



Moving Along

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Mitochondria are a primary problem in the cause of Parkinson's disease.

(NO)

—Serge Przedborski, MD, PhD, Departments of Neurology, Pathology and Cell Biology, Columbia University, New York, USA

Parkinson's disease (PD) is the second most frequent neurodegenerative disorder of the aging brain after Alzheimer's disease [1]. While its clinical and neuropathological hallmarks are well defined, its etiology remains, in most instances, obscure [1]. PD presents itself essentially as a sporadic condition of unknown cause, but in a handful of cases, its occurrence is linked to genetic defects such as recessive mutations in the DJ-1 and PINK1 genes [2,3]. The quest of unraveling the why and the how of neuronal death in PD, has led researchers, over the years, to consider a host of different mechanisms including defects in mitochondrial respiration [1]. This idea emerged from the demonstrations in the early 80's that intoxication by the mitochondrial respiratory poison, MPTP, gave rise to a clinical picture almost indistinguishable from PD [4]. Less than a decade later, this question has gained huge enthusiasm within the research community, as shown by the large number of publications dedicated to this topic, despite the recognized fact that features of PD are hardly ever encountered in typical mitochondrial diseases. Thus, by the early 90's several publications reported that activity of complex I in PD tissues, including post-mortem substantia nigra samples, is on average 30% lower than that measured in age-matched controls [5-9]. This observation led many to believe that a mild reduction in mitochondrial respiration is the key mechanism underlying the neurodegenerative process in PD. Although this was and still is quite a tantalizing possibility, after almost two decades, we still remain with important unanswered questions about both the nature and the significance of this striking observation. For instance, the defect in complex I was found in substantia nigra samples obtained from autopsied materials, which typically come from very advanced cases of PD. We can thus safely assume that, in these PD samples,



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(YES)

—Prof. Anthony.H.V. Schapira DSc MD FRCP FMedSci, Professor/Chair of Clinical Neurosciences, Royal Free Hospital Medical School, London, United Kingdom

Parkinson's disease (PD) is a symptom complex best defined and diagnosed according to its motor manifestations that are secondary to dopaminergic cell loss in the substantia nigra pars compacta. It is clear that there are non-motor features that may precede the motor problems by many years and these are predominantly but not exclusively, the consequence of non-dopaminergic neurodegeneration.

The causes of PD are several and varied. We are already aware of over 10 autosomal genes or loci that cause familial PD and no doubt others await discovery. Whether these all induce the typical PD

phenotype may be a sterile and circular argument: although these genes were first described in familial parkinsonism with atypical features, they have also been described subsequently in clinically typical PD. Understanding the molecular events downstream of expression of these mutant genes and the associated predominant dopaminergic cell death, provides important insight into the causes of PD itself.

In addressing the issue as to whether mitochondria are a primary factor in the causes of PD, the following facts are salient.

1. Mitochondria are essential for ATP production by oxidative phosphorylation, are responsible for generating 95% of the cell's free radicals, and are the main intracellular signalling pathway for apoptosis. Mitochondrial function naturally declines with age. Mutations of nuclear encoded mitochondrial proteins cause a wide spectrum of human neurodegenerative diseases e.g. optic atrophy (*OPA1*), peripheral neuropathy (*mitofuscin 2*), Friedreich's ataxia (*frataxin*), hereditary spastic paraplegia (*paraplegin*).
2. Of the 7 or so *park* genes identified, PINK1, DJ1, HtrA2 and most recently parkin, have been assigned either exclusive or partial mitochondrial localisation, although their functions remain unknown.

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For almost 8 years, since 2001, we have now served as editors of *Moving Along*, the official Newsletter of The *Movement Disorder Society*. This will be the last issue under our responsibility.

During our tenure, we have tried to implement a few changes to keep the Newsletter timely and interesting for our readership. We wanted to highlight, in a brief and concise way, recent advances in basic and clinical research and particularly to provide a forum to discuss the many controversial issues produced by scientific and medical progress.

And in fact, there were many issues to discuss, from the revolution that genetic progress brought to our understanding of Parkinson's disease and its implications for patient counselling, to the profound changes that the new surgical treatments of Movement Disorders brought to a once purely conservative discipline, or the changes in public health policies all over the world. To reflect the ongoing discussion in these areas of progress, we have introduced the format of the "controversies", where we requested experts on these hot topics to take opposite sides.

