the *Movement* Disorders journal, online edition. Additionally, select abstracts are presented in a Guided Poster Tour. All published abstracts are available on the MDS abstracts website, where you can download a PDF of accepted abstracts or search by author, keyword or abstract title. Please visit www.mdscongress2014.org for further information.

Please see Poster Sessions and Guided Poster Tours for a listing of daily abstract presentations. For a complete listing of abstracts by topic, please see page 60.

Late-Breaking Abstracts
All accepted Late-Breaking Abstract posters are displayed in Exhibition Hall B, Monday – Thursday throughout the duration of the International Congress.

Late-Breaking Abstract poster presentations will take place Wednesday, June 11 from 12:00 – 13:30 in Exhibition Hall B. A supplement of the Late-Breaking Abstracts is also available (on USB) with the Congress registration materials, and is available on the 2014 International Congress website, www.mdscongress2014.org.

MDS Study Group Abstracts
All accepted MDS Study Group abstract posters are displayed in Exhibition Hall B, Monday – Thursday throughout the duration of the International Congress.

MDS Study Group abstract poster presentations will take place Wednesday, June 11 from 12:00 – 13:30 in Exhibition Hall B. A supplement of the MDS Study Group Abstracts is available with the Late-Breaking Abstracts supplement (on USB) in Congress registration materials.

Abstracts on USB

All accepted abstracts, Late-Breaking Abstracts and MDS Study Group abstracts are published in the supplement to the MDS Journal and are available for all registered delegates as a USB at the registration desk during regular Congress hours.

Badges

All International Congress attendees will receive a name badge with their registration materials. Badges should be worn at all times as they are used to gain access into all International Congress sessions and activities. Badge colors will be identified as follows:

Blue = Delegate
Yellow = Exhibitor
Purple = Press
Black = Staff

Camera Policy

Cameras are not permitted in any 18th International Congress educational sessions or in the poster areas.

Certificate of Attendance

A certificate of attendance is available near the end of the 2014 Final Program.

Coffee Breaks

Coffee and tea will be available at the following times and locations:
Sunday, June 8, 10:00 – 11:00 ..... Entrance Hall
Monday, June 9, 10:00 – 10:30 ..... Exhibition Hall B
Tuesday, June 10, 10:00 – 11:00 ..... Exhibition Hall B
Wednesday, June 11, 10:00 – 10:30 ..... Exhibition Hall B
Thursday, June 12, 9:30 – 10:00 ..... Exhibition Hall B

Congress Information Desk

Location: Entrance Hall of the Stockholmsmässan (near Registration Desk)

Continuing Medical Education (CME)

Please refer to page 13 for Continuing Medical Education (CME) information.

Currency

The exchange rate for US Dollars as of May 7 is: 1 USD = 6.50 SEK
The exchange rate for Euros as of May 7 is: 1 EUR = 9.04 SEK

Evaluations

Please take time to complete the evaluation form provided at each session you attend. Your input and comments are essential in planning future educational programs for MDS.

Upon completion, evaluations may be returned to the session room attendants, or to the MDS Booth (located in Exhibition Hall B).

INTERNATIONAL CONGRESS INFORMATION A-Z

Events

Welcome Ceremony
Sunday, June 8

Location: Room A1
19:30 to 21:30

All International Congress attendees are warmly invited to attend the International Congress Welcome Ceremony at the Stockholmsmässan. This event is open to all registered delegates.

MDS Video Challenge Pre-Event Gathering
Wednesday, June 11

Location: Entrance Hall
19:00 – 20:00

MDS Video Challenge
Wednesday, June 11

Location: Room A1
20:00 – 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 2014 Panel of Experts are:
Victor Fung, *Australia*
Orlando Barsottini, *Brazil*
Daniel Healy, *Ireland*
Björn Holmberg, *Sweden*
David Riley, *USA*

This event is open to all registered delegates.

Exhibit Hall

Location: Exhibition Hall B

For more information, please refer to page 34.

Monday, June 9: ..... 9:00 – 18:00
Tuesday, June 10:..... 9:00 – 18:00
Wednesday, June 11: ..... 9:00 – 18:00
Thursday, June 12: ..... 9:00 – 16:00

Floor Plans of the Stockholmsmässan

Please refer to page 17.

Guided Poster Tours

Guided Poster Tours will be led by members of the MDS faculty and leadership, and the authors will be present to discuss the abstracts. There will be 16 total Guided Poster Tours with four simultaneous tours per day from Monday, June 9 through Thursday, June 12. Each tour will feature abstracts on a specific topic.

Please refer to page 52 for further Guided Poster Tour information and schedules.

Internet

Complimentary Wi-Fi will be available throughout the Stockholmsmässan for all attendees.

MDS Booth

Location: Exhibition Hall B

The MDS Booth hours are as follows:
Monday, June 9: ..... 9:00 – 18:00
Tuesday, June 10:..... 9:00 – 18:00
Wednesday, June 11: ..... 9:00 – 18:00
Thursday, June 12: ..... 9:00 – 16:00

Official Language

The official language of the International Congress is English.

Press Information

Members of the working media receive waived registration for the 18th International Congress. Journalists and writers should report to the Congress Information Desk with their credentials to register for the International Congress. All press must wear their name badge for admittance into MDS sessions.

Please visit www.mdscongress2014.org/Press.htm for further information and requirements.

Registration Desk

Location: Entrance Hall, Ground Level

Name badges, scientific session tickets, abstract USB's, Final Programs and International Congress bags can be collected at the International Congress Registration Desk.

Registration Desk hours are as follows:
Saturday, June 7: .....16:00 – 20:00
Sunday, June 8:..... 7:00 – 20:00
Monday, June 9: ..... 7:00 – 18:00
Tuesday, June 10:..... 7:00 – 18:00
Wednesday, June 11: ..... 7:00 – 18:00
Thursday, June 12: ..... 7:00 – 16:00

** Please note that these hours are subject to change.*

INTERNATIONAL CONGRESS INFORMATION A-Z

Scientific Sessions

The 2014 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:

- Emerging and Experimental Therapies
- 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

To ensure any special needs can be properly met, requests should have been addressed in advance with the MDS International Secretariat. Delegates requiring special arrangements in order to fully participate in the International Congress should provide a written description of such needs to the MDS Information Booth upon arrival.

Speaker Ready Room

Location: Room R201 – R203

All speakers and Guided Poster Tour presenters must check in at the Speaker Ready Room with their presentation materials the day prior to their scheduled presentation. Equipment is available to allow faculty and presenters to review their presentations. Audio/Visual personnel will be available for assistance.

The Speaker Ready Room hours are as follows:

Saturday, June 7: ..... 16:00 – 20:00
Sunday, June 8: ..... 7:00 – 18:00
Monday, June 9: ..... 7:00 – 18:00
Tuesday, June 10: ..... 7:00 – 18:00
Wednesday, June 11: ..... 7:00 – 18:00
Thursday, June 12: ..... 7:00 – 16:00

Ticketed Sessions

Tickets are required for admission into all Parallel Sessions, Teaching Courses, Video Sessions, and Skills Workshops. There is no additional fee for tickets to these sessions. Please check the Registration Desk for ticket availability.

Therapeutic Plenary Sessions, Plenary Sessions and poster sessions do not require a ticket to attend.

Venue

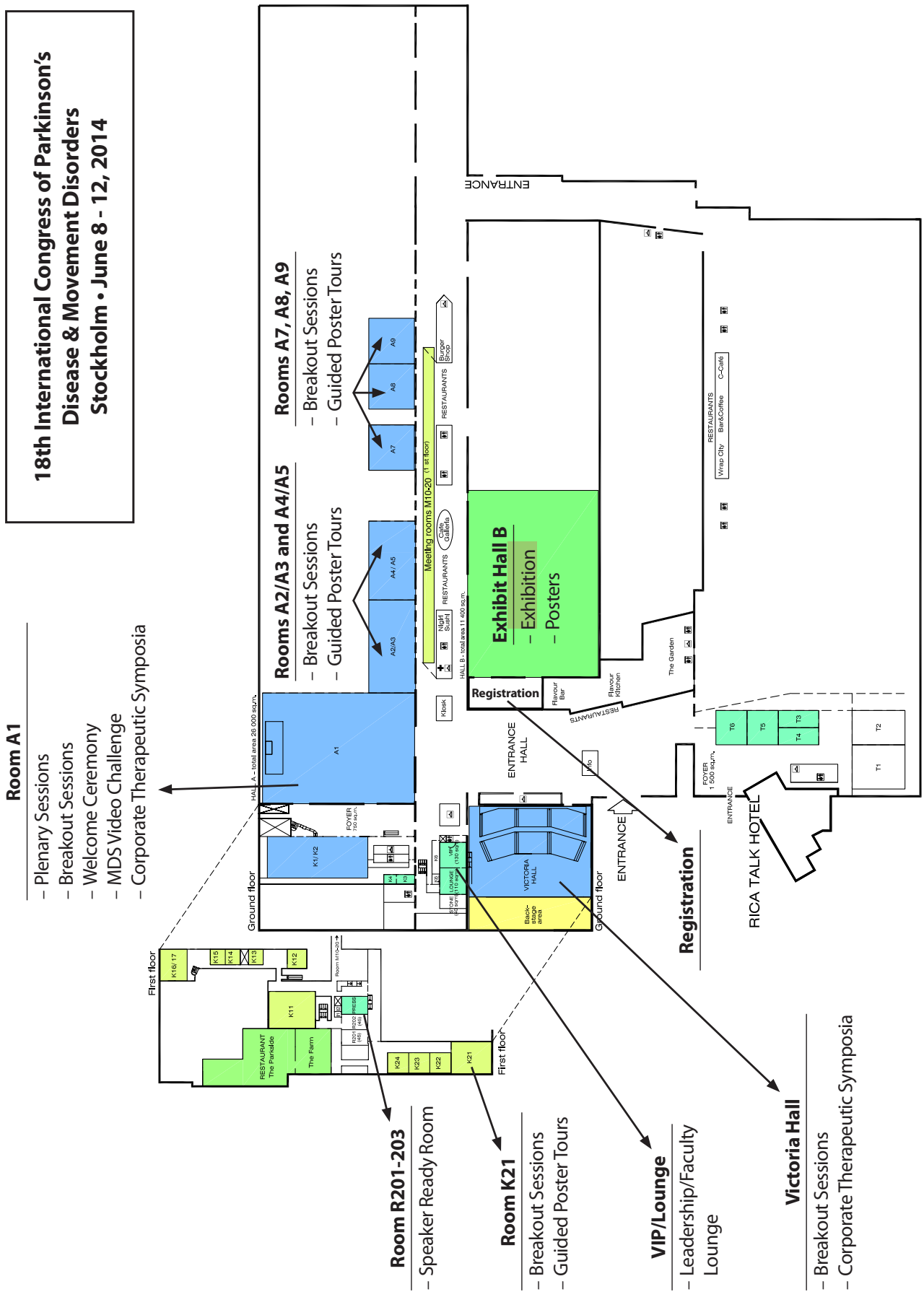
Stockholmsmassen (Stockholm Convention Centre)
SE-125 80 Stockholm
Sweden

Visitor's address: Mässvägen 1, Älvsjö

Weather

The average daytime temperature in Stockholm in June is approximately 61 - 70° F (16 - 21° C).

CONGRESS FLOOR PLAN



ABSTRACT 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. All accepted abstracts are presented as a poster at the 2014 International Congress.

Poster sessions will be held Monday – Thursday during the Congress, in Exhibition Hall B. Posters are available for viewing from 9:00 – 18:00 Monday through Wednesday, and 9:00 – 16:00 on Thursday. Poster session schedules vary by date; please see the *Poster Session Schedule* below for specific times and session topics.

Late-Breaking Abstracts

All accepted Late-Breaking Abstract posters are displayed in Exhibition Hall B, Monday – Thursday throughout the duration of the Congress. Late-Breaking Abstract poster presentations will take place Wednesday, June 11 from 12:00 – 13:30 in Exhibition Hall B.

MDS Study Group Abstracts

All accepted MDS Study Group Abstract posters are displayed in Exhibition Hall B, Monday – Thursday throughout the duration of the International Congress. MDS Study Group Abstract poster presentations will take place Wednesday, June 11 from 12:00 – 13:30 in Exhibition Hall B.

Abstract Publication

All regular accepted abstracts are published in a supplement to the MDS Journal. Please visit www.movementdisorders.org to access The *Movement* Disorders Journal, where you can download a PDF of accepted abstracts.

Abstracts are also available for viewing and download from a searchable website. Please visit www.mdscongress2014.org/Abstracts.htm for further information.

Along with their International Congress registration materials, all registered delegates will receive one (1) abstract USB containing all regular published abstracts, Late-Breaking Abstracts and MDS Study Group abstracts.

ABSTRACT INFORMATION

Poster Session Schedules

Sunday, June 8, 2014
No poster sessions on Sunday

Monday, June 9, 2014
Poster Session: 12:30 – 14:00
Poster viewing 9:00 – 18:00
Location: Exhibition Hall B

Abstract numbers	Abstract Topic
1 - 103	Basic Science
104 - 112	Gene Therapies and Cell-based Therapies
113 - 181	Genetics
182 - 262	Neuroimaging
263 - 342	Parkinsonisms (secondary and parkinsonism-plus)
343 - 392	Parkinson's disease: Neuropharmacology

Tuesday, June 10, 2014
Poster Session: 12:30 – 14:00
Poster viewing 9:00 – 18:00
Location: Exhibition Hall B

Abstract numbers	Abstract Topic
393 - 406	Quality of life / caregiver burden in movement disorders
407 - 474	Parkinson's disease: Quality of life / caregiver burden
475 - 484	Rating scales
485 - 514	Parkinson's disease: Rating scales
515 - 530	Choreas (non-HD)
531 - 547	Clinical Electrophysiology
548 - 550	History
551 - 594	Huntington's disease
595 - 606	Lewy Body Dementia and other dementias in movement disorders
607 - 745	Parkinson's disease: Clinical Trials
746 - 782	Parkinson's disease: Electrophysiology

Wednesday, June 11, 2014
Poster Session: 12:00 – 13:30
Poster viewing 9:00 – 18:00
Location: Exhibition Hall B

Abstract numbers	Abstract Topic
	* Late-Breaking Abstracts
	* Study Group Abstracts
783 - 810	Parkinson's disease: Sleep disorders
811 - 821	Restless legs syndrome
822 - 832	Drug-Induced movement disorders
833 - 841	Neuropharmacology
842 - 908	Parkinson's disease: Behavioral disorders
909 - 1004	Parkinson's disease: Cognition
1005 - 1073	Parkinson's disease: Phenomenology
1074 - 1099	Pediatric movement disorders
1100 - 1110	Spasticity
1111 - 1123	Tics/stereotypies
1124 - 1163	Tremor
1164 - 1169	Wilson's disease, storage and metabolic movement disorders

Thursday, June 12, 2014
Poster Session: 12:00 – 13:30
Poster viewing: 9:00 – 16:00
Location: Exhibition Hall B

Abstract numbers	Abstract Topic
1170 - 1240	Surgical Therapy: Parkinson's disease
1241 - 1272	Surgical Therapy: Other Movement Disorders
1273 - 1319	Ataxia
1320 - 1454	Dystonia
1455 - 1474	Education in movement disorders
1475 - 1512	Epidemiology
1513 - 1522	Myoclonus
1523 - 1558	Parkinson's disease: Dysautonomia

***Late-Breaking Abstracts** and **Study Group Abstracts** are on display Monday - Thursday.

ABSTRACT INFORMATION

Poster Session Topics (Alphabetically)

1273 - 1319	**Ataxia** *Thursday, June 12*
1 - 103	**Basic Science** *Monday, June 9*
515 - 530	**Choreas (non-HD)** *Tuesday, June 10*
531 - 547	**Clinical Electrophysiology** *Tuesday, June 10*
822 - 832	**Drug-Induced movement disorders** *Wednesday, June 11*
1320 - 1454	**Dystonia** *Thursday, June 12*
1455 - 1474	**Education in movement disorders** *Thursday, June 12*
1475 - 1512	**Epidemiology** *Thursday, June 12*
104 - 112	**Gene Therapies and Cell-based Therapies** *Monday, June 9*
113 - 181	**Genetics** *Monday, June 9*
548 - 550	**History** *Tuesday, June 10*
551 - 594	**Huntington's disease** *Tuesday, June 10*
595 - 606	**Lewy Body Dementia and other dementias in movement disorders** *Tuesday, June 10*
1513 - 1522	**Myoclonus** *Thursday, June 12*
182 - 262	**Neuroimaging** *Monday, June 9*
833 - 841	**Neuropharmacology** *Wednesday, June 11*
263 - 342	**Parkinsonisms (secondary and parkinsonism-plus)** *Monday, June 9*
842 - 908	**Parkinson's disease: Behavioral disorders** *Wednesday, June 11*
607 - 745	**Parkinson's disease: Clinical Trials** *Tuesday, June 10*
909 - 1004	**Parkinson's disease: Cognition** *Wednesday, June 11*
1523 - 1558	**Parkinson's disease: Dysautonomia** *Thursday, June 12*
746 - 782	**Parkinson's disease: Electrophysiology** *Tuesday, June 10*
343 - 392	**Parkinson's disease: Neuropharmacology** *Monday, June 9*
1005 - 1073	**Parkinson's disease: Phenomenology** *Wednesday, June 11*
407 - 474	**Parkinson's disease: Quality of life / caregiver burden** *Tuesday, June 10*
485 - 514	**Parkinson's disease: Rating scales** *Tuesday, June 10*
783 - 810	**Parkinson's disease: Sleep disorders** *Wednesday, June 11*
1074 - 1099	**Pediatric movement disorders** *Wednesday, June 11*
393 - 406	**Quality of life / caregiver burden in movement disorders** *Tuesday, June 10*
475 - 484	**Rating scales** *Tuesday, June 10*
811 - 821	**Restless legs syndrome** *Wednesday, June 11*
1100 - 1110	**Spasticity** *Wednesday, June 11*
1241 - 1272	**Surgical Therapy: Other Movement Disorders** *Thursday, June 12*
1170 - 1240	**Surgical Therapy: Parkinson's disease** *Thursday, June 12*
1111 - 1123	**Tics/stereotypies** *Wednesday, June 11*
1124 - 1163	**Tremor** *Wednesday, June 11*
1164 - 1169	**Wilson's disease, storage and metabolic movement disorders** *Wednesday, June 11*

ABSTRACT INFORMATION

Guided Poster Tours

Guided Poster Tours give groups of delegates an opportunity to hear discussion on a select group of abstracts in several sub-categories. Attendance is limited, and admission will be granted on a first-come, first-served basis. Guided Poster Tours do not require a ticket to attend.

A list of Guided Poster Tour abstracts and authors can be found on pages 52 of the 2014 Final Program. Abstracts selected for a Guided Poster Tour presentation are published in a supplement to the MDS Journal, and can be found on the searchable abstract website.

Guided Poster Tour Schedule

Sunday, June 8, 2014
No Guided Poster Tours on Sunday

Monday, June 9, 2014
12:30 – 14:00

GPT 1	Huntington's disease	Room A7
GPT 2	Lewy body dementia and other dementias in movement disorders	Room A8
GPT 3	Parkinson's disease: Clinical Trials	Room A9
GPT 4	Rating scales and assessment tools	Room K21

Tuesday, June 10, 2014
12:30 – 14:00

GPT 5	Genetics	Room A7
GPT 6	Parkinson's disease: Behavioral disorders	Room A8
GPT 7	Parkinson's disease: Neuropharmacology	Room A9
GPT 8	Surgical Therapy: Movement disorders other than Parkinson's disease	Room K21

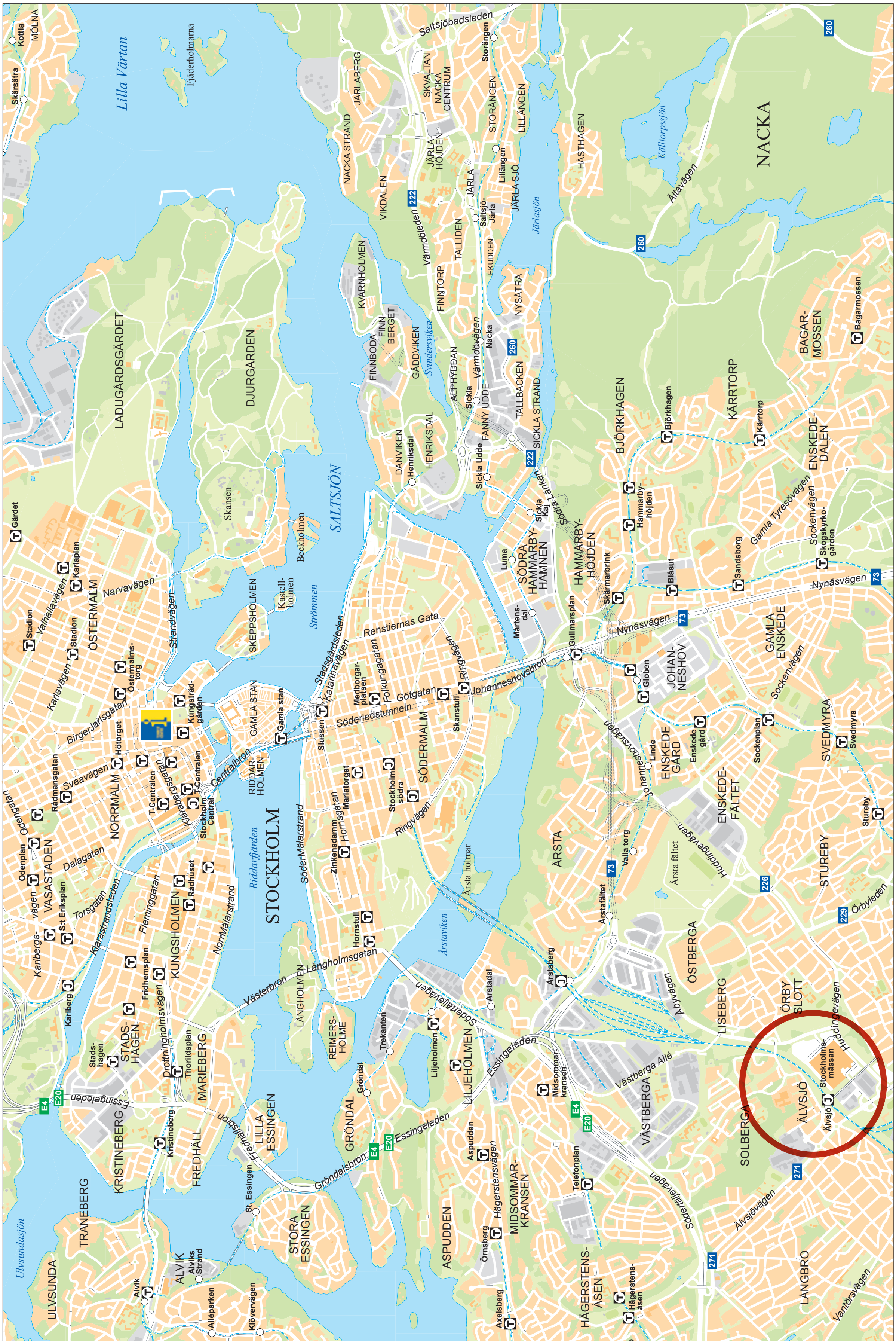
Wednesday, June 11, 2014
12:00 – 13:30

GPT 9	Basic Science	Room A7
GPT 10	Dystonia	Room A8
GPT 11	Parkinsonisms (secondary and parkinsonism-plus)	Room A9
GPT 12	Surgical Therapy: Parkinson's disease	Room K21

Thursday, June 12, 2014
12:00 – 13:30

GPT 13	Sleep disorders and RLS	Room A7
GPT 14	Parkinson's disease: Cognition	Room A8
GPT 15	Parkinson's disease: Phenomenology	Room A9
GPT 16	Tremor	Room K21

MAP OF STOCKHOLM



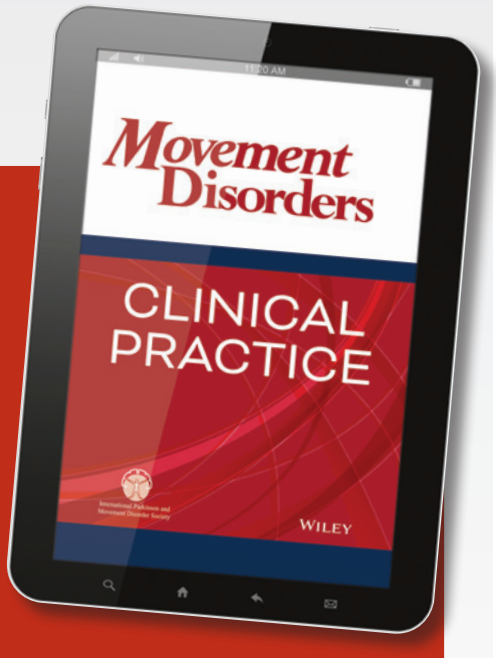
Now Available on the MDS Website!
Movement Disorders–Clinical Practice

EDITORS:

Kailash Bhatia
MDCP Eastern Hemisphere, Editor-in-Chief

Marcelo Merello
MDCP Western Hemisphere, Editor-in-Chief

International Parkinson and
Movement Disorder Society



Movement Disorders - Clinical Practice is an online journal committed to publishing high-quality, peer reviewed articles related to clinical aspects of movement disorders.

MDCP encourages the submission of multimedia material accompanying all types of articles.

Submit your articles at:
http://mc.manuscriptcentral.com/mdcp

MDS-0314-222

MDS AWARDS

Honorary Membership Awards

The Honorary Membership Awards recognize individuals who have made extraordinary contributions to the field of Movement Disorders or to the Society.

Sunday, June 8
Welcome Ceremony
19:30 to 21:30

Anthony Lang, OC, MD, FRCPC
Toronto, ON, Canada

William Weiner, MD
Baltimore, MD, USA

President's Distinguished Service Award

The President's Distinguished Service Award is given in recognition of long and distinguished service to the International Parkinson and Movement Disorder Society.

Sunday, June 8
Welcome Ceremony
19:30 to 21:30

Stanley Fahn Lecture

Wednesday, June 11 as part of 4101 Plenary Session IX: Presidential Lectures

The Stanley Fahn Award Lecture was created to recognize an outstanding scholar and role-model clinician in the field of Movement Disorders. The selected lecturer must show evidence of exceptional contributions which have resulted in better understanding of the cause, diagnosis, or treatment of Movement Disorders, and have translated into meaningful improvements in the standard of clinical practice. The selected lecturer must demonstrate evidence of consistent dedication to Movement Disorders education and research.

Shakes, Twists and Jerks: Can we diagnose them and treat them?
Stanley Fahn Lecturer – Joseph Jankovic, MD

Dr. Joseph Jankovic is Professor of Neurology and Distinguished Chair in Movement Disorders Director, Parkinson's Disease Center and Movement Disorders Clinic, Department of Neurology, Baylor College of Medicine, Houston, Texas, USA.

He completed residency in Neurology at the Neurological Institute, Columbia University, New York City, where he was selected as the Chief Resident and also obtained additional training in movement disorders with Stanley Fahn, MD. In 1977 he joined the faculty of Baylor College of Medicine and became the founder and director of the Parkinson's Disease Center and Movement Disorders Clinic, which has since been recognized as a "Center of Excellence" by the National Parkinson Foundation and the Huntington Disease Society of America. He was elected as the 3rd President of the International Parkinson and Movement Disorder Society (MDS), after Drs. Fahn and Marsden. He is an Honorary Member of the American Neurological Association, International Parkinson and Movement Disorder Society, Australian Association of Neurologists, European Federation of Neurological Societies, and the French Neurological Society. Dr. Jankovic is the recipient of many other honors including the American Academy of Neurology Movement Disorders Research Award, The First National Parkinson Foundation Distinguished Service Award, the Guthrie Family Humanitarian Award presented by the Huntington's Disease Society of America, the Tourette Syndrome Association Lifetime Achievement Award, and the Dystonia Medical Research Foundation Distinguished Service Award. Dr. Jankovic has published over 900 original articles and chapters, and edited or co-edited over 50 books and volumes. Since 1991, Dr. Jankovic has co-directed the annual course "*A Comprehensive Review of Movement Disorders*", in Aspen, Colorado, USA. He has been a member of many editorial boards including Neurology, *Movement* Disorders, Journal of Neurology Neurosurgery and Psychiatry, Journal of the Neurological Sciences, Neurology Medlink, and many other journals. He is a current or past member of many scientific and medical advisory boards of national foundations including the Dystonia Medical Research Foundation, International Essential Tremor Foundation, and the Tourette Syndrome Association, and has also served on the executive scientific advisory boards of the Michael J. Fox Foundation for Parkinson's Research and the National Parkinson Foundation Clinical and Scientific Advisory Board. Dr. Jankovic has mentored numerous fellows and other trainees many of whom have become leaders in the field of neurology and movement disorders.

