Sunday, December 13, 2009

OPENING SESSION
15:00-17:00 Hall V
Non medical management issues in PD
Chairpersons: S. Calne, Canada
R. Hagestuen, USA

15:00
Parkinson's Disease and issues related to driving
R.J. Uitti, Jacksonville, FL, USA

15:20
Piloting the NPF data-driven quality initiative to improve Parkinson's disease management
M. Okun, Gainesville, FL, USA

15:40
Community-based rehabilitation: from neurons to neighborhoods
M. Hirsch, Charlotte, NC, USA

16:10
Who cares for the caregiver?
C. Dyck, Vancouver, BC, Canada

16:20
Practical strategies for sexual interventions in Parkinson’s Disease
G. Bronner, Ramat-Gan, Israel

16:40
Discussion

WELCOME SESSION
18:15-20:00 Hall I
Welcome Words
R.A. Hauser, Tampa, FL, USA
Co-Chairman, Organizing Committee

E. Ch. Wolters, Amsterdam, The Netherlands
Chairman, WFN Research Group Parkinsonism and Related Disorders

Honoring Nathan Slewett and his contributions to the field of Parkinson's Disease
A.V. Deutch, Nashville, TN, USA
Co-Chairman, Organizing Committee

Nathan Slewett Presentation
N. Slewett, USA

Keynote Lecture:
Do prions cause Parkinson’s Disease?
S. Prusiner, USA

Keynote Lecture:
Moments of Victory
D. Phinney, Boulder, CO, USA

Questions and Answers
Monday, December 14, 2009

**VIDEO SESSION**
07:15-08:00  Hall III
Psychogenic movement disorders

07:15
Psychogenic movement disorders
J. Jankovic, Houston, TX, USA

07:35
Psychogenic dystonia and myoclonus: Clinical features and treatment
S. Factor, Atlanta, GA, USA

07:55
Discussion

**BREAKFAST SESSION**
07:15-08:00  Hall IV
Emergencies in PD

07:15
Emergencies in PD (acute dyskinesia, PD and general surgery, pulmonary dysfunction)
M. Onofrj, Chieti, Italy

07:35
Emergencies in PD
P. Pal, Bangalore, India

07:55
Discussion

**PLENARY SESSION**
08:00-10:00  Hall I
Not your father’s Parkinson’s Disease: Non-Motor symptoms of PD
Chairpersons:  E. Melamed, Israel
              R.A. Hauser, USA

08:00
Neuropathology of non-motor features of Parkinson Disease
D.W. Dickson, Jacksonville, FL, USA

08:30
Non-motor extranigral signs and symptoms in Parkinson’s Disease
E. Ch. Wolters, Amsterdam, The Netherlands

09:00
Imaging non-motor symptoms of PD
A.J. Stoessl, Vancouver, BC, Canada

09:30
The implications of non-motor symptoms in PD
A. Schapira, London, UK

**PARALLEL SESSION**
10:30-12:00  Hall II
Sleep in PD
Chairperson:  A. Walters, USA

10:30
Sleepiness in Parkinson’s disease
I. Arnulf, Paris, France

11:00
REM sleep behavior disorder: can you predict Parkinson’s in your dreams?
R. Postuma, Montreal, QC, Canada

11:30
Update on the pathophysiology of the Restless Legs Syndrome – Is there an RLS/PD connection?
D. Rye, USA

07:35
Risk factors for primary late-onset dystonia
G. Defazio, Bari, Italy

07:55
Discussion

**BREAKFAST SESSION**
07:15-08:00  Hall V
Non-Motor functions of the STN (insight form intracerebral recordings)

07:15
Cognitive functions in the STN - insight from intracerebral recording
I. Rektor, Brno, Czech Republic

07:35
What neurophysiological recodings tell us about cognitive and behavioral functions of the human STN
S. Marceglia, Milan, Italy

07:55
Discussion

**BREAKFAST SESSION**
07:15-08:00  Hall VI
Epidemiology of dystonia

07:15
Epidemiology of dystonia
S. Goldman, Sunnyvale, CA, USA
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<th><strong>PARALLEL SESSION</strong></th>
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<tbody>
<tr>
<td><strong>10:30-12:00</strong> Hall III</td>
<td><strong>10:30-12:00</strong> Hall V</td>
<td><strong>10:30-12:00</strong> Hall VI</td>
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<tr>
<td>Mobility and exercise in movement disorders</td>
<td>Spanish Language Symposium I (<em>This session will be in Spanish only</em>)</td>
<td>Platform Abstracts 1</td>
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<tr>
<td>Chairperson: G. Petzinger, USA</td>
<td>Chairperson: R. de la Fuente-Fernandez, Vancouver, BC, Canada</td>
<td>Chairpersons: M. Stacy, USA J. Miyasaki, CA</td>
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**PARALLEL SESSION**

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<thead>
<tr>
<th>Time</th>
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<th>Speaker(s)</th>
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<tbody>
<tr>
<td>10:30</td>
<td>Mobility and exercise in movement disorders</td>
<td>Hall III</td>
<td>Triggering endogenous neuroprotective processes through exercise in models of dopamine deficiency</td>
<td>M.J. Zigmond, Pittsburgh, PA, USA</td>
</tr>
<tr>
<td>11:00</td>
<td>Mobility and exercise in movement disorders</td>
<td>Hall III</td>
<td>Mobility and exercise in movement disorders</td>
<td>N. Giladi, Tel Aviv, Israel</td>
</tr>
<tr>
<td>11:30</td>
<td>Mobility and exercise in movement disorders</td>
<td>Hall III</td>
<td>Exercise programs improve mobility and balance in people with Parkinson’s Disease</td>
<td>L. Gobbi, Rio Claro, Brazil</td>
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**PARALLEL SESSION**

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<tbody>
<tr>
<td>10:30</td>
<td>Mitochondrial dysfunction in Parkinson’s disease</td>
<td>Hall IV</td>
<td>Is there a pathogenic role for mitochondria in PD?</td>
<td>S. Przedborski, New York, NY, USA</td>
</tr>
<tr>
<td>11:00</td>
<td>Mitochondrial dysfunction in Parkinson’s disease</td>
<td>Hall IV</td>
<td>The MitoPark mouse - using mouse genetics to impair DA neuron mitochondria</td>
<td>M.I. Ekstrand¹,²,¹Huddinge, Sweden, ²New York, NY, USA</td>
</tr>
<tr>
<td>11:30</td>
<td>Mitochondrial dysfunction in Parkinson’s disease</td>
<td>Hall IV</td>
<td>Therapeutic approaches to mitochondrial dysfunction in Parkinson’s disease</td>
<td>M.F. Beal, New York, NY, USA</td>
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**PLATFORM ABSTRACTS**

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<tr>
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<tbody>
<tr>
<td>12:00</td>
<td>Platform Abstracts 1</td>
<td>Hall VI</td>
<td>A phase I/II clinical trial to evaluate the safety and efficacy of ProSavin®, a gene therapy approach for Parkinson’s disease</td>
<td>S. Ralph, Oxford, UK</td>
</tr>
<tr>
<td>12:12</td>
<td>Platform Abstracts 1</td>
<td>Hall VI</td>
<td>Assessing non-cortical glucose metabolism in corticobasal syndrome</td>
<td>D. Claassen, Charlottesville, VA, USA</td>
</tr>
<tr>
<td>12:24</td>
<td>Platform Abstracts 1</td>
<td>Hall VI</td>
<td>Different types of alpha-synuclein are degraded by autophagic pathway</td>
<td>L. Chunfeng, Suzhou, China</td>
</tr>
<tr>
<td>12:36</td>
<td>Platform Abstracts 1</td>
<td>Hall VI</td>
<td>Alpha-synuclein-directed alterations in membrane electrophysiological properties: potential role for alpha-synuclein pores in cell death</td>
<td>L.R. Feng, Washington, DC, USA</td>
</tr>
</tbody>
</table>
Synaptic plasticity of corticostriatal and thalamostriatal systems in Parkinson’s disease
Y. Smith, Atlanta, GA, USA

PYM50028 (Cogane™) is a small molecule inducer of GDNF and BDNF that reverses behavioural impairment in MPTP-lesioned macaques
J.M. Brotchie, Toronto, ON, Canada

How do we define PD?
Chairperson and speaker: A.E. Lang, Canada

How useful will stem cells be for movement disorders?
Chairperson and speaker: R. MacKay, USA

What is the future of the a-synuclein story and PD?
Chairperson and speaker: L. Stefanis, Greece

Interactions between dopamine, alpha-synuclein, and autophagy
D. Sulzer, New York, NY, USA

Mice over-expressing wild-type human alpha-synuclein as tools for therapeutic discovery in Parkinson’s disease
M.-F. Chesselet, Los Angeles, CA, USA

How useful will stem cells be for movement disorders?
J.W. Langston, USA

Systemic involvement in Parkinson’s Disease (PD): Lesions outside the CNS
E. Melamed, Israel

Dealing with the devil in the detail - some thoughts about the next model of the basal ganglia
G. Arbuthnott, Uruma, Japan

The spectrum of clinical manifestations of basal ganglia disorders: a challenge for any new model
J. Obeso, Pamplona, Spain

Basal ganglia circuits and circuit disorders: A look back and forward
M. Delong, USA

Scales and measurement of dysfunction in Parkinson’s Disease:
depression and anxiety
L. Marsh, Baltimore, MD, USA

Scales to evaluate psychosis in Parkinson’s disease
C.G. Goetz, Chicago, IL, USA
PARALLEL SESSION
15:00-16:30 Hall IV
Allied health interventions for movement disorders
Chairperson: S. Calne, Canada

15:00
Allied health interventions for movement disorders
B. Bloem, Nijmegen, The Netherlands

15:30
Intensive voice treatment for Parkinson disease (LSVT LOUD): a neuroplasticity principled approach supported by technology
L. Ramig 1, 2, Boulder, CO, USA

16:00
Motor learning in Parkinson’s Disease: Limitations and potential
A. Nieuwboer, Leuven, Belgium

PARALLEL SESSION
15:00-16:30 Hall V
Movement disorders with systemic metabolic involvement
Chairperson: W. Ondo, Houston, TX, USA

15:00
Wilson’s Disease
N. Gouider-Khouja, Tunis, Tunisia

15:30
Movement disorders with systemic metabolic involvement
O. Gershanik, Buenos Aires, Argentina

16:00
Gaucher’s Disease and Parkinson’s Disease
N. Wood, London, UK

CME SUPPORTED SESSION
18:15-19:45 Hall I
Hyperkinetic Movement Disorders
Supported by an unrestricted educational grant from Lundbeck
Chairperson: J. Jankovic, Houston, TX, USA

18:15
An update on Huntington Disease
J. Jankovic, Houston, TX, USA

18:45
An update on Tourette Syndrome
H. Singer, Baltimore, MD, USA

19:15
An update on Tardive Dyskinesia
S. Factor, Atlanta, GA, USA

PARALLEL SESSION
15:00-16:30 Hall VI
Parkinson’s care in Africa
Chairperson: M. Guttman, Canada

15:00
Case finding & training
R. Walker, Tyne and Wear, UK

15:30
Parkinson’s Disease in Sub-Saharan Africa
M. Guttman, Markham, ON, Canada

16:00
Roundtable discussion on issues related to PD in Africa
R. Walker1 and M. Guttman2, 1Tyne and Wear, UK, 2Markham, ON, Canada
Tuesday, December 15, 2009

VIDEO SESSION
07:15-08:00 Hall III
Unusual hyperkinetic movement disorders

07:15
K. Sethi, Augusta, GA, USA

07:35
K. Bhatia, London, UK

07:55
Discussion

BREAKFAST SESSION
07:15-08:00 Hall IV
Use of sonography in PD and related disorders

07:15
Ultrasound in Sialorrhea treatment in Parkinson’s patients
D. Truong, Fountain Valley, CA, USA

07:35
Use of sonography in PD and related disorders - applications and perspectives
D. Berg, Tübingen, Germany

07:55
Discussion

BREAKFAST SESSION
07:15-08:00 Hall V
Drug-Induced movement disorders

07:15
D. Tarsy, Boston, MA, USA

07:35
S. Bohlega, Riyadh, Saudi Arabia

07:55
Discussion

BREAKFAST SESSION
07:15-08:00 Hall VI
Advances in Friedreich’s ataxia (FRDA)

07:15
Advances in Friedreich’s Ataxia
J. Cooper, London, UK

PLENARY SESSION
08:00-10:00 Hall I
How do we slow progression PD?
Chairpersons: S. Fahn, USA
A. Korczyn, Israel

08:00
Candidate targets: Basic track
S. Chen, Shanghai, China

08:30
Candidate targets: Clinical track
W. Olanow, New York, NY, USA

09:00
How do we slow progression of Parkinson’s Disease
K. Kieburtz, Rochester, NY, USA

09:30
FDA requirements for disease modification
R. Katz, Rockville, MD, USA

PARALLEL SESSION
10:30-12:00 Hall II
Dystonia
Chairperson: S. Bressman, USA

10:30
Mechanisms of dystonia
D. Standaert, Birmingham, AL, USA

11:00
Treatments of Dystonia: the neurologist’s point of view
M. Vidailhet, Paris, France

11:30
Dystonia: a surgeon’s point of view
T. Aziz, Oxford, UK
PARALLEL SESSION
10:30-12:00 Hall III
Cognitive changes and dementia in PD
Chairperson: D. Aarsland, Norway

10:30
Mild cognitive impairment in patients with Parkinson’s Disease
C.H. Adler, Scottsdale, AZ, USA

11:00
Functional and structural imaging of cognitive deficits in PD
I. Rektorova, Brno, Czech Republic

11:30
Management of dementia in Parkinson’s Disease
D. Burn, Newcastle upon Tyne, UK

PARALLEL SESSION
10:30-12:00 Hall IV
Iron in parkinsonism
Chairperson: M. Youdim, Israel

10:30
Iron transport in Parkinson’s Disease
E. Hirsch, Paris, France

11:00
Iron as a cause of Parkinson Disease - a myth or a well established hypothesis?
A. Friedman, Warsaw, Poland

11:30
Quantitative estimation of regional brain iron with MRI
W.R.W. Martin, Edmonton, AB, Canada

PARALLEL SESSION
10:30-12:00 Hall V
Spectrum of autonomic dysfunction in PD
Chairperson: P. Barone, Italy

10:30
Cardiovascular dysfunction in Parkinson Disease
H. Kaufmann, New York, NY, USA

11:00
The autonomic nervous system and sleep disorders in Parkinson’s Disease
K. Ray Chaudhuri, London, UK

11:30
Gastrointestinal dysfunction in Parkinson’s Disease
R. Pfeiffer, Memphis, TN, USA

PLATFORM ABSTRACTS
12:00-13:15 Hall VI
Platform Abstracts 2
Chairpersons: K. Lyons, USA
M. Lew, USA

12:00
Neural transplants in patients with Huntington’s disease undergo disease-specific neuronal degeneration
T. Freeman, Tampa, FL, USA

12:12
The development of positive allosteric modulators of mGluR4 for the treatment of Parkinson’s disease
C. Niswender, Nashville, TN, USA

12:24
Metabotropic glutamate receptor type 5 (mGluR5) antagonists improves L-DOPA-induced-dyskinesia in both rat and macaque models of Parkinson’s disease
D. Rylander, Lund, Sweden

12:48
EIF4G1 mutations in familial parkinsonism
M. Farrer, Jacksonville, FL, USA

13:00
Mice infected with highly pathogenic H5N1 influenza virus develop Parkinsonian pathology
H. Jang, Memphis, TN, USA
Will continuous dopamine stimulation prevent motor complications?
Chairperson and speaker: P. Jenner, UK

13:35
Will continuous dopaminergic stimulation prevent motor complications?
F. Stocchi, Rome, Italy

13:55
Will continuous dopamine stimulation prevent motor complications?
A. Antonini, Milan, Italy

14:15
Discussion

Choreas - phenomenology and differential diagnosis
R.H. Walker¹,², ¹Bronx, ²New York, NY, USA

14:00
Thinking out of the box: pathophysiology and treatment of chorea
K.M. Shannon, Chicago, IL, USA

Are growth factors the answer?
Chairperson and speaker: F. Hefti, USA

13:35
Are growth factors the answer?
J.H. Kordower, Chicago, IL, USA

13:55
Are growth factors the answer in Parkinson’s Disease?
R. Barker, Cambridge, UK

14:15
Discussion

What do clinical trials tell us about treating patients?
Chairperson and speaker: S. Fahn, USA

13:15
What can we learn about treating individual patients from Randomized Controlled Trials (RCTs)?
W.J. Weiner, Baltimore, MD, USA

13:35
Questions

13:45
Did neuroprotection trials teach us how to treat newly diagnosed patients?
S. Fahn, New York, NY, USA