MDS AWARDS

C. David Marsden Lecture

Wednesday, June 11 as part of 4101 Plenary Session IX: Presidential Lectureships

The C. David Marsden Lecture was created to recognize an outstanding scholar and inspiring neuroscientist in the field of Movement Disorders. The selected lecturer must show evidence of exceptional contributions which have resulted in better understanding of the neurobiology of Movement Disorders, and have translated into tangible improvements in clinical therapy and/or providing insight into normal brain function in the control of movement. The selected lecturer must demonstrate evidence of consistent dedication to Movement Disorder education and research.

Developing cell therapy for human neurodegenerative disease – a life-long journey
C. David Marsden Lecturer – Olle Lindvall, MD, PhD

Olle Lindvall received his PhD in 1974 and MD in 1978 from the University of Lund, Sweden, and has been affiliated with the school for more than 45 years. He became a specialist in neurology in 1982 and Professor and Senior Consultant in clinical neurology at Lund University Hospital in 1992. He served as Chairman of the Division of Neurology 1996-2012 and of the Department of Clinical Neuroscience 2001-2003, and was Vice Dean of the Medical Faculty, University of Lund, 1997-1999. In 2014, he was appointed Senior Professor of Neurology at the University of Lund.

In the 1970's, Lindvall developed a new, highly sensitive histofluorescence method for the visualization of catecholamine neurons, especially dopaminergic neurons, in the central nervous system. He applied this method to describe the anatomical organization of catecholamine systems in the forebrain of rodents and a non-human primate and discovered new dopaminergic projections to the frontal and cingulate cortices. He became interested in the plasticity of these neurons and their influence on cerebral blood flow in the diseased brain. From early 1980's Lindvall's clinical activities centered on patients with Parkinson's disease. He was leading the clinical cell transplantation program for Parkinson's patients at Lund University Hospital between 1983 and 2012. This program pioneered the use of neuronal replacement as a possible novel therapeutic strategy to restore function in the diseased human brain. Lindvall's research interests have focused on the use of cell and gene therapy for preservation and restoration of function in acute and chronic neurodegenerative diseases. His experimental laboratory has worked with neurotrophic factors, transplantation of stem cells and reprogrammed cells, and the formation of new nerve cells from the brain's own neural stem cells after various insults. During his career, Lindvall has put major efforts in translational research, i.e., to move findings from basic research to the clinic for application in patients.

Olle Lindvall has published around 500 articles, review articles and book chapters. He has served on several editorial boards and was Member of Board of Reviewing Editors for SCIENCE 2005-2011. He was Chairman of the Swedish Movement Disorder Society 1995-1998, and Member of the Board of the Swedish Research Council, Medical Division, 2001-2006. Since 2005, he has been a Member of the Scientific Advisory Board of the Michael J. Fox Foundation for Parkinson's Research. From 2007-2008, he Co-chaired the International Society for Stem Cell Research (ISSCR) Task Force for the Clinical Translation of Stem Cells, an international group of experts who developed the Guidelines for the Clinical Translation of Stem Cells.

Lindvall has received numerous prizes and awards. In 2008, he was elected Member of the Royal Swedish Academy of Sciences, and since 2010 he has been Chairman, Class for Medical Sciences, Royal Swedish Academy of Sciences. Lindvall was elected Foreign Member of the Georgian National Academy of Sciences in 2010.

MDS AWARDS

Junior Awards

Three Junior Awards recipients have been selected based on their significant contribution to research in the field of Movement Disorders.

Wednesday, June 11
4101: Plenary Session IX: Presidential Lectureships
Chairs: Matthew Stern, Oscar Gershanik, Günther Deuschl

Julia Muellner, MD
Bern, Switzerland

Dopaminergic deneveration severity depends on COMT Val158Met polymorphism in Parkinson's disease

Julia Muellner, MD[1], Iman Gharrad[1], Aurelie Kas[1], Jean-Baptiste Martini[1], Khadija Tahiri[1], Florence Cormier, MD[1], Niklaus Meier, MD[2], Michael Schuepbach, MD[2], Alexis Brice, MD, Professor, MD[1], Alain Mallet[1], Andreas Hartmann, MD[1], Marie-Odile Habert, MD[1] and Jean-Christophe Corvol, MD[1]. [1]Centre d'Investigation Clinique, Hôpital de la Pitié Salpêtrière, Paris, France and [2]Neurologie, Inselspital, University Hospital Bern, Bern, Switzerland.

Objective: To test the hypothesis of the association of genetically defined COMT-activity with severity of striatal denervation in patients with Parkinson's disease.

Background: COMT initiates dopamine degradation in the brain. Its activity depends on a single nucleotide polymorphism (Val158Met, rs4680) which separates high (Val/Val, or COMTHH), intermediate (Val/Met, or COMTHL) and low metabolizers (Met/Met, or COMTLL). COMT rs4680 has been shown to be associated with the age at onset of motor symptoms in Parkinson's disease (PD). Therefore, COMT activity may play a role as a compensating mechanism of dopaminergic denervation in PD.

Methods: 40 patients with idiopathic PD were included. Motor severity in OFF-state was assessed by the UPDRS III rating scale. SPECT imaging was performed in all subjects after injection of [123I]-FP-CIT. The binding potential (BP) for each voxel within the striatum was individually defined by the ratio of the tracer binding in the region of interest and a region of non-specific activity in the occipital cortex. The whole striatum, as well as the caudate nucleus, and the putamen were analyzed. The COMT (rs4680) SNP was genotyped using a TaqMan® SNP Genotyping assay. A linear regression model was used to evaluate the effect of the COMT genotype on striatal denervation ([123I]-FP-CIT BP), adjusted for UPDRS III score, age and sex.

Results: We found the following genotype distribution: 9 (23%) COMTHH, 25 (64%) COMTHL and 3 (7%) COMTLL. There was no significant difference in disease severity, treatments and motor scores between genotypes. When adjusted to clinical severity, sex and age, striatal BP significantly differed (p=0.014) between genotypes. Low (COMTLL) and intermediate (COMTHL) metabolizers showed a higher rate of denervation than high metabolizers (COMTHH). Similar results were found for the denervation in the caudate nucleus and the putamen. The analysis of the correlation between the striatum with the higher extent of denervation adjusted to contralateral clinical motor scores showed the highest significance for the COMT genotype effect on the denervation (p=0.006).

Conclusions: We showed striatal denervation is different according to the COMT Val158Met polymorphism, and therefore may play a role as a compensatory mechanism in the delay of PD motor symptoms.

Anhar Hassan, MD
Rochester, MN, USA

The profile of long-term Parkinson's disease survivors with 20 years disease duration and beyond

Anhar Hassan, MBBCh[1,2], Samuel S Wu, PhD[1], Peter Schmidt, PhD[3], Tanya Simuni, MD[4], Nir Giladi, MD[5], Janis M Miyasaki, MD[6], Bastiaan R Bloem, MD, PhD[7], Irene A Malaty, MD[1] and Michael S Okun, MD[1]. [1]University of Florida, Gainesville, FL, USA; [2]Mayo Clinic, Rochester, MN, USA; [3]National Parkinson Foundation, Miami, FL, USA; [4]Northwestern University Feinberg School of Medicine, Chicago, IL, USA; [5]Tel-Aviv University, Tel-Aviv, Israel; [6]University of Toronto, Toronto, ON, Canada and [7]Radboud University Nijmegen Medical Center, Nijmegen, Netherlands.

Objective: To describe the characteristics of PD-20 subjects.

Background: Parkinson's disease (PD) patients with 20 years or more survival (PD-20) are not well characterized. Examination of long-term survivors may identify favorable PD characteristics and improve health care delivery in this population.

Methods: The international multicenter National Parkinson's Foundation Quality Improvement Initiative study (NPF-QII) database was queried to identify PD-20 subjects. Demographic and clinical data were analyzed.

MDS AWARDS

Results: There were 187 PD-20 subjects (45% women) representing 4% (187/4619) of all NPF participants. Subjects were mean age 69.2 years, with mean age 44.0 years at PD onset, and median H&Y stage 3. The majority (89%) was living at home, and required a caregiver (88%). PD-20's were mildly cognitively impaired for age (MoCA estimate 22.6 +/- 3.7), with most deficits in verbal fluency and delayed recall. Ninety-eight percent were taking levodopa, 60% dopamine agonists, and 40% antidepressants. Cognitive enhancers (16%) and antipsychotics (14%) were less frequently used. Almost half (41%) had an ER visit or hospital admission in the last year. Quality of life (PDQ-39 index 36+/-15%) was mild-moderately impaired, with most impairment in mobility and ADLs. Caregiver strain measured by the Multidimensional Caregiver Strain Index (27+/-16%), recorded highest subscores in social constraint. PD-20 subjects below age 70 had better cognition than those above 70.

Conclusions: PD-20 subjects typically have early-onset PD with better than expected motor and cognitive disability. Further research may identify factors conferring long-term PD survival, improvements in quality of life and methods to reduce caregiver strain.

Samuel Shribman, MBBS, MA
London, United Kingdom

The distribution of α-synuclein in the enteric nervous system: An immunohistochemical study on colonic resections from 24 control and 4 Parkinson's disease patients

Samuel E Shribman, MBBS, MA[1], Alastair J Noyce, MBBS, BMedSci, MRCP[2,3], Joanne E Martin, MBBS, PhD, FRCPath[3], Gavin Giovannoni, MBBCh, PhD, FRCP[3] and Charles H Knowles, MBBChir, PhD, FRCS[1]. [1]National Centre for Bowel Research and Surgical Innovation, Barts and the London School of Medicine and Dentistry, London, United Kingdom; [2]Reta Lila Weston Institute of Neurological Studies, UCL Institute of Neurology, London, United Kingdom and [3]Blizard Institute of Cellular and Molecular Science, Barts and the London School of Medicine and Dentistry, London, United Kingdom.

Objective: (1) To optimise antibodies against α-synuclein (αS) and phosphorylated α-synuclein (pαS) in Parkinson's disease (PD) and control brains. (2) To determine the distribution of αS and pαS in the enteric nervous system. (3) To examine the density of Lewy pathology in enteric nervous system of PD patients.

Background: Lewy pathology occurs in the enteric nervous system (ENS) of PD patients. Recent studies have suggested that gastrointestinal biopsies taken during colonoscopy can be used as a tool in the diagnosis of PD by immunostaining for pαS. However, the description of pαS immunostaining in controls in previous studies is variable and few specifically aimed to characterise the distribution of αS and pαS in the healthy colon.

Methods: Antibodies against αS and pαS were optimised for a range of antigen retrieval methods and antibody dilutions using PD and control brains. Single cross-sections of sigmoid resections from 24 control patients, across a range of ages and both genders, were stained for αS and pαS. Sigmoid and ascending colon resections from 4 patients with PD were also examined. The pattern and grade of staining across each tissue layer was analysed and the presence of Lewy pathology was recorded.

Results: The degree of αS and pαS staining in PD brain varies significantly with different antigen retrieval methods. Lewy pathology was clearly demonstrated in PD but not control brain with an optimized antigen retrieval method. αS and pαS are widely distributed in a granular staining pattern in the ENS of the majority of control patients without any clear relationship to age or sex. A single Lewy neurite was found in the cross-sections from 4 colonic resections in PD patients.

Conclusions: The disparity between antigen retrieval methods employed in previous studies may explain the variable detection of αS and pαS in the ENS in previous studies. The presence of pαS staining in the majority of control patients and the paucity of Lewy pathology in PD patients has important implications for the role of colonoscopic biopsy as a biomarker.

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2014 Travel Grants

Hesham Abboud
Cleveland, OH, USA

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Ilesha, Nigeria

Marion Albares
Bron, France

Lorena Almeida
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Danny Bega
Chicago, IL, USA

Sonia Benítez-Rivero
Oxford, United Kingdom

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Tagzirt, Morocco

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Richard Fu
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Longueuil, PQ, Canada

Nawaz Hack
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Mallory Hacker
Nashville, TN, USA

Masa-aki Higuchi
Gainesville, FL, USA

Franziska Hopfner
Kiel, Germany

Vincent Jourdain
Quebec, PQ, Canada

Michaela Kaiserova
Olomouc, Czech Republic

Galina Kavaldjieva
Munich, Germany

Drew Kern
Toronto, ON, Canada

Meir Kestenbaum
New York, NY, USA

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Dhaka, Bangladesh

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Paris, France

Florian Krismer
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Pardeep Kumar
New Delhi, India

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Holguin, Cuba

Rachael Lawson
Newcastle upon Tyne, United Kingdom

David Lindenbach
Binghamton, NY, USA

Melanie Lising
San Francisco, CA, USA

Marian Livingston
Portland, OR, USA

Lan Luo
Houston, TX, USA

Antonella Macerollo
London, United Kingdom

Graziella Madeo
Rome, Italy

Daniel Martinez-Ramirez
Gainesville, FL, USA

Carine Maurer
Bethesda, MD, USA

María Merino
Buenos Aires, Argentina

Kelly Mills
San Francisco, CA, USA

Svjetlana Miocinovic
Dallas, TX, USA

Jitendriya Mishra
Chandigarh, India

Marcello Moccia
Naples, Italy

Jolynne Mokaya
Nairobi, Kenya

Eddic Morales-Sánchez
Guadalajara, Mexico

Adriana Moro
Curitiba, Brazil

Dimitrios Nacopoulos
Cleveland, OH, USA

Martin Nevrly
Olomouc, Czech Republic

Flavia Niccolini
London, United Kingdom

Srivadee Oravivattanakul
Cleveland, OH, USA

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Christiana Ossig
Dresden, Germany

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Valeria Sajin
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Ana Westenberger
Lübeck, Germany

Brenton Wright
New York, NY, USA

Jinglin Zhang
Beijing, China

MDS 18TH INTERNATIONAL CONGRESS SESSION DEFINITIONS

Blue Ribbon Highlights:

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 Symposia:

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.

Science and Technology Pavilion

The Science and Technology Pavilion will provide a less hurried, educational atmosphere in which physicians and healthcare professionals can enhance their knowledge of emerging technologies and optimal treatment techniques, and experience hands-on demonstrations of the latest technology in a private atmosphere. This is a non-CME opportunity.

Skills Workshops:

These clinic-based training sessions provide an educational illustration of clinical techniques and treatment procedures through demonstrations utilizing patient videos 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:

Emerging and Experimental Therapies

At each annual International Congress, the Congress Scientific Program Committee selects a theme that is highlighted throughout the meeting. This year's theme, "Emerging and Experimental Therapies" will be showcased in two Plenary Sessions, seven Parallel Sessions, one Skills Workshop, one Teaching Course, and two Video Sessions. International experts will serve as faculty, and the meeting participants can elect to attend any or all of the sessions. These sessions are designated with a .

2014 CONGRESS SCHEDULE-AT-A-GLANCE

	Saturday, June 7	Sunday, June 8	Monday, June 9	Tuesday, June 10	Wednesday, June 11	Thursday, June 12
7:00		Committee Meetings 7:00 - 8:00	Committee Meetings 7:00 - 8:00	Committee Meetings 7:00 - 8:00	Committee Meetings 7:00 - 8:00	Committee Meetings 7:00 - 8:00
7:30	MDS Parkinson's Disease Educational Course for Industry Professionals 7:30 - 16:00 (Radisson Blu Waterfront Hotel)					
8:00		Therapeutic Plenary Session I 8:00 - 10:00	Plenary Session V 8:00 - 10:00	Plenary Session VII 8:00 - 10:00	Plenary Session IX (Presidential Lectures) 8:00 - 10:00	Plenary Session XI 8:00 - 9:30
8:30						
9:00						
9:30						Break 9:30 - 10:00
10:00		Break 10:00 - 11:00 / Regional Assemblies 10:00 - 11:00	Break 10:00 - 10:30	Break 10:00 - 11:00 / MDS Business Meeting 10:00 - 11:00	Break 10:00 - 10:30	Controversies 10:00 - 11:00
10:30			Plenary Session VI 10:30 - 12:30		Plenary Session X 10:30 - 12:00	
11:00		Therapeutic Plenary Session II 11:00 - 13:00		Plenary Session VIII 11:00 - 12:30		Blue Ribbon Highlights 11:00- 12:00
11:30						
12:00					Guided Poster Tours/ Poster Sessions 12:00 - 13:30	Guided Poster Tours/ Poster Sessions 12:00 - 13:30
12:30			Guided Poster Tours/ Poster Sessions 12:30 - 14:00	Guided Poster Tours/ Poster Sessions 12:30 - 14:00		
13:00		Break 13:00 - 14:30				
13:30					Corporate Therapeutic Symposia 13:30 - 14:30	Corporate Therapeutic Symposia 13:30 - 14:30
14:00			Corporate Therapeutic Symposia 14:00 - 15:00	Corporate Therapeutic Symposia 14:00- 15:00		
14:30		Therapeutic Plenary Session III 14:30 - 16:30			Break 14:30 - 15:00	Break 14:30 - 15:00
15:00			Break 15:00 - 15:30	Break 15:00 - 15:30	Parallel Sessions/ Teaching Courses 15:00 - 17:00	Parallel Sessions/ Teaching Courses 15:00 - 17:00
15:30			Parallel Sessions/ Teaching Courses 15:30 - 17:30	Parallel Sessions/ Teaching Courses 15:30 - 17:30		
16:00						
16:30		Break 16:30 - 17:00				
17:00					Break 17:00 - 17:30	End
17:30		Therapeutic Plenary Session IV 17:00 - 19:00	Break 17:30 - 18:00	Break 17:30 - 18:00	Skills Workshops/ Video Sessions 17:30 - 19:00	
18:00			Skills Workshops/ Video Sessions 18:00 - 19:30	Skills Workshops / Video Sessions 18:00 - 19:30		
18:30						
19:00		Break 19:00 - 19:30			MDS Video Challenge 19:00 - 22:00	
19:30		Welcome Ceremony 19:30 - 21:30				
20:00						
20:30						
21:00						
21:30						
22:00						

Science and Technology Pavilion 10:00 - 17:00

Scan to learn more on our website!

SUNDAY, JUNE 8, 2014

1101 Therapeutic Plenary Session I

Early/Mid/Late parkinson journey
8:00 - 10:00
Location: Room A1

Chairs: Sten-Magnus Aquilonius
Uppsala, Sweden
Andrew Lees
London, United Kingdom

8:00 L-dopa - From idea to treatment: A historical review
Arvid Carlsson
Gothenburg, Sweden

8:40 Treatment strategies for early phases of Parkinson's disease
Heinz Reichmann
Dresden, Germany

9:20 Treatment strategies for advancing Parkinson's disease
Lars Timmermann
Cologne, Germany

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

1. Refer to the history behind the development of a dopaminergic therapy in Parkinson's disease
2. Describe treatment principles for early stage Parkinson's disease
3. Describe treatment principles for advancing Parkinson's disease

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

AOS General Assembly
10:00 – 11:00
Location: Room A9
All delegates from Asia and Oceania are encouraged to attend.

ES General Assembly
10:00 – 11:00
Location: Room A8
All delegates from Europe and North Africa are encouraged to attend.

PAS General Assembly
10:00 – 11:00
Location: Room A7
All delegates from Pan America are encouraged to attend.

1102 Therapeutic Plenary Session II

Treatment of dystonia
11:00 - 13:00
Location: Room A1

Chairs: Stanley Fahn
New York, NY, USA
Hyder Jinnah
Atlanta, GA, USA

11:00 Recognizing the many varied clinical manifestations of the dystonias
Hyder Jinnah
Atlanta, GA, USA

11:40 Medical treatment and non-surgical management options for the dystonias
Alfredo Berardelli
Rome, Italy

12:20 Surgical treatment options for the dystonias
Marwan Hariz
London, United Kingdom

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

1. Recognize the many varied clinical manifestations of the dystonias
2. Learn different strategies for use of medications and botulinum toxins for best treatment outcomes
3. Know the risks and benefits of various surgical options, including DBS, lesional approaches, denervation procedures and intrathecal baclofen

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

1103 Therapeutic Plenary Session III

Treatment of non-motor Parkinson's disease
14:30 - 16:30
Location: Room A1

Chairs: K. Ray Chaudhuri
London, United Kingdom
Susan Fox
Toronto, ON, Canada

14:30 The dopaminergic non-motor symptoms and evidence base for treatment
K. Ray Chaudhuri
London, United Kingdom

15:10 The non-dopaminergic non-motor symptoms of Parkinson's disease: Management strategies in a nutshell
Susan Fox
Toronto, ON, Canada

1103 Therapeutic Plenary Session III, cont.

15:50 Emerging animal models of non-motor symptoms
Peter Jenner
London, United Kingdom

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

1. Recognize the non-motor symptoms that are dopaminergic (in part or whole) in nature including non-motor fluctuations and address the current evidence base for the treatment of these symptoms base
2. Learn about the clinical pharmacological and non-pharmacological management strategies for non-motor symptoms of Parkinson's disease that arise from non-dopmaminergic involvement such as aspects of depression, dementia, sleep disorders and Dysautonomia
3. Become familiar with the ongoing work so to develop suitable animal models that may unravel the pathophysiology and help treatment of non-motor symptoms of Parkinson's disease

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

1104 Therapeutic Plenary Session IV

Treatment of tremor
17:00 - 19:00
Location: Room A1

Chairs: Günther Deuschl
Kiel, Germany
Louis Tan
Singapore

17:00 Medical therapy (including BoNT) of essential tremor: The essentials
Tiago Mestre
Toronto, ON, Canada

17:40 Invasive and experimental therapies of tremors: Last resort?
Jens Volkmann
Würzburg, Germany

18:20 Rare and unusual tremors: No reason to quit
Marie Vidailhet
Paris, France

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

1. Describe the evidence-based therapy of essential and Parkinson tremor
2. Summarize the limitations of medical treatment of the common tremors and describe the options for advanced therapies for common resting and postural/action tremors

SUNDAY, JUNE 8, 2014

1104 Therapeutic Plenary Session IV, cont.

3. Debate how to treat rare tremors and identify the diagnostic pearls to diagnose them and summarize the available therapeutic knowledge

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

Welcome Ceremony

19:30 – 21:30
Location: Room A1

MONDAY, JUNE 9, 2014

2101 Plenary Session V

Gene therapy for Parkinson's disease and movement disorders
8:00 - 10:00
Location: Room A1

Chairs: Jeffrey Kordower
Chicago, IL, USA
C. Warren Olanow
New York, NY, USA

8:00 Basic principles of gene therapy
Dawn Bowles
Durham, NC, USA

8:40 Tropic factor delivery with gene therapy
Jeffrey Kordower
Chicago, IL, USA

9:20 DA/DOPA delivery with gene therapy in Parkinson's disease
Tomas Björklund
Lund, Sweden

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

1. Understand the challenges of gene therapy, the procedures currently applied and the outcome of first studies
2. Discuss the current status of gene delivery of trophic factors
3. Identify the challenges and first strategies of DA/DOPA delivery with gene therapy

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

2102 Plenary Session VI

New insights into the pathology, progression and heterogeneity of Parkinson's disease
10:30 - 12:30
Location: Room A1

Chairs: Glenda Halliday
Randwick, NSW, Australia
Matthew Stern
Philadelphia, PA, USA

10:30 What do we now know about synuclein's role in Parkinson's disease pathology?
John Trojanowski
Philadelphia, PA, USA

11:10 How does pathology explain clinical phenotype?
Virginia Lee
Philadelphia, PA, USA

2102 Plenary Session VI, cont.

11:50 Extranigral pathology and preclinical detection
Charles Adler
Scottsdale, AZ, USA

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

1. Understand the role of synuclein in the pathogenesis of Parkinson's disease
2. Understand the relationship of pathological processes to clinical heterogeneity
3. Evaluate potential strategies for preclinical detection of Parkinson's disease

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

Guided Poster Tours

GPT 1: Huntington's disease
12:30 – 14:00
Location: Room A7

GPT 2: Lewy body dementia and other dementias in movement disorders
12:30 – 14:00
Location: Room A8

GPT 3: Parkinson's disease: Clinical Trials
12:30 – 14:00
Location: Room A9

GPT 4: Rating scales and assessment tools
12:30 – 14:00
Location: Room K21

Poster Session 1

12:30 – 14:00
Abstract numbers 1 – 392
Location: Exhibition Hall B
Poster viewing: 9:00 – 18:00

Corporate Therapeutic Symposia

14:00 – 15:00
Please see pages 134-135 for more information.

MONDAY, JUNE 9, 2014

2203 Parallel Session TICKET

Dyskinesias associated with old and new therapies for Parkinson's disease
15:30 - 17:30
Location: Room A4/A5

Chairs: M. Angela Cenci
Lund, Sweden
Olivier Rascol
Toulouse, France

15:30 Dyskinesias as a manifestation of maladaptive striatal plasticity
M. Angela Cenci
Lund, Sweden

16:10 The serotonin system in human L-dopa-induced and graft-induced dyskinesias: The state of the art
Paola Piccini
London, United Kingdom

16:50 Functional brain networks in Parkinson's dyskinesias
Andrea Kühn
Berlin, Germany

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

1. Review recent experimental literature on the pathophysiological adaptations of striatal neurons in treatment-induced dyskinesias
2. Describe recent findings on the serotonin system in L-DOPA-induced and graft-induced dyskinesias
3. List network-levels changes associated with treatment-induced dyskinesias

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

2204 Parallel Session TICKET

Improving clinical translation of cell therapy for movement disorders
15:30 - 17:30
Location: Room K21

Chairs: Erwan Bezard
Bordeaux, France
Hakan Widner
Lund, Sweden

15:30 Experiences from the Transeuro multicenter clinical transplantation trial with fetal cells in Parkinson's disease
Hakan Widner
Lund, Sweden

16:10 Cell transplantation beyond Parkinson's disease: Experiences from the MSA trial
Young Sohn
Seoul, Korea

2204 Parallel Session TICKET, cont.

16:50 Cell transplantation in Huntington's disease
Anne-Catherine Bachoud-Levi
Creteil, France

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

1. Understand the specifics of cell transplant trials (whatever the cell source)
2. Consider MSA as proof-of-concept disease for future Parkinson application
3. Understand the progress of cell transplant trial in Huntington's disease

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

2205 Parallel Session TICKET

Gait disturbance in Parkinson's disease: A postural control or locomotor defect?
15:30 - 17:30
Location: Room K1/K2

Chairs: Alice Nieuwboer
Heverlee, Belgium
Lynn Rochester
Newcastle upon Tyne, United Kingdom

15:30 Neural mechanisms of locomotion and posture control
Colum MacKinnon
Minneapolis, MN, USA

16:10 Capturing discrete features of gait, postural control and their coupling in Parkinson's disease
Jeffrey Hausdorff
Tel Aviv, Israel

16:50 Novel therapeutic approaches to gait training
Alice Nieuwboer
Heverlee, Belgium

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

1. Understand the underlying mechanisms of locomotor and postural control, their coupling during gait and their contribution to gait disturbance in Parkinson's disease
2. Identify novel methods to characterize and capture selective features of gait that describe complex locomotor and postural control deficits, the relationship between the two, and the evidence for this in Parkinson's disease and their translation to the clinic

2205 Parallel Session TICKET, cont.

3. Provide an overview of contemporary approaches that aim to address complex gait deficits; particularly locomotor and postural control coupling, when they emerge and the timing of intervention in Parkinson's disease

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

2206 Parallel Session TICKET

What's new in PSP?
15:30 - 17:30
Location: Room A2/A3

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

15:30 Etiopathogenesis of PSP: Genetics
Günter Höglinger
Munich, Germany

16:10 Etiopathogenesis of PSP: Occupation and environment
Irene Litvan
La Jolla, CA, USA

16:50 Treatment of PSP and other tauopathies
Maria Stamelou
Athens, Greece

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

1. Recall the most recent advances in the potential role of genetics in the risk for PSP
2. Understand the most recent advances in the potential role of environmental and occupational factors in the etiopathogenesis of PSP
3. Explain the most recent advances in the treatment of PSP and other tauopathies

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

2207 Parallel Session TICKET

Management of multiple system atrophy: An update
15:30 - 17:30
Location: Room A9

Chairs: Carlo Colosimo
Rome, Italy
Björn Holmberg
Gothenburg, Sweden

15:30 How to diagnose MSA early
Pietro Cortelli
Bologna, Italy

16:10 New developments in the genetics of MSA
Shoji Tsuji
Tokyo, Japan

MONDAY, JUNE 9, 2014

2207 Parallel Session TICKET, cont.

16:50 Treatment of MSA: State of the art
François Tison
Pessac, France

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

1. Understand the latest developments in the diagnosis and pathogenesis of MSA
2. Learn the recent developments in the genetics and pathogenesis of MSA
3. Provide an update on the progress of symptomatic and disease-modifying interventions in the context of MSA

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

2208 Parallel Session TICKET

Late-breaking clinical and scientific topics relevant to Movement Disorders
15:30 - 17:30
Location: Victoria Hall

Chairs: Günther Deuschl
Kiel, Germany
José Obeso
Pamplona, Spain

Discussion Panel:
David John Burn
Newcastle upon Tyne, United Kingdom
Hyder Jinnah
Atlanta, GA, USA
Timothy Lynch
Dublin, Ireland
D. James Surmeier
Chicago, IL, USA
Ryosuke Takahashi
Kyoto, Japan

Presentations:

Recent advances in understanding the role of PD-related genes: LRRK2, PINK-1 and Parkin
Ryosuke Takahashi
Kyoto, Japan

Latest studies on disease modification
Karl Kieburtz
Rochester, NY, USA

Diabetes drugs for the treatment of neurodegenerative disease: Background and prospects
Roger Barker
Cambridge, United Kingdom

2208 Parallel Session TICKET, cont.

Novel technologies to dissect the role of circuits and cells in animal models of Movement Disorders
D. James Surmeier
Chicago, IL, USA

Adaptive deep brain stimulation
Alberto Priori
Milan, Italy

Focused ultrasound as a new treatment of movement disorders?
José Obeso
Pamplona, Spain

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

1. Understand and appreciate the latest clinical and scientific discoveries that are relevant to movement disorders
2. Understand the role of new clinical discoveries for basic science
3. Understand the role of new basic science discoveries for clinical progress

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

2309 Teaching Course TICKET

Non-dopaminergic symptomatic medications for the management of Parkinson's disease
15:30 - 17:30
Location: Room A8

Chairs: Susan Fox
Toronto, ON, Canada
Kjell Fuxe
Stockholm, Sweden

15:30 Glutamatergic medications
Paolo Calabresi
Rome, Italy

16:10 Mono-aminergic medications
Per Svenningsson
Stockholm, Sweden

16:50 Cholinergic medications
Antonio Pisani
Rome, Italy

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

1. Understand the basic pharmacological mechanisms of glutamate transmission relevant to Parkinson's disease and the rationale for glutamate antagonists in the treatment of dyskinesia in Parkinson's disease
2. Understand the pathophysiology of noradrenergic and serotonergic transmission in Parkinson's disease and the clinical evidence supporting the use of already marketed drugs (e.g., beta-blockers, antidepressants, L-DOPA, alpha 1 agonists (midodrine), methylphenidate)

2309 Teaching Course TICKET, cont.

3. Understand the pathophysiology of cholinergic transmission relevant to Parkinson's disease and the rationale for drugs such as anticholinergics, nicotinic agents and cholinesterase inhibitors in the management of motor and non-motor symptoms in Parkinson's disease

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

2310 Teaching Course TICKET

Dystonia: A practical approach to diagnosis, measurement and management
15:30 - 17:30
Location: Room A7

Chairs: Cynthia Comella
Chicago, IL, USA
Marina De Koning-Tijssen
Groningen, Netherlands

15:30 Diagnosis and pathogenesis of dystonia
William Dauer
Ann Arbor, MI, USA

16:10 How to rate dystonia
Cynthia Comella
Chicago, IL, USA

16:50 Current medical and surgical treatments for dystonia
Elena Moro
Grenoble, France

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

1. Discuss the clinical diagnosis and pathogenesis of dystonia
2. Appreciate the usefulness of the rating scales for dystonia
3. Summarize current medical and surgical therapies for dystonia and their applications

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

MONDAY, JUNE 9, 2014

2411 Skills Workshop TICKET

How to avoid stem cell tourism and misuse of cell and gene therapies
18:00 - 19:30
Location: Room K21

In this interactive session, the faculty will review and debate the risks and misuse of stem cell and gene therapies. The participants will learn an approach of how to educate patients about the risks of uncontrolled use of stem cells and gene therapies.