14:05
Questions

Did levodopa versus dopamine agonists trials teach us when and how to start symptomatic therapy?
C. Waters, New York, NY, USA

14:35
Questions

Thalamic changes in Parkinson’s Disease
Chairperson: J. Lanciego, Pamplona, Spain

15:00
Thalamic changes in Parkinson’s Disease
G. Halliday, Randwick, NSW, Australia

15:30
Ultrastructural plasticity of corticostriatal and thalamostriatal glutamatergic synapses in Parkinson’s Disease
Y. Smith, Atlanta, GA, USA

16:00
Is the loss of thalamostriatal neurons protective in parkinsonism?
A.V. Deutch, Nashville, TN, USA
### PARALLEL SESSION

**15:00-16:30**  
**Hall III**

**Toward early detection of PD**

Chairperson: **P. Riederer, Germany**

15:00

Diagnosing pre-motor Parkinson's disease using a two-step approach combining olfactory testing and DAT SPECT imaging  
**H.W. Berendse, Amsterdam, The Netherlands**

15:30

Evaluation of strategies for pre-motor detection of Parkinson’s Disease  
**A. Siderowf, Philadelphia, PA, USA**

16:00

Neuroimaging in Parkinson’s Disease  
**D. Eidelberg, Manhasset, NY, USA**

### VIDEO SESSION

**15:00-16:30**  
**Hall VI**

**Primary and secondary dystonias**

15:00

Are learning changes in PD due to dopamine loss?  
**J. Kulisevsky, Barcelona, Spain**

15:30

The placebo-reward hypothesis: dopamine and the placebo effect  
**R. de la Fuente-Fernandez, Vancouver, BC, Canada**

16:00

Judging dopamine release in health and disease  
**D. Brooks, London, UK**

### PARALLEL SESSION

**15:00-16:30**  
**Hall IV**

**Dopamine, expectations, and PD**

Chairperson: **M. Guttman, Markham, ON, Canada**

15:00

Are learning changes in PD due to dopamine loss?  
**J. Kulisevsky, Barcelona, Spain**

15:30

The placebo-reward hypothesis: dopamine and the placebo effect  
**R. de la Fuente-Fernandez, Vancouver, BC, Canada**

16:00

Judging dopamine release in health and disease  
**D. Brooks, London, UK**

### CME SUPPORTED SESSION

**18:15-19:45**  
**Hall I**

Disease modification in early PD  
Supported by an unrestricted educational grant from Teva Neuroscience  
Chairperson: **W. Olanow, USA**

18:15

Clinical trials aimed at evaluating neuroprotection in PD  
**R.A. Hauser, Tampa, FL, USA**

18:40

Delayed start trials in PD  
**O. Rascol, Toulouse, France**

19:05

Disease modification in PD: Interpretation and implications of current evidence  
**W. Olanow, New York, NY, USA**

19:30

Panel Discussion
Wednesday, December 16, 2009

**VIDEO SESSION**
07:15-08:00 Hall II
Episodic movement disorders

07:15 Secondary Episodic Movement Disorders
K. Sethi, Augusta, GA, USA

07:35 Primary Episodic Movement Disorders
K. Bhatia, London, UK

07:55 Discussion

**VIDEO SESSION**
07:15-08:00 Hall III
Atypical Parkinsonism

07:15 A.E. Lang, Toronto, ON, Canada

07:35 W.J. Weiner, Baltimore, MD, USA

07:55 Discussion

**BREAKFAST SESSION**
07:15-08:00 Hall IV
MSA & PSP

07:15 The Various faces of PSP
I. Litvan, USA

07:35 To be announced

07:55 Discussion

**BREAKFAST SESSION**
07:15-08:00 Hall V
Current understanding of myoclonus

07:15 J. Caviness, Scottsdale, AZ, USA

07:35 M. Hallett, Bethesda, MD, USA

07:55 Discussion

**PLENARY SESSION**
08:00-10:00 Hall I
Treatment of PD
Chairpersons: A.V. Deutch, USA
C. Shengdi, China

08:00 Medical management of early Parkinson's Disease
R.A. Hauser, Tampa, FL, USA

08:30 Treatment of non-motor symptoms of PD
R. Pahwa, Kansas City, KS, USA

09:00 Surgical treatment of PD
A.M. Lozano, Toronto, Canada

09:30 Future therapies for Parkinson's Disease
O. Rascol, Toulouse, France

**PARALLEL SESSION**
10:30-12:00 Hall II
Impulse control in PD
Chairperson: J. Miyasaki, Canada

10:30 Impulse control disorders in Parkinson's disease: prevalence and possible risk factors
D. Weintraub, Philadelphia, PA, USA

11:00 Imaging and ICDS or DBS and ICDS
V. Voon, Bethesda, MD, USA

11:30 Impulse control disorders in Parkinson's Disease
M. Stacy, Durham, NC, USA
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<th>Title</th>
<th>Speaker</th>
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<tr>
<td>10:30-12:00</td>
<td>PARALLEL SESSION (Hall III)</td>
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<td>LRRK2</td>
<td>Chairperson: M. Cookson, USA</td>
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<tr>
<td>10:30</td>
<td>LRRK2 Parkinsonism</td>
<td></td>
<td>Z. Wszolek, Jacksonville, FL, USA</td>
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<td>11:00</td>
<td>The role of LRRK2 in the etiopathogenesis of Parkinson’s Disease</td>
<td></td>
<td>V. Bonifati, Rotterdam, The Netherlands</td>
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<td>11:30</td>
<td>Leucine-rich repeat kinase 2: Animal models</td>
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<td>M. Farrer, Jacksonville, FL, USA</td>
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<td>10:30-12:00</td>
<td>PARALLEL SESSION (Hall IV)</td>
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<td>Huntington's disease</td>
<td>Chairperson: S. Przedborski, USA</td>
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<tr>
<td>10:30</td>
<td>Huntington disease (HD): clinical features and experimental therapeutics</td>
<td></td>
<td>I. Shoulson, Rochester, NY, USA</td>
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<td>11:00</td>
<td>HD pathogenesis and experimental therapeutics: Lessons for PD</td>
<td></td>
<td>C.A. Ross, Baltimore, MD, USA</td>
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<td>11:30</td>
<td>Correlation of the genetics, symptomatology, pathology and stem cell proliferation in Huntington's Disease</td>
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<td>R. Faull, Auckland, New Zealand</td>
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<td>10:30-12:00</td>
<td>PARALLEL SESSION (Hall V)</td>
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<td>Treatment approaches to non-motor symptoms of PD</td>
<td>Chairperson: M. Youdim, Israel</td>
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<tr>
<td>10:30</td>
<td>Treatment of dysautonomia associated with Parkinson’s Disease</td>
<td></td>
<td>J. Jankovic, Houston, TX, USA</td>
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<tr>
<td>11:00</td>
<td>Treatment of dementia and depression in Parkinson’s Disease</td>
<td></td>
<td>H. Reichmann, Fetscherstraße, Germany</td>
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<td>12:00-13:15</td>
<td>PLATFORM ABSTRACTS</td>
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<td>Board No.</td>
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<td>12:00</td>
<td>Sensitivity to change of quality of life rating scales used in the PD MED trial</td>
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<td>S. Patel, Birmingham, UK</td>
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<tr>
<td>12:12</td>
<td>Immediate vs. delayed-start pramipexole in early Parkinson's disease: the PROUD study</td>
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<td>A. Schapira, London, UK</td>
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<tr>
<td>12:24</td>
<td>Safinamide as an adjunct to levodopa significantly improved motor fluctuations in Parkinson's disease: a phase III, randomized, double-blind, placebo-controlled study</td>
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<td>R. Borgohain, Hyderabad, India</td>
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<td>12:36</td>
<td>Piclozotan reduces dyskinesia and OFF time in Parkinson's disease (PD) patients with L-dopa induced motor complications</td>
<td></td>
<td>R.A. Hauser, Tampa, FL, USA</td>
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<td>12:48</td>
<td>Effect of rotigotine on control of early morning motor function and sleep quality in subjects with idiopathic Parkinson's disease</td>
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<td>K.R. Chaudhuri, Kassel, Germany</td>
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<td>13:00</td>
<td>A randomized, double-blind, placebo-controlled, delayed start study to assess safty, tolerability and efficacy of green tea polyphenols in Parkinson’s disease</td>
<td></td>
<td>P. Chan, Beijing, China</td>
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### PARALLEL FORUM
**13:15-14:45**  
**Hall II**

**Is progression toward dementia the natural history of PD?**  
Chairperson and speaker:  
**A. Levey, USA**

13:35  
**Diagnostic procedure for Parkinson’s disease dementia**  
**B. Dubois, Paris, France**

13:55  
**Pathologic correlates of dementia in individuals with brainstem Lewy body disease from a population-based study**  
**T.J. Montine, Seattle, WA, USA**  

14:15  
Discussion

### PARALLEL SESSION
**15:00-16:30**  
**Hall II**

**Epidemiology of movement disorders**  
Chairperson:  
**J. Tsui, Canada**

15:00  
**Use of neuropathological lesions as endpoints in movement disorder epidemiology**  
**W. Ross, Honolulu, HI, USA**

15:30  
**Findings from prospective cohorts - disease risk factors**  
**A. Ascherio, Boston, MA, USA**

16:00  
**Epidemiology of Parkinson’s Disease and related disorders - studies in special populations**  
**C.M. Tanner, Sunnyvale, CA, USA**

### PARALLEL SESSION
**15:00-16:30**  
**Hall III**

**New targets for DBS**  
Chairperson:  
**A. Albanese, Italy**

15:00  
**Low frequency stimulation of PPTg in PD: minor benefits on gait, peculiar changes of cortical metabolism and cognitive performance**  
**A. Stefani, P. Stanzione, Rome, Italy**

### VIDEO SESSION
**13:15-14:45**  
**Hall IV**

**Genetic and sporadic ataxias**

13:15  
**L. Schöls, Tübingen, Germany**

14:00  
**N. Wood, London, UK**
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<thead>
<tr>
<th>Time</th>
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<th>Location</th>
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<tr>
<td>15:30</td>
<td>New targets for DBS: can DBS modulate non-motor symptoms?</td>
<td>E. Moro, Toronto, ON, Canada</td>
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<td>16:00</td>
<td>Rationale for targeting the thalamic centre-median parafascicular complex in the surgical treatment of Parkinson's disease</td>
<td>L. Kerkerian-Le Goff, L. Jouve, C. Melon, P. Salin, Marseille, France</td>
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<td><strong>PARALLEL SESSION</strong></td>
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<td>15:00-16:30</td>
<td>Spanish Language Symposium II (*This session will be in Spanish only)</td>
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<td>Chairperson: A.M. Lozano, Canada</td>
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<tr>
<td>15:00</td>
<td>Factores genéticos en la etiología de la enfermedad de Parkinson</td>
<td>O. Gershanik, Buenos Aires, Argentina</td>
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<td>15:30</td>
<td>Cognitive and affective functions in Parkinson's Disease</td>
<td>J. Kulisevsky, Barcelona, Spain</td>
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<td>16:00</td>
<td>PET assessment of neurodegeneration in Parkinson's Disease</td>
<td>R. de la Fuente-Fernandez, Vancouver, BC, Canada</td>
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<td><strong>PARALLEL SESSION</strong></td>
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<td>15:00-16:30</td>
<td>Lewy bodies and other changes in transplanted dopamine neurons: donor-to-host transmission?</td>
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<td>Chairperson: J.H. Kordower, USA</td>
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<td>15:00</td>
<td>Is alpha-synuclein pathology propagated from one neuron to another in Parkinson's disease?</td>
<td>P. Brundin, Lund, Sweden</td>
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<tr>
<td>15:30</td>
<td>Post-mortem analyses of fetal transplants of dopamine neurons in Parkinson's disease patients reveal no or minimal pathology</td>
<td>O. Isacson¹, P. Hallett¹, A. Astradsson¹, O. Cooper¹, H. Robertson², I. Mendez², ¹Belmont, MA, USA, ²Halifax, NS, Canada</td>
</tr>
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ADHD/ OCD/ Tourette’s Syndrome

1.101
Double-blind controlled randomized study of the use of levetiracetam to treat tics in children and adolescents with Tourette syndrome
Y. Awaad, Riyadh, Saudi Arabia

1.102
Glutamic acid to gamma-aminobutyric acid level proportion in Tourette syndrome patients is higher than in controls
P. Janik, A. Kalkarzczyk, M. Gutowicz, A. Baraćzyk-Kuźma, Warsaw, Poland

1.103
Deep brain stimulation of CM-SPv-Voi complex for alleviating symptoms of Tourette syndrome
P. Janik, H. Kozienia, T. Mandat, Warszawa, Poland

1.104
Lesch-Nyhan syndrome, a metabolic and behavioral correlation
L.C. Jimenez Botello1,2, M.R. Avila Costa1, J.D. Carrillo Ruiz2, J. Correa Basurto3, O. Picazo Picazo2, 1Tlalnepantla, 2Huixquilucan, 3Ciudad de Mexico, Mexico

1.105
Neurologic soft signs in obsessive compulsive Egyptian patients and its correlation with the severity of obsessive compulsive symptoms
H. Moustafa, H. Saadallah, N. Mohamed, Alexandria, Egypt

1.106
Neurochemical and neuroplastic changes in chronic methyphenidate administered brains
S. Sadasivan, Y. Jiao, A. Pani, B. Pond, P. Alele, R. Smeyne, Memphis, TN, USA

1.107
Charcot’s contribution to the study of Tourette’s syndrome
H. Teive, R.P. Munhoz, C.H. Fein, H. Famel, L. Filla, M. Mosovich, Curitiba, Brazil

ADHD/ OCD/ Tourettes Syndrome

1.108
Effects on cognition in patients with intractable obsessive-compulsive disorder by neurosurgery of double frontier limb lesions in internal capsule
X.-P. Wang, Y.-M. Jiang, B.-M. Sun, Shanghai, China

1.109
The utilization of a caregiver questionnaire in an outpatient movement disorder clinic to examine and address caregiver distress
E. Book, S. Yardley, Vancouver, BC, Canada

1.110
How do initial symptoms of Parkinson’s disease and the patients’ awareness of the disease affect the process of diagnosis?
H. Chiba, Y. Tsukamoto, R. Nagano, R. Kumazawa, H. Takahashi, S. Takagi, Isehara, Japan

1.111
Retrospective portrait of study recruitment success rate and identification of barriers to participation in research using radiation
J. Gavinio, J. McKenzie, L. Grantier, Vancouver, BC, Canada

1.112
A proactive approach to falls in Parkinson’s
L.L. Grantier, M. Caunter, Vancouver, BC, Canada

Autonomic nervous system

1.113
Independence of striatal dopaminergic and cardiac noradrenergic denervation in synucleinopathies
D. Goldstein, Bethesda, MD, USA

1.114
Sialorrhea and salivary composition in patients with Parkinson’s disease
O. Yilmaz Kusbeci, T. Koken, H. Demirbas, B. Koca, Afyonkarahisar, Turkey
1.115 Physical therapy intervention for people with Huntington disease
Z. Adwan, Damascus, Syria

1.116 Neural transplants in patients with Huntington’s disease undergo disease-specific neuronal degeneration
F. Cicchetti1, S. Saporta2, R. Hauser2, M. Parent2, M. Saint-Pierre1, P. Sanberg2, X.-J. Li3, J. Parker4, Y. Chu5, E. Mufson7, J. Kordower, T. Freeman2, T. Sainte-Foy, QC, Canada, 1Tampa, FL, 2Atlanta, GA, 3Louisville, KY, 5Chicago, IL, USA

1.117 Treatment of chorea in Huntington disease with oral non-ergot dopamine agonists
S. Gunzler1, M. Buczek2, 1South Euclid, OH, USA

1.118 Neuroprotective effect of immunophilins against 3-nitropropionic acid induced Huntington’s chorea like symptoms: possible cognitive dysfunction and biochemical and cellular alterations
P. Kumar, A. Kumar, Chandigarh, India

1.119 Catamenial and oral contraceptive-induced exacerbation of chorea in chorea-acanthocytosis: case report
R.P. Munhoz1, H. Teive1, S. Raskin2, L. Filla1, M. Mosovich1, H. Fameli1, R.D. Ducili, P. Kowacs3, Curitiba, Brazil

1.120 A case of chorea as the initial manifestation of SLE triggered by estrogen
Y.-H. Sung, S.-H. Kim, Incheon, Republic of Korea

1.121 Frontal assessment battery for evaluation of executive dysfunction in patients with Huntington’s disease
V. Tumas1, G.G.R. Rodrigues1, C.P. Souza2, R.S. Cetlin2, D.S. Oliveira2, M. Pena-Pereira2, L. Ujikawa2, W. Marques Junior2, Ribeirão Preto, Brazil

1.122 Executive functions in a virtual world: a study in Parkinson’s disease
G. Albani, G. Riva, S. Raspelli, L. Pradotto, R. Pignatti, A. Mauro, Piancavallo, Italy

1.123 Cognitive dysfunction in apathy and impulsivity in Parkinson’s disease
M. Andrews1, I. Leroi2, K. McDonald3, R. Elliott3, J. Byrne3, A. Burns3, Preston, Blackburn, Manchester, UK

1.124 Development of task switching and error monitoring in children
R. Gupta, Allahabad, India

1.125 Verbal fluency and psychomotor speed in early Parkinson’s disease: is there a link?
G. Hipp, V. Pieri, M. Vaillant, N. Diederich, Luxembourg, Luxembourg

1.126 SPAARS approach: integrated cognitive model of emotion of attention deficit/hyperactivity disorder
N. Khetrapal, Bielefeld, Germany

1.127 Visual related cognitive assessments in Parkinson disease and MCI patients
Y. Li, Beijing, China

1.128 Frontal systems behavioural syndromes in older Parkinson’s disease patients
L. Loftus1, A. Davies1, E. Thornton1, C. Turnbull2, Liverpool, Wirral, UK

1.129 Cognitive profile and mild cognitive impairment (MCI) in Parkinson’s disease: baseline data from the PROMS-PD cohort
1.130 How was cognition affected in cases of pellagra?
A.C. Williams, Birmingham, UK

1.131 EEG dominant alpha frequency variability forecasts the appearance of fluctuating cognition in PDD patients
L. Bonanni, R. Franciotti, A. Thomas, E. Mancino, E. Iorio, F. Anzellotti, M. Onofrj, Chieti, Italy

1.132 Apathy may be a predictive factor of dementia in Parkinson’s disease
K. Dujardin, M. Dellaia, C. Dernoncourt, P. Sockeel, A. Destée, L. Defebvre, Lille, France

1.133 Detection of Parkinson’s disease dementia in routine practice
K. Dujardin1, A. Duhamel1, F. Tison2, J.J. Pére3, I. Bourdeix3, B. Dubois4, Lille, Bordeaux, Rueil-Malmaison, Paris, France

1.134 The heterogeneous nature of Parkinson’s dementia: a sub-cortical catecholamine subtype without Alzheimer’s, Lewy body, or vascular pathology
P. Frisina1,2, L. Libow2,3, West Orange, NJ, New York, NY, USA

1.135 Clinical correlates of brain SPECT perfusion in Parkinson disease dementia

1.136 Dementia may not be inevitable in Parkinson’s disease: memory and cognitive impairment in an elderly cohort
M. Fendrich1, D. Kreitzman2, S. Isaacs1, Boca Raton, FL, Commack, NY, USA

1.137 The correlation on clinical characteristics between Parkinson disease with dementia and Alzheimer disease
A. Ma, Qingdao, China

1.138 Randomized placebo-controlled trial of memantine for dementia in Parkinson’s disease
L. Marsh1,2, K. Biglan2,3, J.R. Williams2, Houston, TX, Baltimore, MD, Rochester, NY, USA

1.139 Diagnosis of dementia in Parkinson’s disease: a retrospective and a validation study in the clinical practice
N. Vanacore, P. Stirpe, P. Giustini, E. Di Battista, S. Bernardi, G. Meco, Roma, Italy

1.140 The importance of oxidative stress in dementia progression
M. Padurariu, C. Stefanescu, A. Ciobica, B. Stoica, Iasi, Romania

1.141 Rivastigmine treatment effects and the relationship between executive function and cognition, behavior and ADLs in Parkinson’s disease dementia
F. Schmitt1, M. Farlow2, J. Olin3, X. Meng3, Lexington, KY, Indianapolis, IL, East Hanover, NJ, USA

1.142 How to treat dementia in Parkinsonian patients?
F.-M. Werner1, R. Covenas2, Pößneck, Germany, Salamanca, Spain

1.143 Ecologically triggered premature ageing and dementia and other famous neuropsychiatric features were described by largely forgotten pellagrologists 200 years ago
A.C. Williams, Birmingham, UK

1.144 Executive and memory decline in a longitudinally followed group of non-demented patients with idiopathic Parkinson’s disease
Y. Zhelev, M. Raycheva, M. Petrova, L. Traykov, Sofia, Bulgaria
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1.145
Factor structure of the Geriatric Depression Scale in Turkish Parkinson’s disease patients
T. Ertan, S. Ertan, M.E. Tavşanlı, G. Kiziltan, S. Ozekmekci, Istanbul, Turkey

1.146
A prospective study of mood states in Parkinson’s disease (PROMS-PD)
R. Brown1, C. Hurt1, D. Burn2, J. Hindle3, S. Landau1, M. Samuel1,4, K. Wilson5, on behalf of the PROMS-PD Study Group, 1London, 2Newcastle upon Tyne, 3Llandudno, 4Ashford, 5Liverpool, UK

1.147
Illness perceptions and depression in Parkinson’s disease
C. Hurt, J. Weinman, R. Brown, on behalf of the PROMS-PD Study Group, London, UK

1.148
Characteristics of depression in Parkinson disease
M. Kasten1, L. Kertelge1, N. Brüggemann1, A. Schmidt1, V. Tadic1, C. Wisse1, L. Drude1, R. Lencer1, S. Steinlechner1, S. Schneider1, J. van der Vegt2,3, H. Siebner3, K. Lohmann1, C. Buhmann1, J. Hagenah1, C. Klein1, 1Luebeck, Germany, 2Nijmegen, 3Kiel, 4Lombard, The Netherlands, 5Kiel, 6Hamburg, Germany

1.149
Impact of L-Carnitine and desferrioxamine on antioxidants and neurochemical hormones in 6-hydroxydopamine-induced neurotoxicity in the dopaminergic neurons of aged rats
P. Kumar1,2, H. Nagaraja2, S. Sreeelatha3, M. Sridharan2, 1Grand Cayman, Cayman Islands, 2Kuala Lumpur, Malaysia

1.150
Depression in Parkinson’s disease patients: the role the clinical nurse specialist to improve the quality of life
L. Lachance, Montreal, QC, Canada

1.151
Negative reactions to receiving spousal care in older Parkinson’s disease patients: the role of depression
L. Loftus1, A. Davies1, E. Thornton1, C. Turnbull2,3, Liverpool, 2Wirral, UK

1.152
Effects of green tea on Haloperidol induced- anxiety, tardive dyskinesia and central serotonin dopamine metabolism: a model study
T. Malik, D.J. Haleem, Karachi, Pakistan

1.153
WHO-5 Well-being Index as a screening instrument for Parkinson’s disease patients with major depression (ICD-10)
A. Storch1, B. Raming2, G. Wallenstein2, 1Dresden, 2Ingelheim, Germany

Dystonia

1.154
Effectiveness of learning based training memory and sensorimotor training for patients with focal hand dystonia
A. McKenzie, N. Byl, Orange, San Francisco, CA, USA

1.155
Open-label naturalistic study of pregabalin for cervical dystonia and other hyperkinetic movement disorders (HMDs): effectiveness and tolerability
J. Chen, D. Swope, M. Prideaux, Loma Linda, CA, USA

1.156
Neuroleptic-induced tardive cervical dystonia: clinical series of 20 patients
C. Godeiro-Junior1,2, A. Felício2, P. Carvalho-Aguiar2, S. Silva2, V. Borges2, H. Bailalai Ferraz, 1Natal, 2São Paulo, Brazil

1.157
Novel compound heterozygous tyrosine hydroxylase mutations in two DOPA-responsive dystonia patients
K. Haugarvoll, L. Bindoff, Bergen, Norway

1.158
Intracranial granulomas presenting as extrapyramidal disorder: a report of three cases
S. Jha, Lucknow, India
1.159
Psychiatric manifestations in dystonia
S. Khan, C. Kubu, Cleveland, OH, USA

1.160
Pathological observations in seven cases with neurodegeneration with brain iron accumulation (NBIA) with mutations in PANK2 and PLA2G6

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Interoceptive mirroring to guide assessment of writer’s cramp
E. Lim, A. Quek, R. Seet, Singapore, Singapore

1.162
Genetic contribution to young onset dystonia in a Taiwanese cohort
C.-S. Lu, Y.-H. Wu-Chou, H.-C. Chang, T.-H. Yeh, S.-C. Lai, R.-S. Chen, Y.-H. Weng, C.-L. Huang, Taoyuan, Taiwan R.O.C.

1.163
Generalized dystonia treated with pallidal deep brain stimulation
B. Brodacki, H. Koziastra, R. Rola, T. Tykocki, P. Nauman, W. Bonicki, T. Mandat, Warszawa, Poland

1.164
The effect of botulinum toxin type A on pain and sleep dysfunction related to cranio-cervical dystonia
V. Metta, London, UK

1.165
Cervical dystonia: clinical and therapeutic features in 85 patients

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Frontal cortex disturbances in focal dystonia
S. Ochudlo, K. Wiśniewska, A. Tarko, T. Sadowski, G. Opala, Katowice, Poland

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Executive dysfunction in hemifacial spasm
S. Ochudlo, K. Wiśniewska, A. Tarko, T. Sadowski, G. Opala, Katowice, Poland

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Comparative study of the botulinum toxin type A potency between Botox® and BTXA®, using human extensor brevis muscle
M. Park¹, K. Ahn², ¹Daegu, South Korea, ²Daegu, Republic of Korea

1.169
Genetic spectrum of dopa-responsive dystonia in the Polish families
M. Rudzinska¹, M. Bodzioch¹, K. Lapicka-Bodzioch¹, B. Zapala¹, A. Potulska-Chromik², P. Janik¹, Z. Jamrozik¹, A. Dembinska-Kiec¹, A. Szczudlik¹, ¹Krakow, ²Warsaw, Poland

1.170
Mutations in the THAP1 (DYT6) gene - a cause of generalized dystonia with prominent spasmodic dysphonia
S.A. Schneider¹, A. Djarmati¹, K. Lohmann¹, S. Winkler¹, K. Lohmann¹, S. Zittel², H. Siebner³, A. Münchau², H.-C. Jabusch³, R. Wilcox⁵, V.S. Kostić⁶, H. Siebner², A. Münchau², L.J. Ozelius³, C. Klein¹, ¹Luebeck, ²Hamburg, Germany, ³New York, NJ, USA, ⁴Dresden, Germany, ⁵Brisbane, QLD, Australia, ⁶Belgrade, Serbia, ⁷Copenhagen, Denmark

1.171
Botulinum toxin type A in the treatment of lower-limb spasticity in children with cerebral palsy

1.172
Mapping motor and somatosensory cortical finger representation in focal hand dystonia
D. Weise¹, R. Gentner², D. Zeller³, A. Nageli¹, C. Reinsberger³, J. Classen¹, ¹Leipzig, Germany, ²Roma, Italy, ³Würzburg, Germany

Drugs: COMT and MAO inhibitors, others

1.173
Glial monoamine oxidase participates in deamination of dopamine formed from L-dopa in a rat model of Parkinsonian striatum
O. Sader-Mazbar, J. Finberg, Haifa, Israel
1.174 Novel neuroprotective agents for the treatment of Parkinson’s disease
J. George, S. Wilkins, N. Critch, L. Gunawan, M. Cortes, X. Liu, K. Laughton, M. Nurjono, I. Volitakis, P. Huggins, J. Parsons, M. McNaughton, P. Adlard, C. Masters, R. Cappai, K. Barnham, E. Gautier, A. Bush, R. Cherny, D.I. Finkelstein, Melbourne, VIC, Australia

1.175 Selective inhibition of dopamine and noradrenaline transporters (DAT & NET) in the prefrontal cortex of COMT knock-out mice
M. Käenmäki, C. Amberg, P.T. Männistö, Helsinki, Finland

1.176 Striatal catechol-O-methyltransferase after selective 6-OHDA lesions in the rat
N. Schendzielorz, J.-P. Oinas, I. Reenilä, P.T. Männistö, Helsinki, Finland

1.177 A pharmacoeconomic evaluation of botulinum toxin A therapy in the Philippines
J. Colacion1, L.J. Fugoso2, R.D. Jamora1, 1Manila, 2Quezon City, Philippines

1.178 Frontotemporal dementia and parkinsonism in a patient with a chronic mercury intoxication
R. Ciordia, K. Berganso, B. Tijero, A. Luna, J.C. Gomez-Esteban, J.J. Zarranz, Bilbao, Spain

1.179 Effects of non-contact boxing training on spatiotemporal gait parameters in persons with Parkinson’s disease: a case series
S. Combs, D. Diehl, W. Staples, K. Davis, K. Schaneman, L. Conn, N. Lewis, Indianapolis, IN, USA

1.180 Postural control differs between Parkinson disease sub-types
L. Dibble, K. Foreman, O. Addison, R. Marcus, P. LaStayo, Salt Lake City, UT, USA

1.181 Differential effects of dopamine replacement on clinical and laboratory measures of postural control in persons with Parkinson disease
K. Foreman, O. Addison, P. LaStayo, R. Marcus, L. Dibble, Salt Lake City, UT, USA

1.182 Preventing falls in Parkinson’s disease: the GETuP trial
V. Goodwin1, S. Richards1, P. Ewings2, A. Taylor1, J. Campbell1, 1Exeter, 2Taunton, UK

1.183 Spinocerebellar ataxia types 3 and 10. Progression rate of gait ataxia in a group of 40 patients
T. Helio, R.P. Munhoz, T. Ashizawa, M. Moscovich, L. Filla, H. Fameli, L.C. Werneck, Curitiba, Brazil

1.184 Genetic mutations in Ataxia-telangiectasia patients
S. Karuta, H. Teive, S. Raskin, M.J. Bugallo, W. Arruda, Curitiba, Brazil

1.185 Effects of auditory, attentional, and combined cueing strategies on gait during single and dual cognitive tasks in Parkinson’s disease
C.A. Lohnes, G.M. Earhart, Saint Louis, MO, USA

Economics

1.177 A pharmacoeconomic evaluation of botulinum toxin A therapy in the Philippines
J. Colacion, L.J. Fugoso, R.D. Jamora1, 1Manila, 2Quezon City, Philippines

Frontotemporal dementia with parkinsonism

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Gait disorders, falls

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1.184 Genetic mutations in Ataxia-telangiectasia patients
S. Karuta, H. Teive, S. Raskin, M.J. Bugallo, W. Arruda, Curitiba, Brazil

1.185 Effects of auditory, attentional, and combined cueing strategies on gait during single and dual cognitive tasks in Parkinson’s disease
C.A. Lohnes, G.M. Earhart, Saint Louis, MO, USA
A retrospective assessment of physical, cognitive, and affective factors that relate to falls in individuals with Parkinson’s disease
M. Masterson, J. Wilhelm, L. Elmer, Toledo, OH, USA

Homocysteinemia, postural instability and risk of falls in non-demented patients with Parkinson’s disease
R. Munhoz, H. Teive, M. Moscovich, H. Fameli, L. Filla, C. Ribas, Curitiba, Brazil

Two cases of cerebellar ataxia associated with Hashimoto’s encephalopathy
H.D. Park, H.T. Kim, J.H. Kim, S.H. Kim, Seoul, South Korea

Study on gait and balance in patients with Parkinson’s disease
M.C. Sandulescu, C. Zaharia, V. Tudorica, Craiova, Romania

Long-term effect of varenicline (Chantix®) in four ataxic patients: prolonged symptomatic benefit following drug discontinuation
T. Zesiewicz, K. Sullivan, I. Jahan, L. Wecker, Tampa, FL, USA

Transcranial sonography (TCS) in evaluation of patients with essential tremor (ET)
M. Crnjakovic, M. Budisic, A. Lovrencic-Huzjan, Z. Trkanjec, V. Demarin, Zagreb, Croatia

Experiences with DaTSCAN™ SPECT in the clinical practice in our Parkinson-Center
I. Csoti¹, F. Fornadi¹, M. Puille², R. Bauer², Leun-Biskirchen, Giessen, Germany

3T diffusion tensor MRI in differential diagnosis of Parkinson’s disease and atypical parkinsonism

Parkinson’s disease and pathological gambling: results from a fMRI study investigating cue induced brain activity
D. Frosini, I. Pesaresi, C. Rossi, P. De Feo, M. Cosottini, U. Bonuccelli, R. Ceravolo, Pisa, Italy

SWI sequence might be a diagnostic marker for PD and DLB

3T MR siderotractography characteristics in Parkinson’s disease and atypical Parkinson plus syndromes
R.M. Kandadai, R. Borgohain, R. Vadapalli, M.A. Kanikannan, S.A. Jabeen, Hyderabad, India

Demonstration of F-18 FDG-PET protocol for imaging neuronal activation: human motor cortex activation using F-18 FDG-PET
S. Kim¹, S.B. Pyun², K.W. Park¹, Y.M. Hwang¹, K. Nam¹, J.H. Lee¹, J.G. Choe¹, Seoul, Korea, Republic of Korea