Ann Marie Janson Lang
Stockholm, Sweden

Wolfgang Oertel
Marburg, Germany

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

1. Understand the potential risks of misuse of stem cell and gene therapies
2. Advise and educate patients on the risks of uncontrolled stem cell and gene therapies
3. Advocate on behalf of patients with regard to misuse of cell and gene therapies

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

2412 Skills Workshop TICKET

Movement disorders emergencies
18:00 - 19:30
Location: Room K1/K2

In this interactive session, the faculty will discuss methods to improve participants' ability to recognize true movement disorders emergencies and develop strategies for their management.

Steven Frucht
New York, NY, USA

Jill Ostrem
Greenbrae, CA, USA

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

1. Recognize the typical presentation and clinical characteristics of several movement disorders emergencies
2. Develop management strategies for several movement disorders emergencies
3. Identify and learn to manage acute or severe complications related to Parkinson's disease and its therapy, including Deep Brain Stimulation therapy

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

2413 Skills Workshop TICKET

How to approach and manage patients with movement disorders and disturbances of sleep wakefulness
18:00 - 19:30
Location: Room A7

In this interactive session, participants will be better able to recognize the mechanisms, the diagnostic work-up and management of disturbances of sleep wakefulness in Parkinson's disease and atypical parkinsonism as well as other movement disorders including drug-related movement disorders during sleep.

Birgit Frauscher
Innsbruck, Austria

Rosalia Silvestri
Messina, Italy

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

1. Identify and manage disturbances of sleep wakefulness in Parkinson's disease and atypical parkinsonism
2. Identify and manage disturbances of sleep wakefulness in hyperkinetic movement disorders including drug-related movement disorders during sleep
3. Explain the mechanisms, the diagnostic workup and management of disturbances of sleep wakefulness in movement disorders

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

2414 Skills Workshop TICKET

Exercise therapy in movement disorders
18:00 - 19:30
Location: Room A2/A3

In this interactive session, participants will be better able to understand how to select the most appropriate type of exercise for their patient depending upon their needs and understand key features relating to compliance. The faculty will identify different types of exercise, the rationale and benefits of each type and key features that impact maintaining an active lifestyle. Participants will learn how to apply those principles in their clinical practice.

Terry Ellis
Boston, MA, USA

Margaret Mak
Hong Kong

2414 Skills Workshop TICKET, cont.

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

1. Understand different types of exercise and their benefits in Parkinson's disease
2. Select appropriate type of exercise in Parkinson's disease depending upon aim of therapy
3. Identify key barriers and facilitators for exercise in patients with movement disorders

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

2515 Video Session TICKET

Unusual presentations of common movement disorders
18:00 - 19:30
Location: Victoria Hall

In this interactive session, the faculty will present videos of unusual presentations of common hyperkinetic and hypokinetic movement disorders and provide an approach of how to localize where the causative lesion is and what the lesion might be (differential diagnosis), and appropriate investigations and treatment will be discussed. Audience participation is strongly encouraged.

Timothy Counihan
Galway, Ireland

Barry Snow
Auckland, New Zealand

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

1. Recognize and appreciate the broad variable clinical phenotype of common movement disorders
2. Localize where the "lesion" is in these unusual presentations
3. Identify what the "lesion" might be by generating a reasonable differential diagnosis

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

MONDAY, JUNE 9, 2014

2516 Video Session TICKET

Drug-induced movement disorders

18:00 - 19:30

Location: Room A8

In this interactive session, participants will be better able to recognize the phenomenology of drug-induced movement disorders and identify the different forms of acute, subacute, and tardive or chronic syndromes induced by drugs.

Mohit Bhatt
Mumbai, India

Stewart Factor
Atlanta, GA, USA

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

1. Describe the movement disorders associated with the use of drugs, from psychotropics to non psychotropics
2. Distinguish the acute, subacute and tardive or chronic drug-induced movement disorders, including acute dystonia, akathisia, parkinsonism, and tardive dyskinesia in all its variants
3. Identify clues leading to the suspicion of drug-induced movement disorders

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

2517 Video Session TICKET

Update on spastic paraplegias and spastic ataxias

18:00 - 19:30

Location: Room A9

In this interactive session, the faculty will review the clinical and genetic aspects of hereditary spastic paraplegia and the spastic ataxias.

Alexandra Durr
Paris, France

Bart Van De Warrenburg
Nijmegen, Netherlands

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

1. Understand the rapidly expanding spectrum of hereditary spastic paraplegia genes, the corresponding clinical phenotypes, and the genetic testing strategies
2. Recognize spastic ataxia as a distinctive clinical entity and to learn that this has a rather limited differential diagnosis
3. Know that the presence of spasticity can sometimes be an important clue towards the underlying diagnosis in patients with movement disorders

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

2518 Video Session TICKET

Ataxia: Familial and sporadic

18:00 - 19:30

Location: Room A4/A5

In this interactive session, the faculty will present videos of both genetic and sporadic ataxias and discuss the clues to recognize and differentiate between the different causes of ataxia.

Mathieu Anheim
Strasbourg, France

Alessandro Filla
Naples, Italy

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

1. Use the heterogeneity of movement disorders for the diagnosis of inherited ataxias
2. Identify a clinical approach for the diagnosis of both inherited and acquired ataxias
3. Learn the (new) genetic causes of ataxia

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

TUESDAY, JUNE 10, 2014

3101 Plenary Session VII

Cell therapy for Parkinson's disease
8:00 - 10:00
Location: Room A1

Chairs: Anders Björklund
Lund, Sweden
Olle Lindvall
Lund, Sweden

8:00 Lessons learned from open-label cell transplantation studies
Roger Barker
Cambridge, United Kingdom

8:40 Reflections on sham-controlled clinical trials using fetal cell: Fifteen years later
Stanley Fahn
New York, NY, USA

9:20 Prospects of using stem cell-derived cells for clinical transplantation
Olle Lindvall
Lund, Sweden

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

1. Identify the different types of cell therapy available for Parkinson's disease research in progress and the future
2. Identify the current state and future of transplantation therapy in Parkinson's disease
3. Identify the effectiveness of transplants and avoid side effects and investigate how Parkinson's disease interacts with transplantation

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

MDS Business Meeting

10:00 – 11:00
Location: Room K21
Open to all delegates

Science and Technology Pavilion

10:00 – 17:00
Please see page 135 for more information.

3102 Plenary Session VIII

Key learnings from recent movement disorders clinical trials
11:00 - 12:30
Location: Room A1

Chairs: Joaquim Ferreira
Lisbon, Portugal
Christopher Goetz
Chicago, IL, USA

3102 Plenary Session VIII, cont.

11:00 Recent clinical trials on Parkinson's disease
Christopher Goetz
Chicago, IL, USA

11:30 Recent clinical trials on other movement disorders
Werner Poewe
Innsbruck, Austria

12:00 What to expect from ongoing clinical trials: Current challenges and methodological issues
Joaquim Ferreira
Lisbon, Portugal

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

1. Review recent advances in the therapy of Parkinson's disease
2. Provide an update on the progress of therapeutic interventions for other movement disorders
3. Provide an overview of the current challenges for the design and conduction of clinical trials in movement disorders

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

Guided Poster Tours

GPT 5: Genetics
12:30 – 14:00
Location: Room A7

GPT 6: Parkinson's disease: Behavioral disorders
12:30 – 14:00
Location: Room A8

GPT 7: Parkinson's disease: Neuropharmacology
12:30 – 14:00
Location: Room A9

GPT 8: Surgical Therapy: Movement disorders other than Parkinson's disease
12:30 – 14:00
Location: Room K21

Poster Session 2

12:30 – 14:00
Abstract numbers 393 – 782
Location: Exhibition Hall B
Poster viewing: 9:00 – 18:00

Corporate Therapeutic Symposia

14:00 – 15:00
Please see pages 134-135 for more information.

3203 Parallel Session TICKET

Continuous dopaminergic stimulation (CDS)-based therapies for Parkinson's disease
15:30 - 17:30
Location: Room A4/A5

Chairs: Erik Danielsen
Aarhus, Denmark
Tove Henriksen
Copenhagen, Denmark

15:30 CDS in Parkinson's disease: When do we need to start?
Santiago Perez Lloret
Buenos Aires, Argentina

16:10 New ways of delivering oral and non-infusional CDS
Per Odin
Bremerhaven, Germany

16:50 Dopaminergic infusion therapies
Dag Nyholm
Uppsala, Sweden

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

1. Understand what we have learned from animal and human studies about how the continuous dopaminergic stimulation might influence motor fluctuations in early versus late Parkinson's disease
2. Learn and appreciate the rationale for established and in-development oral and transdermal methods for CDS via strategies utilizing continuous drug delivery outlining effect on motor, non-motor symptoms and quality of life in Parkinson's disease
3. Learn and understand the effects of dopaminergic treatments delivered by infusion (subcutaneous, intra-jejunal, intravenous) on motor and non-motor symptoms and quality of life in Parkinson's disease

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

3204 Parallel Session TICKET

Development and maintenance of the nigrostriatal dopamine pathway: Novel insights and therapeutic targets
15:30 - 17:30
Location: Room A9

Chairs: Ernest Arenas
Stockholm, Sweden
Thomas Perlmann
Stockholm, Sweden

15:30 Genetic factors governing the neuronal dopaminergic phenotype
Ernest Arenas
Stockholm, Sweden

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3204 Parallel Session TICKET, cont.

16:10 Nurr-1 role in the development and maintenance of dopamine neurons and Parkinson's disease treatment
Anders Björklund
Lund, Sweden

16:50 The role of trophic factors in the maintenance of nigrostriatal neurons and Parkinson's disease treatment
Krystof Bankiewicz
San Francisco, CA, USA

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

1. Understand how dopamine neurons differentiate, and how this process can be controlled in the lab
2. Learn how Nurr-1 modulates the development and maintenance of DA neurons and recognize its role as a therapeutic option for Parkinson's disease
3. Identify the role of GDNF and BDNF in the maintenance of nigrostriatal neurons and their role as Parkinson's disease therapeutic options

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

3205 Parallel Session TICKET

Management of the gastrointestinal system in movement disorders
15:30 - 17:30
Location: Room K21

Chairs: Nicholas Miller
Newcastle upon Tyne, United Kingdom
Robert Rodnitzky
Iowa City, IA, USA

15:30 Diagnosis and management of dysphagia in Parkinson's disease
Nicholas Miller
Newcastle upon Tyne, United Kingdom

16:10 Contribution of diet to motor fluctuations in Parkinson's disease and strategies for management
Alison Leake
Surrey, United Kingdom

16:50 Medical management of gastrointestinal disturbance and motor fluctuations in Parkinson's disease
Sarah Marrinan
Newcastle upon Tyne, United Kingdom

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

1. Identify procedures to effectively diagnose and manage dysphagia in Parkinson's disease and the role of the speech and language therapist in this process

3205 Parallel Session TICKET, cont.

2. Describe the impact of diet on motor fluctuations in Parkinson's disease and identify management strategies and the role of the dietician in this process
3. Understand the medical management of gastrointestinal disturbance to minimize motor fluctuations

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

3206 Parallel Session TICKET

Movement Disorders Grand Rounds
15:30 - 17:30
Location: Victoria Hall

In this interactive session, volunteer patients with a known complex move¬ment disorder will be in attendance. The patients, their history and clinical findings (including video of the movement disorder) will be presented to one of the four movement disorder "experts." The expert will review the history with the patient and highlight and demonstrate the neurological signs to the audience . The expert's job is to generate a differential diagnosis and manage¬ment plan which can be critiqued by his/her fellow experts, the audience and the chairs. The session will show how a movement disorders expert takes a clinical history and performs a movement disorders examin ation of a patient to generate a diagnosis and a management plan. The faculty will discuss and debate the differential diagnosis. Audience participation and critique is encouraged. The final diagnosis and learning point will be presented after the expert and audience discussion is finished.

Chairs: Martin Paucar Arce
Stockholm, Sweden
Per Svenningsson
Stockholm, Sweden

Experts:
Bastiaan Bloem
Nijmegen, Netherlands
David John Burn
Newcastle upon Tyne, United Kingdom
Beom Jeon
Seoul, Korea
Claudia Trenkwalder
Kassel, Germany

3206 Parallel Session TICKET, cont.

Presenters from Stockholm, Sweden:
Stansislav Beniaminov
Lovisa Brodin
Jan Weinberg

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

1. Describe how to characterize the dominating motor disturbance when diagnosing movement disorders
2. Describe the use of other diagnostic methods in the differential diagnosis of movement disorders
3. Describe how to combine clinical picture and the results of apparative investigations to reach a preliminary diagnosis

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

3207 Parallel Session TICKET

An update on Huntington's disease: From pathophysiology to new treatments
15:30 - 17:30
Location: Room K1/K2

Chairs: Joaquim Ferreira
Lisbon, Portugal
Sarah Tabrizi
London, United Kingdom

15:30 Understanding the neurodegenerative processes in Huntington's disease to develop novel therapeutics
Ignacio Munoz-Sanjuan
Los Angeles, CA, USA

16:10 Biomarkers and outcomes for clinical trials in Huntington's disease
Sarah Tabrizi
London, United Kingdom

16:50 Update on disease modifying and symptomatic treatments
Bernhard Landwehrmeyer
Ulm, Germany

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

1. Assess the contribution of preclinical research to understand pathophysiology and to study new treatment strategies in Huntington's disease
2. Discuss biomarkers and outcomes of clinical trials in Huntington's disease
3. Describe current achievements in and future options for the treatment of Huntington's disease

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

TUESDAY, JUNE 10, 2014

3208 Parallel Session TICKET

Update on protein pathology and protein propagation in neurodegenerative diseases
15:30 - 17:30
Location: Room A2/A3

Chairs: Espen Dietrichs
Oslo, Norway
Glenda Halliday
Randwick, NSW, Australia

15:30 Proteinopathies causing movement disorders and their clinical relevance
Glenda Halliday
Randwick, NSW, Australia

16:10 Do proteinopathies spread in the brain?
Miquel Vila
Barcelona, Spain

16:50 The latest in targeting treatments to proteinopathies
Eliezer Masliah
La Jolla, CA, USA

At the conclusion of this session, participants should be better able to:
1. Understand what human pathological investigations tell us about neurodegenerative diseases and the significance of proteinopathies to clinical deficit
2. Understand the experimental evidence supporting the concept that proteins can be transferred from cell to cell propogating disease and that this mechanism is relevant in movement disorders
3. Identify therapeutic developments for proteinopathies

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

3309 Teaching Course TICKET

Movement disorders and internal medicine
15:30 - 17:30
Location: Room A7

Chairs: Tim Anderson
Christchurch, New Zealand
Roongroj Bhidayasiri
Bangkok, Thailand

15:30 Infections and movement disorders
Roongroj Bhidayasiri
Bangkok, Thailand

16:10 Endocrine-metabolic disorders and movement disorders
Yih-Ru Wu
Taipei, Taiwan

16:50 Cardiovascular diseases and movement disorders
Vladimir Kostić
Belgrade, Serbia

3309 Teaching Course TICKET, cont.

At the conclusion of this session, participants should be better able to:
1. List the movement disorders associated with infections, endocrine-metabolic-disorders and cardiovascular diseases
2. Discuss the clinical features and diagnosis of movement disorders associated with infections, endocrine-metabolic-disorders and cardiovascular diseases
3. Manage the movement disorders associated with infections, endocrine-metabolic-disorders and cardiovascular diseases

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

3310 Teaching Course TICKET

Addiction and withdrawal of dopamine replacement therapy for Parkinson's disease
15:30 - 17:30
Location: Room A8

Chairs: Oscar Gershanik
Buenos Aires, Argentina
Sean O'Sullivan
Cork, Ireland

15:30 Role of dopaminergic systems in reward mechanisms
Daniel Weintraub
Ardmore, PA, USA

16:10 Dopamine dysregulation syndrome
Sean O'Sullivan
Cork, Ireland

16:50 Dopamine agonist withdrawal syndrome
Melissa Nirenberg
New York, NY, USA

At the conclusion of this session, participants should be better able to:
1. Understand the biological mechanisms leading to dopamine dysregulation syndrome including behavioral addictions, impulse control disorders and addiction to L-dopa
2. Recognize and manage addictive and impulsive behaviors associated with the use of dopaminergic drugs in the treatment of Parkinson's disease
3. Describe risk factors, clinical features and management of dopamine agonist withdrawal syndrome

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

3411 Skills Workshop TICKET

How to design clinical trials in hypo/hyperkinetic movement disorders (focus on Parkinson's disease and Huntington's disease)
18:00 - 19:30
Location: Room K1/K2

In this interactive session, participants will be better able to recognize clinical trial design options, outcome measurements and reasons for trial failure in Parkinson's disease and Huntington's disease trials.

Karl Kieburtz
Rochester, NY, USA
Cristina Sampaio
Princeton, NJ, USA

At the conclusion of this session, participants should be better able to:
1. Discuss clinical trial design options (traditional and novel trial designs) in Parkinson's disease and Huntington's disease trials
2. Discuss outcome measurements and the placebo effect in Parkinson's disease and Huntington's disease trials
3. Discuss reasons for trial failure in Parkinson's disease and Huntington's disease trials

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

3412 Skills Workshop TICKET

Update on bladder and sexual dysfunction in parkinsonian disorders
18:00 - 19:30
Location: Room A7

In this interactive session, participants will learn how to investigate and treat bladder and sexual dysfunction in patients with parkinsonian disorders.

Karl-Erik Andersson
Winston-Salem, NC, USA
Gila Bronner
Ramat-Gan, Israel

At the conclusion of this session, participants should be better able to:
1. Understand the pathophysiological basis for bladder and sexual dysfunction in patients with parkinsonian disorders
2. Understand how to investigate and manage bladder and sexual dysfunction in patients with parkinsonian disorders
3. Familiarize with newer treatment options for managing bladder and sexual dysfunction in parkinsonian disorders

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

TUESDAY, JUNE 10, 2014

3413 Skills Workshop TICKET

Tips and tricks for botulinum neurotoxin treatment
18:00 - 19:30
Location: Room A2/A3

In this interactive session, the faculty will highlight the different therapeutic botulinum toxin preparations. Also, meaningful clinical outcomes hinged on the balance of efficacy and side effect profiles will be discussed.

A. Peter Moore
Liverpool, United Kingdom

Raymond Rosales
Manila, Philippines

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

1. Describe which among the pharmacological profiles of botulinum neurotoxin is best relevant in clinical practice
2. Delineate which botulinum neurotoxin treatment efficacy parameter and side effect profile will translate to meaningful clinical outcomes
3. Describe how electromyography and ultrasound can be useful in the clinics in regard to when it should be applied, which conditions and whom are the patients best to benefit

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

3414 Skills Workshop TICKET

Treatments of Tourette syndrome
18:00 - 19:30
Location: Room A8

In this interactive session, participants will be able to describe the clinical features of Tourette syndrome, and describe medical and DBS treatment for Tourette syndrome.

Davide Martino
London, United Kingdom

Tamara Pringsheim
Calgary, AB, Canada

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

1. Describe clinical features of Tourette syndrome
2. Understand future directions of pharmacological approaches
3. Understand the risk/benefit and limits for non-pharmacological approaches

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

3515 Video Session TICKET

Examples of video-documented outcomes of cell and gene therapy
18:00 - 19:30
Location: Room A9

In this interactive session, the faculty will highlight the benefits and risks of gene therapy and cell therapies in neurodegenerative disorders and movement disorders. Audience participation is encouraged.

Peter LeWitt
West Bloomfield, MI, USA

Niall Quinn
London, United Kingdom

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

1. Understand and appreciate the potential clinical benefits and pitfalls of gene therapy in movement disorders
2. Appreciate the clinical potential of the cell therapies
3. Appreciate the potential benefits and hazards of gene and cell therapies in neurodegenerative disease and movement disorders

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

3516 Video Session TICKET

Diagnosis and treatment of psychogenic movement disorders
18:00 - 19:30
Location: Victoria Hall

In this interactive session, based on video presentations, participants will learn to identify and uncover clinical and behavioral features of movement disorders that suggest a psychogenic origin.

Kailash Bhatia
London, United Kingdom

Alberto Espay
Cincinnati, OH, USA

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

1. Appreciate the clinical characteristics of hyperkinetic psychogenic movement disorders
2. Recognize the clinical signs of psychogenic parkinsonism and other hypokinetic psychogenic movement disorders
3. Understand common social, medical, and legal circumstances associated with the appearance of psychogenic movement disorders

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

3517 Video Session TICKET

Ten golden tips on how to better diagnose unusual movement disorders
18:00 - 19:30
Location: Room A1

In this interactive session, participants will be better able to understand the diagnostic work-up of patients presenting with an unusual movement disorder, and recognize a series of "tips and tricks" used by experts in movement disorders in their own clinical work-up of patients with unusual movement disorders.

Marina De Koning-Tijssen
Groningen, Netherlands

Daniel Healy
Dublin, Ireland

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

1. Understand that the diagnostic work-up of any unusual movement disorders starts with a proper clinical description of the phenotype, including the dominant movement disorder, any additional movement disorders and the accompanying signs
2. Appreciate the broad spectrum and complexity of unusual movement disorders
3. Recognize several "tips and tricks" used by experts in movement disorders in their own clinical work-up of patients with unusual movement disorders

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

TUESDAY, JUNE 10, 2014

3518 Video Session TICKET

Wilson's disease and other "heavy metal" basal ganglia disorders
18:00 - 19:30
Location: Room A4/A5

In this interactive session, participants will be better able to diagnose, understand and treat Wilson's disease and manganese related basal ganglia disorders. They will be able to recognize the "red flags" that suggest heavy metal basal ganglia disorders. Audience participation is encouraged.

Ronald Pfeiffer
Memphis, TN, USA

Pille Taba
Tartu, Estonia

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

1. Understand the underlying and pathophysiology mechanisms of heavy metal basal ganglia disorders
2. Recognize the "red flags" leading to the diagnosis of these conditions and appreciate the strength and limitations of the respective diagnostic tests
3. Understand the different pharmacological and non-pharmacological treatment options for these conditions, appreciating both the advantages and disadvantages of the currently available medication

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

WEDNESDAY, JUNE 11, 2014

4101 Plenary Session IX

Presidential Lectures
8:00 - 10:00
Location: Room A1

Chairs: Matthew Stern
Philadelphia, PA, USA
Oscar Gershanik
Buenos Aires, Argentina
Günther Deuschl
Keil, Germany

8:00 Stanley Fahn Lecture:
Shakes, Twists and Jerks: Can we diagnose them and treat them?
Joseph Jankovic
Houston, TX, USA

8:30 Junior Award Lectures:
Julia Muellner
Bern, Switzerland
Anhar Hassan
Rochester, MN, USA
Samuel Shribman
London, United Kingdom

9:30 C. David Marsden Lecture:
Developing cell therapy for human neurodegenerative disease — A life-long journey
Olle Lindvall
Lund, Sweden

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

4102 Plenary Session X

Advances in movement disorders in children and adolescents
10:30 - 12:00
Location: Room A1

Chairs: Russell Dale
Sydney, NSW, Australia
Victor Fung
Westmead, NSW, Australia

10:30 Solving the riddle of encephalitis lethargica: Autoimmune movement disorders
Russell Dale
Sydney, NSW, Australia

11:00 Diagnosis and management of disorders of catecholamine synthesis and transport
Manju Kurian
London, United Kingdom

11:30 Advances in the pathophysiology and management of Tourette syndrome
Alexander Münchau
Hamburg, Germany

4102 Plenary Session X, cont.

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

1. Recognize and treat encephalitis lethargica
2. Recognize and treat disorders of catecholamine synthesis and transport
3. Understand the latest in pathophysiology and management of Tourette syndrome

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

Guided Poster Tours

GPT 9: Basic Science
12:00 – 13:30
Location: Room A7

GPT 10: Dystonia
12:00 – 13:30
Location: Room A8

GPT 11: Parkinsonisms (secondary and parkinsonism-plus)
12:00 – 13:30
Location: Room A9

GPT 12: Surgical Therapy: Parkinson's disease
12:00 – 13:30
Location: Room K21

Poster Session 3

12:00 – 13:30
Abstract numbers 783 - 1169
Location: Exhibition Hall B
Poster viewing: 9:00 – 18:00

Corporate Therapeutic Symposia

13:30 – 14:30
Please *see pages 134-135 for more information.*

4203 Parallel Session TICKET

New developments in Deep Brain Stimulation (DBS)
15:00 - 17:00
Location: Victoria Hall

Chairs: Karen Østergaard
Aarhus, Denmark
Stig Rehncrona
Lund, Sweden

15:00 DBS in Parkinson's disease: How early to start?
Günther Deuschl
Kiel, Germany

15:40 New targets and new indications for DBS in movement disorders
Joachim Krauss
Hannover, Germany

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4203 Parallel Session TICKET, cont.