Radiation risks: a test of perception
J. McKenzie, R. de la Fuente Fernandez, J. Gavinio, S. Appel Cresswell, Vancouver, BC, Canada

Spinocerebellar ataxia 3 presenting as Parkinson disease - case series
N. Mendonça, M.J. Cunha, C. Januário, Coimbra, Portugal
1.200 Selective frontal atrophy of the inferior fronto-occipital fasciculus in progressive supranuclear palsy (PSP)

1.201 Attention network in AD and DLB patients: a resting fMRI study
R. Franciotti, L. Bonanni, G.M. Perrucci, A. D'Andreagiovanni, V. Maruotti, E. Iorio, E. Mancino, F. Anzelotti, A. Thomas, G.L. Romani, M. Onofrj, Chieti, Italy

1.202 Brain functional correlates of geriatric assessment in dementia with Lewy bodies
R. Pernecky1, A. Drzega3, H. Boecker2, H. Foerstl1, A. Kurz1, P. Haeussermann3, 1Munich, 2Bonn, 3Kiel, Germany

1.203 Microstructural integrity of white matter in patients with Parkinson's disease (PD): diffusion tensor imaging and MR-tractography study
Z. Rozhkova, I. Karaban', N. Karaban', T. Slobodyn, Kiev, Ukraine

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1.270 Secondary parkinsonism due to acquired hepatocerebral degeneration in a HIV patient with HCV liver cirrhosis, a case report

1.271 Frequency of cognitive impairment and depression in Nigerians with Parkinson’s disease
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1.277 Axial symptoms and basal ganglia in Parkinson’s disease. Does side matter? A. Sarwar, E.C. Lai, Houston, TX, USA

1.278 Immediate vs. delayed-start pramipexole in early Parkinson’s disease: the PROUD study A. Schapira¹, S. Albrecht², P. Barone³, C. Comella⁴, H. Hsu⁵, D. Massey⁶, M. McDermott⁷, W. Poewe⁸, O. Rascol⁹, K. Scrine¹⁰, K. Marek¹⁰, on behalf of the PROUD Study Group, ¹London, UK, ²Ingelheim, Germany, ³Napoli, Italy, ⁴Chicago, IL, ⁵Ridgefield, CT, USA, ⁶Bracknell, UK, ⁷Rochester, NY, USA, ⁸Innsbruck, Austria, ⁹Toulouse, France, ¹⁰New Haven, CT, USA

1.279 Relationship of neuromuscular strength to balance, functional mobility and quality of life in persons with Parkinson’s disease B.K. Schilling, K.G. Hammond, L.C. Ferreira, M.S. LeDoux, R.F. Pfeiffer, Memphis, TN, USA

1.280 Unilateral deep brain stimulation in Parkinson disease improves ipsilateral symptoms regardless of laterality K. Shemisa, H. Fernandez, Gainesville, FL, USA

1.281 Longitudinal assessment of fine motor control: transition from normal control to onset of Parkinson’s disease R. Shrairman¹, C. O’Brien², A. Landau¹, ¹Boulder, CO, ²San Diego, CA, USA

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1.283 The epidemiology of Parkinson’s disease in the Krasnodar Territory, Russia D. Sichinava, M. Barabanova, Krasnodar, Russia

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1.285 Tongue bradykinesia is related to severity of drooling in Parkinson’s disease Y. Tsuboi, G. Umemoto, T. Kikuta, T. Yamada, Fukuoka, Japan

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1.292 Validation of a home environment test battery for status assessment in patients with advanced Parkinson’s disease J. Westin¹,², M. Schiavella³, M. Memedi³, D. Nyholm¹, M. Dougherty², T. Groth¹, A. Antonini³, ¹Uppsala, ²Borlänge, Sweden, ³Milan, Italy
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¹Komatsu, ²Kanazawa, Japan

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M. Hill¹, E. Decamp², E. Bezard¹, Q. Li¹, J. Schneider², A. Crossman¹, ¹Manchester, UK, ²Philadelphia, PA, USA

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Y. Jiao, A. Pani, J. Hopper, J. Griner, R. Smeyne, Memphis, TN, USA

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Enriched environment partially reverses dopamine cell loss following MPTP in mice
N. Sashkin¹, J. Sweeney¹, L. Dirling¹, C. Moore¹, R. Koch², R. Walker²,
C. Meshul¹, ¹Portland, OR, ²Bronx, NY, USA

Gait analysis in a porcine model of progressive Parkinson disease established by chronic 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) intoxication
P. Mogensen¹, M.S. Nielsen², A.N. Glud², A. Møller², D. Bender²,
D. Doudet², J.C. Sørensen², C.R. Bjarkam², ¹Hammel, ²Aarhus, Denmark

Gait analysis in the Göttingen minipig model of Parkinson disease based on alpha synuclein overexpression in the substantia nigra
P. Mogensen¹, A.N. Glud², C. Hedegaard², M.S. Nielsen²,
K. Larsen², P.H. Jensen², C. Bendixen², C.R. Bjarkam², ¹Hammel, ²Aarhus, Denmark

Neuroprotective effects of VEGF-C in the 6-OHDA rat model of Parkinson’s disease
M. Piltonen, A. Planken, O. Leskelä, M. Saarma, P.T. Männistö, Helsinki, Finland

Behavioural and biochemical characterization of c-Rel mutant mice as model of Parkinson’s disease
A. Pinna¹, S. Pontis¹, M. Pizzi², M. Morelli¹, ¹Cagliari, ²Brescia, Italy

Selective spatial learning impairments and attention deficits precede a frank motor phenotype in a mouse model of Parkinson’s disease
S.E. Browne¹, G. Dillon², M. Ferguson², I.J. Reynolds¹, J.-C. Dodart², ¹West Point, PA, ²Boston, MA, USA

Recapitulation of neurodegenerative disease and apoptotic neuronal cell death caused by 26S proteasome dysfunction
Z.N. Rezvani, L. Bedford, R.J. Mayer, Nottingham, UK

Dopamine transporter knock-down in mice results in loss of nigral dopaminergic neurons and alters the effects of pesticide exposure
F. Richter, C.K. Mulligan, K. De La Rosa, P.C. Sioshansi, M.-F. Cheeslet, Los Angeles, CA, USA

Lipopolysaccharide rat model for Parkinson’s disease neurodegeneration: disease-associated proteins, cytokines and inflammatory cells in brain tissue
M. Schiess, M. Schurdell, U. Osuagwu, D. Hook, B. Poin Dexter, M.-F. Doursout, R. Bick, Houston, TX, USA

Astrocytes: central role in Parkinson’s pathology?
S. Schmidt¹, S. Mendritzki¹, H. Lübbert¹², C.C. Stichel¹², ¹Bochum, ²Leverkusen, Germany

Behavioural improvements of hemiparkinsonian rats after intrastriatal injection of botulinum toxin A
A. Wree, V. Antipova, A. Hawlitschka, R. Benecke, E. Mix, Rostock, Germany

Detection of α-synuclein oligomers in CSF from Parkinson’s disease patients
T. Tokuda¹, O. El-agnaf², ¹Kyoto, Japan, ²Al Ain, United Arab Emirates

Transcranial sonography in Parkinson’s disease: diagnostic and prognostic application
E.Y. Fedotova, A.O. Chechetkin, N.Y. Abramycheva, I.A. Ivanova-Smolenskaya, S.N. Illarioshkin, Moscow, Russia
2.127 Tyramine leak to urine. A clue for early detection of idiopathic parkinsonians
L.M. Gómez, M.A. Rojas, J. Perea-Sasiaín, Bogotá, Colombia

2.128 Color vision and Parkinson’s disease; comparison with essential tremor and controls

2.129 Amyotrophic lateral sclerosis and Hirayama disease-associated metabolite biomarker pattern revealed by (1) H NMR spectroscopy
A. Kumar, J. Kalita, U.K. Misra, G.N. Babu, Lucknow, India

2.130 Optimizing olfactory testing for the diagnosis of Parkinson’s disease
J. Morley¹, A. Cohen³, L. Silveira-Moriyama², D. Williams³, R. Katzenschlager⁴, P. Moberg¹, J. Adelman¹, R. Hower¹, J. Rick¹, A. Lees², C. Hawkes², D. Weintraub¹, R. Doty¹, J. Duda¹, Philadelphia, PA, USA, London, UK, Melbourne, VIC, Australia, Vienna, Austria

2.131 Molecular diagnostics of parkinsonism in asymptomatic subjects at high risk for disease onset and progression
G. Pasinetti, New York, NY, USA

2.132 The Harvard NeuroDiscovery Center Biomarker Study: accelerating biomarkers
C. Scherzer, for The Harvard NeuroDiscovery Biomarker Study Group, Cambridge, MA, USA

2.133 Quantitative assessment of medication on finger tapping in Parkinson’s disease
M. Yokoe¹, T. Endo¹, K. Fukada¹, A. Kandori², S. Sakoda¹, Suita, Kokubunji-shi, Japan

2.134 8-OHdG in cerebrospinal fluid as a marker of oxidative stress in various neurodegenerative diseases
I. Zerr, J. Gawinecka, K. Gmitterowa, Göttingen, Germany

Deep brain stimulation

2.135 High frequency of genetically-determined Parkinson’s disease in patients referred to deep brain stimulation
K. Johansen¹, J. Jørgensen¹, M. Farrer², J. Aasly¹, Trondheim, Norway, Jacksonville, FL, USA

2.136 Reversing stimulation related cognitive-motor impairments in Parkinson’s disease patients with a computational modeling approach to deep brain stimulation programming
A.M.M. Frankenmelde¹, J. Wu¹, C. Voelcker-Rehage², J.C. Ho¹, A.M. Noecker¹, J.L. Vitek², C.C. McIntyre, J.L. Alberts¹, Cleveland, OH, USA, Bremen, Germany

2.137 Cortical effects correlate with the outcome of deep brain stimulation in the rat subthalamic nucleus
G. Arbuthnott¹, B. Hyland², C. Dejean², Uruma, Japan, Dunedin, New Zealand

2.138 Capability of identifying red nuclei in different pulse sequences of regular 1.5T magnetic resonance images
S.-M. Chiou, Taichung, Taiwan R.O.C.

2.139 Can daily programming and acute inpatient rehabilitation “fast-track” symptomatic recovery after DBS surgery for Parkinson’s disease?
P. Frisina¹,², F. Gupta³, H. Azmi³, B. Pomeranz⁵, West Orange, NJ, New York, NY, Oradell NJ, Hackensack NJ, Saddle Brook NJ, Newark, NJ, USA

2.140 STN high frequency stimulation is effective in Parkinsons disease with camptocormia: a case report
I. Galazky¹, L. Büntjen¹, T. Trottenberg², L. Niehaus², J. Voges¹, Magdeburg, Winnenden, Germany

2.141 Intraoperative stereotactic accuracy of the FHC microTargeting and Axon Instruments microdrives compared
S. Ahmed¹, K. Mewes¹, J. Rolston², Atlanta, Decatur, GA, USA
Deep brain stimulation effects on orthostatic regulations in patients with Parkinson’s disease
J.G. Hou, L. Wu, E. Lai, Houston, TX, USA

Activation of the subthalamic nucleus during emotional processing predicts severity of postoperative depressive symptoms in PD-patients
J. Hübl¹, C. Brücke¹, S. Siegert¹, G.-H. Schneider¹, A. Kupsch¹, K. Yarrow², A.A. Kühn¹, ¹Berlin, Germany, ²London, UK

Effect of electrode implantation to STN on motor system in Parkinson’s disease: a fMRI study
R. Jech¹, K. Müller², F. Růžička¹, D. Urgošík¹, D. Medenwald², T. Sieger¹, J. Vymazal¹, E. Růžička¹, ¹Prague, Czech Republic, ²Leipzig, Germany

Gerotechnological aspects of DBS patient controllers: utility and futility
I. Kaiser, I. Kryspin-Exner, F. Alesch, Vienna, Austria

Beyond motor control: does deep brain stimulation of the subthalamic nucleus alter reward processing in patients with Parkinson’s disease?

Essential tremor and spasmodic dysphonia response to bilateral thalamic deep brain stimulation: review of experience and possible mechanism
M. Lyons, V. Evidente, Phoenix, AZ, USA

Bilateral thalamic deep brain stimulation for orthostatic tremor
M. Lyons, V. Evidente, J. Caviness, B. Falk, R. Hillman, Phoenix, AZ, USA

Bilateral malfunction of cerebral electrodes at generalized dystonia patient
T. Mandat, H. Koziara, T. Tykocki, W. Bonicki, P. Nauman, Warszawa, Poland

Deep brain stimulation of globus pallidus versus subthalamic nucleus for alleviating of dystonia symptoms among NBIA patients
T. Mandat¹, T. Kmieć¹, H. Koziara¹, T. Tykocki¹, M. Tutaj², R. Rola¹, W. Libionka², M. Bliska¹, E. Jurkiewicz¹, M. Hartig¹, H. Prokish³, W. Bonicki¹, P. Nauman¹, ¹Warszawa, ²Krakow, Poland, ³Munich, Germany

Bilateral GPI DBS for OFF dystonias and ON dyskinesias in juvenile PD
Z. Mari, R. Von Coelln, P. Dash, L. Marsh, F. Lenz, Baltimore, MD, USA

Dopamine dysregulation syndrome (DDS): worse after bilateral STN DBS?
Z. Mari, R. Von Coelln, J. Savitt, F. Lenz, L. Marsh, Baltimore, MD, USA

Neuropsychological outcome after unilateral STN DBS: a comparison of English-speakers and Spanish-speakers
I.B. Marion, H.L. Katzen, C.E. Myerson, K. Rodriguez, B.V. Gallo, B.E. Levin, Miami, FL, USA

ParkinTune: automated Parkinson’s disease motor symptom assessment for deep brain stimulation programming
T. Mera, J. Alberts, A. Machado, J. Vitek, J. Giuffrida, Cleveland, OH, USA

Screening and Selection Process for Deep Brain Stimulation: The Emory Experience
G. Revuelta¹, R. Gross¹, J. Wu¹, S. Goyal², S. Factor¹, K. Mewes¹, S. Triche¹, T. Wichmann¹, M. DeLong¹, C. Esper¹, ¹Atlanta, GA, ²Cambridge, MA, USA
2.156 Benefits and risks of deep brain stimulation (DBS) for Parkinson’s disease (PD) - results from the PD SURG study
C. Rick¹, N. Ives¹, S. Patel¹, S. Parsons¹, C. Tomlinson¹, S. Gill², T. Varma², A. Williams¹, K. Wheatley¹, on behalf of The PD SURG Collaborative Group, ¹Birmingham, ²Bristol, ³Liverpool, UK

2.157 Do pre-existing psychiatric disorders affect quality of life following deep brain stimulation for Parkinson’s disease?
B. Robottom, K. Anderson, P. Fishman, H. Eisenberg, S. Powell, S. Reich, W. Weiner, L. Shulman, Baltimore, MD, USA

2.158 Deep brain stimulation in Parkinson’s disease - evaluation of functional cortical perfusion in a non-motor area
E. Azevedo¹, R. Santos¹, J. Freitas¹, M.-J. Rosas¹, P. Linhares¹, R. Fonseca¹, M. Aires-Basto¹, R. Vaz¹, B. Rosengarten², ¹Porto, Portugal, ²Giessen, Germany

2.159 Weight gain in Parkinson’s disease following STN DBS is related to the medial position of active electrode contact in subthalamus
F. Ruzicka, R. Jech, L. Novakova, D. Urgosik, J. Vymazal, E. Ruzicka, Prague, Czech Republic

2.160 Adverse events stimulation related and surgical complications in 62 patients treated with STN DBS for Parkinson Disease: long term follow-up
S. Sarubbo, F. Latini, R. Quatrale, M.C. Sensi, R. Eleopra, M.A. Cavallo, Ferrara, Italy

2.161 Primary Segmental Dystonia: 4 year follow-up of 11 patients treated with GPI deep brain stimulation
S. Sarubbo, F. Latini, R. Quatrale, M.C. Sensi, R. Eleopra, M.A. Cavallo, Ferrara, Italy

2.162 Exploring the effects of caffeine on men and women with movement disorders

2.163 Deep brain stimulation outcomes for Parkinson’s disease and essential tremor
P. Seibert, N. Whitener, M. Coblentz, S. Reynolds, J. Schommer, C. Zimmerman, Boise, ID, USA

2.164 Survey of US neurologists’ attitudes towards referral for deep brain stimulation for Parkinson’s disease
L. Shih, D. Tarsy, Boston, MA, USA

2.165 Anatomical localization of active contacts of deep brain electrodes - technical note
D. Urgosik, F. Ruzicka, J. Vymazal, R. Jech, Prague, Czech Republic

2.166 The national deep brain stimulation brain tissue network (DBS-BTN): preliminary results
V. Vedam-Mai¹, N. Krock¹, M. Ullman¹, W. Shain², K. Smith³, A. Yachnis¹, D. Steindler¹, B. Reynolds¹, S. Merritt¹, J. Wojciechz³, C. Vanamburg³, F. Pagan¹, P. Hogarth³, J. Marjama-Lyons³, A. Resnick¹, M. Okun¹, ¹Gainesville, FL, ²Albany, NY, ³Indianapolis, IN, ⁴Washington, DC, ⁵Portland, OR, ⁶Albuquerque, NM, USA

2.167 Effects of subthalamic nucleus lesions and short-term stimulation upon striatal glutamate levels in awake intact and 6-hydroxydopamine-lesioned rats
R. Walker¹,², J. Sweeney³, R. Koch¹, C. Moore³, C. Meshul³, ¹Bronx, ²New York, NY, ³Portland, OR, USA

2.168 Comparison of efficacy and side effects observed using peroperative and postoperative STN macrostimulation in Parkinson’s disease: does both testing match?
J. Xie, D. Adamec, P. Mertens, G. Polo, E. Broussolle, S. Thoibus, Lyon, France
2.169
Aβ amyloid deposits are common in brains of non-demented PD patients
S. Gomperts, D. Rentz, K. Johnson, J. Growdon, Boston, MA, USA

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The value of MRI in the early disease stages of parkinsonian disorders: a prospective three year follow-up study
W. Abdo, A. Meijer, M. Verbeek, G. Borm, B. Goraj, B. Bloem, Nijmegen, The Netherlands

2.171
MLPA analysis in EOP patients
C. Barzaghi1, A. Giovanetti1, C. Reale1, J. Sequeiros2, N. Nardocci1, A. Albanese1, B. Garavaglia1, Milan, Italy, 1Porto, Portugal

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I. Ben Hamouda1,2, M.N. Tougouri2, N. Khamassi2, M. Hamza2, Tunis, 1Manouba, Tunisia

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Centropontine myelinolysis and hypokaliemia
I. Ben Hamouda1,2, M.N. Tougouri2, D. Mohsen2, M. Hamza2, Tunis, 1Manouba, Tunisia

2.174
Automatic classification of 18FDG-PET scans in parkinsonism
G. Garraux1, C. Phillips1, A. Desoulières1, C. Lemaire1, A. Destee2, G. Franck1, A. Luxen1, E. Salmon1, Liege, Belgium, 2Lille, France

2.175
Thermography method in Parkinson disease therapy clinical assessment
U. Lukashevich, S. Likhachev, A. Khromenkov, Minsk, Belarus

2.176
Resolving mode-of-inheritance and association of PRKN with PD in a comprehensive sequence and copy-number-variation (CNV) analysis of 3800 subjects
H. Payami1, D. Kay1, C. Stevens1, J. Montimuro1, T. Hamza1, C. Zabetian2, S. Factor3, D. Higgins1, L. Moses1, S. Zareparsi1, G. Schellenberg5, J. Nutt4, 1Albany, NY, 2Seattle, WA, 3Atlanta, GA, 4Portland, OR, 5Philadelphia, PA, USA

Diagnosis: premotor diagnosis

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Hypodipsia discriminates progressive supranuclear palsy from Parkinson’s disease and multiple system atrophy
M. Stamelou, H. Christ, W. Oertel, G. Hoeglinger, Marburg, Germany

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Activation of striatal inflammatory mediators and caspase-3 is central to haloperidol-induced orofacial dyskinesia
M. Bishnoi, S. Kulkarni, K. Chopra, Chandigarh, India

2.180
Extrapontine myelinolysis after correction of hyponatremia presenting as acute parkinsonism
H.A. Hanagasi, D. Aygun, F. Tufan, G. Babacan, H. Gurvit, J. Yazici, M. Emre, Istanbul, Turkey

2.181
Cognitive deficits in drug induced parkinsonism
J.-S. Kim, Y.-D. Kim, K.-S. Lee, I.-U. Song, H.-T. Kim, Seoul, Republic of Korea
2.182 Green tea exacerbates Haloperidol induced Parkinsonism and change dopamine metabolism in nuclease accumbens
T. Malik, D. Haleem, Karachi, Pakistan

2.183 Prevalence of parkinsonism and other movement disorders in outpatients with Alzheimer’s disease using cholinesterase inhibitors and/or memantine
R.P. Munhoz, H. Teive, N. Becker, M. Moscovich, L. Filla, H. Fameli, Curitiba, Brazil

2.184 Class specific manifestation in drug induced parkinsonism
R.P. Munhoz, H. Teive, L.C. Werneck, M. Moscovich, L. Filla, H. Fameli, Curitiba, Brazil

Drugs: L-dopa, dopamine agonists

2.185 Randomized crossover study to compare levodopa pharmacokinetics of three gastric retentive extended-release tablets versus a reference extended-release tablet in dog
V. Cowles, C. Chen, M. Pese, E. Hou, Menlo Park, CA, USA

2.186 Level of oxidative DNA damage and expression of apoptotic proteins in patients with Parkinson’s disease treatment with L-dopa
J. Dorszewska, J. Florczak, W. Kozubski, Poznan, Poland

2.187 Effects of ropinirole prolonged-release on sleep disturbances and daytime sleepiness in Parkinson’s disease. Questionnaire and polysomnography study
P. Dusek, J. Buskova, V. Majerova, A. Srp, R. Jech, J. Roth, K. Sonka, E. Ružicka, Praha, Czech Republic

2.188 The impact of switching to continuous release dopamine agonists on non-motor side effects
L. Elmer, S. Wilson, Toledo, OH, USA

2.189 Piribedil stimulates dopaminergic neurons via dopamine receptor activation and PI3-kinase signalling and protects against MPP+ toxicity
C. Leideck1, K. Kuhn2, M. Wangemann2, H. Reichmann1, G. Gille1, 1Dresden, 2Hamburg, Germany

2.190 Efficacy and tolerability of prolonged-release Ropinirole (Requip XL) in the elderly with Parkinson’s disease
S. Isaacson1, J. Isaacson1, D. Kreitzman2, 1Boca Raton, FL, 2Commack, NY, USA

2.191 Patient and carer opinions of apomorphine use in Parkinson’s disease
S. O’Sullivan1, S. Beddow2, P. Lambert2, G. Montgomery2, J. Singh2, J. Mills2, N. Duffy2, 1London, 2Surrey, 3Newbury, UK

2.192 Efficacy of pramipexole extended release (ER) and switching from pramipexole immediate release (IR) to ER in Japanese advanced PD patients
Y. Mizuno1, M. Yamamoto2, S. Kuno1, K. Hasegawa3, T. Kagimura1, N. Hattori1, The Japanese Pramipexole-ER Study Group, 1Tokyo, 2Takamatsu, 3Sagamihara, Japan

2.193 A preliminary pharmacokinetic study comparing L-Dopa and Duodopa in adult rats
M. Papanthou1,2, E. Kooyman1, R. van der Laan1, R. Conjeevaram3, K. Nahas1, P. Jenner2, S. Rose2, A. Mccreary1, 1Weesp, The Netherlands, 2London, UK, 3Marietta, GA, USA, 4Daix, France

2.194 D1 antagonist blocks L-DOPA-induced striatal and nigral ERK1/2 phosphorylation in a rat model of Parkinson’s disease
S. Sivam, C. Moreno, Gary, IN, USA
2.195 Randomized, double-blind evaluation of levodopa/carbidopa/entacapone versus immediate-release levodopa/carbidopa in patients with Parkinson's disease exhibiting nonmotor symptoms of wearing off
M. Stacy¹, K. McCague², M. Weidenman², A. Campbell², M. Somogyi², ¹Durham, NC, ²East Hanover, NJ, USA

2.196 Levodopa pharmacokinetics following administration of novel gastric retentive extended-release formulations compared to a reference extended-release tablet in Parkinson's disease patients
I.D. Stolyarov¹, S.N. Illarioshkin², C. Chen², S.Y.E. Hou³, V.E. Cowles³, M. Sweeney³, ¹St.Petersburg, ²Moscow, Russia, ³Menlo Park, CA, USA

2.197 Switch from subcutaneous apomorphine to intraduodenal levodopa offers additional benefit on motor fluctuations and dyskinesias in advanced Parkinson's disease
S. Tamburin, M. Cappellari, S. Gasparini, E. Fincati, Verona, Italy

2.198 Effects of several dopamine agonists on 6-hydroxydopamine-induced ER stress in the mouse brain
K.-I. Tanaka, H. Ogo, T. Nanba, K. Sonoda, A. Tamura, T. Tsuji, Okayama, Japan

2.199 Does dopaminergic drugs induce a place preference in normal rat?
Y. Zengin, N. Authier, P.M. Llorca, F. Durif, Clermont-Ferrand, France

2.201 A reactive nitrogen species scavenger is neuroprotective in multiple Parkinson's disease animal models

2.202 Safinamide as an adjunct to levodopa significantly improved motor fluctuations in Parkinson’s disease: a phase III, randomized, double-blind, placebo-controlled study
R. Borgohain¹, J. Szasz², M. Bhatt³, S. Rossetti³, V. Lucini³, R. Anand³, on behalf of the Study 016 investigators, ¹Hyderabad, India, ²Targu Mures, Romania, ³Mumbai, India, ⁴Bresso, Italy, ⁵St Moritz, Switzerland

2.203 Zonisamide as an adjunctive therapy in idiopathic Parkinson's disease
R. Borgohain, G. Reddi Prasad, M.A. Kannikannan, S.A. Jabeen, R.M. Kandadai, Hyderabad, India

2.204 Pulsed electromagnetic fields modulate nitric oxide pathways in dopaminergic neurons
D. Casper¹, R. Lekhraj¹, A. Pidel¹, M. Yeung¹, A. Myrie¹, A. Pilla¹, ¹The Bronx, ²New York, NY, USA

2.205 A randomized, double-blind, placebo-controlled, delayed start study to assess safety, tolerability and efficacy of green tea polyphenols in Parkinson's disease
P. Chan¹, Z. Qin¹, Z. Zheng¹, L. Zhang¹, X. Fang¹, F. Sun¹, Z. Gu¹, S. Chen¹, J. Ma¹, C. Meng³, J.W. Langston³, C.M. Tanner³, Chinese Parkinson Study Group, ¹Beijing, ²Shanghai, China, ³Sunnyvale, CA, USA

2.200 Exendin-4 potentiates L-DOPA-evoked DA release in rat striatum
A. Abuimeileh, P. Whitton, London, UK

Drugs: new drugs
2.206 Efficacy and safety of preladenant, a novel A2A receptor antagonist, as a levodopa adjunct in patients with moderate-to-severe Parkinson’s disease
R.A. Hauser¹, E. Pourcher², F. Micheli³, V. Mok⁴, M. Onofri⁵, S.B. Huyck⁶, K.P. Wolski⁷, M. Cantillon⁸, ⁷Tampa, FL, USA, ²Sainte-Foy, QC, Canada, ³Buenos Aires, Argentina, ⁴Hong Kong, China, ⁵Chieti-Scalo, Italy, ⁶Kenilworth, NJ, USA

2.207 Neuroprotective and anti-inflammatory properties of novel pyrazolyl-2,4-thiazolidinediones
A.M. Youssef², M.S. White², E.B. Villanueva², I.M. El-Ashmawy¹, A. Klegeris², ²Alexandria, Egypt, ²Kelowna, BC, Canada

2.208 Antidyskinetic effects of leviracetam on levodopa-induced dyskinesias in Parkinson’s disease: a randomised, double-blind, placebo-controlled trial
M. Löhle¹, M. Wolz¹, K. Streecker², C. Schneider¹, U. Schwanebeck¹, H. Reichmann¹, X. Gröhert¹, J. Schwarz², A. Storch¹, ¹Dresden, ²Leipzig, Germany

2.209 Effects of pardoprunox (SLV308), a partial D₂/D₃ receptor and 5-HT₁A receptor agonist, on rat dopamine and serotonin neuronal activity
C. Bétry¹, A. Etievant¹, L. Lambas-Senas¹, A. McCreary⁴, N. Haddjeri¹, ¹Lyon, France, ⁴Weesp, The Netherlands

2.210 The development of positive allosteric modulators of mGlurR4 for the treatment of Parkinson's disease

2.211 Assessment of symptomatic and neuroprotective efficacy of mucuna pruriens seed extract in rodent model of Parkinson’s disease
A. Pinna¹, S. Pontis¹, N. Schintu¹, N. Simola¹, S. Kasture², M. Morelli¹, ¹Cagliari, Italy, ²Nashik, India

2.212 The protective effect of minocycline in 6-OHDA-induced toxicity in neuronal SH-SYSY cells
B. Ossola, T. Lantto, A. Raasmaja, P. Männistö, Helsinki, Finland

2.213 Improvements in symptom severity and daily living with safinamide in Parkinson’s disease: a phase III, randomized, double-blind, placebo-controlled study
J. Szasz², R. Borgohain², M. Bhatt³, S. Rossetti⁴, V. Lucini⁴, R. Anand⁴, on behalf of the Study 016 investigators, ¹Targu Mures, Romania, ²Hyderabad, ³Mumbai, India, ⁴Bresso, Italy, ⁵St Moritz, Switzerland

Drugs: disease-modifying drugs

2.214 PYM50028 (Cogane™) is a small molecule inducer of GDNF and BDNF that reverses behavioural impairment in MPTP-lesioned macaques
T.H. Johnston¹, J.B. Koprich¹, ¹S.H. Fox¹, P.A. Howson², ²J.M. Broatch, ³Toronto, ON, Canada, ²Huntingdon, UK

2.215 Suberoylanilide hydroxamic acid (SAHA), a histone deacetylase inhibitor, protects dopaminergic neurons from neurotoxin-induced damage
H.-M. Wu¹,²,³, S.-H. Chen¹,², J.-S. Hong², R.-B. Lu¹, ¹Tainan, Taiwan R.O.C., ²Research Triangle Park, NC, USA, ³Changhua, Taiwan R.O.C.

2.216 MANF: a new potential disease-modifying drug candidate for Parkinson’s disease
J. Commissiong, Sunnyvale, CA, USA

2.217 First-in-class drugs with neuroprotective potential against Parkinson’s disease identified through biology-driven discovery approach
T. Van Dooren¹, K. Coupé¹, E. Gommé¹, H. Duhamel¹, A. Lauwers¹, E. Cuveliers¹, K. Princen¹, I. Bastiaens¹, J. Winderickx², V. Rojas de la Parra¹, I. Van der Auwera¹, ¹S. Wera¹, G. Griffioen¹, ²Leuven-Heverlee, ²Leuven, Belgium
2.218 Usage and cost of complementary therapies in hemifacial spasm
P. Ratnagopal, S. Hameed, E.K. Tan, K. Hussein, Singapore, Singapore

2.219 Neuroprotective properties of Poacynum against MPP+-toxicity to dopaminergic cells
W.D. Rausch¹, C. Ma², I. Wichart³, P. Riederer², ¹Vienna, Austria, ²Urumqi, China, ³Wuerzburg, Germany

2.220 Dimebon™ is neuroprotective in a model of Parkinson’s disease

2.221 Clozapine exerts neuroprotection via reducing microglia-mediated inflammation
H. Zhou, X. Hu, D. Zhang, J.-S. Hong, Durham, NC, USA

Drugs: unwanted side effects of existing drugs

2.222 Piclozotan reduces dyskinesia and OFF time in Parkinson’s disease (PD) patients with L-dopa induced motor complications
R.A. Hauser¹, J.M. Gertner², M. Okamoto², R.F. Reed², J.I. Sage³, ¹Tampa, FL, ²Rochelle Park, ³New Brunswick, NJ, USA

2.223 Evidence for association of high-dose levodopa therapy with intellectual and psychiatric complications of Parkinson’s disease
T. Hamza¹, S. Factor², E. Molho¹, J. Montimurro¹, D. Pratt¹, A. Rosen², D. Higgins¹, H. Payami¹, ¹Albany, NY, ²Atlanta, GA, USA

2.224 Anti-dyskinetic effects of flibanserin on levodopa-induced dyskinesia in the 6-hydroxydopamine-lesioned rat model of Parkinson’s disease
M. Gerlach¹, J. Beck², P. Riederer³, M. van den Buuse³, ¹Wuerzburg, ²Muenster, Germany, ³Parkville, NSW, Australia

Gene therapy

2.225 Bioactivity of CERE-120 (AAV2-neurturin gene therapy) in advanced Parkinson’s disease (PD): post-mortem analysis of two autopsy cases
R.T. Bartus¹, C.D. Herzog¹, K.M. Bishop¹, Y. Chu², E.J. Mufson³, J.H. Kordower³, ¹San Diego, CA, ²Chicago, IL, USA