16:20 Adverse effects and long term safety
Michael Okun
Gainesville, FL, USA

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

1. Discuss the best moment to consider DBS in Parkinson's disease patients
2. Understand the recent advances in the new surgical targets and potential new therapeutic indications for DBS in movement disorders
3. Discuss the frequency and relevancy of adverse effects and long term safety of DBS

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

4204 Parallel Session TICKET

Gene silencing for movement disorders
15:00 - 17:00
Location: Room A4/A5

Chairs: Jan Aasly
Trondheim, Norway
Nicole Déglon
Lausanne, Switzerland

15:00 Dampening the toxic gain of function of autosomal dominant genes
Blair Leavitt
Vancouver, BC, Canada

15:40 Gene silencing in Huntington's disease
Nicole Déglon
Lausanne, Switzerland

16:20 Gene silencing for other neurodegenerative diseases
Henry Paulson
Ann Arbor, MI, USA

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

1. Understand approaches that can be used to counteract the effects of mutated proteins in autosomal dominant movement disorders
2. Understand various approaches for silencing the abnormal gene in Huntington's disease
3. Learn about the status of gene silencing in other neurodegenerative diseases in animal models and/or humans

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

4205 Parallel Session TICKET

Pedunculopontine area stimulation for treating movement disorders
15:00 - 17:00
Location: A9

Chairs: Per Almqvist
Stockholm, Sweden
Pierre Pollak
Geneva, Switzerland

15:00 PPN: Location, structure and function
Juan Mena-Segovia
Oxford, United Kingdom

15:40 Are there clinical benefits?
Pierre Pollak
Geneva, Switzerland

16:20 Are there alternative targets for treating gait and balance?
Ludvic Zrinzo
London, United Kingdom

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

1. Describe the PPN anatomy, its neurochemical and elecrophysiological characteristics
2. Discuss the inconsistent results of PPN stimulation, and the factors contributing to differences in clinical outcomes
3. Learn about surgical targets and trajectories for treating gait disorders by DBS

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

4206 Parallel Session TICKET

Redefining Parkinson's disease: Update on work of the task force
15:00 - 17:00
Location: Room K1/K2

Chairs: Daniela Berg
Tübingen, Germany
Matthew Stern
Philadelphia, PA, USA

15:00 Update on new MDS clinical diagnostic criteria for Parkinson's disease
Ron Postuma
Montreal, QC, Canada

15:40 Update for diagnosing Parkinson's disease earlier: New criteria for prodromal Parkinson's disease
Daniela Berg
Tübingen, Germany

16:20 Does genetics influence diagnostic criteria for Parkinson's disease?
Thomas Gasser
Tübingen, Germany

4206 Parallel Session TICKET, cont.

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

1. Understand suggestions for new diagnostic criteria
2. Understand models integrating markers for an earlier diagnosis of Parkinson's disease
3. Explain how current understanding of genetics influences our conception of Parkinson's disease and possible consequences

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

4207 Parallel Session TICKET

Historical aspects of movement disorders
15:00 - 17:00
Location: Room K21

Chairs: Sten-Magnus Aquilonius
Uppsala, Sweden
Francisco Cardoso
Belo Horizonte, Brazil

15:00 Contributions of Scandinavian neuroscientists to the field of movement disorders
Sten-Magnus Aquilonius
Uppsala, Sweden

15:40 History of concepts of dystonia
Emmanuel Broussolle
Lyon, France

16:20 Chorea: Emergence from olla podrida to movement disorder
Francisco Cardoso
Belo Horizonte, Brazil

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

1. Understand the contribution of Scandinavian neurologists, neurosurgeons and neuroscientists to the field of movement disorders
2. Understand how the concept of dystonia has evolved in order to aid understanding of the phenomenology and interpret the literature on dystonia
3. Understand how the concept of chorea has evolved in order to better understand the phenomenology associated with and literature on chorea

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

WEDNESDAY, JUNE 11, 2014

4208 Parallel Session TICKET

Corticobasal syndrome: Clinical, neuroanatomical and genetic perspectives
15:00 - 17:00
Location: A2/A3

Chairs: Melissa Armstrong
Baltimore, MD, USA
Adam Boxer
Palo Alto, CA, USA

15:00 Clinical pathological correlations in CBD
Helen Ling
London, United Kingdom

15:40 Genotype/Phenotype in CBS
Adam Boxer
Palo Alto, CA, USA

16:20 CBD proposed criteria
Melissa Armstrong
Baltimore, MD, USA

At the conclusion of this session, participants should be better able to:
1. Understand the clinicopathological correlation of CBD
2. Understand the role of genetics in the development of the various pathologies that present with a CBS
3. Understand newly developed clinical diagnostic criteria for CBD

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

4309 Teaching Course TICKET

Gait in parkinsonian syndromes and other movement disorders
15:00 - 17:00
Location: Room A8

Chairs: Nir Giladi
Tel Aviv, Israel
Lynn Rochester
Newcastle upon Tyne, United Kingdom

15:00 Pathophysiology of gait in parkinsonian syndromes and other movement disorders
Nir Giladi
Tel Aviv, Israel

15:40 Evaluation of gait disorders: Clinical observation and gait analysis
Evzen Ruzicka
Prague, Czech Republic

16:20 Practical approach to management
Lynn Rochester
Newcastle upon Tyne, United Kingdom

4309 Teaching Course TICKET, cont.

At the conclusion of this session, participants should be better able to:
1. Understand the physiology of normal gait and the abnormalities in parkinsonian syndromes and other movement disorders
2. Characterize the different patterns of gait disorders and how they can be assessed using clinical observation and laboratory testing
3. Recognize the different therapeutic interventions for gait disorders in parkinsonian syndromes and other movement disorders from pharmacological options to various exercise/rehabilitation programs

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

4310 Teaching Course TICKET

Uncommon treatable movement disorders not to be missed
15:00 - 17:00
Location: Room A7

Chairs: Alberto Albanese
Milan, Italy
Eng-King Tan
Singapore

15:00 Uncommon treatable hypokinetic disorders
Eng-King Tan
Singapore

15:40 Uncommon treatable hyperkinetic disorders
Alberto Albanese
Milan, Italy

16:20 Unusual reversible iatrogenic disorders
Madhuri Behari
New Delhi, India

At the conclusion of this session, participants should be better able to:
1. Recognize the clinical features, identify appropriate diagnostic tests, and initiate prompt treatment for hypokinetic disorders
2. Recognize the clinical features, identify appropriate diagnostic tests, and initiate prompt treatment for hyperkinetic disorders
3. Recognize the clinical features, identify appropriate diagnostic tests, and initiate prompt treatment for reversible iatrogenic disorders

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

4411 Skills Workshop TICKET

Lessons I learned from my patients
17:30 - 19:00
Location: Room K21

In this interactive session, the audience and speakers discuss the approach to movement disorder cases where the diagnosis is not immediately apparent but emerges with reassessment of clinical features and regular follow-up.

Carlo Colosimo
Rome, Italy
Timothy Lynch
Dublin, Ireland

At the conclusion of this session, participants should be better able to:
1. Recognize the value in clinical practice of critically reviewing cases where diagnostic or management revisions were made
2. Identify frequent and preventable pitfalls in the evaluation of patients with movement disorders
3. Recognize the merits of periodic reassessment of clinical features and patient's management

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

4412 Skills Workshop TICKET

MDS-UPDRS
17:30 - 19:00
Location: Room A9

This interactive session will be dedicated to description, use and clinical application of the MDS-UPDRS scale.

Mayela Rodriguez Violante
Mexico City, Mexico
Anette Schrag
London, United Kingdom

At the conclusion of this session, participants should be better able to:
1. Identify where the MDS-UPDRS can be applied in clinical practice in addition to research studies
2. Identify how one interprets the responses to interviews and self report in MDS-UPDRS
3. Identify the other relevant comparable instruments that cover the dimensions covered by MDS-UPDRS (such as motor dysfunction and non-motor disabilities as a whole and the plus and negative aspects of these tools)

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

WEDNESDAY, JUNE 11, 2014

4413 Skills Workshop TICKET

Palliative care for parkinsonian syndromes
17:30 - 19:00
Location: Room A8

In this interactive session, participants will be better able to understand how to identify and evaluate palliative care needs in parkinsonian syndromes and dementia. The faculty will outline key principles of palliative care management in parkinsonian syndromes and the roles of team members. Participants will learn how to apply those principles to identify and address needs including optimal timing of intervention.

Julie Carter
Portland, OR, USA

Janis Miyasaki
Toronto, ON, Canada

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

1. Identify key palliative care issues (motor and non-motor) in Parkinson's using principles of palliative care management
2. Discuss the therapeutic approach to palliative care needs including optimal timeline for intervention
3. Understand key issues in relation to dementia and palliative care in Parkinson's and Parkinson plus syndromes

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

4414 Skills Workshop TICKET

Treatment of psychiatric and cognitive symptoms in Parkinson's disease
17:30 - 19:00
Location: Victoria Hall

In this interactive session, participants will improve their skills in detection and management of cognitive deterioration, hallucinations, apathy, depression and anxiety.

Paolo Barone
Naples, Italy

Klaus Seppi
Innsbruck, Austria

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

1. Differentiate cognitive and psychiatric symptoms related to disease rather than medication and understand their respective mechanisms
2. Screen, detect, and evaluate the most relevant Parkinson's disease-related cognitive and psychiatric symptoms and know how to treat them

4414 Skills Workshop TICKET, cont.

3. Know the treatments with high level of evidence of cognitive and behavioral parkinsonian symptoms

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

4515 Video Session TICKET

Invasive therapies for Parkinson's disease: A video-based presentation
17:30 - 19:00
Location: Room A4/A5

In this interactive session, faculty will make video presentations of patients with advanced Parkinson's disease as basis for a discussion on indications, contraindications for and choice of advanced therapy (apomorphine pump, LCIG pump and Deep Brain Stimulation).

Angelo Antonini
Venice, Italy

Paul Krack
Grenoble, France

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

1. Recognize the main indications and contraindications for the different available invasive therapies in Parkinson's disease (apomorphine pump, jejunal levodopa infusion, surgery)
2. Describe potential complications and adverse effects
3. Use an algorithm for selection of invasive therapies

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

4516 Video Session TICKET

Unusual movement disorders
17:30 - 19:00
Location: Room K1/K2

In this interactive session, faculty will focus on video presentations of uncommon movement disorders that may be inherited, acquired, or idiopathic.

Victor Fung
Westmead, NSW, Australia

Mandar Jog
London, ON, Canada

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

1. Recognize less common inherited movement disorders
2. Recognize less common acquired or idiopathic movement disorders

4516 Video Session TICKET, cont.

3. Describe an approach to the differential diagnosis of unusual movement disorders

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

4517 Video Session TICKET

Movement disorders in pediatrics/adolescents
17:30 - 19:00
Location: Room A7

In this interactive session, the faculty will present a series of videos to highlight the broad spectrum of movement disorders commonly seen in the young. There will be discussions on a practical clinical approach and management of these cases.

Padraic Grattan-Smith
Matraville, NSW, Australia

Emmanuel Roze
Paris, France

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

1. Recognize the spectrum of common movement disorders in the young
2. Conduct a clinical approach to the diagnosis of the common movement disorders in the young
3. Recognize the differences in management of movement disorders between the young and old

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

4518 Video Session TICKET

Eye movements in movement disorders
17:30 - 19:00
Location: Room A2/A3

In this interactive session, faculty will discuss the approach to oculomotor diagnosis and show examples of eye movement abnormalities in movement disorders.

Tim Anderson
Christchurch, New Zealand

Janet Rucker
New York, NY, USA

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

1. Undertake accurate bedside examination of eye movements including saccades, pursuit, vergence, vestibular and alignment
2. Recognize nystagmus and other oscillatory disorders and know pharmacotherapeutic options

WEDNESDAY, JUNE 11, 2014

4518 Video Session TICKET

3. Describe the characteristic clinical eye movement abnormalities in patients with the common, and some less common movement disorders

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

MDS Video Challenge
Pre-Event Gathering
19:00 - 20:00
Location: Entrance Hall

MDS Video Challenge
20:00 - 22:00
Location: Room A1
Please see page 15 for more information.

THURSDAY, JUNE 12, 2014

5101 Plenary Session XI

Neurodegeneration with brain iron accumulation discoveries and controversies
8:00 - 9:30
Location: Room A1

Chairs: Kailash Bhatia
London, United Kingdom
Susan Hayflick
Portland, OR, USA

8:00 Neurodegeneration with brain iron accumulation diseases: Presentation in infancy and childhood
Susan Hayflick
Portland, OR, USA

8:30 Neurodegeneration with brain iron accumulation diseases: Presentation in adolescence and adulthood
Susanne Schneider
Kiel, Germany

9:00 The role of iron in neurodegeneration: Insights from disorders of neuronal brain iron accumulation and other diseases
Kay Double
Sydney, NSW, Australia

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

1. Recognize NBIAs that present in infancy and childhood
2. Recognize NBIAs that present in adolescence and adulthood
3. Understand the role of iron in neurodegenerative disease

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

5102 Controversies in Movement Disorders

10:00 - 11:00
Location: Room A1

Chairs: David John Burn
Newcastle upon Tyne, United Kingdom
Eduardo Tolosa
Barcelona, Spain

10:00 Levodopa from the get go? (YES)
Andrew Lees
London, United Kingdom

10:15 Levodopa from the get go? (NO)
Olivier Rascol
Toulouse, France

10:30 Are psychogenic movement disorders organic? (YES)
Mark Edwards
London, United Kingdom

5102 Controversies in Movement Disorders, cont.

10:45 Are psychogenic movement disorders organic? (NO)
Anthony Lang
Toronto, ON, Canada

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

1. Discuss the arguments for and against the early initiation of levodopa therapy in Parkinson's disease
2. Make adequate decisions regarding the initial pharmacological management of Parkinson's disease
3. Discuss the different hypotheses underlying the generation of the so called psychogenic or functional movement disorders
4. Present arguments for and against the existence of changes in brain functioning in psychogenic or functional movement disorders

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

5103 Blue Ribbon Highlights

11:00 - 12:00
Location: Room A1

Chairs: Alfredo Berardelli
Rome, Italy
Mark Hallett
Bethesda, MD, USA

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.

D. James Surmeier
Chicago, IL, USA
Oscar Gershanik
Buenos Aires, Argentina

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

1. Gain an overview of recent developments in the basic science of movement disorders
2. Gain an overview of recent clinical developments
3. Gain an overall perspective on current topics of interest in movement disorders

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

THURSDAY, JUNE 12, 2014

Guided Poster Tours

GPT 13: Sleep disorders and RLS
12:00 – 13:30
Location: Room A7

GPT 14: Parkinson's disease: Cognition
12:00 – 13:30
Location: Room A8

GPT 15: Parkinson's disease: Phenomenology
12:00 – 13:30
Location: Room A9

GPT 16: Tremor
12:00 – 13:30
Location: Room K21

Poster Session 4

12:00 – 13:30
Abstract numbers 1170 – 1558
Location: Exhibition Hall B
Poster viewing: 9:00 – 16:00

Corporate Therapeutic Symposia

13:30 – 14:30
Please see pages 134-135 for more information.

5204 Parallel Session TICKET

Development of new treatments for targeting abnormal aggregation of alpha-synuclein
15:00 - 17:00
Location: Victoria Hall

Chairs: Wassilios Meissner
Bordeaux, France
Brit Mollenhauer
Kassel, Germany

15:00 Results from preclinical proof of concept studies
Tiago Fleming Outeiro
Lisbon, Portugal

15:40 Which biomarkers may be useful as objective outcome measures for clinical trials?
Takahiko Tokuda
Kyoto, Japan

16:20 Multiple system atrophy as a model for clinical proof of concept studies
Wassilios Meissner
Bordeaux, France

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

1. Describe the results of preclinical proof of concept studies targeting alpha-synuclein
2. Identify potential biomarkers that may serve as objective outcomes for future disease-modification or neuroprotection trials

5204 Parallel Session TICKET, cont.

3. Evaluate the usefulness of the clinical model of multiple system atrophy for future disease-modification or neuroprotection trials in synucleinopathies

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

5205 Parallel Session TICKET

Restless legs syndrome (RLS)
15:00 - 17:00
Location: Room K1/K2

Chairs: Lena Leissner
Orebro, Sweden
Claudia Trenkwalder
Kassel, Germany

15:00 Latest developments concerning RLS genetics and pathophysiology
Juliane Winkelmann
Palo Alto, CA, USA

15:40 New diagnostic criteria and treatment algorithm for RLS
Diego Garcia-Borreguero
Madrid, Spain

16:20 What to do when RLS treatment becomes complicated (including pregnancy, secondary RLS and treatment complications)
Birgit Högl
Innsbruck, Austria

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

1. Understand the genetic background of RLS and the implications for the pathophysiology
2. Describe main treatment strategies for RLS
3. Manage the most common treatment complications in RLS

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

5206 Parallel Session TICKET

Geographical and socioeconomic disparities in movement disorders care
15:00 - 17:00
Location: Room K21

Chairs: Sven Palhagen
Enskede Gård, Sweden
Raymond Rosales
Manila, Philippines

15:00 An African perspective
Roberto Cilia
Milan, Italy

15:40 An Asian perspective
Roland Dominic Jamora
Manila, Philippines

5206 Parallel Session TICKET, cont.

16:20 An American perspective
Nabila Dahodwala
Philadelphia, PA, USA

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

1. Describe the movement disorders in developing countries that may create an impact into the global perspective
2. Identify key problem areas in diagnosis and treatment approaches of movement disorders in the developing countries
3. Understand how patient care outcomes are addressed and leveled with their socioeconomic implications

Recommended Audience: Clinical academicians, Health Professionals (Non-Physician), Practitioners, Students/Residents/Trainees

5207 Parallel Session TICKET

Neuroinflammation and "two-face" microglia in neurodegenerative disorders
15:00 - 17:00
Location: Room A4/A5

Chairs: Etienne Hirsch
Paris, France
Ryosuke Takahashi
Kyoto, Japan

15:00 Immunology of neurodegeneration
Howard Gendelman
Omaha, NE, USA

15:40 Neuroinflammation in Parkinson's disease
Etienne Hirsch
Paris, France

16:20 Brain imaging of microglial activation in neurodegeneration
Makoto Higuchi
Chiba, Japan

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

1. Provide an overview of recent and future developments in microglia-peripheral immune cell interactions, and opportunities associated with current and future research in this field
2. Describe the protective and detrimental "Two-Face" roles of microglia in neurodegenerative process especially focusing on Parkinson's disease
3. Understand how we can visualize neuroinflammation/microglia activation in movement disorders and other neurodegenerative diseases

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

THURSDAY, JUNE 12, 2014

5208 Parallel Session TICKET

Basal ganglia pathways in health and disease
15:00 - 17:00

Location: Room A2/A3

Chairs: Andrea Kühn
Berlin, Germany
José Obeso
Pamplona, Spain

15:00 Distinct pathways of information flow within the basal ganglia
Atsushi Nambu
Okazaki, Japan

15:40 Functional significance of the direct and indirect pathways in the basal ganglia
Erwan Bezard
Bordeaux, France

16:20 Clinical relevance of basal ganglia pathways
Maria Rodriguez-Oroz
Pamplona, Spain

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

1. List the main pathways of information flow within the basal ganglia (direct, indirect and hyperdirect pathways)
2. Integrate different lines of experimental evidence that define the direct and indirect pathways and their functional role
3. Appreciate the role of these pathways in the pathophysiology of movement disorders

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

5209 Parallel Session TICKET

Windows of the mind: Neuroimaging neuropsychiatric symptoms in Parkinson's disease
15:00 - 17:00

Location: Room A9

Chairs: Simon Lewis
Sydney, NSW, Australia
Antonio Strafella
Toronto, ON, Canada

15:00 From synapse to the neural networks of impulse control
Antonio Strafella
Toronto, ON, Canada

15:40 From hypothesis to understanding hallucinations
Simon Lewis
Sydney, NSW, Australia

16:20 Imaging of depression and apathy
Stephane Thobois
Lyon, France

5209 Parallel Session TICKET, cont.

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

1. Understand the clinical manifestations and impact of impulse control disorder, hallucinations, depression, fatigue and sleep disorder in Parkinson's disease
2. Recognize the clinical features of these common non-motor symptoms in Parkinson's disease and relate them to underlying pathophysiological substrates
3. Appreciate how functional neuroimaging techniques including Positron Emission Tomography, Magnetic Resonance Spectroscopy and functional MRI can help our understanding of non-motor symptoms

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

5310 Teaching Course TICKET

How to assess patients in clinical trials with experimental therapies for Parkinson's disease
15:00 - 17:00

Location: Room A7

Chairs: Karl Kieburtz
Rochester, NY, USA
Olle Lindvall
Lund, Sweden

15:00 Recruitment strategies and patient selection
Alfonso Fasano
Toronto, ON, Canada

15:40 Biochemical and imaging markers
Kenneth Marek
New Haven, CT, USA

16:20 Design and critical appraisal of clinical trials
Bernard Ravina
Cambridge, MA, USA

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

1. Understand how to select the best candidates undergoing experimental therapies for Parkinson's disease
2. Choose adequate imaging and laboratory outcomes
3. Critically appraise the results from the trials

Recommended Audience: Basic scientists, Clinical academicians, Health Professionals (Non-Physician), Practitioners

5311 Teaching Course TICKET

Autoimmune movement disorders
15:00 - 17:00

Location: Room A8

Chairs: Sarosh Irani
Oxford, United Kingdom
Thomas Kimber
Adelaide, SA, Australia

15:00 Autoimmune hyper and hypokinetic movement disorders
Thomas Kimber
Adelaide, SA, Australia

15:40 Stiff-man syndromes
Hans-Michael Meinck
Heidelberg, Germany

16:20 Recognition and treatment principles for autoimmune syndromes of myoclonus and epilepsy
Sarosh Irani
Oxford, United Kingdom

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

1. Learn when to suspect, how to diagnose and treat autoimmune hyperkinetic movement disorders (Sydenham's chorea, anti-phospholipid syndrome, NMDA-receptor encephalitis)
2. Learn when to suspect, how to diagnose and treat autoimmune hypokinetic movement disorders (stiff-man syndromes, autoimmune parkinsonism)
3. Learn to recognize the overlap between the phenomenology movement disorders andmyoclonus or seizures caused by immune-mediated encephalitis, and how to diagnose and treat these conditions (e.g. opsoclonus-myoclonus, anti-VGKC/CASPR2/LGi1 Ab associated encephalitis)

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

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2203

Chaudhuri, K. Ray
London, United Kingdom
1103

Cilia, Roberto
Milan, Italy
5206

Colosimo, Carlo
Rome, Italy
2207, 4411

Comella, Cynthia
Chicago, IL, USA
2310

Cortelli, Pietro
Bologna, Italy
2207

Counihan, Timothy
Galway, Ireland
2515

Dahodwala, Nabila
Philadelphia, PA, USA
5206

Dale, Russell
Sydney, NSW, Australia
4102

Danielsen, Erik
Aarhus, Denmark
3203

Dauer, William
Ann Arbor, MI, USA
2310

De Koning-Tijssen, Marina
Groningen, Netherlands
2310, 3517

Deglon, Nicole
Lausanne, Switzerland
4204

Deuschl, Günther
Kiel, Germany
1104, 2208, 4101, 4203

Dietrichs, Espen
Oslo, Norway
3208

Double, Kay
Sydney, NSW, Australia
5101

Durr, Alexandra
Paris, France
2517

Edwards, Mark
London, United Kingdom
5102

Ellis, Terry
Boston, MA, USA
2414

Espay, Alberto
Cincinnati, OH, USA
3516

Factor, Stewart
Atlanta, GA, USA
2516

Fahn, Stanley
New York, NY, USA
1102, 3101

Fasano, Alfonso
Toronto, ON, Canada
5310

Ferreira, Joaquim
Lisbon, Portugal
3102, 3207

Filla, Alessandro
Naples, Italy
2518

Fox, Susan
Toronto, ON, Canada
1103, 2309

Frauscher, Birgit
Innsbruck, Austria
2413

Frucht, Steven
New York, NY, USA
2412

Fung, Victor
Westmead, NSW, Australia
4102, 4516

Fuxe, Kjell
Stockholm, Sweden
2309

Garcia-Borreguero, Diego
Madrid, Spain
5205

FACULTY LISTING

Gasser, Thomas
Tübingen, Germany
4206

Gendelman, Howard
Omaha, NE, USA
5207

Gershanik, Oscar
Buenos Aires, Argentina
3310, 4101, 5103

Giladi, Nir
Tel Aviv, Israel
4309

Goetz, Christopher
Chicago, IL, USA
3102

Grattan-Smith, Padraic
Matraville, NSW, Australia
4517

Hallett, Mark
Bethesda, MD, USA
5103

Halliday, Glenda
Randwick, NSW, Australia
2102, 3208

Hariz, Marwan
London, United Kingdom
1102

Hausdorff, Jeffrey
Tel-Aviv, Israel
2205

Hayflick, Susan
Portland, OR, USA
5101

Healy, Daniel
Dublin, Ireland
3517

Henriksen, Tove
Copenhagen, Denmark
3203

Higuchi, Makoto
Chiba, Japan
5207

Hirsch, Etienne
Paris, France
5207

Högl, Birgit
Innsbruck, Austria
5205

Höglinger, Günter
Munich, Germany
2206

Holmberg, Björn
Gothenburg, Sweden
2207

Irani, Sarosh
Oxford, United Kingdom
5311

Jamora, Roland Dominic
Manila, Philippines
5206

Jankovic, Joseph
Houston, TX, USA
4101

Janson Lang, Ann Marie
Stockholm, Sweden
2411

Jenner, Peter
London, United Kingdom
1103

Jeon, Beom
Seoul, Korea
3206

Jinnah, Hyder
Atlanta, GA, USA
1102, 2208

Jog, Mandar
London, ON, Canada
4516

Kieburtz, Karl
Rochester, NY, USA
2208, 3411, 5310

Kimber, Thomas
Adelaide, SA, Australia
5311

Kordower, Jeffrey
Chicago, IL, USA
2101

Kostic, Vladimir
Belgrade, Serbia
3309

Krack, Paul
Grenoble, France
4515

Krauss, Joachim
Hannover, Germany
4203

Kühn, Andrea
Berlin, Germany
2203, 5208

Kurian, Manju
London, United Kingdom
4102

Landwehrmeyer, Bernhard
Ulm, Germany
3207

Lang, Anthony
Toronto, ON, Canada
5102

Leake, Alison
Surrey, United Kingdom
3205

Leavitt, Blair
Vancouver, BC, Canada
4204

Lee, Virginia
Philadelphia, PA, USA
2102

Lees, Andrew
London, United Kingdom
1101, 5102

Leissner, Lena
Orebro, Sweden
5205

Lewis, Simon
Sydney, NSW, Australia
5209

LeWitt, Peter
West Bloomfield, MI, USA
3515

Lindvall, Olle
Lund, Sweden
3101, 4101, 5310

Ling, Helen
London, United Kingdom
4208

Litvan, Irene
La Jolla, CA, USA
2206

Lynch, Timothy
Dublin, Ireland
2208, 4411

MacKinnon, Colum
Minneapolis, MN, USA
2205

Mak, Margaret
Hong Kong
2414

Marek, Kenneth
New Haven, CT, USA
5310

Marrinan, Sarah
Newcastle upon Tyne, United Kingdom
3205

Martino, Davide
Orpington, United Kingdom
3414

Masliah, Eliezer
La Jolla, CA, USA
3208

Meinck, Hans-Michael
Heidelberg, Germany
5311

Meissner, Wassilios
Bordeaux, France
5204

Mena-Segovia, Juan
Oxford, United Kingdom
4205

Mestre, Tiago
Toronto, ON, Canada
1104

Miller, Nicholas
Newcastle upon Tyne, United Kingdom
3205

Miyasaki, Janis
Toronto, ON, Canada
4413

Mollenhauer, Brit
Kassel, Germany
5204

Moore, Peter
Liverpool, United Kingdom
3413

Moro, Elena
Grenoble, France
2310

Münchau, Alexander
Hamburg, Germany
4102

Munoz-Sanjuan, Ignacio
Los Angeles, CA, USA
3207

Nambu, Atsushi
Okazaki, Japan
5208

Nieuwboer, Alice
Heverlee, Belgium
2205

Nirenberg, Melissa
New York, NY, USA
3310

Nyholm, Dag
Uppsala, Sweden
3203

FACULTY LISTING

O'Sullivan, Sean
Cork, Ireland
3310

Obeso, José
Pamplona, Spain
2208, 5208

Odin, Per
Bremerhaven, Germany
3203

Oertel, Wolfgang
Marburg, Germany
2411

Okun, Michael
Gainesville, FL, USA
4203

Olanow, C. Warren
New York, NY, USA
2101

Østergaard, Karen
Aarhus, Denmark
4203

Ostrem, Jill
Greenbrae, CA, USA
2412

Outeiro, Tiago Fleming
Lisbon, Portugal
5204

Palhagen, Sven
Enskede Gård, Sweden
5206

Paucar Arce, Martin
Solna, Sweden
3206

Paulson, Henry
Ann Arbor, MI, USA
4204

Perez Lloret, Santiago
Buenos Aires, Argentina
3203

Perlmann, Thomas
Stockholm, Sweden
3204

Pfeiffer, Ronald
Memphis, TN, USA
3518

Piccini, Paola
London, United Kingdom
2203

Pisani, Antonio
Rome, Italy
2309

Poewe, Werner
Innsbruck, Austria
3102

Pollak, Pierre
Genève, Switzerland
4205

Postuma, Ron
Montreal, Canada
4206

Pringsheim, Tamara
Calgary, AB, Canada
3414

Priori, Alberto
Milan, Italy
2208

Quinn, Niall
London, United Kingdom
3515

Rascol, Olivier
Toulouse, France
2203, 5102

Ravina, Bernard
Cambridge, MA, USA
5310

Rehncrona, Stig
Lund, Sweden
4203

Reichmann, Heinz
Dresden, Germany
1101

Rochester, Lynn
Newcastle upon Tyne, United Kingdom
2205, 4309

Rodnitzky, Robert
Iowa City, IA, USA
3205

Rodriguez Violante, Mayela
Mexico City, Mexico
4412

Rodriguez-Oroz, Maria
Pamplona, Spain
5208

Rosales, Raymond
Manila, Philippines
3413, 5206

Roze, Emmanuel
Paris, France
4517

Rucker, Janet
New York, NY, USA
4518

Ruzicka, Evzen
Prague, Czech Republic
4309

Sampaio, Cristina
Princeton, NJ, USA
3411

Schneider, Susanne
Kiel, Germany
5101

Schrag, Anette
London, United Kingdom
4412

Seppi, Klaus
Innsbruck, Austria
4414

Silvestri, Rosalia
Messina, Italy
2413

Snow, Barry
Auckland, New Zealand
2515

Sohn, Young
Seoul, Korea
2204

Stamelou, Maria
Athens, Greece
2206

Stern, Matthew
Philadelphia, PA, USA
2102, 4101, 4206

Strafella, Antonio
Toronto, ON, Canada
5209

Surmeier, D. James
Chicago, IL, USA
2208, 5103

Svenningsson, Per
Stockholm, Sweden
2309, 3206

Taba, Pille
Tartu, Estonia
3518

Tabrizi, Sarah
London, United Kingdom
3207

Takahashi, Ryosuke
Kyoto, Japan
2208, 5207

Tan, Eng-King
Singapore
4310

Tan, Louis
Singapore
1104

Thobois, Stephane
Lyon, France
5209

Timmermann, Lars
Cologne, Germany
1101

Tison, François
Bordeux, France
2207

Tokuda, Takahiko
Kyoto, Japan
5204

Tolosa, Eduardo
Barcelona, Spain
5102

Trenkwalder, Claudia
Kassel, Germany
3206, 5205

Trojanowski, John
Philadelphia, PA, USA
2102

Tsuji, Shoji
Tokyo, Japan
2207

Van De Warrenburg, Bart
Nijmegen, Netherlands
2517

Vidailhet, Marie
Paris, France
1104

Vila, Miquel
Barcelona, Spain
3208

Volkmann, Jens
Würzburg, Germany
1104

Weintraub, Daniel
Ardmore, PA, USA
3310

Widner, Hakan
Lund, Sweden
2204

Winkelmann, Juliane
Palo Alto, CA, USA
5205

Wu, Yih-Ru
Taipei, Taiwan
3309

GUIDED POSTER TOURS

GUIDED POSTER TOUR 1 – Huntington's disease

Location: Room A7

12:30 – 14:00
Monday, June 09, 2014

554 **Longitudinal changes in volume and shape of striatal nuclei in manifest Huntington's disease**
L. Cleret de Langavant, M. Nazir, V. Gaura, S. Lavisse, C. Verny, P. Krystkowiak, A.-C. Bachoud-Lévi, P. Remy, The MIG-HD Trial Investigators (Créteil, France)

557 **The co-occurrence of Alzheimer's disease and Huntington's disease: A neuropathological study of 14 elderly Huntington's disease subjects**
M.Y. Davis, S. Jayadev, C.D. Keene, T.D. Bird (Seattle, WA, United States)

562 **Cerebellar hypermetabolism in HD: Relationships with motor symptoms**
V. Gaura, S. Lavisse, P. Payoux, S. Goldman, C. Verny, P. Krystkowiak, P. Damier, F. Supiot, J.-F. Demonet, A.-C. Bachoud-Levi, P. Remy (Orsay, France)

566 **Automated assessment of bradykinesia and chorea in Huntington's disease**
K.E. Kotschet, S. Osborn, M.K. Horne (Fitzroy, Australia)

571 **Design of the dose-range finding (DRF), randomized, double-blind, placebo-controlled study, evaluating the safety and efficacy of pridopidine for symptomatic treatment in patients with Huntington's disease**
G.B. Landwehrmeyer, R. Reilmann, K. Kieburtz, E. Eyal, A. Wickenberg, M. Bassan (Ulm, Germany)

573 **Neuropsychiatric features along the pre-symptomatic and early stage of Huntington's disease**
S. Martinez-Horta, J. Perez-Perez, M. Carceller, R. Fernandez de Bobadilla, J. Pagonabarraga, B. Pascual-Sedano, C. García-Sanchez, J. Kulisevsky (Barcelona, Spain)

575 **Brain phosphodiesterase 10A (PDE-10A) density in early premanifest HD gene carriers**
F. Niccolini, T. Reis Marques, S. Haider, N. Muhlert, A.C. Tzortzi, C. Loane, G.E. Searle, N. Robertson, S. Natesan, P. Piccini, S. Kapur, E.A. Rabiner, R.N. Gunn, S.J. Tabrizi, M. Politis (London, United Kingdom)

583 **[18F]MNI-659 and PET as an imaging biomarker of PDE10A for longitudinal studies of Huntington disease (HD)**
D.S. Russell, O. Barret, D.L. Jennings, J.H. Friedman, G.D. Tamagnan, D. Thomae, D. Alagilles, S. Papapetropoulos, R.N. Waterhouse, J.P. Seibyl, K.L. Marek (New Haven, CT, United States)

585 **Autosomal recessive Huntington-like syndrome with hypogonadotropic hypogonadism**
P. Santens, W. Steyaert, P. Coucke, B. Dermaut (Ghent, Belgium)

592 **Huntington's disease progression model of total functional capacity scores**
C.S. Venuto, E.R. Dorsey, K.D. Kieburtz (Rochester, NY, United States)

GUIDED POSTER TOUR 2 – Lewy body dementia and other dementias in movement disorders

Location: Room A8

12:30 – 14:00
Monday, June 09, 2014

595 **The role of unfolded protein response in Lewy body dementias**
J.H. Baek, D. Whitfield, D. Howlett, P. Francis, E. Bereczki, P. Svenningsson, D. Aarsland (Stockholm, Sweden)

596 **Onset of dementia with Lewy bodies is delayed for carriers of the apolipoprotein E ε2 genotype in a Norwegian cohort**
G. Berge, S.B. Sando, A. Rongve, D. Aarsland, L.R. White (Trondheim, Norway)

598 **Extrapyramidal signs across variants of primary progressive aphasias**
J. Ferrari, N. Pontello, M. Martinez-Cuitiño, G. Borovinsky, E. Gleichgerrcht, T. Torralva, F. Manes, A. Chade (Buenos Aires, Argentina)

599 **Lewy body dementia: A three years clinical follow up study**
L. Kiferle, A. Vergallo, G. Palermo, M. Giuntini, R. Ceravolo, U. Bonuccelli (Pisa, Italy)

600 **Cerebral microbleeds as an indicator of the severity of cognitive impairment in dementia with Lewy bodies**
T.A. Makotrova, N.A. Trusova, A.A. Arablinskiy, O.S. Levin (Moscow, Russian)

601 **Role of rivastigmine in treatment of Parkinson's disease and lewy body dementia**
S. Raha, C. Hathway, L. Ebenezer (Bridgend, United Kingdom)

603 **Rate of cognitive decline and diagnostic stability in dementia with Lewy bodies**
A. Rongve, H. Soennesyn, D. Aarsland (Haugesund, Norway)

604 **Clinicopathological characteristics of pure type Lewy body disease with dementia (Parkinson's disease with dementia and dementia with Lewy bodies)**
R. Sengoku, H. Sumikura, M. Takao, H. Hatsuta, A. Nogami, A. Uchino, Y. Saito, S. Murayama (Tokyo, Japan)

605 **Lower urinary tract function in dementia with Lewy bodies (DLB)**
F. Tateno, R. Sakakibara, Y. Tuyusaki, M. Kishi, O. Takahashi, M. Sugiyama (Sakura, Japan)

606 **Association of APOE4 and BCHE-K genotypes with diagnosis and cognitive decline in dementia patients**
S. Vijayaraghavan, T. Darreh-Shori, A. Rongve, G. Berge, S.B. Sando, L.R. White, D. Arsland (Stockholm, Sweden)

GUIDED POSTER TOURS

GUIDED POSTER TOUR 3 – Parkinson's disease: Clinical trials

Location: Room A9

12:30 – 14:00
Monday, June 09, 2014

611 **Exenatide and motor symptoms in Parkinson's disease (PD)**
I. Aviles-Olmos, J. Dickson, Z. Kefalopoulou, A. Djamshidian, J. Kahan, P. Ell, P. Whitton, R. Wyse, T. Isaacs, A. Lees, P. Limousin, T. Foltynie (London, United Kingdom)

627 **PD REHAB: A large pragmatic randomised controlled trial of physiotherapy and occupational therapy versus no therapy in mild to moderate Parkinson's disease**
C.E. Clarke, S. Patel, R. Woolley, N.J. Ives, C.E. Rick, F. Dowling, K. Wheatley, M.F. Walker, C.M. Sackley (Birmingham, United Kingdom)

668 **Accordion pill carbidopa/levodopa (AP-CD/LD) for treatment of advanced PD**
P.A. LeWitt, N. Giladi, T. Gurevich, H. Shabtai, R. Djaldetti, N. Roizen, S. Hassin-Baer, O. Cohen, G. Yahalom, I. Schlessinger, M. Nassar, R. Milo, M. Anca, P. Farkas, Y. Lamp, N. Navon, L. Flaishon (West Bloomfield, MI, United States)

685 **The effects of an exercise intervention on cardiovascular system and skeletal muscle function in idiopathic Parkinson's disease**
A.K. O'Callaghan, D.G. Jakovljevic, M.I. Trenell, R.W. Walker (North Shields, United Kingdom)

694 **Lipopolysaccharide binding protein as a potential biomarker of Parkinson's disease**
G.D. Pal, M. Shaikh, C.B. Forsyth, A. Keshavarzian, K.M. Shannon (Chicago, IL, United States)

695 **Frequent falls in people with Parkinson's disease: Performance of risk factors and models developed to distinguish fallers from non-fallers**
S.S. Paul, C. Sherrington, N.E. Allen, S.R. Lord, J.C.T. Close, V.S.C. Fung, C.G. Canning (Lidcombe, Australia)

718 **Combined rasagiline and antidepressant use in Parkinson's disease in the ADAGIO study: Effects on non-motor symptoms and tolerability**
K.M. Smith, E. Eyal, S. Xie, D. Weintraub (Philadelphia, PA, United States)

729 **The Parkinson's progression marker initiative (PPMI) – Assessment of clinical, imaging and CSF PD biomarkers**
The Parkinson Progression Marker Initiative (PPMI) (New Haven, CT, United States)

737 **Alpha synuclein deposition in colonic biopsy tissue fails to distinguish Parkinson's disease from healthy individuals**
N.P. Visanji, C. Marras, D.S. Kern, L.W.C. Liu, A.E. Lang, L.N. Hazrati (Toronto, ON, Canada)

739 **Long-term effects of the hopeful outdoor Parkinson's exercise (HOPE) program on enhancing the dynamic balance and gait performance in people with Parkinson's disease**
I.S.K. Wong-Yu, M.K.Y. Mak (Hong Kong SAR, China)

GUIDED POSTER TOUR 4 – Rating scales and assessment tools

Location: Room K21

12:30 – 14:00
Monday, June 09, 2014

483 **Kinect-based automatic scoring system of TWSTRS-severity**
T. Nakamura, N. Nishimura, T. Asahi, G. Oyama, M. Sato, H. Kajimoto (Chofu, Japan)

485 **Should we consider a collective interpretation of clinical balance tests results to best predict falls in people with Parkinson's disease?**
L.R.S. Almeida, G.T. Valença, N. Negreiros, E. Pinto, J. Oliveira-Filho (Salvador, Brazil)

493 **Poor correlation between patients' assessments of medication state and clinician's interpretation of Parkinson's kinetigraph (PKG) objective recordings**
M. Dahlén, B. Eriksson, F. Bergquist (Göteborg, Sweden)

495 **Retest-reliability of gait initiation failure using a new assessment score**
U.M. Fietzek, D. Pfeufer, K. Schwermann, M. Heene, A.O. Ceballos-Baumann (Munich, Germany)

500 **Prevalence of non-motor symptoms amongst people with Parkinson's disease compared to controls**
T. Kao, G. Crotty, S.S. O'Sullivan (Cork, Ireland)

508 **A diary to assess non-motor symptoms in patients with Parkinson's disease**
C. Ossig, F. Gandor, A. Maaß, D. Sippel, M. Fauser, W.H. Jost, H. Reichmann, G. Ebersbach, A. Storch (Dresden, Germany)

509 **Motion sensor dyskinesia assessment during activities of daily living**
C.L. Pulliam, M.A. Burack, J.P. Giuffrida, D.A. Heldman, T.O. Mera (Cleveland, OH, United States)

510 **Validation of a novel Parkinson's disease pain scale (King's PD pain scale): A multicentre pilot study**
A.M. Rizos, P. Martinez-Martin, S. Pal, C. Carroll, D. Martino, D. Paviour, B. Kessel, M. Silverdale, L. Gallagher, A. Todorova, A. Sauerbier, A. Martin, M. Parry, S. Bassi, E. Ekins, R. Inniss, P. Odin, A. Antonini, C. Falup-Pecurariu, K. Ray Chaudhuri, On Behalf of EUROPAR and the IPMDS Non Motor PD Study Group (London, United Kingdom)

511 **A novel Parkinson's disease pain questionnaire (King's PD pain quest): The patient's perspective**
A.M. Rizos, P. Martinez-Martin, S. Pal, C. Carroll, D. Martino, B. Kessel, L. Gallagher, A. Todorova, A. Sauerbier, A. Martin, M. Parry, S. Bassi, E. Ekins, R. Inniss, P. Odin, A. Antonini, C. Falup-Pecurariu, K. Ray Chaudhuri, On Behalf of EUROPAR and the IPMDS Non Motor PD Study Group (London, United Kingdom)

512 **A service development study of the assessment and management of fracture risk in Parkinson's disease**
S.E. Shribman, K. Torsney, A.J. Noyce, G. Giovannoni, J. Fearnley, R. Dobson (London, United Kingdom)

GUIDED POSTER TOURS

GUIDED POSTER TOUR 5 – Genetics

Location: Room A7

12:30 – 14:00
Tuesday, June 10, 2014

138 **The autonomic profile of Ashkenazi Jews Parkinson's disease carriers of G2019S mutation in LRRK2 gene**
T. Gurevich, A. Mirelman, R. Alcalay, A. Bar Shira, K. Yasinovsky, M. Zalis, A. Shkedy, R. Saunders Pullman, K. Marder, S. Bressman, A. Orr-Utreger, N. Giladi (Tel Aviv, Israel)

153 **Novel SNCA mutation causes autosomal dominant Parkinson's disease**
M.H. Martikainen, M. Päivärinta, M. Hietala, V. Kaasinen (Turku, Finland)

155 **Temporal discrimination threshold (TDT) as an endophenotype in PARK2**
J. McKinley, A. Molloy, L. Williams, O. Kimmich, J. Butler, S. Kearney, O. Ross, R. Reilly, S. O'Riordan, M. Hutchinson, T. Lynch (Dublin, Ireland)

156 **Parkinson's disease in GTP cyclohydrolase-1 mutation carriers**
N.E. Mencacci, I.U. Isaias, M.M. Reich, C. Ganos, V. Plagnol, J.M. Polke, J. Bras, M. Stamelou, A.J. Noyce, T. Opladen, A. Münchau, S. Hodecker, J. Volkmann, A. Lees, P. Alegria, S. Lesage, F. Cormier, A. Brice, P. Heutink, T. Gasser, A. Pittman, S. Lubbe, H.R. Morris, A. Singleton, J. Hardy, S. Klebe, K.P. Bhatia, N.W. Wood (London, United Kingdom)

159 **Dopamine transporter deficiency syndrome: Clinical spectrum from infancy to adulthood**
J. Ng, J. Zhen, E. Meyer, K. Erreger, Y. Li, N. Kakar, J. Ahmad, H. Thiele, C. Kubisch, N. Rider, D.H. Morton, K.A. Strauss, E.G. Puffenberger, D. D'Agnano, Y. Anikster, C. Carducci, K. Hyland, M. Rotstein, V. Leuzzi, G. Borck, M.E.A. Reith, M.A. Kurian (London, United Kingdom)

164 **New SLC30A10 mutations in Indian families with early-onset dystonia and manganese transport disease**
M. Quadri, M. Kamate, S. Sharma, S. Olgiati, J. Graafland, I. Kori, V. Hattiholi, S. Aneja, A. Kumar, G.J. Breedveld, F.W. Verheijen, V. Bonifati (Rotterdam, Netherlands)

167 **A 12 years clinical follow-up of two PINK1 families: Motor, cognitive and psychiatric features**
L. Ricciardi, A. Guidubaldi, S. Petrucci, L. Serra, T. Ialongo, B. Spanò, M. Bozzali, E.M. Valenti, A.R. Bentivoglio (London, United Kingdom)

168 **MAPT haplotype and Lewy body pathology in patients with neurodegenerative disease**
D. Robakis, L.N. Clark, J.P. Vonsattel, J.F. Crary, O. Levy (New York, NY, United States)

171 **Exome sequencing of Parkinson's disease in order to identify genetic variants with high disease-risk**
W. Satake, Y. Ando, H. Tomiyama, K. Kashihara, H. Mochizuki, S. Murayama, A. Takeda, K. Hasegawa, S. Tsuji, M. Yamamoto, M. Murata, N. Hattori, T. Toda (Kobe, Japan)

178 **ARCA3 due to ANO10 mutations: Delineation and genotype/phenotype correlation study**
C. Tranchant, M. Renaud, M. Anheim, E.J. Kamsteeg, E. Salort-Campana, M. Mallaret, C.C. Verschuuren-Bemelmans, A. Durr, M. Koenig (Strasbourg, France)

GUIDED POSTER TOUR 6 – Parkinson's disease: Behavorial disorders

Location: Room A8

12:30 – 14:00
Tuesday, June 10, 2014

849 **Genetics of impulse control disorders in PD: The role of serotonin and its interaction with the dopaminergic system**
R. Cilia, R. Benfante, R. Asselta, L. Marabini, C. Siri, S. Goldwurm, G. Pezzoli, D. Fornasari (Milan, Italy)

850 **Information sampling in drug naive patients with Parkinson's disease**
F.H.R. Costa, B. Averbeck, A. Lees, M.B. Vincent, A. Djamshidian, A.L. Rosso (Rio de Janeiro, Brazil)

853 **Course of psychiatric symptoms and cognitive performance in early Parkinson's disease: Results from the PPMI study**
P. de la Riva, K. Smith, S.X. Xie, D. Weintraub (San Sebastian, Spain)

854 **Perceptual decision making and Parkinson's disease. A direct comparison of deep brain stimulation, addictive behaviours and dopamine agonist therapy**
A. Djamshidian, S.S. O'Sullivan, A.D. Lawrence, T. Foltynie, I. Aviles-Olmos, P. Limousin, N. Magdalinou, T. Warner, A. Lees, B. Averbeck (London, United Kingdom)

882 **Impulse control symptoms in individuals with Parkinson's disease referred for deep brain stimulation (DBS)**
C.A. Racine, S.S. Wang, M. San Luciano, L.R. Alameddine, N.B. Galifianakis, M. Katz, K.A. Mills, L.C. Markun, R. Taylor, N. Ziman, P.A. Starr, P.S. Larson, J.L. Ostrem (San Francisco, CA, United States)

884 **Facial emotion expression and recognition in Parkinson's disease: How much does alexithymia count?**
L. Ricciardi, M. Bologna, D. Ricciardi, B. Morabito, F. Morgante, D. Volpe, D. Martino, M. Pomponi, A. Tessitore, A.R. Bentivoglio, R. Bernabei, A. Fasano (Messina, Italy)

887 **Optical coherent tomography in Parkinson's disease with and without hallucinations**
J. Roth, E. Mejzlikova, J. Lizrova-Preinigerova, D. Brebera, E. Ehler, A. Kopal (Prague, Czech Republic)

895 **Reflexive saccadic eye movements latency as biomarker that correlates with UPDRS in Parkinson's disease patients**
S. Szlufik, J. Dutkiewicz, A. Przybyszewski, P. Habela, D. Koziorowski (Warsaw, Poland)

900 **Depressive symptoms in Parkinson's disease related to decreased volume of bilateral hippocampus and amygdala**
T.J. van Mierlo, C. Chung, E.M. Foncke, H.W. Berendse, O.A. van den Heuvel (Amsterdam, Netherlands)

903 **Cognitive performance and psychiatric symptoms in de novo, untreated Parkinson's disease: Results from the PPMI study**
D. Weintraub, T. Simuni, C. Coffey, C. Caspell-Garcia, E. Foster, P. Barone, J. Leverenz, D. Burn, J. Eberling, L. Chahine, I. Litvan, M. Troyer, A. Siderowf, D. Aarsland, K. Hawkins, The PPMI Cognitive Behavioral Working Group, The Parkinson's Progression Marker Initiative (Philadelphia, PA, United States)

907 **Cholinergic deficits contribute to impaired postural control in early Parkinson's disease**
A.J. Yarnall, S. Del Din, R. David, B. Galna, M.R. Baker, D.J. Burn, L. Rochester (Newcastle, United Kingdom)

GUIDED POSTER TOURS

GUIDED POSTER TOUR 7 – Parkinson's disease: Neuropharmacology

Location: Room A9

12:30 – 14:00
Tuesday, June 10, 2014

345 **Effect of MRI white matter hyperintensities over L-Dopa response in patients with idiopathic Parkinson's disease**
J.E. Arena, D. Ballesteros, D. Cerquetti, D.E. Dossi, M.D. Rossi, H. Chaves, C. Rollan, F. Melli, M. Merello (Buenos Aires, Argentina)

346 **Therapeutic protein supplementation corrects iron export fatigue in Parkinson's disease**
S. Ayton, P. Lei, D.I. Finkelstein, A.I. Bush (Melbourne, Australia)

351 **Long-term data on subcutaneous apomorphine in Parkinson's disease patients; a retrospective analysis of a Dutch cohort of 139 patients**
R.W.K. Borgemeester, M. Drent, T.V. Laar (Groningen, Netherlands)

356 **Effects of levodopa on instrumented measures of balance and gait**
C. Curtze, M. Mancini, P. Carlson-Kuhta, J.G. Nutt, F.B. Horak (Portland, United States)

361 **Impulse control disorder in patients with Parkinson's disease under dopamine agonist therapy: A multicenter study**
P.J. Garcia Ruiz, J.C. Martinez Castrillo, A. Alonso Canovas, A. Herranz Barcenas, L. Vela Desojo, P. Sanchez Alonso, M. Mata, N. Olmedilla Gonzalez, I. Mahillo Fernandez (Madrid, Spain)

365 **Serum urate level correlates with the severity of Parkinson's disease**
H. Iwaki, M. Kannou, T. Tsujii, N. Nishikawa, M. Nagai, M. Nomoto (Toon, Japan)

368 **Effects of istradefylline in combination with L-DOPA on Parkinsonian and dyskinetic motor symptoms in the 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP)-treated macaque model of Parkinson's disease**
W.K.D. Ko, Q. Li, J. Yang, G. Porras, J.S. Schneider, E. Bezard, E.Y. Pioli (Manchester, United Kingdom)

373 **Oxidative stress status in patients with Parkinson's disease on and off medication**
M.B. Mbangata, R.V. Kartha, U. Mishra, L.D. Coles, P.J. Tuite, J.C. Cloyd (Minneapolis, MN, United States)

382 **De-novo amantadine treatment prevents and delays onset of dyskinesias in Parkinson's disease**
M. Relja, J. Bozikov (Zagreb, Croatia)

387 **Experiences with levodopa/carbidopa intestinal gel (LCIG) therapy in patients under and over 65 years**
A. Takáts, H. Nagy, A. Tóth (Budapest, Hungary)

GUIDED POSTER TOUR 8 – Surgical therapy: Movement disorders other than Parkinson's disease

Location: Room K21

12:30 – 14:00
Tuesday, June 10, 2014

1241 **The long-term outcomes of pallidal and thalamic deep brain stimulation in dystonia and tremor**
H. Asif, P.G. Bain, D. Nandi, M.J. Naushahi, S. O'Riordan, N. Pavese (London, United Kingdom)

1242 **Utilization of predefined stimulation groups by essential tremor patients treated with VIM-DBS**
M.T. Barbe, J. Pochmann, C. Lewis, N. Allert, J. Wirths, V. Visser-Vandewalle, L. Timmermann (Cologne, Germany)

1243 **Short and long-term outcome of chronic pallidal neurostimulation in DYT6 dystonia**
N. Brüggemann, A. Kühn, S.A. Schneider, C. Kamm, A. Wolters, P. Krause, P. Yu-Yan, F. Steigerwald, M. Wittstock, V. Tronnier, S. Zittel, T. Wächter, R. Krüger, E. Moro, A. Kupsch, A. Münchau, K. Lohmann, J. Volkmann, C. Klein (Lübeck, Germany)

1246 **Clinical outcomes in orthostatic tremor treated with VIM deep brain stimulation**
R.R. Coleman, P.A. Starr, M. Katz, G.A. Glass, M. Volz, S.M. Khandhar, J.L. Ostrem (San Francisco, CA, United States)

1247 **Deep brain stimulation improves motor symptoms and activities of daily living in X-linked dystonia-Parkinsonism (DYT3/Lubag)**
A. Domingo, N. Brüggemann, R. Rosales, R.D. Jamora, C. Diesta, R. Teleg, V. Tadic, S. Zittel, A. Weissbach, A. Westenberger, T. Bäumer, D. Rasche, J. Aguilar, A. Münchau, V. Tronnier, L.V. Lee, C. Klein (Lübeck, Germany)

1256 **Tremor refractory to vim DBS: Are 2 leads better than one, and where should we implant?**
R. Mehanna, A.G. Machado, S. Oravivattanakul, G. Genc, S.E. Cooper (Houston, TX, United States)

1257 **Nutritional profile of dystonic patients submitted to functional surgery**
J.R. Meireles, J.A. Guimarães, M.J. Rosas, R. Vaz (Porto, Portugal)

1258 **Modeling the volume of tissue activation (VTA) during stimulation-induced dyskinesias and effective stimulation in dystonia patients treated with STN DBS**
K.A. Mills, C. de Hemptinne, L.C. Markun, P.A. Starr, J.L. Ostrem (San Francisco, CA, United States)

1259 **Status dystonicus in tardive dystonia due to depletion of deep brain stimulation's pulse generator**
S. Miri, M. Rohani, G.A. Shahidi, M. Parvaresh (Brooklyn, NY, United States)

1268 **Changed taste of DBS for reducing tremor**
A.L. Törnqvist Jensen, N. Montevert, H. Bjartmarz (Lund, Sweden)

1272 **Pallidal deep brain stimulation in Huntington's disease**
S. Zittel, C.K.E. Moll, A. Gulberti, V. Tadic, D. Rasche, W. Hamel, T. Bäumer, V. Tronnier, A. Münchau (Luebeck, Germany)

GUIDED POSTER TOURS

GUIDED POSTER TOUR 9 – Basic science

Location: Room A7

12:00 – 13:30
Wednesday, June 11, 2014

4 **Interplay of striatal projection neurons in the generation of dyskinesia in Parkinson's disease**
C. Alcacer, J. Jakobsson, M.A. Cenci (Lund, Sweden)

9 **TIGAR inactivation rescues dopaminergic neurons in parkin deficiency**
O. Bandmann, M. Keatinge, L. Flinn, M. DaCosta (Sheffield, United Kingdom)

13 **Direct, non-viral neural reprogramming of patient specific fibroblast cell cultures – Properties, possibilities and limitations**
P. Capetian, L. Azmitia, M. Pauly, B. Meier, M. Klett, M. Döbrössy, C. Klein (Lübeck, Germany)

18 **The deubiquitinase USP15 antagonizes parkin-mediated mitochondrial ubiquitination and mitophagy**
T. Cornelissen, D. Haddad, C. Van Humbeeck, W. Mandemakers, B. Koentjoro, C.M. Sue, K. Gevaert, B. De Strooper, P. Verstreken, W. Vandenberghe (Leuven, Belgium)

26 **Impaired maturation of oligodendrocyte precursors in multiple system atrophy**
B. Ettle, V.E.L. May, S. Reiprich, W. Xiang, B. Winner, M. Wegner, E. Masliah, J. Winkler (Erlangen, Germany)

31 **Curation of complex molecular pathways of Parkinson's disease as a collaborative scientific community effort**
S. Gebel, M. Ostaszewski, P. Gawron, P.M.A. Antony, C. Trefois, K.A. Fujita, S.K. Mosch, R. Balling (Esch-sur-Alzette, Luxembourg)

51 **Loss of PARK9 leads to defective autophagy with failure to upregulate Atg8/LC3**
M.C. Kruer, M. Madeo, S. Padilla-Lopez, A. Yarrow, T.N. Jepperson (Sioux Falls, SD, United States)