2.226 Multicenter, randomized, double-blind, sham surgery-controlled study of intraputaminal AAV2-neurturin (CERE-120) for advanced Parkinson’s disease (PD)
W. Marks, Jr.¹, R. Bartus², J. Siffert², P. Starr¹, J. Ostrem¹, M. Stacy¹, N. Bouliš¹, J. Vitek⁵, L. Verhagen⁴, R. Watts⁴, J. Jankovic⁸, M. Tagliaf⁹, M. Stern¹⁰, J. Nutt¹¹, J. Kordower³, A. Lozano¹², K. Kieburtz¹³, C. Davis¹⁴, F. Bloom¹⁶, C.W. Olanow¹, ¹San Francisco, ²San Diego, CA, ³Durham, NC, ⁴Atlanta, GA, ⁵Cleveland, OH, ⁶Chicago, IL, ⁷Birmingham, AL, ⁸Houston, TX, ⁹New York, NY, ¹⁰Philadelphia, PA, ¹¹Portland, OR, USA, ¹²Toronto, ON, Canada, ¹³Rochester, NY, ¹⁴San Diego, ¹⁵La Jolla, CA, USA

2.227 A phase I/II clinical trial to evaluate the safety and efficacy of ProSavin®, a gene therapy approach for Parkinson’s disease
B. Jarraya¹, H. Lepetit¹, S. Ralph², S. Boulet³, C. Jan³, G. Bonvento³, J. Miskin⁴, J.-M. Gurrczaga³, M. Vinti¹, G. Fenelon¹, P. Brugièreme, S. Kingsman², P. Hantraye¹, P. Remy¹, K. Mitrophanous², S. Palfi¹, ¹Paris, France, ²Oxford, UK
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2.228 Canada's head-to-head exercise rehabilitation challenge for Parkinson's disease: a systematic comparison of the most effective strategies for symptom improvement
Q.J. Almeida, M.D. Sage, R. Boehm, Waterloo, ON, Canada

2.229 Using error to evaluate basal ganglia contributions to timing control during gait in Parkinson's disease
Q.J. Almeida, C. Lebold, Waterloo, ON, Canada

2.230 The changes in cortical excitability after rTMS in Parkinson disease are more pronounced on the side where the symptoms initiated

2.231 Botulinum toxin B vs. botulinum toxin A for the treatment of sialorrhea in Parkinson's disease and amyotrophic lateral sclerosis
R. Ash, S. Ku, J. Grace, J.L. Ostrem, G.A. Glass, San Francisco, CA, USA

2.232 Switching to ropinirole reduces the severity of daytime sleepiness associated with pramipexole therapy in Parkinson's disease with renal dysfunction
Y. Baba, M.-A. Higuchi, R. Onozawa, T. Yamada, Fukuoka, Japan

2.233 Bilateral STN DBS improves manual performance time in Parkinson's disease
C. Llumiguano, N. Kovacs, T. Doczi, I. Balas, Pecs, Hungary

2.234 Impact of a French consensus conference on the initial therapy of Parkinson's disease: a population-based study
C. Fayard, A. Bonaventure, E. Roze, J. Houssinot, J.-L. Mazurie, T. Moreau, M. Giroud, C. Tzourio, J. Benatru, I. Elbaz, Dijon, Paris, Bagnolet, Bordeaux, France

2.235 Allosteric modulation of group III metabotropic glutamate receptor 4: a potential neuroprotective approach for the treatment of Parkinson's disease

2.236 Nordic Walking in Parkinson's disease: improves walking condition but leaves stride length unchanged
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M. Bousquet, C. Gibrat, M. Saint-Pierre, C. Julien, F. Calon, F. Cicchetti, Quebec, QC, Canada

2.238 iNOS but not nNOS-inhibition protects against 6-OHDA-induced nigral cell loss in an animal model of PD

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N. Byl, Oakland, CA, USA

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A. Carta, L. Frau, Cagliari, Italy
2.241 Ropinirole prolonged release improves nocturnal symptoms in patients with advanced Parkinson’s disease: an analysis of grouped items on the PDSS
1London, UK, 2Augusta, GA, USA, 3Greenford, 4Harlow, 5Research Triangle Park, NC, 6Birmingham, AL, USA

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P. Martinez-Martín1, L. Giorgi2, K. Rolfe5, K.R. Chaudhuri1, 1Madrid, Spain, 2Greenford, 3Harlow, 4London, UK

2.243 Effect of rotigotine on control of early morning motor function and sleep quality in subjects with idiopathic Parkinson’s disease
C. Trenkwalder1, K.R. Chaudhuri2, T. Anderson3, J. Fine4, D. Hill5, B. Kies6, M. Rudzinska5, E. Surmann7, J. Whitesides8, B. Boroojerdi7, RECOVER Study Group, 1Kassel, Germany, 2London, UK, 3Christchurch, New Zealand, 4Cape Town, South Africa, 5Salisbury, NC, USA, 6Krakow, Poland, 7Monheim, Germany, 8Raleigh, NC, USA

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C. Dotchin1, A. Jusabani2, E. Aris3, R. Walker4, 1Newcastle upon Tyne, UK, 2Moshi, 3Dar es Salaam, Tanzania, 4North Shields, UK

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2.249 Neuroprotective mechanisms of cystamine in a murin model of Parkinson’s disease
C. Gibrat1, M. Bousquet1, M. Saint-Pierre1, D. Lévesque2, F. Calon1, C. Rouillard1, F. Cicchetti1, 1Québec, 2Montreal, QC, Canada

2.250 Rate of antiparkinsonian medication increase after bilateral deep brain stimulation of the subthalamic nucleus
C. Gill1, E. Kahn2, A. Bowman2, T. Davis3, L. Wang3, D. Charles2, 1Chicago, IL, 2Nashville, TN, USA

2.251 Long-term safety and patient preference for dose frequency in patients receiving ropinirole prolonged release in early or advanced Parkinson’s disease
R.A. Hauser1, B. Hunter2, K. Rolfe5, L. Giorgi3, 1Tampa, FL, USA, 2Harlow, 3Greenford, UK
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A. Espay¹, J. Giuffrida², R. Chen³, J. Vaughan¹, A. Duker¹, D. Heldman², ¹Cincinnati, ²Cleveland, OH, USA, ³Toronto, ON, Canada

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H. Ikram, D.J. Haleem, Karachi, Pakistan

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J. Isaacscon¹, D. Kreitzman², S. Isaacscon¹, ¹Boca Raton, FL, ²Commack, NY, USA

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J. Jankovic, ADAGIO Investigators, Houston, TX, USA

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K. Kieburtz, Prami-BID Parkinson Study Group Investigators, Rochester, NY, USA

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K.P. Latté, R. Horowski, H.H. Pertz, Berlin, Germany

2.265
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Y. Naidu¹, K. Logishetty¹, A. Martin¹, S. Tluk¹, P. Reddy¹, P. Martinez-Martin², P. Odin³, T. Henriksen⁴, K.R. Chaudhuri¹, ¹London, UK, ²Madrid, Spain, ³Bremerhaven, Germany, ⁴Copenhagen, Denmark

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2.268 Anticholinergics for axial symptoms in Parkinson's disease with subthalamic nucleus stimulation
R. Onozawa, Y. Baba, M.-A. Higuchi, K. Fukuyama, H. Abe, T. Inoue, T. Yamada, Fukuoka, Japan

2.269 Changes in early-morning motor status following adjunctive treatment of advanced Parkinson's disease with rotigotine transdermal system: two large, placebo-controlled trials
R. Pahwa, W. Poewe, K. Lyons, B. Borojerdì, Kansas City, KS, USA, Innsbruck, Austria, Monheim, Germany

2.270 Once-daily pramipexole extended-release (ER) demonstrated non-inferiority compared to immediate release (IR) tid dosing in early Parkinson's disease
W. Poewe, P. Barone, R. Hauser, Y. Mizuno, Q. Rascol, A. Schapira, M. Haaksmà, N. Juhe, L. Salìn, in the name of the Pramipexole ER Studies Group, Innsbruck, Austria, Napoli, Italy, Tampa, FL, USA, Tokyo, Japan, Toulouse, France, London, UK, Vienna, Austria, Reims, France

2.271 Exendin-4 promotes recovery of both behavioral and neurochemical deficits in a "pre-motor" rodent model of Parkinson's disease

2.272 Simple overnight switching from immediate- to extended-release pramipexole in early Parkinson's disease at the same daily dosage
O. Rascol, P. Barone, R. Hauser, Y. Mizuno, W. Poewe, A. Schapira, C. Debievre, M. Sohr, L. Salìn, in the Name of the Pramipexole ER Studies Group, Toulouse, France, Napoli, Italy, Tampa, FL, USA, Tokyo, Japan, Innsbruck, Austria, London, UK, Reims, France, Ingelheim am Rhein, Germany

2.273 Wearing-off management in Parkinson's disease: the LEVOSTAR study two-year optional follow-up
J.-L. Houeto, M. Vidalhiet, I. Bourdeix, K. Rerat, Poitiers, Paris, Rueil-Malmaison, France

2.274 Metabotropic glutamate receptor type 5 (mGluR5) antagonists improves L-DOPA-induced-dyskinesia in both rat and macaque models of Parkinson's disease
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D. Santos-García, M. Macías, M. Llaneza, L. Fuster, A. Echarri, Ferrol, Spain

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The effects of a yoga program on Parkinson’s disease
M. Scott, M. Masterson, L. Elmer, L. Coca, E. Jarouche, A. Krumdieck, E. Kovar, Toledo, OH, USA

STEADY-PD: safety, tolerability, and efficacy assessment of isradipine (Dynacirc CR) in early Parkinson disease
T. Simuni1, K. Biglan2, D. Oakes2, N. Gardiner2, C. Deeley2, D.J. Surmeier3, 1Chicago, IL, 2Rochester, NY, 3Chicago, IL, USA

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O. Krivonos, I. Smolentseva, N. Amosova, E. Sozinova, Moscow, Russia

Chewing gum significantly improves swallow frequency and latency in patients with Parkinson’s disease
A. South, M. Jog, S. Somers, London, ON, Canada

Short and long term benefits of a community-based exercise program for people with Parkinson’s disease
D. Spierer, Y. Salem, R. States, C. Neesemann, Brooklyn, NY, USA

Ropinirole prolonged release maintains an increase in daily awake time spent "on" in patients with advanced Parkinson’s disease
F. Stocchi1, B. Hunter2, L. Giorgi3, B. Hersh4, 1Rome, Italy, 2Harlow, 3Greenford, UK, 4Boston, MA, USA

Dose-related decrease in “off” time with ropinirole prolonged release in patients with advanced Parkinson’s disease
F. Stocchi1, B. Hunter2, L. Giorgi3, R.A. Hauser4, 1Rome, Italy, 2Harlow, 3Greenford, UK, 4Tampa, FL, USA

Once-daily ropinirole prolonged release improves activities of daily living and motor symptoms in patients with advanced Parkinson’s disease
F. Stocchi1, L. Giorgi3, K. Rolfe3, C.B. Rockett4, 1Rome, Italy, 2Greenford, 3Harlow, UK, 4Research Triangle Park, NC, USA

Parkinson’s disease drug therapies: medication compliance and persistence
M. Tarrants1, M. Denarie2, T. Karabas1, J. Castelli-Haley1, J. Millard2, D. Zhang2, 1Kansas City, MO, 2Philadelphia, PA, USA

Cost-effectiveness of rasagiline compared to other first line treatment options of early Parkinson’s disease in the United States
R. Farkouh1, M. Wilson1, M. Tarrants2, J. Castelli-Haley2, C. Armand3, 1Research Triangle Park, NC, 2Kansas City, MO, USA, 3Paris, France

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M. Tarrants1, H. Groenendaal2, C. Armand3, 1Kansas City, MO, 2Boulder, CO, USA, 3Paris, France

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M. Bares1, I. Rektorova1, R. Jech2, K. Farnikova3, J. Roth2, E. Ruzicka2, P. Kanovsky1, I. Rektor1, T. Pavlik1, K. Chroust1, L. Uhlírova2, J. Vydlak2, 1Brno, 2Prague, 3Olomouc, Czech Republic

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R. Watts¹, P. Pahwa², K. Lyons³, B. Boroojerdi³, ¹Birmingham, AL, ²Kansas City, KS, USA, ³Monheim, Germany

2.291 Adjunctive ropinirole prolonged-release has similar effects on motor and non-motor symptoms in PD compared with carbidopa-levodopa, but delays dyskinesia onset
R.L. Watts¹, L. Giorgi², K. Rolfe³, K.E. Lyons⁴, ¹Birmingham, AL, USA, ²Greenford, ³Harlow, UK, ⁴Kansas City, KS, USA

2.292 Sorafenib protects dopaminergic neurons from lipopolysaccharide-induced neurotoxicity via NF-κB inactivation
F. Zhang¹, L. Qian¹, P.M. Flood³, J.-S. Hong¹, H. Gao¹, ¹Raleigh, ²Chapel Hill, NC, USA

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R. Gobbi¹, L. Gobbi³, M. Oliveira-Ferreira¹, A. Salles¹, C. Teixeira-Arroyo¹, N. Rinaldi¹, F. Stella¹,², S. Gobbi¹, PROPARKI - Physical Activity Program for People with Parkinson’s Disease, ¹Rio Claro, ²Campinas, Brazil

2.295 Predicting response to doxazosin in patients with voiding dysfunction and Parkinson disease: impact of the neurological impairment
C. Gomes, Z. Sammour, J. Bessa Jr., E. Barbosa, R. Lopes, F. Sallem, M. Pinheiro, F. Trigo-Rocha, H. Bruschini, M. Srougi, Sao Paulo, Brazil

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E. Kerckhofs, Brussels, Belgium

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T. McNulty, Salt Lake City, UT, USA

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T.-B. Ahn¹, J.W. Langston°, A. DelleDonne¹, D. Dickson¹, ¹Jacksonville, FL, ²Sunnyvale, CA, USA

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E. Lane, E. Torres, J. Davidson, S. Dunnett, Cardiff, UK

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L. Madhavan¹, B. Daley¹, R. Boudreau², A. Cole-Strauss¹, T. Collier¹, ¹Cincinnati, OH, ²Iowa City, IA, USA

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T. Subramanian, K. Venkiteswaran, Hershey, PA, USA
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M. Bisaglia¹, E. Greggio², L. Tosatto¹, F. Munari¹, D. Maric², I. Tessari¹, P. Polverino de Laureto¹, D.W. Miller², S. Mammi¹, M.R. Cookson², L. Bubacco¹, Padova, Italy, Bethesda, MD, USA

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D. Cheng¹, W.S. Kim¹, B. Garner¹, Randwick, Sydney, NSW, Australia

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H. Dimant, N. Sharon, B. Solomon, Tel Aviv, Israel

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J.C. Gomez Esteban¹, J.J. Zarranz¹, C. Gonzalez², V. Llorens², B. Tijero¹, R. Ciordia¹, E. Lezcano¹, M. Martinez de Pancorbo¹, K. Berganzo¹, J. Somme¹, Bilbao, Vitoria, Spain

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M.C. González-Fernández¹, J.C. Gómez-Esteban², A. López de Lapuente¹, E. Lezcano², F. Gómez-Busto¹, J.J. Zarranz², M. M. de Pancorbo¹, Vitoria-Gasteiz, Bilbao, Spain

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R. Martone¹, J. Meehan², J.Z. Xu¹, M.L. Mercado¹, R. Staal¹, A. Hubbell², K. Kubek¹, S. Nawošchik¹, I. Das¹, H. Shih¹, J. Dunlop¹, M. Pangalos¹, P. Reinhart¹, Princeton, NJ, Chazy, NY, Cambridge, MA, USA

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S. Mendritzki¹, S. Schmidt¹, T. Sczepan¹, C.C. Stichel², H. Lübbert¹,² Bochum, Leverkusen, Germany

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T. Outeiro, Lisbon, Portugal

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H. Qing¹,², W. Wong¹, E. McGeer¹, P. McGeer¹, Vancouver, BC, Canada, Beijing, China

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M. Schiess, J. Barnes, B. Poindexter, K. Dinh, R. Bick, Houston, TX, USA
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A.C. Williams, Birmingham, UK

Pellagra: American epidemic of a curable, familial, neurodegenerative, immune-deficient, metabolic and bioenergetic "redox" disorder. Tip of NAD(H) iceberg?
A.C. Williams, Birmingham, UK

Assessing non-cortical glucose metabolism in corticobasal syndrome
D. Claassen¹, I. Stoian², K. Josephs², P. Peller², ¹Charlottesville, VA, ²Rochester, MN, USA

Cognitive features are more predictive of corticobasal degeneration (CBD) pathology than motor features in corticobasal syndrome
S. Kranick, J. Duda, M. Grossman, Philadelphia, PA, USA