85 **The distribution of □-synuclein in the enteric nervous system: An immunohistochemical study on colonic resections from 24 control and 4 Parkinson's disease patients**
S.E. Shribman, A.J. Noyce, J.E. Martin, G. Giovannoni, C.H. Knowles (London, United Kingdom)

88 **K63-linked ubiquitination by Nedd4 facilitates endosomal sequestration of internalized alpha-synuclein**
N. Sugeno, T. Hasegawa, N. Tanaka, R. Oshima, M. Konno, E. Miura, A. Kikuchi, T. Baba, M. Fukuda, S. Geisler, M. Aoki, A. Takeda (Sendai, Japan)

GUIDED POSTER TOUR 10 – Dystonia

Location: Room A8

12:00 – 13:30
Wednesday, June 11, 2014

1326 **Hanger reflex has potential to treat cervical dystonia - A multicenter clinical trial with portable device inducing the hanger reflex**
T. Asahi, M. Sato, T. Nakamura, H. Kajimoto, G. Oyama, M. Fujii, A. Hayashi, T. Tiara, S. Kuroda (Toyama, Japan)

1346 **Convergent validity of the revised motor and psychiatric TWSTRS modules of the comprehensive cervical dystonia rating scale (CCDRS)**
C.L. Comella, J.S. Perlmutter, H.A. Jinnah, S. Factor, T.A. Waliczek, A.R. Rosen, W. Galpern, C.G. Goetz, L. Marsh, J. Jankovic, S.H. Fox, M. Zurowski, S.G. Reich, L. Severt, R.L. Barbano, C.H. Adler, R.L. Rodriguez, W. McDonald, G.T. Stebbins (Chicago, IL, United States)

1355 **The clinical syndrome of paroxysmal exercise-induced dystonia: Diagnostic outcomes and an algorithm**
R. Erro, M. Stamelou, C. Ganos, A. Batla, K. Bhatia (London, United Kingdom)

1368 **Cost analysis of rechargeable deep brain stimulator in surgery dystonia-dyskinesia syndrom (DDS)**
V. Gonzalez, L. Fluck, A. Topouchian, L. Cif, S. James, E. Sanrey, D. Capdevielle, A.L. Tichet, P. Coubes (Montpellier, France)

1372 **Improvement of quality of life with duration of botulinum toxin long-term treatment in patients with cervical dystonia**
H. Hefter, D. Rosenthal, M. Moll (Duesseldorf, Germany)

1374 **Safety and efficacy of stereotactic ventrooral-thalamotomy for musician's dystonia**
S. Horisawa, N. Takeda, T. Taira (Tokyo, Japan)

1403 **An autopsy case of predominant generalized dystonia in a patient with cerebellar atrophy**
R. Miyamoto, T. Takeuchi, H. Sumikura, K. Fujita, H. Mure, R. Morigaki, S. Goto, S. Murayama, Y. Izumi, R. Kaji (Tokushima, Japan)

1436 **Oscillatory head movements in cervical dystonia: Dystonic tremor, essential tremor, or both?**
A.G. Shaikh, D.S. Zee, H.A. Jinnah (Atlanta, GA, United States)

1441 **Epidemiology of laryngeal dystonia (LD)**
C.M. Tanner, K.B. Albers, S.M. Goldman, J. Klingman, R.Y. Lo, C. Marras, A.D. Leimpeter, R. Fross, K. Comyns, Z. Gu, R. Smit, A. de Kleijn, G. Bhudhikanok, N. Risch, L. Ozelius, S. Bressman, R. Saunders-Pullman, C.L. Comella, L.M. Nelson, C.L. Ludlow, S.K. Van Den Eeden (San Francisco, CA, United States)

1448 **Acute and selective activation of excitatory neurons in the medial medulla in mice induces a phenotype that resembles cervical dystonia**
V. VanderHorst, B. Ellison, A. Worley, T. Samardzic, C.B. Saper (Boston, MA, United States)

GUIDED POSTER TOURS

GUIDED POSTER TOUR 11 – Parkinsonism (secondary and parkinsonism-plus)

Location: Room A9

12:00 – 13:30
Wednesday, June 11, 2014

265 **Effects of coenzyme Q10 in PSP, a multicenter, randomized, placebo-controlled, double-blind study**
D. Apetauerova, D.G. Standaert, T. Yacoubian, R.W. Hamill, D. Simon, S. Scala (Burlington, MA, United States)

274 **The spectrum of movement disorders in chronic liver disease: A cross-sectional study**
M. Carecchio, T. Fleetwood, S. Fangazio, M. Pagliarulo, E. Soligo, R. Tari, C. Smirne, A. Stecco, A. Carriero, M. Pirisi, C. Comi, R. Cantello (Novara, Italy)

286 **Minimal clinically important worsening on the progressive supranuclear palsy rating scale**
S.C. Hewer, S.A. Varley, A.L. Boxer, D.R. Williams, On Behalf of the AL-108-231 Investigators (Melbourne, Australia)

294 **Movement disorders in West Nile virus disease**
S.S. Kapur, N. Chan, S. Kumar (Oak Lawn, IL, United States)

295 **Pain in multiple system atrophy and progressive supranuclear palsy compared to Parkinson's disease**
L. Kass-Iliyya, C. Kobylecki, K.R. McDonald, A. Gerhard, M.A. Silverdale (Salford, United Kingdom)

302 **Co-pathology and clinical correlation in progressive supranuclear palsy**
C. Kurz, G. Respondek, S. Roeber, E. Gelpí, A. King, C. Troakes, S. Al-Sarraj, J. van Swieten, H. Kretzschmar, T. Arzberger, G. Höglinger (München, Germany)

305 **The temporal dynamics of resting state connectivity in Parkinson's disease**
S.-J. Lin, A. Liu, S.N. Tan, J.Z. Wang, S. Appel-Cresswell, M.J. McKeown (Vancouver, BC, Canada)

324 **Clinical predictors of survival in patients with progressive supranuclear palsy**
G. Respondek, M. Stamelou, C. Kurz, L.W. Ferguson, A. Rajput, W.Z. Chiu, J.C. Van Swieten, C. Troakes, S. el Sarraj, E. Gelpi, C. Gaig, W.H. Oertel, S. Roeber, T. Arzberger, H. Kretzschmar, S. Wagenpfeil, G.U. Höglinger (Munich, Germany)

329 **Whispering disarthria - A diagnostic hint for chronic manganese poisoning**
M.V. Selikhova, E. Tripolity, Y. Sanotsky, Y. Matvienko, H. Staneska, L. Fedorishin, I. Komnatska, A.J. Lees (London, United Kingdom)

341 **Natural history of pathologically confirmed PSP and MSA cases followed at a tertiary center**
T. Xie, U.J. Kang, S.-H. Kuo, P. Greene, S. Fahn (Chicago, IL, United States)

GUIDED POSTER TOUR 12 – Surgical therapy: Parkinson's disease

Location: Room K21

12:00 – 13:30
Wednesday, June 11, 2014

1177 **Quantitative evaluation of the effects of bilateral subthalamic deep brain stimulation (DBS) on balance in Parkinson's disease (PD)**
R. Brant, N. Luna, C.O. Souza, C.P. Souza, D.C. Andrade, J.M. Greve, M.J. Teixeira, E.T. Fonoff, E.R. Barbosa (Belo Horizonte, Brazil)

1180 **Effects of stimulation location on motor outcomes during current-controlled deep brain stimulation for Parkinson's disease**
C.R. Butson, W.J. Elias, W. Tse, L. Verhagen, G. Mandybur, S. Hung, B.H. Kopell, B.V. Gallo, J.E. Arle, K.D. Foote, M.S. Okun (Milwaukee, WI, United States)

1185 **Correlation between pain, other non-motor symptoms, quality of life and motor improvement in patients with Parkinson's disease after deep brain stimulation**
R.G. Cury, M.G. Ghilardi, R. Galhardoni, C. Souza, F. Fonoff, M.A. Marcolin, M.L. Myczkowski, M.J. Teixeira, E.R. Barbosa, E.T. Fonoff, D. Ciampi de Andrade (São Paulo, Brazil)

1190 **trkB signaling mediates neuroprotective and behavioral effects of long-term, high-frequency subthalamic nucleus deep brain stimulation**
D.L. Fischer, N.K. Polinski, C.J. Kemp, A. Cole-Strauss, J.W. Lipton, K. Steece-Collier, K.L. Paumier, T.J. Collier, C.E. Sortwell (Grand Rapids, MI, United States)

1197 **Microelectrode-guided unilateral Forel H1campotomy for Parkinson's disease: Short-term results of nine patients**
F. Godinho, M.S. Rocha, O. Moraes, A. Cravo (Sao Paulo, Brazil)

1208 **Longitudinal study of neural tissue implantation for treatment of Parkinson's disease: Effects on quality of life**
C. McRae, E. Fazio, J. Kuhne, H. Ellgring, D. Russell, K. Hultgren, P. Greene, S. Fahn (Denver, CO, United States)

1211 **Effect of STN-DBS on impulse control disorder and other behavioral complications of Parkinson's disease: A 2-year longitudinal study**
F. Morgante, M. Barbuto, C. Sorbera, A. Epifanio, P. Girlanda, L. Morgante, L. Ricciardi (Messina, Italy)

1216 **Neuropsychological and psychiatric outcome after bilateral deep brain stimulation of the globus pallidus and subthalamic nucleus for advanced Parkinson's disease: A randomized controlled trial**
V.J. Odekerken, J. Hoogland, G.J. Geurtsen, P. van den Munckhof, P.R. Schuurman, B.A. Schmand, R.M. de Bie (Amsterdam, Netherlands)

1226 **Effect of deep brain stimulation on camptocormia in Parkinson's disease inversely correlates to disease duration**
W.J. Schulz-Schaeffer, N.G. Margraf, S. Munser, A. Wrede, G. Deuschl, C. Oehlwein (Goettingen, Germany)

GUIDED POSTER TOURS

GUIDED POSTER TOUR 13 – Sleep disorders and RLS

Location: Room A7

12:00 – 13:30
Thursday, June 12, 2014

786 **Increased risk of impulse control symptoms in Parkinson's disease with REM sleep behavior disorder**
M.L. Fantini, M. Laura, Z. Maurizio, S. Marianna, V. Tiphaine, P. Bruno, D. Berangere, D. Philippe, M. Ana-Raquel, U. Miguel, V. Nicolas, C. Alessandro, L. Leonardo, D. Franck (Clermont-Ferrand, France)

788 **Validation of Berlin and STOP-BANG questionnaires for obstructive sleep apnea screening in Parkinson's disease patients**
P. Gros, V.P. Mery, A.-L. Lafontaine, A.R. Robinson, A. Benedetti, J. Kimoff, M. Kaminska (Montreal, QC, Canada)

789 **Obstructive sleep apnea is affected by levodopa evening dose in Parkinson's disease (PD)**
P. Gros, V.P. Mery, A.-L. Lafontaine, A.R. Robinson, A. Benedetti, J. Kimoff, M. Kaminska (Montreal, QC, Canada)

796 **Aquatic physical therapy for Parkinson's disease patients to improve quality of sleep**
A.P.C. Loureiro, J. Burkot, J. Oliveira, J. Barbosa (Curitiba, Brazil)

800 **Designing neuroprotection in prodromal PD; stratifying PD risk in REM sleep behavior disorder**
R.B. Postuma, J.-F. Gagnon, J.Y. Montplaisir, Postum (Montreal, QC, Canada)

801 **Electroencephalogram slowing as a potential marker for the development of a neurodegenerative disease in REM sleep behavior disorder**
J. Rodrigues Brazète, J. Montplaisir, R.B. Postuma, D. Petit, J.-A. Bertrand, D. Génier Marchand, J.-F. Gagnon (Montreal, QC, Canada)

809 **Characterization of sleep disturbances in a population-based cohort to investigate Parkinson's disease**
S. Tunc, E.-J. Vollstedt, J. Graf, V. Tadic, E. Warrlich, A. Lorwin, J. Hampf, J. Hagenah, C. Klein, M. Kasten (Luebeck, Germany)

810 **Light therapy improves excessive daytime sleepiness associated with Parkinson's disease**
A. Videnovic, A. Marconi, T. Kuhta, S. Miskevics, P. Zee (Boston, MA, United States)

821 **3 cases of lacunar infarction with restless legs syndrome as the main manifestation**
H. Tuo, C. Xu, J. Che, M. Zhao, Y. Qiu, J. Li (Beijing, China)

GUIDED POSTER TOUR 14 – Parkinson's disease: Cognition

Location: Room A8

12:00 – 13:30
Thursday, June 12, 2014

915 **Treatment of cognitive deficits in veterans with Parkinson's disease: A national database analysis**
B.R. Barton, Z.L. Huo, S.L. Kletzel, K.T. Stroupe, C.G. Goetz, F.M. Weaver (Chicago, IL, United States)

916 **Cognitive deficits in veterans with Parkinson's disease: A national database analysis**
B.R. Barton, Z.L. Huo, S.L. Kletzel, K.T. Stroupe, C.G. Goetz, F.M. Weaver (Chicago, IL, United States)

948 **Comparing cerebral perfusion in Alzheimer's disease and Parkinson's disease dementia – An ASL-MRI study**
C.J. Le Heron, S.L. Wright, T.R. Melzer, D.J. Myall, M.R. MacAskill, L. Livingston, R.J. Keenan, R. Watts, J.C. Dalrymple-Alford, T.J. Anderson (Christchurch, New Zealand)

954 **The cognitive correlates of gait in incident Parkinson's disease**
S. Lord, B. Galna, K. Wesnes, D. Burn, G. Duncan, A. Yarnall, L. Rochester (Newcastle upon Tyne, United Kingdom)

960 **Orthostatic hypotension in Lewy body disorders: Associations with cognition and arterial spin labeling (ASL) regional cerebral perfusion**
M.A. Messner, A.D. Robertson, Z. Shirzadi, D.E. Crane, S.V. Kayla, G. Kleiner-Fisman, B.J. MacIntosh, M. Masellis (Toronto, ON, Canada)

967 **Genetic, functional, clinical and neuropsychological confirmation of the different cognitive deficits in Parkinson's disease**
C. Nombela, J.B. Rowe, S.L. Winder-Rhodes, A. Hampshire, A.M. Owen, D.P. Breen, G.W. Duncan, M. Firbank, A.A. Yarmall, T.K. Khoo, T.W. Robbins, P. Chinnery, J.T. O'Brien, D.J. Brooks, D.J. Burn, R.A. Barker (Cambridge, United Kingdom)

973 **Plasma homocysteine and cognitive impairment in Parkinson's disease**
J.F. Quinn, S. Jewell, C. Murchison, N. Carney, B. Lobb, S. O'Connor, K. Chung, C. Zabetian, J. Leverenz, T. Montine, B. Cholerton, K. Edwards, A. Peterson (Portland, OR, United States)

976 **Parkinson's disease pathology and vascular pathology contribute to the development of Parkinson's disease dementia**
L.S. Rosenthal, J.C. Troncoso, O. Pletnikova, S.S. Bassett, G.M. Pontone, Z. Mari, T.M. Dawson (Lutherville, MD, United States)

986 **Mild cognitive impairment in Parkinson's disease-cross-sectional report at initial stage of the disease**
E. Stefanova, I. Stankovic, T. Stojkovic, A. Tomic, V. Spica, G. Mandic Stojmenovic, N. Kresojevic, O. Stojiljkovic, M. Lukic Jecmenica, V. Kostic (Belgrdae, Serbia)

1004 **Progression of mild cognitive impairment in early Parkinson's disease: The ICICLE-PD study**
A.J. Yarnall, G.W. Duncan, T.K. Khoo, R.A. Lawson, T.W. Robbins, K. Wesnes, J.T. O'Brien, D.J. Brooks, R.A. Barker, D.J. Burn (Newcastle, United Kingdom)

GUIDED POSTER TOURS

GUIDED POSTER TOUR 15 – Parkinson's disease: Phenomenology

Location: Room A9

12:00 – 13:30
Thursday, June 12, 2014

1009 **Non-motor symptoms are associated with change in physical activity over 18 months in incident Parkinson's disease (PD)**
G. Barry, S. Lord, A. Godfrey, B. Galna, D. Burn, L. Rochester (Newcastle, United Kingdom)

1036 **PET markers of dopaminergic cell dysfunction and degeneration in LRRK2 mutation carriers**
S. Lavisse, F. Cormier, J.-C. Corvol, S. Lesage, S. Benaich, C. Thiriez, S. Lehericy, A. Brice, P. Remy (Fontenay-aux-Roses, France)

1046 **The GOPARK study – A 10 – years population based cohort study of Parkinson's disease and Parkinsonism in an island-population – with potential for upcoming epigenetic study**
S.E. Pålhagen (Stockholm, Sweden)

1050 **Freezing of gait in Parkinson's disease: Prevalence, determinants and impact on quality of life**
S. Perez-Lloret, L. Negre-Pages, P. Damier, A. Delval, P. Derkinderen, A. Destée, W. Meissner, L. Schelosky, F. Tison, O. Rascol (Toulouse, France)

1054 **Differential pattern of cerebellar atrophy in patients with tremor-predominant and bradikinesia-rigidity-predominat Parkinson's disease**
C.C. Piccinin, L.G. Piovesana, R.P. Guimaraes, M.C.A. Santos, P.C. Azevedo, L.S. Campos, B.M. Campos, F.R. Torres, M.C. França-Jr, A.C. Amato-Filho, I. Lopes-Cendes, F. Cendes, A.C.F. D'Abreu (Campinas, Brazil)

1055 **Mortality in Parkinson's disease: A 38 year follow-up study**
B. Pinter, A. Diem-Zangerl, G.K. Wenning, W. Poewe, K. Seppi (Innsbruck, Austria)

1058 **Discerning effect of cognitive capacity on dual task in Parkinson's disease and healthy controls**
L. Rochester, S. Lord, B. Galna, D. Burn (Newcastle, United Kingdom)

1069 **Different motor and executive profiles in patients with Parkinson's disease and apathy**
S. Varanese, B. Perfetti, P. Di Ruscio, R. Gilbert-Wolf, M. Brys, A. Thomas, M. Onofrj, A. Di Rocco (Chieti, Italy)

1071 **Increased cancer risk in young LRRK2 mutation carriers compared to sporadic Parkinson's disease patients**
B.J. Warø, M. Karaliute, J.O. Aasly (Trondheim, Norway)

GUIDED POSTER TOUR 16 – Tremor

Location: Room K21

12:00 – 13:30
Thursday, June 12, 2014

1127 **The effect of bilateral thalamic deep brain stimulation on speech in patients with essential tremor - Predictors of severity of stimulation-induced deficits**
J. Becker, M.T. Barbe, J. Pochmann, T.A. Dembek, J. Wirths, N. Allert, D. Mücke, I.G. Meister, V. Visser-Vandewalle, M. Grice, L. Timmermann (Cologne, Germany)

1130 **Botulinum toxin treatment for different kind of drug-resistant tremors**
S. Contardi, F. Cavallieri, V. Fioravanti, L. Codeluppi, L. Reverberi, F. Valzania (Modena, Italy)

1136 **Alcohol responsiveness of essential tremor assessed with an objective test**
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512 **A service development study of the assessment and management of fracture risk in Parkinson's disease**
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545 **Intracortical excitability in X-linked dystonia-Parkinsonism**
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554 **Longitudinal changes in volume and shape of striatal nuclei in manifest Huntington's disease**
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555 **Validation of hand tapping as a longitudinal marker of disease progression in Huntington's disease**
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556 **The relationship between dietary intake, nutrition status and Huntington's disease severity**
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558 **Protective effect of tiagabine, a GABA uptake inhibitor, in an animal model of Huntington's disorder**
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559 **Imaging of phosphodiesterase 10A (PDE10A) enzyme and D_2 receptor levels in the living brain of Huntington's disease gene expansion carriers and healthy controls**
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572 **Elevated cytokine release in microglia from Huntington's disease mice is reversed by laquinimod**
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575 **Brain phosphodiesterase 10A (PDE-10A) density in early premanifest HD gene carriers**
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577 **Laquinimod regulates inflammatory gene induction and reduces neurotoxicity in a human model of reactive astrogliosis**
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578 **A drug-drug interaction study of pridopidine, a new drug for treatment of Huntington's disease, and metoprolol, a cytochrome P450 2D6 substrate**
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579 **The effect of renal impairment on the pharmacokinetics of pridopidine, a new dopamine stabilizer for treatment of Huntington's disease**
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627 **PD REHAB: A large pragmatic randomised controlled trial of physiotherapy and occupational therapy versus no therapy in mild to moderate Parkinson's disease**
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1465 **My Parkinson's story: VA PADRECC online educational video series**
J.A. Kraakevik, S. Heath (Portland, OR, USA)

1466 **A pre-operative education package for patients with Parkinson's disease undergoing deep brain stimulation – A single center exploratory study**
C.K.Y. Lau, V.Y.H. Tang, D.T.M. Chan, C.X.L. Zhu, A.Y.Y. Chan, V.C.T. Mok, L.K.S. Wong, J.H.M. Yeung, W.S. Poon (Shatin, Hong Kong)

1467 **Neurology residents' knowledge & practice of Parkinson's disease comprehensive care: Opportunities for education & patient care improvement**
K.A. Mills, C. Dietiker, N.B. Galifianakis, S.L. Heath, S.M. Massa, W.J. Marks, Jr. (San Francisco, CA, USA)

1468 **Information on Parkinson's disease for Africa**
J. Mokaya, R. Walker (Nairobi, Kenya)

1469 **Knowledge of Parkinson's disease (PD) medications among multi-disciplinary team (MDT) members in a rehabilitation & day hospital facility in Australia**
C.P. Padmakumar, M. Rees, A. Johnson, A.N. Withanage (New Lambton Heights, Australia)

1470 **Knowledge of Parkinson's disease (PD) pharmacotherapy in a cohort of elderly patients attending a day hospital programme – Clinical audit in a suburban Australian centre**
C.P. Padmakumar, M. Rees, A.N. Withanage (New Lambton Heights, Australia)

1471 **False 'other Babinski sign': Clue to psychogenic facial movement disorder**
M. Relja, V. Miletic (Zagreb, Croatia)

1472 **The other Babinski sign**
S.D. Varanda, S.P. Rocha, A.M. Rodrigues, Á.S. Machado, G.S. Carneiro (Braga, Portugal)

1473 **The Edmond J Safra visiting nurse faculty program: Innovations in nursing care of people living with Parkinson's disease**
G.M. Vernon, L.B. Perry, R. Dunlop (Philadelphia, PA, USA)

1474 **Taking the next step in Parkinson's disease and dementia education: A qualitative analysis following a collaborative educational event**
T. Williams (Cardiff, United Kingdom)

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1475 **Improving estimates of Parkinson's disease prevalence and incidence in the USA**
J.C. Beck, R.N. Alcalay, J.H. Bower, H. Chen, C. Marras, B.A. Racette, B. Ritz, W.A. Roca, G.W. Ross, R. Savica, P. Schmidt, M.A. Schwarzschild, C.M. Tanner, S.K. Van Den Eeden, A.W. Willis (New York, NY, USA)

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1476 **Economic burden of Parkinson's disease in a population of Monterrey, Mexico**
L. Cantú-Martínez, I. Estrada-Bellman, R. Mora-Villalvazo, E. Salinas-Lezama, H.R. Martínez (Monterrey, Mexico)

1477 **Risk of adverse cardiovascular reactions in Parkinson's disease patients treated with pramipexole: A systematic review**
J. Crispo, Y. Fortin, L. Sikora, S. Perez Lloret, D. Mattison, D. Krewski (Ottawa, ON, Canada)

1478 **Ex-vivo MRI in manganese exposed South African miners**
S.R. Criswell, G. Nelson, L.F. Gonzalez-Cuyar, J. Huang, J.S. Shimony, H. Checkoway, C.D. Simpson, B.A. Racette (St. Louis, MO, USA)

1479 **Diabetes and risk of Parkinson's disease: Evidence from the population-based NEDICES study**
E. De Pablo-Fernández, F. Sierra-Hidalgo, Á. Sánchez-Ferro, J. Benito-León, F. Bermejo-Pareja (Dartford, United Kingdom)

1480 **Identifying Parkinson's at-risk population in Russia: Screening strategy and first results (the PARKINLAR study)**
E.Y. Fedotova, A.O. Chechetkin, N.Y. Abramycheva, L.A. Chigaleychik, N.S. Alekseeva, P.A. Fedin, T.A. Ponomareva, M.A. Kravchenko, S.N. Illarioshkin (Moscow, Russia)

1481 **Devising a new screening instrument for Parkinsonism: Comparison of discriminative ability of different questionnaires**
S.-M. Fereshtehnejad, M. Shafieisabet, A. Rahmani, F. Farhadi, H. Hadizadeh, G.A. Shahidi, A. Delbari, J. Lökk (Stockholm, Sweden)

1482 **Screening of Parkinsonism in Tehran urban area, Iran: A community-based door-to-door prevalence-study**
S.-M. Fereshtehnejad, M. Shafieisabet, A. Rahmani, A. Delbari, J. Lökk (Stockholm, Sweden)

1483 **Inverse association between Yerba Mate (Ilex paraguaiensis) consumption and the risk of Parkinson's disease**
E.M. Gatto, C.M. Melcon, V. Parisi, L. Bartoloni, C. Gonzalez, A. Tomoko, N. Garreto, H. Pavon, J. Bueri, M. Matiazzi (Buenos Aires, Argentina)

1484 **Treatment of functional motor disorders**
J.M. Gelauff, Y.E.M. Dreissen, M.A.J. Koning-Tijssen, J. Stone (Groningen, Netherlands)

1485 **Influence of gender in Parkinson's disease, a transversal study from clinical features to transcriptome analysis**
L. Hopes, E. Mutez, J. Salleron, S. Bleuse, P. Semaille, T. Comptdaer, N. Wauquier, J.-P. Legendre, L. Defebvre, A. Destée, M.-C. Chartier-Harlin (Lille cedex, France)

1486 **Oral health and nutritional status in patients affected with Parkinson's disease**
S.S. Katpattil (Mangalore, India)

1487 **Hospitalisation and comorbidities in Parkinson's disease: A large Australian retrospective study**
M. Lubomski, R.L. Rushworth, S. Tisch (Sydney, Australia)

1488 **Prevalence of fluctuating non motor symptoms in a population of Parkinson's disease patients in Spain**
M.-R. Luquin, J.-C. Martinez-Castrillo, P.J. Garcia-Ruiz, Spanish Group for the Study of NMS of PD (Pamplona, Spain)

1489 **Substantia nigra echogenicity and olfactory function as predictors for mild Parkinsonian signs: A prospective population-based study**
P. Mahlknecht, S. Kiechl, J. Willeit, H. Stockner, A. Gasperi, W. Poewe, K. Seppi (Innsbruck, Austria)

1490 **Prevalence of neurodegenerative Parkinsonism in an isolated population South-Eastern Moravia, Czech Republic**
L. Mikulicová, K. Mensíková, M. Kaiserová, M. Vastík, P. Otruba, S. Kurcová, T. Bartoníková, P. Dudová, M. Godava, P. Kanovský (Olomouc, Czech Republic)

1491 **Use of complementary therapies among persons with PD**
L.K. Mischley, J.E. Duda (Kenmore, WA, USA)

1492 **Parkinson's disease age of onset in an Arab cohort - Is it really more early?**
S. Nahrir, A.M. Al-Harthy, J.A. Bajwa (Riyadh, Saudi Arabia)

1493 **Causes of falling in hospitalized patients with advanced Parkinson's disease**
M. Narducci, I. Ajdini, P. Di Ruscio, E. Petricca, M. Onofrj, S. Varanese (Chieti, Italy)

1494 **Acute movement disorders in psychiatric emergency**
A.A. Nasri, I. Ben Ghzaeil, O. Moula, L. Robbana, A. Bouasker, R. Ghachem (Mannouba, Tunisia)

1495 **The validity of the Japanese version of the REM sleep behavior disorder (RBD) screening questionnaire for detecting probable RBD in the general population**
T. Nomura, Y. Inoue, T. Kagimura, M. Kusumi, K. Nakashima (Yonago, Japan)

1496 **Prevalence and quality of life in patients with restless legs syndrome in a Serbian district**
T. Pekmezovic, M. Svetel, J. Jovic, V.S. Kostic (Belgrade, Serbia)

1497 **The reduced risk of incident diabetes mellitus in a large population based cohort of Parkinson's disease patients**
C. Peretz, O. Chillag-Talmor, S. Linn, T. Gurevich, B. El-Ad, B. Silverman, N. Friedman, N. Giladi (Tel Aviv, Israel)

1498 **The incidence of Parkinson's disease: A systematic review and meta-analysis of studies from 2001 to 2011**

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T.M. Pringsheim, N. Jette, A. Frolkis, T.D.L. Steeves (Calgary, AB, Canada)