Posterior alien hand phenomena as the first manifestation of HIV encephalopathy
R. Munhoz, M. Moscovitch, H. Fameli, L. Filla, H. Teive, T. Lyra, Curitiba, Brazil

Factors affecting time to levodopa-induced dyskinesias
S. Hassin-Baer¹,², L. Molchadski¹, O.S. Cohen¹,², Z. Nitsan¹, H. Strauss¹, L. Ephratty¹, A.D. Korczyn¹, Ramat-Gan, ¹Ramat-Gan, ²Tel Aviv, Israel

Progesterone attenuates neuroleptic-induced orofacial dyskinesia via the activity of its metabolite, allopregnanolone, a positive GABA(A) modulating neurosteroid
S. Kulkarni, M. Bishnoi, K. Chopra, Chandigarh, India

Effect of bilateral globus pallidus internus deep brain stimulation on periodic limb movements in Parkinson's disease patient and possible mechanism
M. Lyons, B. Klassen, V.G. Evidente, Phoenix, AZ, USA

Protective effects of *Nigella sativa* on the neuronal alterations of the striatum induced by Haloperidol
T. Malik, D. Haleem, S. Hasan, S. Pervez, T. Fatima, Karachi, Pakistan

Movement disorders after stroke
Y. Motuzova, A. Fedulau, Minsk, Belarus

Reversal of haloperidol-induced tardive vacuous chewing movements and supersensitive somatodendritic serotonergic response by buspirone in rats
N. Samad, Karachi, Pakistan

Parakinesia Brachialis Oscitants due Brainstem Stroke. Report of two cases
R.P. Munhoz, H.A. Teive, Curitiba, Brazil

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3.126 Familial aggregation of Parkinson’s disease in the Greek island of Syros
M. Bozi1, G. Hadjigeorgiou1, E. Staboulis3, L. Stefanis3, Syros, Larissa, Athens, Greece

3.127 Mutation analysis of the glucocerebrosidase gene in Russian patients with Parkinson’s disease
N.Y. Abramycheva, S.A. Klyushnikov, G.K. Bagyeva, I.A. Ivanova-Smolenskaya, S.N. Illarioshkin, Moscow, Russia

3.128 Clinico-pathologic comparison of Perry syndrome and distal spinal and bulbar muscular atrophy
J. Lash1, L. Brown1, C. Wider1, S. Oh2, M. Farrer1, D. Dickson1, Z. Wszolek1, Jacksonville, FL, Birmingham, AL, USA

3.129 Estrogen related genes and Parkinson’s disease
S.J. Chung1,2, S.M. Armasu1, J.M. Biernacka1, T.G. Lesnick1, D.N. Rider1, J.M. Cunningham1, W.A. Rocca1, D.M. Maraganore1, Rochester, MN, USA, Seoul, South Korea

3.130 Analysis of the LRRK2 p.G2019S mutation in Colombian Parkinson’s disease patients

3.131 Polymorphisms in aldehyde dehydrogenase and the risk of sporadic Parkinson disease
J. Galvin, W. Burke, J.-C. Wang, B. Racette, J. Perlmutter, A. Goate, St Louis, MO, USA

3.132 GBA mutations and Parkinson disease in Italian population
R. D’Angelo, C. Barzaghi, A. Giovanetti, A. Albanese, S. Goldwurm, B. Garavaglia, Milan, Italy

3.133 TaqI A polymorphism of dopamine D2 receptor gene (DRD2), dopamine dysregulation syndrome and impulse control disorders in Parkinson’s disease
A. Gorzowska1, B. Jasinska-Myga1, G. Kłodowska-Duda1, M. Bialecka2, M. Kurzawski2, G. Opala1, Katowice, Szczecin, Poland

3.134 Apolipoprotein E alleles in Greek patients with Parkinson’s disease. Association with the presence of dementia and hallucinations
C. Karakasis1, V. Veletza2, D. Milioni1, Z. Katsarou1, S. Bostantjopoulou1, Thessaloniki, Alexandroupolis, Greece

3.135 Polymorphisms in the transcription factor gene GATA2 and GATA-2 target region in α-synuclein (SNCA) are associated with Parkinson’s disease (PD)
D. Kay1, J. Montimurro1, M. Schlossmacher2, E. Bresnick3, C. Stevens1, C. Zabetian4, S. Factor5, D. Higgins1, C. Scherzer16, H. Payami1, equal contributors, Albany, NY, USA, Ottawa, ON, Canada, Madison, WI, Seattle, WA, Atlanta, GA, Cambridge, MA, USA

3.136 The analysis of LRRK 2 and parkin gene mutations in Slovakia
K. Kracunova, M. Kovacovicova, M. Baldovic, P. Valkovic, J. Benetin, L. Kadas, Bratislava, Slovak Republic

3.137 Loss of CAA interruption in large SCA2 alleles is a risk factor to ATX2 gene instability
J. Laffita-Mesa1, L. Velasquez-Perez1, G. Auburger2, S. Gispert2, L. Peña-Serrano1, G. Sánchez-Cruz1, N. Santos1, J. Santiago1, Holguin, Cuba, Frankfurt, Germany
3.138 The Cuban pathological CAG mutation causing SCA2 was introduced between 1408 CE and 1733 CE in the Cuban population
J. Laffita-Mesa1, L. Velasquez-Perez1, G. Auburger2, S. Gispert1, L. Serrano1, G. Sánchez-Cruz1, Holguin, Cuba, 2Frankfurt/Main, Germany

3.139 Quantitative proteomic analysis of substantia nigra in patients with Parkinson's disease
V. Licker, L. Dayon, N. Turck, M. Côte, N. Rodrigo, D.F. Hochstrasser, J.-C. Sanchez, P.R. Burkhard, Geneva, Switzerland

3.140 GBA mutations and clinical features of patients evaluated at a referral clinic for Parkinson disease
G. Lopez, J. Hyuk Choi, N. Gupta, B. Stubblefield, O. Goker-Alpan, N. Tayebi, E. Sindransky, Bethesda, MD, USA

3.141 A GATA-2-switch model of α-synuclein overexpression in sporadic Parkinson's disease
Z. Liao1, R. Bakshi1, E. Bresnick2, M. Schlossmacher3, B. Zheng1, C. Scherzer1, Cambridge, MA, 2Madison, WI, USA, 3Ottawa, ON, Canada

3.142 FRDA mutation predates divergence of European and Indian populations of Indo-European origin?
A. Srivastava1, I. Singh1, F. Mohammed1, M. Mukerji1, P. Paul2, M. Padma1, S. Jain1, M. Behari1, New Delhi, 2Bangalore, India

3.143 Differences in gene expression patterns in the olfactory bulb of Parkinson patients and related disorders?

3.144 Protein homeostasis involves chaperone functions of NMNAT alongside NAD production from nicotinamide, an essential dietary constituent: nicotinamide homeostasis is important
A.C. Williams, Birmingham, UK

Inclusion bodies

3.145 Bilateral ballism after herpes encephalitis with thalamic lesion
J.S. Baik, S.W. Han, J.Y. Kim, J.H. Park, Seoul, South Korea

Inflammation

3.146 The MyD88 inflammatory pathway and its implication in a murin model of Parkinson's disease
J. Drouin-Ouellet1, C. Gibrat1, M. Saint-Pierre1, A.-L. Brownell2, F. Cicchetti1, Quebec, QC, Canada, 2Boston, MA, USA

3.147 Opsoclonus-myoclonus syndrome in anti-NMDA-receptor encephalitis
J. Horvath, M. Kurian, P. Lalive, Geneva, Switzerland

3.148 MPTP-reactive “in situ” inflammation as a key event in the molecular cascade linking nigrostriatal injury to repair
F. L'Episcopo1, G. Salani2, C. Tirolo1, S. Caniglia1, N. Testa1, M.C. Morale1, E. Zardini1, P.-A. Serra1, D. Franciotta3, G. Martino2, S. Pluchino2, B. Marchetti1,5, Troina, 2Milano, 3Pavia, 4Italy, 5Catania, Italy

3.149 b2 adrenergic receptor activation induces microglial NADPH oxidase activation and dopaminergic neurotoxicity through an ERK-dependent/protein kinase A-independent pathway
L. Qian1, X. Hu2, D. Zhang2, B. Wilson2, J.-S. Hong3, P. Flood1, Chapel Hill, 2RTP, NC, USA
Iron, copper, manganese

3.150 Calcium channel blockers can minimize iron-induced apoptosis in neural stem cells
W.-X. Chen, V. Wong, M. Yang, G.C.-F. Chan, Hong Kong, Hong Kong S.A.R.

3.151 Metallomics of neuromelanin in Parkinsonian syndromes
S. Bohic1, A. Carmona2, R. Ortega2, S. Reyes3, F. Carew-Jones3, K. Double4, 1Grenoble, 2Gradignan, France, 3Sydney, NSW, Australia

3.152 Up-regulation of divalent metal transporter 1 in 6-hydroxydopamine intoxication is IRE/IRP dependent
H. Jiang, N. Song, L. Hou, H. Xu, S. Zhang, J. Xie, Qingdao, China

3.153 Effect of prenatal manganese intoxication on dopaminergic neurotransmission in the brain of rats lesioned as neonates with 6-hydroxydopamine
P. Nowak1, A. Kwiecinski1, R.M. Kostrzewa2, 1Zabrze, Poland, 2Johnson City, TN, USA

3.154 Welding fume-related dopaminergic neurotoxicity

3.155 The relationship between blood levels of heavy metals and Parkinson’s disease in China
X. Tan, Wuhan, China

3.156 The roles of Iron, Mn, Zinc on the PD development? Relationship between food intake and serum concentrations
X. Tan1, Y. Luo2, P. Wang3, 1Wuhan, 2Xiangfan, China

3.157 Perturbation of tyrosine by cationic charge
G. Vezzoli, Lebanon, NH, USA

3.158 Ceruloplasmin is involved in the nigral iron accumulation of 6-OHDA lesioned rats
J. Wang, H. Jiang, J.-X. Xie, Qingdao, China

3.159 Glial activation in incidental Lewy body disease
T.-B. Ahn1, H. Fujishiro1, J. Menke1, R. Frigerio2, A. DelleDonne1, K. Klöpp1, J. Parisi2, K. Josephs3, M. Burnett2, E. Ahlskog2, D. Dickson1, 1Jacksonville, FL, 2Rochester, MN, 3Tulsa, OK, USA

3.160 Striatal oxidative stress profile following partial dopaminergic depletion as assessed by a novel multifunctional marker molecule
Y. Aluf1,2, J. Vaya2, S. Khatib2, J. Finberg1, 1Haifa, 2Kiryat Shmona, Israel

3.161 Differential distribution of tyrosine hydroxylase isoforms in the human brain
J. Shehadeh1, K. Double2, K. Murphy2, L. Bobrovskaya1, S. Reyes2, P. Dunkley1, P. Dickson1, G. Halliday2, 1Callaghan, 2Randwick, NSW, Australia

3.162 Most cases with Lewy pathology in a population-based cohort adhere to the pattern of progression suggested by Braak LB staging
J.E. Duda1, J.V. Noorigian1, L.R. White2, H. Petrovitch2, G.W. Ross2, 1Philadelphia, PA, 2Honolulu, HI, USA

3.163 Immunohistochemical study of the progression of neurodegenerative process within the striatum of rats transgenic for Huntington’s disease
I. Guncova, Y. Mazurova, E. Rudolf, Hradec Kralove, Czech Republic
3.164 Nimesulide, a preferential cyclooxygenase-2 inhibitor exhibits neuroprotection against MPTP-induced striatal lesions in rats: behavioral, biochemical, cellular and histological evidences
A. Gupta, A. Dhir, A. Kumar, S.K. Kulkarni, Chandigarh, India

3.165 Neuropathological characterization of posttranslationally modified α-synuclein in PD and DLB
K. Hilton¹, S. Mueller-Steiner¹, M. Chen³, K. Tanaka¹, T. Hui¹,
J. Anderson¹, E. Head², W. Poon², D. Games¹, M. Buttini¹,² South San Francisco,² Irvine, CA, USA

3.166 Mice infected with highly pathogenic H5N1 influenza virus develop Parkinsonian pathology
H. Jang, D. Boltz, K. Ramirez, K. Shephard, Y. Jiao, R. Webster, R. Smeyne, Memphis, TN, USA

3.167 Basal Ganglia hyperindirect pathway: direct projections from the subthalamic nucleus innervating the ventral motor thalamic nuclei in MPTP-treated primates
A. Rico, P. Barroso-Chinea, L. Conte, E. Roda, V. Gómez-Bautista, I. López, J. Obeso, J. Lanciego, Pamplona, Spain

3.168 The neurodegenerative process in the striatum develops in similar morphological patterns in both Huntington’s diseased patients and transgenic HD rats
Y. Mazurova, I. Guncova, E. Rudolf, Hradec Králové, Czech Republic

3.169 Borna disease virus phosphoprotein interferences with the brain monoaminergic system via promoting tyrosine hydroxylase expression in neuronal cells
Y. Jian-ping, X. Peng, Chong Qing, China

3.170 The unique properties of 9-methyl-β-carboline: stimulation, protection and regeneration of dopaminergic neurons coupled with anti-inflammatory effects
W. Polanski, H. Reichmann, G. Gille, Dresden, Germany

3.171 Loss of noradrenergic neurons in the locus coeruleus of Parkinson’s disease subjects does not result in compensation
P. Szot, A. Franklin, S. White, M. Raskind, Seattle, WA, USA

3.172 Protonopathies: deficiency or excess of proton providers and carriers (glucose and nicotinamide) may overwhelm NAD recycling and “short circuit” defenses
A.C. Williams, Birmingham, UK

3.173 Mitochondrial NAD(H) suppliers rate-limit energy, signal transduction and redox-gradient spatio-temporal variables important for development and degeneration: lessons from pellagra
A.C. Williams, Birmingham, UK

Neurophysiology

3.174 Effects of the treatment scheme factor on blood ethanol levels of mice repeatedly treated ethanol
N. Araujo¹, M.L. Formigoni-Souza², R. Frussa-Filho²,¹ Boa Vista,² Sao Paulo, Brazil

3.175 Time-frequency and spectral analysis of auditory executive event-related potentials from subthalamic nucleus
M. Baláž, P. Jurák, J. Chládek, J. Halámek, M. Bočková, I. Rektor, Brno, Czech Republic

3.176 Effects of stimulation of the basolateral amygdala on the acquisition of a motor skill in rats hemiparkinsonized
Y. Carrero, Ciudad Habana, Cuba
3.177 Sleep disorders and disturbances in memory processing related to the lesion of the caudate nucleus
M. Gogichadze, T. Oniani, M. Nemsadze, N. Oniani, Tbilisi, Georgia

3.178 Dynamics of electrical activity of the caudate nucleus in the sleep-wakefulness cycle
T. Oniani, L. Gvetadze, S. Manjavidze, M. Gogichadze, M. Nemsadze, N. Oniani, Tbilisi, Georgia

3.179 Movement related potentials in Parkinson’s disease patients
N. Klepac1, V. Isgum2, Z. Murrin1, L. Unusic1, M. Titlic3, Zagreb, 2Split, Croatia

3.180 Movement disorder among the new Parkinson diseases patients in China
Y. Luo1, X. Tan2, P. Wang1, H. Lei1, L. Wang1, Xiangfan, 2Wuhan, China

3.181 Striatal muscarinic receptors facilitate frequency-sensitivity of striatal dopamine
I. Pienaar, Oxford, UK

3.182 Deep brain stimulation regulates peripheral glucose metabolism in humans: from Parkinson to diabetes
I. Rieu, M. Batisse, C. Guillet, F. Durif, Y. Boinie, Clermont-Ferrand, France

3.183 Movement related frequency modulation of alpha oscillatory activity in human basal ganglia
A. Singh, J. Levin, B. Feddersen, K. Boetzel, Munich, Germany

3.184 The role of human photosynthesis in the understanding and treatment of Parkinson disease
M.D.C. Areas-Esparza, R.I. Solis Arias, P.E. Solis Arias, M.P. Solis Arias, A. Solís-Herrera, Aguascalientes, Mexico

3.185 Covalent modification of superoxide dismutase 2 by dopamine oxidation products
E. Belluzzi, M. Bisaglia, I. Tessari, L. Bubacco, M. Beltramini, Padova, Italy

3.186 Dopamine oxidation products as mitochondrial endotoxins, a potential molecular mechanism for selective neurodegeneration in Parkinson disease
I. Arduini, M.E. Soriano, M. Bisaglia, P. Bernardi, L. Bubacco, Padova, Italy

3.187 Toxic influence on Parkinson disease: 5 years follow-up study
M. Budisic, Z. Trkanjec, A. Lovrencic-Huzjan, M. Crnjakovic, V. Demarin, Zagreb, Croatia