1499 Clinical features and trends across Parkinson's disease patients in different geographical areas from Mexico
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1500 Time trends in the incidence of Parkinsonism and Parkinson's disease in Olmsted County, Minnesota over thirty years
R. Savica, B.R. Grossardt, J.H. Bower, J.E. Ahlskog, W.A. Rocca (Salt Lake City, UT, USA)

1501 Medications for Parkinson's disease in low and middle income countries: A multi-national study of availability, affordability, and cost
H. Shah, F. Mateen, T. Dua (New York, NY, USA)

1502 Exposure to pesticides in individuals with Parkinson's disease
H.H. Siqueira, D. Domingues, A. Demleitner, C.R. Gonçalves, C.C. Brito, D. Zaffari, M.T.A. Ferraz, T.F. Bertão, K.M. Monteiro (Cuiaba, Brazil)

1503 Movement disorders and other associated neurological disorders in patients with enterobiasis
K. Stepanchenko (Kharkiv, Ukraine)

1504 Sleep disturbances in patients with restless legs syndrome: Community-based study in a Serbian district
M. Svetel, T. Pekmezovic, J. Dedic, V.S. Kostic (Belgrade, Serbia)

1505 Causes of hospitalization in Parkinson's disease
M. Tacconelli, P. Di Ruscio, R. Dell'Oso, A. Trovarelli, M. Onofrj, S. Varanese (Chieti, Italy)

1506 Bone health in Parkinson's disease: A systematic review and meta-analysis
K.M. Torsney, A.J. Noyce, K.M. Doherty, J.P. Bestwick, R. Dobson, A.J. Lees (London, United Kingdom)

1507 A systematic review and meta-analysis of fracture risk in Parkinson's disease
K.M. Torsney, A.J. Noyce, K.M. Doherty, J.P. Bestwick, R. Dobson, A.J. Lees (London, United Kingdom)

1508 New data of prevalence of Parkinson's disease in Ukraine
Y.O. Trufanov (Lugansk, Ukraine)

1509 Impact of lifestyle factors on risk and age of onset of Parkinson's disease in Sri Lanka – A clinic based study
R.S. Wijeyekoon, R. Gamage, M.D. Fernando, A. Jayasuriya, V. Suriyakumara, R.P.P. Dinalee, D.H. Amarasinghe, H. Gunasekara, D. Sirisena, D. Amarathunga, C.H. Williams-Gray, R.A. Barker, K.R.D. De Silva (Cambridge, United Kingdom)

1510 Anti-inflammatory drugs delay the onset of dementia in an incident Parkinson's disease cohort
C.H. Williams-Gray, S.L. Mason, T. Foltynie, R.A. Barker (Cambridge, United Kingdom)

1511 Epidemiology of Parkinson's disease and atypical Parkinsonian syndromes in Russia
Y. Winter, J. Bezdolnij, E. Katunina, W.H. Oertel, R. Dodel, E. Gusev (Marburg, Germany)

1512 Socioeconomic status in relation to Parkinson's disease morbidity and all-cause mortality: A total population study in Sweden
F. Yang, A. Johansson, N.L. Pederssen, F. Fang, M. Gatz, K. Wirdefeldt (Stockholm, Sweden)

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1513 Progressive encephalomyelitis with rigidity and myoclonus: A new variant with DPPX antibodies
B. Balint, S. Nagel, C. Probst, I.M. Blöcker, R. Bahtz, L. Komorowski, W. Stöcker, H.-M. Meinck (Heidelberg, Germany)

1514 Sustained effect of botulinum neurotoxin therapy in myoclonus due to epilepsia partialis continua – A case series
J.R. Bedarf, M. Marek, C.G. Bien, C.E. Elger, S. Paus (Bonn, Germany)

1515 Co-occurrence of subcortical and cortical post hypoxic myoclonus
M. Beudel, J.C. van Zijl, J.W.J. Elting, M.A.J. Tijssen (Groningen, Netherlands)

1516 Pacemaker-induced pseudo-myoclonic status following cardiac surgery for infective endocarditis in a young patient with rheumatoid arthritis and embolic cerebellar stroke
F.M. Branco Germiniani, L.d.C. Pereira da Cunha, M.C. Lange, V.F. Zétola, J. Koslyk, G. Tansini, J.C. Kristochik, R. Cirino, A.L. Canteri, A. Moro, W.O. Arruda, H.A. Teive (Curitiba, Brazil)

1517 Falls in an elderly man caused by orthostatic negative myoclonus
J.E. O'Leary, J. Nutt (Portland, OR, USA)

1518 Movement disorders and epilepsy: Unferricht-Lundborg disease
G.V. Odintsova, N.Y. Koroleva, L.A. Saykova (Saint Petersburg, Russia)

1519 Cortical myclonus: A case series
I. Parees, A. Sadnicka, L. Wijesekera, M.J. Edwards, K.P. Bhatia, C. Cordivari (London, United Kingdom)

1520 Acquired cerebellar syndrome
A.B. Tokcaer, A.A. Gurses (Ankara, Turkey)

1521 Does orthostatic myoclonus originate in the cerebral cortex?
J.A. van Gerpen (Jacksonville, FL, USA)

1522 Myoclonus-dystonia. First report in Mexico

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S. Velazquez-Osuna, D. Davila-de Montellano, M. Rodriguez-Violante, N. Monroy-Jaramillo, A. Cervantes-Arriaga (Mexico City, Mexico)

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1523 **Nocturnal polyuria in patients with Parkinson's disease reporting nocturia**
A. Batla, M. Smith, J. Seth, J. Hofereiter, K.P. Bhatia, J.N. Panicker (London, United Kingdom)

1524 **Rasagiline effect on bladder disturbances in early mild Parkinson's disease patients**
L. Brusa, S. Musco, A. Stefani, P. Stanzione, E. Finazzi Agro' (Rome, Italy)

1525 **Physiological and functional changes in the colon of MPTP-treated common marmosets**
E. Coletto, I. Tough, M. Iravani, A. Hikima, M. Jackson, K.R. Chaudhuri, P. Jenner, H. Cox, S. Rose (London, United Kingdom)

1526 **Quantitative analysis of catecholaminergic neurons in the submucosal plexus in Parkinson's disease**
A.-G. Corbillé, T. Lebouvier, E. Coron, S.B. Des Varannes, M. Neunlist, P. Derkinderen (Nantes, France)

1527 **Diagnostic utility of unilateral cold stress test with hand thermography in Parkinson's disease**
F. Escamilla-Sevilla, I. Antonio-Rubio, C.J. Madrid-Navarro, E. Salazar-López, M.J. Pérez-Navarro, C. Sáez-Zea, E. Gómez-Milán, A. Mínguez-Castellanos (Granada, Spain)

1528 **Tilt-table testing predicts pathological nocturnal blood pressure profiles in Parkinson's disease and multiple system atrophy**
A. Fanciulli, S. Strano, J.P. Ndayisaba, G. Goebel, L. Gioffrè, M. Rizzo, C. Colosimo, C. Caltagirone, W. Poewe, G.K. Wenning, F.E. Pontieri (Innsbruck, Austria)

1529 **Immunohistochemical study of the most distal axons of the cardiac sympathetic nerve in Parkinson's disease**
Y. Fumimura, T. Ichikawa, S. Toru, T. Kobayashi, K. Hirokawa, S. Orimo, H. Mizusawa, T. Uchihara (Tokyo, Japan)

1530 **A case of non motor symptoms in Parkinson's disease**
K. Harutyunyan, I. Gabrielyan, H. Amirjanyan, G. Avagyan, S. Khachaturyan, A. Voskanyan, A. Sahakyan, A. Avetisyan, H. Manvelyan (Yerevan, Armenia)

1531 **Integrated efficacy of droxidopa for neurogenic orthostatic hypotension**
R.A. Hauser, S. Isaacson, H. Kaufmann, L.A. Hewitt (Tampa, FL, USA)

1532 **In MPTP-treated common marmosets spontaneous and neurogenic contractions of the isolated detrusor strips of MPTP treated common marmoset are markedly enhanced compared to untreated animals**
M.M. Iravani, S. Pritchard, A. Hikima, M.J. Jackson, S. Rose, K.R. Chaudhuri, P. Jenner (Hatfield, United Kingdom)

1533 **Association of vitamin D and cardiac autonomic neuropathy in Parkinson's disease**
W. Jang, J. Park, H.-T. Kim (Gangneung, Korea)

1534 **Severity of orthostatic hypotension in Parkinson's disease: No correlation with the duration of the disease**
W.H. Jost, S. Augustis (Wolfach, Germany)

1535 **Decreased levels of CSF chromogranin A may indicate severity of vascular sympathetic dysregulation in early stage PD**
M. Kaiserova, H. Prikrylova Vranova, D. Stejskal, K. Mensikova, P. Kanovsky (Olomouc, Czech Republic)

1536 **Integrated safety of droxidopa for neurogenic orthostatic hypotension**
H. Kaufmann, R.A. Hauser, J.P. Lisk, C.B.N. Szakacs (New York, NY, USA)

1537 **Is psychological stress induced-salivary alpha-amylase secretion as a biomarker for Parkinson's disease?**
K. Kawabe, M. Yanagihashi, Y. Ishikawa, T. Takazawa, O. Kano, K. Ikeda, Y. Iwasaki (Tokyo, Japan)

1538 **Study of the frequency of some clinical symptoms as possible precursors of Parkinson's disease**
L.A. Khublarova, O.A. Balunov (Saint-Petersburg, Russia)

1539 **24hr ambulatory blood pressure monitoring in SWEDDs with Parkinson's disease**
H.-T. Kim, S.-J. Kang, M.H. Kim, J.Y. Ahn (Seoul, Korea)

1540 **The spectrum of autonomic dysfunction in Parkinson's disease**
I. Liepelt-Scarfone, A. Pilotti, S. Graeber, J. Streffer, D. Berg (Tuebingen, Germany)

1541 **Gastroparesis symptoms in early Parkinson's disease: Part of a wider spectrum of autonomic and non-motor dysfunction**
S.L. Marrinan, N. Malek, N.P. Bajaj, R.A. Barker, Y. Ben-Shlomo, T. Foltynie, H.R. Morris, N. Williams, N.W. Wood, D.G. Grosset, A.V. Emmanuel, D.J. Burn (Newcastle upon Tyne, United Kingdom)

1542 **Heart rate variability by passive leg raising test in patients with Parkinson's disease and multiple system atrophy in early stages**
V.A. Martínez Villota, J.D. Triana, W. Fernández Escobar (Pasto, Colombia)

1543 **Leptin and ghrelin concentrations associated with cardiovascular dysautonomia in Parkinson's disease**
T. Nakamura, A. Okada, Y. Mizutani, J. Suzuki, Y. Okada, M. Hirayama, G. Sobue (Nagoya City, Japan)

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1544 **Cortical atrophy in patients with Parkinson's disease and orthostatic hypotension**
M. Pilleri, L. Weis, V. Marcon, R. Biundo, S. Facchini, A. Antonini (Venice-Lido, Italy)

1545 **Nizatidine ameliorates gastroparesis in Parkinson's disease**
R. Sakakibara, H. Doi, F. Tateno, M. Kishi, Y. Tsuyusaki (Sakura, Japan)

1546 **MIBG scintigraphy in pre-motor Parkinson's disease: Cases of constipation and cases of memory disorder**
R. Sakakibara, F. Tateno, M. Kishi, Y. Tsuyusaki (Sakura, Japan)

1547 **In vivo gastric detection of α-synuclein inclusions in Parkinson's disease**
A. Sanchez-Ferro, A. Rabano, M.J. Catalan, F. Canga Rodriguez-Valcarcel, S. Fernandez Diez, J. Herreros-Rodriguez, E. Garcia-Cobos, M. Mata Alvarez-Santullano, L. Lopez-Manzanares, A.J. Mosqueira, L. Vela Desojo, J.J. Lopez-Lozano, E. Lopez-Valdes, J.A. Molina-Arjona (Cambridge, MA, USA)

1548 **Gut microbiota are associated with Parkinson's disease and clinical phenotype – A case-control study**
F. Scheperjans, V. Aho, P.A.B. Pereira, K. Koskinen, L. Paulin, E. Pekkonen, E. Haapaniemi, S. Kaakkola, J. Eerola-Rautio, M. Pohja, E. Kinnunen, K. Murros, P. Auvinen (Helsinki, Finland)

1549 **Detection of covert autonomic dysfunction in Parkinson's disease using continuous non-invasive blood pressure monitoring**
S. Shah, A. Hellman, S. Pawlowski, J.E. Duda, J.F. Morley (Philadelphia, PA, USA)

1550 **Autonomic imbalance in Parkinson's disease patients with or without LRRK2 gene mutations**
P. Solla, C. Cadeddu, A. Cannas, N. Mura, R. Farris, M. Deidda, P.P. Bassareo, G. Mercuro, F. Marrosu (Monserrato, Italy)

1551 **Anti-parkinsonian medication may aggravate constipation in patients with newly diagnosed idiopathic Parkinson's disease**
T.O. Son, J. Youn, J.W. Cho (Seoul, Korea)

1552 **Distorted circulatory response to static handgrip and post-exercise ischemia in Parkinson's patients**
A. Strasz, A. Gasiorowska, A. Karbowniczek, W. Niewiadomski, E. Palasz, M. Zylinski, M. Skupinska, G. Cybulski (Warsaw, Poland)

1553 **Constipation is reduced in Parkinson's disease patients treated with beta-blockers: A case report and retrospective analysis of 300 patients**
M. Tagliati, A. Bautista, G. Pagano (Los Angeles, CA, USA)

1554 **Urinary dysfunction during voiding phase is correlated with not age but motor severity in patients with Parkinson's disease**
T. Uchiyama, Z. Liu, T. Yamamoto, C. Shibata-Yamaguchi, Y. Watanabe, K. Hashimoto, H. Tateno, Y. Higuchi, T. Shingo, M. Yanagisawa, M. Fuse, T. Yamanishi, R. Sakakibara, S. Kuwabara, K. Hirata (Tochigi, Japan)

1555 **α-Synuclein pathology accumulates in spinal visceral afferent pathways in Parkinson's disease**
V. VanderHorst, T. Samardzic, C.B. Saper, J.A. Schneider, D.A. Bennett, A.S. Buchman (Boston, MA, USA)

1556 **24 hour ambulatory blood pressure monitoring in Parkinson's disease and multiple system atrophy**
E. Vichayanrat, D.A. Low, E. Stuebner, V. Iodice, C.J. Mathias (London, United Kingdom)

1557 **Non-motor symptoms in patients with Parkinson's disease, essential tremor and both diseases**
I. Wurster, A. Abaza, N. Runge, M. Rüdiger-Albers, I. Liepelt-Scarfone, D. Berg (Tuebingen, Germany)

1558 **Exercise stress testing results during the premotor phase of Parkinson's disease**
G. Yahalom, E. Maor, S. Hassin-Baer, S. Segev, Y. Sidi, S. Kivity (Ramat-Gan, Israel)

LATE-BREAKING ABSTRACTS

LBA 1 - A randomized trial of creatine monohydrate to impede Parkinson disease (PD) progression

LBA 2 - Progressive nigrostriatal neurodegeneration associated with α-synuclein spreading and pathology induced by AAV-mediated overexpression of mutant synuclein in mice, rats and marmosets

LBA 3 - Targeting of the red nucleus for cerebellar tremor

LBA 4 - The Effects of Tyrosine on Orthostatic Hypotension and Autonomic Responses in Parkinson Disease: Randomized, Double-blind, Placebo-Controlled Trial

LBA 5 - Levodopa restores the deficient motor cortex plasticity in aging

LBA 6 - Cerebrospinal fluid neurofilament light chain discriminates multiple system atrophy from Parkinson's disease

LBA 7 - Low Muscle Strength in Late Adolescence is Associated with an Increased Risk of Parkinson's Disease Later in Life: A Nationwide Cohort Study

LBA 8 - Autologous Mesenchymal Stem Cells in patients with Progressive Supranuclear Palsy: results from an open phase first-in-man approach

LBA 9 - Severe and reversible Presynaptic Ligand SPECT captation reduction in Akinetic Crisis of Parkinsonism and neuroleptic malignant syndrome

LBA 10 - The adenosine A_{2A} receptor antagonist, istradefylline enhances anti-parkinsonian effects of dopamine agonists in MPTP-treated common marmosets

LBA 11 - Effectiveness and safety of acupuncture and bee venom acupuncture in idiopathic Parkinson's disease

LBA 12 - Comparative analysis of human iPS cell-derived dopaminergic neurons from monozygotic twins discordant for Parkinson's disease

LBA 13 - Cognitive and cortical thinning patterns of subjective cognitive decline in patients with and without Parkinson's disease

LBA 14 - Dose Escalation of Oral Octanoic Acid for Treatment of Essential Tremor - A Safety Study

LBA 15 - Deep Brain Stimulation at short pulse width results in superior therapeutic windows for treatment of Parkinson's Disease: a randomized, controlled, double-blind neurostimulation trial (CUSTOM-DBS)

LBA 16 - A Chinese Familial Cortical Myoclonic Tremor with Epilepsy Pedigree Localized on Chromosome 8q22.3-q24.13

LBA 17 - First 1-year real-life study to assess management of augmentation of restless legs syndrome by switching to rotigotine patch

LBA 18 - DPI-289, a novel bi-functional delta agonist / mu antagonist (DAMA) therapy for Parkinson's disease

LBA 19 - AbobotulinumtoxinA (Dysport®), improves disease-specific quality of life in patients with cervical dystonia, as measured by Patient-Reported Outcomes, in a Phase III, randomized, double-blind, placebo-controlled study

LBA 20 - Targeting muscarinic receptor subtypes as a therapeutic approach in dystonia

LBA 21 - Ultra-micronized Palmitoylethanolamide ultra-micronized in Parkinson's disease

LBA 22 - Withdrawn

LBA 23 - The caudal Zona incerta does not prove suitable as a target for deep brain stimulation in Parkinson's disease

LBA 24 - Neurologist Care Prevents of 4,500 Deaths Annually in Patients with Parkinson's Disease in the US: A Meta-Analysis

LBA 25 - Spastic movement disorder treated by AbobotulinumtoxinA (Dysport®) in the hemiparetic upper limb: a randomized, double-blind, placebo-controlled, Phase III study

LBA 26 - Introduction of a new treatment concept – levodopa/carbidopa microtablets

LBA 27 - White matter involvement may explain phenotypic pleiotropy amongst genes involved in episodic movement disorders

LBA 28 - Targeting impulsivity in Parkinson's disease using atomoxetine

LBA 29 - A Panel of 9 Cerebrospinal Fluid Biomarkers May Aid in the Differential Diagnosis of Parkinsonian Disorders: A Prospective Cohort Study

LBA 30 - Getting 'personal' with rasagiline therapy in early Parkinson's disease: A retrospective pharmacogenetic study of the ADAGIO trial

LBA 31 - Development of L-745,870, a selective D4 receptor antagonist, for the treatment of L-DOPA-induced dyskinesia

LBA 32 - Gait disorders and freezing in patients with ephedrone parkinsonism

LBA 33 - VANTAGE trial: Twelve month (12 mo.) follow up of a prospective, multi-center trial evaluating Deep Brain Stimulation with a new multiple-source, constant-current rechargeable system (Vercise™) in Parkinson's disease

LBA 34 - Evolution of sleep disturbances in early Parkinson's disease: a longitudinal study

MDS STUDY GROUP ABSTRACTS

SG 1 - MDS study group validation of MDS criteria for mild cognitive impairment in Parkinson's disease

SG 2 - MRI plani- and volumetry in the diagnosis of progressive supranuclear palsy

SG 3 - Co-pathology and clinical correlation in progressive supranuclear palsy

SG 4 - Clinical predictors of survival in patients with progressive supranuclear palsy

SG 5 - Non-motor dominant profiles in Parkinson's disease: First analysis from an international naturalistic study

SG 6 - Non-motor symptoms in drug naïve versus long-term Parkinson's disease patients: Results from an UK multicenter study

SG 7 - A novel Parkinson's disease pain questionnaire (King's PD pain quest): The patient's perspective

SG 8 - Validation of a novel Parkinson's disease pain scale (King's PD pain scale): A multicentre pilot study

SG 9 - Non motor symptoms profile in black and south Asian minority ethnic subjects compared to white Caucasians with Parkinson's disease: A prospective multicentre comparative study between London South and India

SG 10 - Bilateral subthalamic stimulation improves aspects of non-motor symptoms in Parkinson's disease

SG 11 - Profile of non-motor symptoms in patients with Parkinson's disease of 20 years duration: Data from an international collaboration

SG 12 - Prevalence, severity and correlates of impulse control disorders in Parkinson's disease patients with dementia

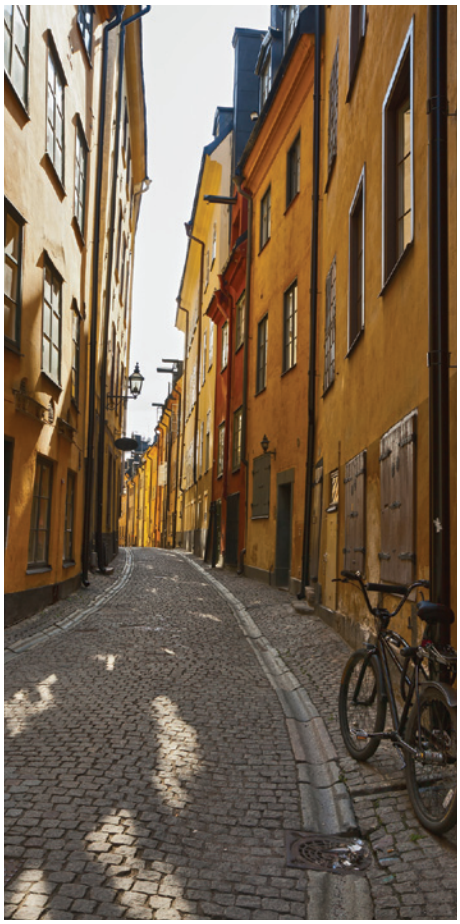
SG 13 - Neuropsychiatric symptoms in Parkinson's disease (PD): An epidemiological study based on the scale for evaluation of neuropsychiatric disorders in PD

SG 14 - Global MSA Registry (GLOMSAR): Objectives and Methodology

SG 15 - Clinical characteristics of long-term survivors in multiple system atrophy: An analysis of the EMSA-SG registry

SG 16 - Cognitive impairment in multiple system atrophy. A position statement by the neuropsychology task force of the MDS multiple system atrophy (MODIMSA) study group

SG 17 - The Movement Disorder Society-Endorsed PSP Study Group



CORPORATE THERAPEUTIC SYMPOSIA

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

Monday, June 9, 2014

Britannia Pharmaceuticals Ltd.

14:00 – 15:00
Location: Victoria Hall

20 years of apomorphine therapy: How does it compare to levodopa?

Chair: Andrew Lees
London, United Kingdom

Continuous infusion-based drug delivery strategies: What is new in comparative data?
K. Ray Chaudhuri
London, United Kingdom

Delayed time-to-ON morning akinesia, or dose failure – oral levodopa response and GI dysfunction
Stuart Isaacson
Boca Raton, FL, USA

Teva Pharmaceutical Industries/Lundbeck A/S

14:00 – 15:00
Location: Room A1

The spectrum of Parkinson's disease treatment

Chair: Olivier Rascol
Toulouse, France

ADAGIO follow-up study: The natural history of Parkinson's disease
C. Warren Olanow
New York, NY, USA

Adjunct rasagiline to treat Parkinson's disease patients with motor fluctuations: A randomized double-blind study in China
Zhen-Xin Zhang
Beijing, China

Impact of pharmacological interventions on quality of life in Parkinson's disease patients
Heinz Reichmann
Dresden, Germany

Panel discussion

Tuesday, June 10, 2014

UCB Pharma S.A.

14:00 – 15:00
Location: Victoria Hall

Treatment strategy to improve Parkinson's disease patients' well-being throughout their journey

Chair: Per Odin
Lund, Sweden and Bremerhaven, Germany

Holistic treatment strategy to improve the lives of Parkinson's patients beyond motor symptoms
Javier Pagonabarraga
Barcelona, Spain

Treatment of early Parkinson's disease now to impact outcome in years to come
Lars Timmermann
Cologne, Germany

Long-term benefits of rotigotine transdermal patch in the treatment of Parkinson patients' journey
Angelo Antonini
Venice, Italy

AbbVie

14:00 – 15:00
Location: Room A1

Key components of successful strategies to manage patients with advanced Parkinson's disease

Chair: Werner Poewe
Innsbruck, Austria

Chair's welcome and introduction: Optimizing management of patients with APD: Challenges and opportunities
Werner Poewe
Innsbruck, Austria

Panel Discussion: Patient-centric approach to APD management: Perspectives from the multidisciplinary team
Bastiaan Bloem
Nijmegen, Netherlands
Stephen Pedersen
Copenhagen, Denmark
Dag Nyholm
Uppsala, Sweden
Dirk Domagk
Muenster, Germany

Continuous dopaminergic stimulation to improve patient outcomes
The latest data: Efficacy and safety of duodopa
K. Ray Chaudhuri
London, United Kingdom

Building on clinical trial experience: Duodopa case presentation
Regina Katzenschlager
Vienna, Austria

CORPORATE THERAPEUTIC SYMPOSIA

Wednesday, June 11, 2014

Ipsen

13:30 – 14:30
Location: Victoria Hall

Opening new horizons for patients with movement disorders

Chair: Werner Poewe
Innsbruck, Austria

Patient perspectives on their disease management
Mike Barnes
Newcastle upon Tyne, United Kingdom

Results of a phase III study in cervical dystonia with abobotulinumtoxinA liquid formulation
Werner Poewe
Innsbruck, Austria

New toxins to address patient's needs
Keith Foster
Abingdon, United Kingdom

Thursday, June 12, 2014

Zambon SpA

13:30 – 14:30
Location: Victoria Hall

Old myths and new facts in PD: The future role of dual dopaminergic/glutamatergic modulation in mid- to late-stage disease

Chair: Susan Fox
Toronto, ON, Canada

Chair Introduction
Susan Fox
Toronto, ON, Canada

The dopaminergic/glutamatergic imbalance in PD models: Implications for treatment and disease progression
Michele Morari
Ferrara, Italy

Unmet needs in mid- to late-stage PD: From pathophysiology to current treatments
Paolo Barone
Napoli, Italy

Rational treatment approaches in PD: Aligning mechanisms of action with mechanisms of disease and progression
Heinz Reichmann
Dresden, Germany

Scientific and Technology Pavilion

Medtronic, Inc.
Tuesday, June 10
10:00-17:00
Location: Room K11

Through the Science and Technology Pavilion, MDS' industry partners provide delegates the opportunity to learn about the latest science in an interactive session.

The Medtronic Innovation Center takes delegates on a journey from a garage in Minneapolis, MN, USA, in 1949 to a company today with technologies that improve a life every 3 seconds in tireless pursuit of Medtronic's enduring Mission: alleviate pain, restore health and extend life.

CME credit is not given for any activities in the Science and Technology Pavilion. All Congress participants are encouraged to visit the Pavilion.

EXHIBITOR INFORMATION

Exhibit Hall

Location: Exhibition Hall B

Please allow adequate time in your daily schedule to visit the Exhibit Hall. The exhibition is an integral component of your International Congress experience, offering you the opportunity to speak with representatives of companies providing services or marketing products directly related to Movement Disorders.

Exhibit Hall hours are as follows:

Monday, June 9 ..... 9:00 – 18:00
Tuesday, June 10 ..... 9:00 – 18:00
Wednesday, June 11 ..... 9:00 – 18:00
Thursday, June 12 ..... 9:00 – 16:00

Exhibitor Registration

Location: Entrance Hall, Ground Level

Exhibitors must register and pick up their badge at the Exhibitor Registration Desk.

Exhibitor Registration Desk hours are as follows:

Saturday, June 7: ..... 16:00 – 20:00
Sunday, June 8: ..... 7:00 – 20:00
Monday, June 9: ..... 7:00 – 18:00
Tuesday, June 10: ..... 7:00 – 18:00
Wednesday, June 11: ..... 7:00 – 18:00
Thursday, June 12: ..... 7:00 – 16:00

Exhibitor Badge Policy

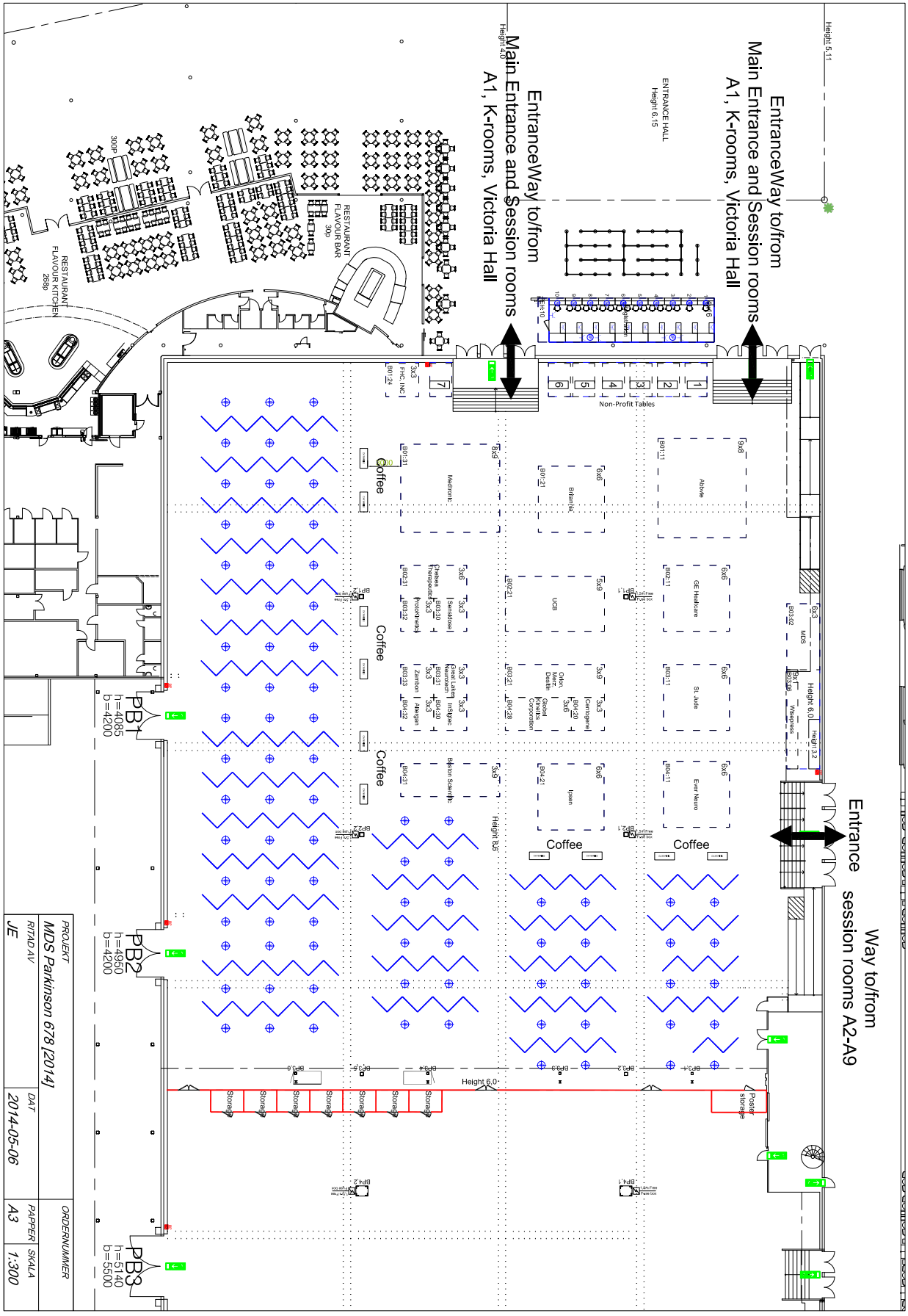
Admission to the Exhibit Hall will be by name badge only. Security guards will monitor Exhibit Hall entrances for proper identification. Exhibit stand personnel must show an official MDS exhibitor name badge in order to gain access to the Exhibit Hall during installation, show, or dismantlement hours.

Exhibitor Personnel Badge (Yellow): Allows admittance to the Exhibit Hall only.

Endorsement Disclaimer

Products and services displayed in the Exhibit Hall or advertised in the program occur by contractual business arrangements between MDS and participating companies and organizations. These arrangements do not constitute nor imply an endorsement by MDS of these products and services.

EXHIBIT AND POSTER HALL FLOOR PLAN



EXHIBITOR DIRECTORY

ABBVIE INC.

1 North Waukegan Road
North Chicago, IL 60064
United States
Telephone: +1 800-255-5162
Website: www.abbvie.com

Booth #: B01:11

AbbVie is a global, research-based biopharmaceutical company formed in 2013 following separation from Abbott. The company's mission is to use its expertise, dedicated people and unique approach to innovation to develop and market advanced therapies that address some of the world's most complex and serious diseases. In 2013, AbbVie employs approximately 21,000 people worldwide and markets medicines in more than 170 countries. For further information on the company and its people, portfolio and commitments, please visit www.abbvie.com. Follow @abbvie on Twitter.

ALLERGAN INC.

2525 Dupont Dr.
Irvine, CA 92612
USA
Telephone: +1 714-246-4500
Website: www.allergan.com

Booth #: B04:32

Allergan is a multi-specialty health care company established more than 60 years ago with a commitment to uncovering the best of science and helping people reach their life's potential. With approximately 11,400 employees worldwide, we are committed to discovering new therapies to treat unmet medical needs in eye care, neurosciences, medical aesthetics, medical dermatology, breast aesthetics and urology.

BOSTON SCIENTIFIC

25155 Rye Canyon Loop
Valencia, CA 91355
USA
Telephone: +1 661-949-4220
Website: www.vercise.com

Booth #: B04:31

Boston Scientific is a worldwide developer, manufacturer and marketer of medical devices whose products are used in a broad range of interventional medical specialties. As an innovation leader in Neuromodulation and implantable Deep Brain Stimulation Technology, Boston Scientific is committed to transforming lives through innovative medical solutions that improve the health of patients.

BRITANNIA PHARMACEUTICALS LTD.

100 Berkshire Place
Wharfedale Roade
Winnersh, Berkshire RG41 5RD
United Kingdom
Telephone: +44 11 892 15900
Website: www.britannia-pharm.co.uk

Booth #: B01:21

Britannia Pharmaceuticals Limited is a UK based pharmaceutical company specializing in niche innovative products for chronic and serious medical conditions, and in particular, the treatment of patients with Parkinson's disease.

The need for apomorphine as a treatment option for Parkinson's disease has led to the development of APO-go and other associated brands around the globe, which are available in many countries through our Distribution or Licensing Partners. For more information please visit www.britannia-pharm.com or www.apo-go.com.

CENTOGENE AG

Schillingallee 68
Rostock 18057
Germany
Website: www.centogene.com

Booth #: B04:20

CENTOGENE is a leading laboratory in genetic testing for rare hereditary disorders. We support medical professionals with advanced genetic testing services, providing high quality reports to make the right decisions for your patients. CENTOGENE is active in diagnosing rare genetic diseases worldwide. This gives us a clear understanding of the importance of ethnicity-specific results, further improving the benefit for your patients. CENTOGENE has implemented a prestigious international quality control scheme at its laboratory, holding multiple accreditations including ISO, CAP and CLIA.

CHELSEA THERAPEUTICS

3530 Toringdon Way, Suite 200
Charlotte, NC 28277
USA
Telephone: +1 704-341-1516
Fax: +1 704-752-1479
Website: www.chelseatherapeutics.com

Booth #: BO2:31

Chelsea Therapeutics is a biopharmaceutical company that acquires and develops innovative products for the treatment of a variety of human diseases, including central nervous system disorders.

EXHIBITOR DIRECTORY

DESTIN ARZNEIMITTEL GMBH

Weg beim Jaeger 214
Hamburg D-22335
Germany
Telephone: + 49 40 591010
Fax: + 49 40 59101366
Website: www.desitinpharma.com
Booth #: B03:21

Desitin is a successful pharmaceutical company, founded 1919 in Germany, independent, family owned, fully integrated with own production and affiliates around Europe.
Today Desitin is well established as a specialist in the field of CNS, primarily Epilepsy and Parkinson's disease and also blepharospasm/ dystonia/spasticity; recently entered Dermatology in Scandinavia.

DYSTONIA EUROPE

37 Square de Meeus, 4th floor
Brussels 1000
Belgium
Telephone: +46 739 984961
Website: www.dystonia-europe.org

Table #: 7

Dystonia Europe is the platform at the European level for all dystonia stakeholders in Europe. We work in partnership with patient advocacy groups, clinicians, researchers, healthcare professionals, and the pharmaceutical and medical device industry.

By connecting people across Europe we aim to raise awareness, spread information and promote research within the field of dystonia.

EUROPEAN PARKINSON'S DISEASE ASSOCIATION (EPDA)

1 Northumberland Street
Trafalgar Square
London WC2N 5BW
United Kingdom
Telephone: +44 207 8725510
Fax: +44 207 8725611
Website: www. epda.eu.com

Table #: 1

EPDA is the only European umbrella organization for Parkinson's disease, representing 45 member organizations and advocates for the rights and needs of over 1.2 million people. Its vision is to enable a full life whilst supporting the search for a cure; aiming to raise the profile of Parkinson's, enabling people to be treated effectively and equally throughout Europe.

EVER NEURO PHARMA GMBH

Oberburgau 3
Unterach 4866
Austria
Telephone: +43 7665 20 555 530
Fax: +43 7665 20 555 910

Booth #: B04:11

EVER Neuro Pharma is an Austrian pharmaceutical company focused on the field of neuroscience. Based on our experience and proprietary R&D technology platform we develop innovative therapies for neurological disorders.

At the core of our technologically mature and safe products is Cerebrolysin®, a neurotrophic peptide compound which mimics the actions of endogenous neurotrophic factors. Among other agents our product portfolio is strengthened with Dacepton® (apomorphine hydrochloride) for the treatment of disabling motor symptoms of Parkinson´s disease and Tachyben® (urapidil hydrochloride) for patients with hypertensive emergencies.

The future development of therapies for neurological diseases will increasingly rely on the pleiotropic, multifunctional approach. Recognizing this trend we keep to our endeavor for further refinement of the neurotrophic therapies, and for constant improvement of our patient oriented services.

FHC, INC.

1201 Main Street
Bowdoin, ME 04287
USA
Telephone: +1 207-666-8190
Fax: +1 207-666-8292
Website: www.fh-co.com

Booth #: B01:24

For over 40 years FHC has served the neuroscience community with a commitment to innovate through collaboration. Come see the new software for our Guideline 4000 LP+™ Recording/ Stimulating System, learn about our Neurocase surgical support options and our improved STarFix Platform for patient-specific stereotaxy. Demo our WayPoint™ Navigator Planning System and STar™ Microdrive Systems, all backed with 24x7 technical support.

EXHIBITOR DIRECTORY

GE HEALTHCARE

Pollards Wood, Nightingales Ln,
Chalfont, St. Giles
Buckinghamshire, HP8 4SP
United Kingdom
Telephone: +44 1494 544000
Website: www.gehealthcare.com

Booth #: B02:11

GE Healthcare delivers a broad portfolio of diagnostic solutions for neurological conditions and takes comprehensive approach to understanding Alzheimer's and dementia through its on-going research to uncover the causes, risks and effects of these diseases enabling early access to accurate diagnosis. GE Healthcare offers a broad portfolio of imaging resources including the manufacture of SPECT and PET imaging agents, platforms to scan patients and is developing image analysis software to support physicians in the interpretation of the results. GE Healthcare seeks to transform the diagnosis of dementia to enable improved patient treatment and management.

GLOBAL KINETICS CORPORATION PTY LTD.

530 Collins Street, Level 6
Melbourne, VIC 3000
Australia
Telephone: +61 3 9605 0034
Website: www.globalkineticscorporation.com

Booth #: B04:28

GKC has developed the Parkinson's KinetiGraph (PKG) for objective, ambulatory assessment of people with Parkinson's (PWP). The PKG records movement continuously for up to 10 days in a PWP's home environment (using a simple wrist worn device) and reports their clinical state including scaled measures of bradykinesia and dyskinesia relative to controls, fluctuation severity in respect of the timing of medication, a record of self-reported compliance and daytime immobility (which is representative of sleep).

GREAT LAKES NEUROTECH

10055 Sweet Valley Drive
Valley View, OH 44125
USA
Telephone: +1 855-456-3876
Fax: +1 216-361-5420
Website: www.GLNeuroTech.com

Booth #: B03:31

Kinesia technology is integrated in clinical trials around the globe for Parkinson's disease and movement disorders. Intelligent remote sensing technology increases sensitivity and reliability of outcome measures, improves efficiency with web applications and expands accessibility by remote monitoring and telemedicine.

INSIGHTEC

5 Nachum Heth St.
Tirat Carmel 39012
Israel
Telephone: +972 4 8131313
Website: www.insightec.com

Booth #: B04:30

InSightec is the world leader in MR-guided Focused Ultrasound (MRgFUS) therapy. Its latest product, ExAblate Neuro, is the first system capable of performing a highly accurate thalamotomy with no incision and no radiation while also allowing real-time anatomic and physiologic feedback during surgery.

IPSEN

65 Quai Georges Gorse
Boulogne Billancourt
Haut-de-Seine 92100
France
Telephone: +33 1 58 33 6058
Website: www.ipsen.com

Booth #: B04:21

Ipsen is a global specialty-driven pharmaceutical company with total sales exceeding €1.2 billion in 2012. Ipsen's ambition is to become a leader in specialty healthcare solutions for targeted debilitating diseases. Its development strategy is supported by three franchises: urology-oncology, endocrinology and neurology. Moreover, the Group has an active policy of partnerships. Ipsen's R&D is focused on its innovative and differentiated technological platforms, peptides and toxins. In 2012, R&D expenditure totaled close to €250 million, representing more than 20% of Group sales.

EXHIBITOR DIRECTORY

KINETICS FOUNDATION

280 Second Street, Suite 220
Los Altos, CA 94022
USA
Telephone: +1 503-720-1668
Website: www.kineticsfoundation.org

Table #: 6

The Kinetics Foundation is a private bioengineering philanthropy in Silicon Valley. Our Objective Parkinson's Disease Measurement (OPDM) System is a platform for functional biomarkers of PD. Our latest system OPDM 2.0 works on web and smartphone platforms. We also inform surgical trials on direct drug delivery techniques to the brain.

MEDTRONIC INTERNAIONAL TRADING SÁRL

Route du Molliau 31
Tolochenaz CH – 1131
Switzerland
Telephone: +41 21 802 7000
Website: www.medtronic.com

Booth #: B01:31

At Medtronic, we're committed to innovating for life by pushing the boundaries of medical technology and changing the way the world treats chronic disease. To do that, we're thinking beyond products and beyond the status quo - to continually find more ways to help people live better, longer.

MERZ GMBH & CO. KGAA

Eckenheimer Landstrase 100
Frankfurt am Main D-60318
Germany
Telephone: +49 69 15030
Fax: +49 69 1503200
Website: www.merz.com

Booth #: B03:21

Merz is a privately held pharmaceuticals company based in Frankfurt, Germany.

We are active in research, development and distribution of innovative aesthetic medicine and dermatology as well as in the fields of movement disorders, Alzheimer's disease, hepatic encephalopathy and Parkinson's disease.

NATIONAL SPASMODIC TORTICOLLIS ASSOCIATION

9920 Talbert Avenue
Fountain Valley, CA 92708
United States
Telephone: +1 800-487-8385
Website: www.torticollis.org

Table #: 5

The mission of the National Spasmodic Torticollis Association is to support the needs and wellbeing of affected individuals and families; to promote awareness and education; to advance research for more treatments and ultimately a cure. Over the years, NSTA has helped thousands of people in their search for relief from the pain and disability caused by ST.

ORION CORPORATION ORION PHARMA

Orionintie 1
Espoo FI-20101
Finland
Telephone: +358 10 426 4441
Website: www.orion.fi/en

Booth #: B03:21

Orion Pharma is a Finnish listed company dedicated to treating and preventing disease by discovery, and developing innovative human and veterinary medicinal treatments for global markets. Our core therapy areas are CNS, critical care and asthma therapy. Find out more at www.orion.fi/en.

PARKINSON'S MOVEMENT

C/o The Cure Parkinson's Trust, St. Botolph's Church
London EC3N 1AB
England
Telephone: +44 207 929 7656
Website: www.parkinsonsmovement.com

Table #: 4

Parkinson's Movement (PM) was established by The Cure Parkinson's Trust to ensure the patient voice is heard, and has influence on, all areas of practice in relation to Parkinson's Disease. A patient-driven community group, PM produces an informative Webinar series, a quarterly newsletter and conducts regular surveys and polls among patient groups. PM has a strong presence at major PD conferences and also organizes its own research events. PM is proactive across social media sites as well as its own website. It has strong links with PD organizations around the world and provides regular commentary and opinion on research news, conferences and PD-related events as well as publishing articles.

EXHIBITOR DIRECTORY

PROTOKINETICS GAIT ANALYSIS WALKWAYS

60 Garlor Drive
Havertown, PA 19083
USA
Telephone: +1 610-449-4879
Fax: +1 610-853-2925
Website: www.protokinetics.com

Booth #: B03:32

Use the Zeno Walkway powered by PKMAS software to quickly and easily produce temporal/spatial and pressure parameters over a variety of testing protocols. The equipment offers easy output of objective measures during the evaluation and clinical research of individuals with CNS disorders, ABI, CVA, TKR/THR, prosthetics, orthotics, general aging, etc.

SENSIDOSE AB

Virdings Allé 32B
Uppsala 75450
Sweden
Telephone: +46 18 7011 804
Website: www.sensidose.se

Booth #: B03:30

The individual dosage requirement is of great importance in Parkinson Disease.

Using micro-tablets dispensed by a dosing device, tablet treatment regimes can be individualized. The Sensidose system enables adjustment of the dose, and dosing schedule, according to each patient's individual needs.

ST. JUDE MEDICAL

Av Da Vinci Iaan 11 – Box F1
Zaventem B-1935
Belgium
Telephone: +32 2 774 6844
Website: www.sjm.com

Booth #: B03:11

St. Jude Medical develops medical technology designed to put more control into the hands of those who treat cardiac, neurological and chronic pain patients worldwide. The company is dedicated to advancing the practice of medicine by reducing risk wherever possible and contributing to successful patient outcomes. Learn more at sjmprofessional.com.

SWEDISH PARKINSON'S DISEASE ASSOCIATION

Skeppargatan 52
Stockholm 114 58
Sweden
Telephone: +46 866 62070
Website: www.parkinsonforbundet.se

Table #: 2

The Swedish Parkinson's Disease Association is a non-profit, democratic organization that is politically, religiously and commercially independent. The purpose of the Association is to work for people with Parkinson's and their families. The Association also runs a Foundation to support Swedish Clinical Parkinson's Research.

UCB PHARMA SA

Allée de la Recherche 60
Brussels 1070
Belgium
Telephone: +32 2 559 9427
Website: www.ucb.com

Booth #: B02:21

UCB, Brussels, Belgium is a global biopharmaceutical company focused on the discovery and development of innovative medicines and solutions to transform the lives of people living with severe diseases of the immune system or of the central nervous system. With about 9000 people in approximately 40 countries, the company generated revenue of EUR 3.4 billion in 2012. UCB is listed on Euronext Brussels (symbol: UCB).

WISEPRESS MEDICAL BOOKSHOP

25 High Path, Merton Abbey
London SW19 2JL
United Kingdom
Telephone: +44 20 8715 1812
Website: www.wisepress.com

Booth #: B03:06

Wisepress are Europe's principal conference bookseller. We exhibit the leading books, sample journals and digital content relevant to this meeting. Books may be purchased at the booth, and we offer a postal service. Visit our online bookshop for special offers and follow us on Twitter for the latest news @WisepressBooks.

EXHIBITOR DIRECTORY

WORLD PARKINSON COALITION

1359 Broadway, Suite 1509
New York, NY 10018
United States
Telephone: +1 212-923-4700
Fax: +1 212-923-4778
Website: www.worldpdcongress.org

Table #: 3

The 4th World Parkinson Congress, will take place from September 20 – 23, 2016 in Portland, OR, USA. By bringing some of the world's most respected movement disorder specialists, neuroscientists, nurses, rehab specialists together with people with Parkinson's and care partners, WPC 2016 will provide a vibrant international forum to learn about the latest scientific discoveries, medical practices, and care initiatives for PD. Visit www.worldpdcongress.org for more information.

ZAMBON SPA

Via Lillo del Duca 10
Bresso 20091
Italy
Telephone: +39 02 66524265
Website: www.zambongroup.com

Booth #: B03:33

Zambon is a leading Italian family company that has operated for 108 years in the chemical and pharmaceutical industries. The company is well-established in 3 therapeutic areas: respiratory, pain and woman care. Zambon is also focusing on strengthening the respiratory area with the treatment of severe diseases such as chronic obstructive pulmonary disease (COPD) and cystic fibrosis (CF), with the acquisition of Pharma Profile from Philips. Zambon is carrying on the 132 million Euro investments plan for the years 2013 – 2017 in supporting research and development.

The Group entered into a new important therapeutic area, the Central Nervous System (CNS), with the molecule Safinamide for the treatment of Parkinson's disease. The Respiratory Business and CNS are the two main drivers of the development strategy of the company. Zambon, headquartered in Milan, is present in 73 countries with more than 2,600 employees and 21 operating subsidiaries.

SUPPORTER ACKNOWLEDGEMENT

MDS acknowledges the following supporters of these 2014 International Congress activities through unrestricted educational grants:

Therapeutic Plenary Session 1101: *Early/Mid/Late Parkinson journey*, supported by UCB Pharma S.A.

Therapeutic Plenary Session 1103: *Treatment of non-motor Parkinson's disease*, supported by ACADIA Pharmaceuticals

Parallel Session 2203: *Dyskinesias associated with old and new therapies in Parkinson's disease*, supported by Adamas Pharmaceuticals

Parallel Session 4203: *New Developments in Deep Brain Stimulation*, supported by Medtronic, Inc.

Plenary Session 5103: *Blue Ribbon Highlights*, supported by UCB Pharma S.A.

2014 MDS Video Challenge, supported by Allergan

Guided Poster Tour 3: *Clinical Trials*, supported by UCB Pharma S.A.

Guided Poster Tour 10: *Dystonia*, supported by Allergan

Guided Poster Tour 12: *Surgical Treatments of Parkinson's disease,* supported by Boston Scientific

Guided Poster Tour 13: *Sleep Disorders and RLS*, supported by UCB Pharma S.A.

ACKNOWLEDGEMENT OF SUPPORT

The International Congress Oversight Committee of the 18th International Congress of Parkinson's Disease and Movement Disorders wishes to acknowledge and thank the following companies for their support:

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IPSEN Innovation for patient care

Medtronic

TEVA Neuroscience

TEVA

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UCB Inspired by patients. Driven by science.

Zambon

Bronze Level

ACADIA Pharmaceuticals

ADAMAS™

ALLERGAN

Boston Scientific

These companies are confirmed as of May 5, 2014.


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To address healthcare challenges across the world, we unite a biotech spirit with the strength of a successful pharmaceutical business. The result is a biopharmaceutical company combining science, passion, and expertise to improve health and healthcare in new ways. Making a remarkable impact in people's lives is more than our promise. It's our purpose.

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4th Asian and Oceanian Parkinson's Disease and Movement Disorders Congress

Pattaya, THAILAND
November 28-30, 2014

For more information, please visit:
www.movementdisorders.org/AOPMC2014

International Parkinson and Movement Disorder Society
Asian & Oceanian Section
Main Organiser

THAI PDMDS
Host Organiser

MDS-0114-742

Important Dates

January 30, 2014 — Abstract Submission Opens
May 15, 2014 — Registration Opens
July 15, 2014 — Abstract Submission Closes
November 1, 2014 — Pre-registration Closes

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**Above sponsors confirmed as of May 1, 2014.*

International Parkinson and
Movement Disorder Society

Certifies that

has attended the International Parkinson and Movement Disorder Society's
18th International Congress of Parkinson's Disease and Movement Disorders on
June 8 – 12, 2014 in Stockholm, Sweden

Matthew Stern
President,
International Parkinson and
Movement Disorder Society,
2013-2015

Victor Fung
Chair,
Congress Scientific Program Committee,
2013 - 2015

Per Odin
Co-Chair,
Congress Scientific Program Committee,
2014

NOTES

NOTES

NOTES

International Parkinson and Movement Disorder Society

SAVE THE DATE

WWW.MDSCONGRESS2015.ORG

IMPORTANT DATES

OCTOBER 1, 2014
Abstract Submission Opens

DECEMBER 3, 2014
Registration Opens

JANUARY 5, 2015
Abstract Submission Closes

APRIL 17, 2015
Early Registration Deadline

MAY 15, 2015
Final Pre-Registration Deadline

JUNE 14-18, 2015
19th International Congress of Parkinson's Disease and Movement Disorders

19TH INTERNATIONAL CONGRESS OF PARKINSON'S DISEASE AND MOVEMENT DISORDERS

JUNE 14-18
2015
SAN DIEGO, CA, USA

CYNAPSUS

RESTORING MOVEMENT WITH EASE

Cynapsus is proud to be a supporter of the 18th International Congress of Parkinson's Disease and Movement Disorders.

Cynapsus is a specialty pharmaceutical company developing a convenient and easy to use sublingual (oral mucosal) thin film strip for the acute rescue of "OFF" motor symptoms of Parkinson's disease.

Cynapsus' drug candidate, APL-130277, is an easy-to-administer, fast-acting reformulation of apomorphine, which is the only approved drug (in the United States, Europe, Japan and other countries) to rescue patients from "OFF" episodes caused by motor fluctuations.

Cynapsus is focused on completing the clinical and regulatory development of APL-130277 such that it might provide patients, their care givers and neurologists a more convenient, safer and more tolerable means of managing these "Off" episodes.

FOR MORE INFORMATION, PLEASE CONTACT:
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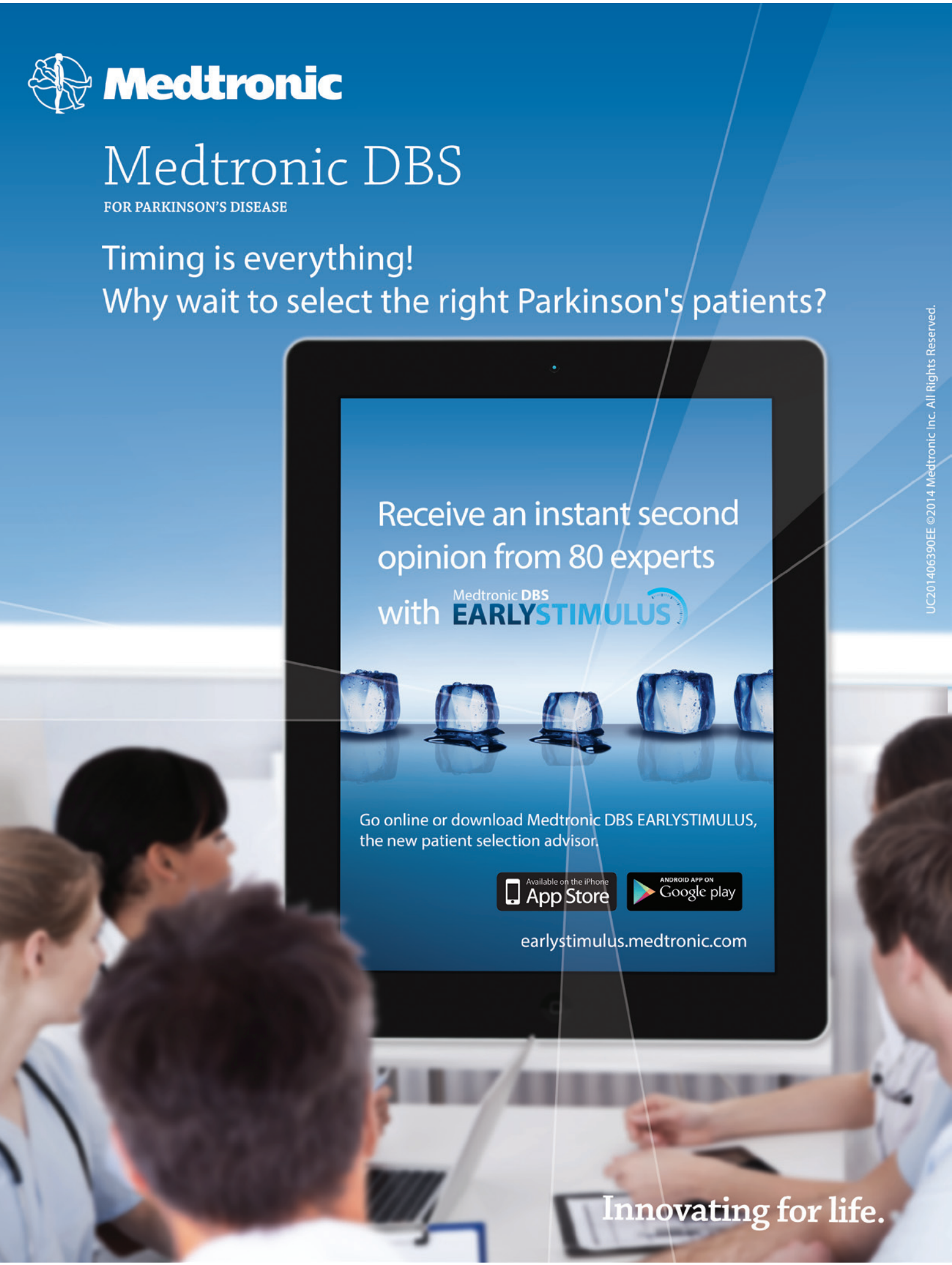

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