3.188 Hyperacetylation and nuclear shuttling of Ku70 during neurotoxic insults in Parkinson's disease models: a novel oxidative signaling in dopaminergic neurodegeneration
A. Kanthasamy, C. Song, V. Anantharam, A. Kanthasamy, Ames, IA, USA

3.189 Novel bio-panning technique to isolate scFv against low concentrations of toxic natural brain derived Abeta oligomers
S. Kasturirangan1, G. Shankar2, D. Selkoe2, M. Sierks1, Tempe, AZ, 2Boston, MA, USA

3.190 Parkinson’s disease-smoking: still an dilemma?
A. Mititelu, London, UK

3.191 Influence of oxidative stress and apoptosis on the onset and progression of Parkinson’s disease in rotenone induced experimental model
B. Nehru, R. Verma, Chandigarh, India
3.192 Carbon monoxide poisoning induced nigrostriatal dopaminergic dysfunction detected using Positron Emission Tomography (PET)
E. Rissanen, T. Paavilainen, J. Virta, L. Airas, R.J. Marttila, J. Rinne, Turku, Finland

3.193 Nicotinamide dosage regulates redox (NAD(H)) and is relevant to pellagra, brain development and diseases of ageing including dementia and parkinsonism
A.C. Williams, Birmingham, UK

3.194 Microglial MAC1 and PI3K are essential in mediating beta-amyloid peptide-induced neurotoxicity in neuron/glia cultures
D. Zhang, X. Hu, L. Qian, B. Wilson, J.-S. Hong, RTP, NC, USA

3.195 Heterozygous mutations in PINK1 kinase domain exert a gene dosage effect
D. Angeles, F. Refai, M. Siddique, K. Yap, P. Ho, S. Fook-Chong, Y. Zhao, E.-K. Tan, Singapore, Singapore

3.196 Mitochondrial morphology and function in PINK1-deficient cells and mice
Z. Zhu, R. Akundi, L. Boock, X. Liu, H. Zhu, H. Büeler, Lexington, KY, USA

3.197 Recessive parkinsonism genes influence mitochondrial function under conditions of oxidative stress
M. McCoy, J. Blackinton, K. Thomas, K. Mowrer, M. Cookson, Bethesda, MD, USA

3.198 Surgical series in G2019S and R1441G mutations of the LRRK2 gene in Parkinson’s disease. DBS-coordinates and pallidotomy
S.G. Echebarria Mendieta, Barcelona, Spain

3.199 Pathological and clinical series in LRRK2 Parkinson’s disease and ATG16L1 Crohn’s disease: autophagy models comparative
S.G. Echebarria Mendieta, Barcelona, Spain

3.200 Prodromal essential tremor and tremor-predominant LRRK2 mutation Parkinson’s disease. Possible optimal VIM DBS results respect to pallidotomy-STN DBS?
S.G. Echebarria Mendieta, Barcelona, Spain

3.201 Axial and PRE-camptocormic forms in LRRK2 mutation Parkinson’s disease. Review of surgical results disease
S.G. Echebarria Mendieta, Barcelona, Spain

3.202 LRRK2 diagnostic types and neuropathological forms: surgical spectrum - results comprehensive methods
S.G. Echebarria Mendieta, Barcelona, Spain

3.203 Molecular analysis PARK2 and DJ-1 mutations in Polish early onset Parkinson’s disease patients
D. Kozliorowski¹, D. Hoffman-Zacharska¹, A. Romańczuk¹, J. Slawek², J. Bal³, A. Friedman¹, Warszawa, Gdansk, Poland

3.204 The influence of subcellular localization on LRRK2
M.J. LaVoie, K.A. Smith, Z. Berger, Boston, MA, USA

3.205 Mutant (I²⁰₂⁰T) LRRK2 has higher susceptibility to proteolysis and impaired protectivity against apoptosis
E. Ohta, Y. Katayama, K. Tajima, T. Maekawa, M. Yamamoto, F. Obata, Sagamihara, Japan

3.206 Interactive effects of LRRK2 and α-synuclein
S. Sen, A. West, Birmingham, AL, USA
3.207 Mitochondrial defects induced by a loss of fusion effect in mutant PINK1 can be rescued through the fission/fusion pathway
M. Cui, X. Tang, Y. Yoon, K. Tieu, Rochester, NY, USA

3.208 Expression of Integrins αv, β3, β1, and CD44 receptor may explain the neuroprotective effects of osteopontin
S. Ailane, S. Rose, P. Jenner, London, UK

3.209 State space mapping of sleep and wakefulness in Parkinson patients and healthy controls
J. Sarnthein, E. Werth, C. Baumann, Zurich, Switzerland

3.210 Is the basal ganglia involved in subconscious processing? A direct comparison of conscious & subconscious processing in individuals with Parkinson’s
M. Brown1, Q. Almeida1, L. Fitzgeorge2, E. Buckolz3, 1Waterloo, 2London, ON, Canada

3.211 Expression of clock genes Per1 and Bmal1 in total leukocytes in health and Parkinson’s disease
P. Chan, Y. Cai, Beijing, China

3.212 Autoimmune parkinsonism
A. Caramelli, C. Pardini, C. Viaggi, F. Vaglini, G.U. Corsini, Pisa, Italy

3.213 Rest energy expenditure in advanced Parkinson’s disease: the impact of disease progression and drug treatment
M.G. Ceravolo, M. Capecci, B. Emanuelli, A. Nicolai, M. Petrelli, Ancona, Italy

3.214 A possible correlation between memory and neuronal oxidative stress status in a 6-OHDA model of Parkinson’s disease
A. Ciobica, L. Hritcu, V. Artenie, M. Padurariu, W. Bild, Iasi, Romania

3.215 Serum iron levels are lower in Parkinson’s disease patients as compared to controls and are modified by haptoglobin phenotype
P. Costa-Mallen1, C. Zabetian2, J. Zhang3, A. Samii1, A. Griffith4, J.W. Roberts2, H. Checkoway2, 1Kenmore, 2Seattle, 3Kirkland, WA, USA

3.216 Alpha-synuclein-directed alterations in membrane electrophysiological properties: potential role for alpha-synuclein pores in cell death
L.R. Feng, K. Maguire-Zeiss, Washington, DC, USA

3.217 Characteristics of resting-state oscillatory activity in the basal ganglia-cortical loop in the 6-OHDA-lesioned rat models of Parkinson’s disease
M. Li, J. Zhu, G. Gao, Xi’an, China

3.218 Uncontrolled neuroinflammation drives progressive neurodegeneration in Parkinson’s disease
H.-M. Gao, F. Zhang, H. Zhou, B. Wilson, J.-S. Hong, Research Triangle Park, NC, USA

3.219 Regulation of movement energetic costs is impaired in basal ganglia disorders
C. Moisello1, D. Crupi1, A. Di Rocco2, D. Eidelberg3, A. Feigin3, F. Ghilardi1, 1New York, 2New York, 3Manhasset, NY, USA

3.220 Trauma and Parkinson’s disease: some observations
S. Jha, Lucknow, India

3.221 Impaired cerebral glucose metabolism and atrophy, but not amyloid accumulation is related to cognitive impairment in Parkinson’s disease
P.A. Jokinen, J. Rinne, S. Aalto, Turku, Finland
3.222  Inhibitory plasticity is impaired in early untreated Parkinson’s disease  
T. Joseph¹, S. Meunier², A. Kishore¹, ¹Thiruvananthapuram, India, ²Paris, France

3.223  Parkinsonism in Jamaica: a 3-year prospective study  
A. Ali¹, K. Josephs², ¹Kingston, Jamaica, ²Rochester, MN, USA

3.224  Different types of alpha-synuclein are degraded by autophagic pathway  
L. Kangyong¹, L. Chunfeng², ¹Shanghai, ²Suzhou, China

3.225  Therapeutic effect and probable mechanism of Rapamycin on MPTP-induced parkinsonism in mice  
L. Kangyong, Shanghai, China

3.226  Redox driven apoptotic signaling underlies selectivity vulnerability in animal model of Parkinson’s disease  
S. Karunakaran, V. Ravindranath, Manesar, India

3.227  Parkinsons disease among Inuit in Greenland: persistent organic pollutants as risk factors  
O. Koldkjær, Sønderborg, Denmark

3.228  Functional and design-based stereological assessment of the MPTP-induced heart atrophy in mice: a short communication  
F.V.L. Ladd¹, A.A.B.L. Ladd¹, F.P. Vieira¹, F. Oliveira¹, P.S. Brum¹, K. Coelho¹, M.L.Z. Dagli¹, F. Costa-Pinto¹, M.L. Andersen¹, F.R. Silva¹, D. Casarin¹, D. Arita¹, A.A.C. Ribeiro¹, T.N. Sala², D. Marchetti², ¹São Paulo, ²Sao Paulo, Brazil

3.229  Impaired visuomotor adaptation in Parkinson disease during a computer-mediated aiming task  
L. Lhuisset¹, M. Panisset², M. Lemay², ¹Caen, France, ²Montreal, QC, Canada

3.230  ¹H-MRS and cognitive function changes after bilateral DBS of the STN in Parkinson’s disease  
C. Llumiguano, N. Kovacs, T. Doczi, ¹Balas, Pecs, Hungary

3.231  ¹H-MRS after bilateral DBS of the STN in Parkinson’s disease  
C. Llumiguano, N. Kovacs, A. Schwarcz, T. Doczi, ¹Balas, Pecs, Hungary

3.232  PLA2G6 mutations in a Taiwanese cohort of early onset parkinsonism  

3.233  Genetic polymorphism of nicotinic acetylcholine receptor α4 subunit is associated with Parkinson’s disease  
E. Lyros, A. Papachatzopoulou, L. Messinis, P. Papathanasopoulos, A. Athanassiadou, Patras, Greece

3.234  Serum proteomic biomarkers for the diagnosis of Parkinson’s disease  
K. Markopoulo¹, J. Bryson², B. Chase³, S. Quintero⁴, E. Sheta², M. Sabbagh², I. Goldknopf², ¹Larissa, Greece, ²The Woodlands, TX, ³Omaha, NE, ⁴Sun City, AZ, USA

3.235  Abnormal cerebellar activity in Parkinson’s disease - a network perturbation approach  
M.J. McKeown, Z. Ma, Z.J. Wang, Vancouver, BC, Canada

3.236  Alpha-synuclein in stem cells  
H. Mochizuki, M. Tani, H. Hayakawa, N. Hattori, Y. Mizuno, Tokyo, Japan

3.237  Infectious causes of parkinsonism  
R. Munhoz, H. Teive, M. Moscovich, L. Filla, H. Fameli, L. Werneck, Curitiba, Brazil
3.238 Predictive factors for PD progression preliminary results of PARKMIP/COPARK cohort after 24-months follow up
L. Negre-Pages1, S. Perez Lloret1, P. Damier2, A. Destee3, F. Tison4, C. Sampaio5, J. Ferreira6, P. Martinez Martin6, O. Rascol1, PARKMIP/COPARK Study Group, 1Toulouse, 2Nantes, 3Lille, 4Bordeaux, France, 5Lisbon, Portugal, 6Madrid, Spain

3.239 Comorbid vascular diseases in patients with Parkinson disease and Parkinsonian syndrome- preliminary results
R.A. Norman, Katowice, Poland

3.240 A new high throughput PC-aided supermicroisland method for primary dopaminergic neurons

3.241 Perturbation of protein thiol homeostasis through downregulation of glutaredoxin, a protein disulfide oxidoreductase, results in loss of DJ-1 through proteolysis
A. Ray, U. Saeed, R.K. Valli, A.M. Ram Kumar, S. Karunakaran, R. Vavindranath, Gurgaon, India

3.242 Dendritic cell vaccine against human α-synuclein aggregates
C. Cao, X. Li, L. Wang, J. Sanchez-Ramos, Tampa, FL, USA

3.243 An analysis of the relationship shared by environmental toxin exposure and movement disorders

3.244 Synaptic plasticity of corticostriatal and thalamostriatal systems in Parkinson’s disease
Y. Smith, R. Villalba, D. Raju, J.-F. Pare, Atlanta, GA, USA

3.245 Ferroportin1 but not hephaestin was involved in the 6-hydroxydopamine induced iron accumulation in primary ventral mesencephalic neurons and MES23.5 cells
N. Song, J. Wang, H. Jiang, J. Xie, Qingdao, China

3.246 Acute L-DOPA effect on hydroxyl radical- and DOPAC-levels in striatal microdialysates of Parkinsonian rats
R. Szkilnik1, P. Nowak1, M. Beska1, R. Kostrzewa2, R.M. Kostrzewa2, Zabrze, Poland, 2Johnson City, TN, USA

3.247 Impaired cortical connectivity modulation in Parkinson’s disease patients performing a visually-guided joystick task
G. Tropini, J. Chiang, E. Ty, Z.J. Wang, M.J. McKeown, Vancouver, BC, Canada

3.248 Neurodegenerative markers in CSF in patients suffering from Parkinson’s disease
H. Vranová1, M. Nevrilý1, J. Mareš1, D. Stejskal2, P. Kaňovský1, Olomouc, 2Prostejov, Czech Republic

3.249 Microglial activation and age-related damage of dopaminergic neurodegeneration in MPTP-treated SAMP8 mice
J. Liu, M.-W. Wang, P. Gu, Shijiazhuang, China

3.250 Latencies of vagus sensory evoked potentials are prolonged in Parkinson’s disease
D. Weise1, T. Polak2, F. Metzger2, A. Schramm2, A. Fallgatter2, J. Classen1, 1Leipzig, 2Wuerzburg, Germany

3.251 Glutathione is reduced in neutrophils from patients with sporadic Parkinson’s disease
L.R. White, L.E. Falkenberg, O. Sæther, S.N. Kvam, J.O. Aasly, Trondheim, Norway
A novel protection by Rg1 on MPP⁺ induced iron accumulation by ROS and nuclear factor-kappaB signal pathway
H.M. Xu, H. Jiang, J. Wang, J.X. Xie, Qingdao, China

Pharmacogenetics

Genetic variability of histamine receptors in patients with Parkinson’s disease
F.J. Garcia-Gamito¹, E. Garcia-Martín¹, P. Ayuso¹, A. Luengo², C. Martinez-Oliva¹, J.A. Garcia-Agundez¹, ¹Badajoz, ²Madrid, Spain

Alcohol dehydrogenase 2 polymorphism is not associated to the risk for essential tremor
C. Martinez-Oliva¹, E. Garcia-Martín¹, H. Alonso-Navarro², J. Benito-Leon², I. Puertas², F.J. Garcia-Gamito¹, L. Rubio², T. López-Alburquerque³, J.A. García-Agundez¹, F.J. Jiménez-Jiménez², ¹Badajoz, ²Madrid, ³Salamanca, Spain

Protein aggregates, Tau

Endoplasmic reticulum stress induced hyperphosphorylation of tau by activating GSK-3β
F. Zhengqi, T. Qing, W. Jianzhi, Wuhan, China

Rehabilitation

Prevalence and associated factors of falls among people with Parkinson’s disease
Z. Adwan, Damascus, Syria

The efficacy of a large-amplitude exercise approach for patients with Parkinson’s disease
M. Alvarez, M. Rodriguez, San Antonio, TX, USA

How effective is the WII program as physical therapy intervention of patient with Parkinson’s disease?
M. Alvarez, M. Rodriguez, San Antonio, TX, USA

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Y. Awaad, Riyadh, Saudi Arabia

Communication circles - a cost effective model of on-going speech therapy for individuals with Parkinson’s disease
B. Bereskin, T. Craig, Toronto, ON, Canada

Effect of physical rehabilitation on perceived quality of life of persons with Parkinson disease
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N. Donovan¹, ²Baton Rouge, LA, ²Gainesville, FL, USA

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A. Emasithi¹, P. Taweekarn¹, C. Jariengprasert², S. Wanpen², ¹Khon Kaen, ²Bangkok, Thailand

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P. Frisina¹, ²J. Alverzo¹, P. Carey¹, ¹West Orange, NJ, ²New York City, NY, USA

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D. Carvalho¹, D. Wallace², A. Pandey², S. Dib³, H. Moore-Quiroga⁵, C. Singer², 
¹Porto Alegre, Brazil, ²Miami, FL, USA

3.286 Does quetiapine improve REM sleep behavior disorder (RBD) in Parkinson’s disease? 3 case reports
D. Carvalho¹, A. Pandey², S. Dib³, D. Wallace⁵, H. Moore-Quiroga⁵, 
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3.287 Fluctuating symptoms, including sleep-disturbances, and metabolic/electrical rhythms that drive normal brain function may be forged by NAD+ bimodal circadian oscillations
A.C. Williams, Birmingham, UK

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3.288 Nicotinamide phosphoribosyltransferase (Nampt) generates NAD+, regulates SIRTs, and differentiates & maintains haematopoietic and neural stem/progenitor cells: confirmation from pellagra
A.C. Williams, Birmingham, UK