Other regular features of the Newsletter were the messages from the President of the Society and the Chairpersons of the European and Asian sections, to let the membership actively participate in the developments of the Society. Professional notices and job postings also keep our readers active.

We both felt that being co-editors of the Newsletter was both a challenging and a rewarding task. We are grateful for the excellent support of the staff members of MDS, particularly Sarah Smith and Elizabeth Laur, who more often than not were the powerful driving force to get the new issues out. We are also indebted to the many members of MDS, who took time out of their busy schedules to provide their invited contributions, often on rather short notice.

It is time to pass on the baton. Drs. Mark Stacy and Carlo Colosimo will take over the next issue. We wish them as much fun as we had.

Irene Litvan and Thomas Gasser



Irene Litvan, MD



Thomas Gasser, MD



LETTERS TO THE EDITORS
Your Comments and Questions Are Always Welcome

Editorial Policy

As part of its democratic commitment, MDS welcomes the input of all its members about the features and articles that appear in this newsletter. Have a comment or question? Each issue will include responses in the "Letters to the Editor" section. All materials submitted become the property of MDS.

Address your communications to:

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In June 2009, The *Movement Disorder Society* (MDS) will hold its biennial election at the Annual Business Meeting during the 13th International Congress of Parkinson's Disease and Movement Disorders in Paris, France.

The election process is an essential component in the success of our Society. It is our responsibility to identify effective leaders who can promote the continued advances in our field and who can also provide vision and oversight of our Society to ensure its growth and success.

The election procedure is a multi-step process:

January

The Nominating Committee prepares a slate of candidates for each open Officer and International Executive Committee position in January of the election year.

February-April

A Call for Nominations is sent to all MDS members in February with the proposed slate of candidates. Each member has the opportunity to submit nominations for any additional individual he or she would like to stand for election. All additional nominations must be received by April 8, 2009 and be accompanied by a minimum of twenty-five letters of support from paid members of the Society.

April-May

By April 20, 2009, the Nominating Committee and membership nominations will be combined to form the final ballot. Should you not have an opportunity to attend the Business Meeting during the International Congress on Thursday, June 11, 2009 to vote, you can vote by Proxy Ballot, which has a return deadline of May 18, 2009 and will be mailed to you with your final ballot.

The Nominations Committee carefully considers many factors when selecting the slate of candidates who will represent the Society. This year's Nominating Committee included Warren Olanow, Stanley Fahn, Joseph Jankovic, Andrew Lees, Marcelo Merello, Werner Poewe and Hiroshi Shibasaki. The criteria they used for assessing potential nominees for leadership positions in the MDS included:

1. Geographic diversity
2. Gender diversity
3. Special expertise and knowledge
4. Early as well as late career experience
5. Previous service in the MDS leadership (for Officer positions, a general guideline is that individuals serving at this level have served previously as committee, task force and/or regional section members, as chairs of one or more of these groups, and as members of the IEC. In the case of President-Elect, these indi-

- viduals may also have had previous experience serving as an MDS Officer, i.e., Secretary or Treasurer)
6. Leadership/management skills
7. Discipline diversity (e.g. neurology, neurosurgery, basic science, etc.)

This election process ensures that MDS continues to be guided by a diverse group of individuals prepared to devote their efforts working for the betterment of the Society and the field of Movement Disorders. I hope you will participate in the election process. Your involvement is vital for the selection of an effective and innovative leadership which will contribute to the ongoing development and achievement of the Society.

Anthony E. Lang, MD, FRCPC
MDS President, 2007-2009

Interested in getting involved in The *Movement Disorder Society*?

MDS has a number of committees and task forces (see list below) who are interested in learning of members who are willing to serve the Society in various capacities. The incoming President selects the committee and task force chairpersons and together they select the committee membership. New committees will be formed in June 2009. If you are interested participating on a committee or task force, please submit your name and a few words detailing your background and interests to Pamela Fierst at pferst@movementdisorders.org. MDS is exploring ways to provide leadership training in the future to interested members.

- Congress Scientific Program Committee
- Awards Committee
- Education Committee
- CME Committee
- Publications Oversight Committee
- Web Site Editorial Board
- Scientific Issues Committee
- Archives Committee
- Bylaws Committee
- Industrial Relations Committee
- Membership Committee
- Liaison/Public Relations Committee

- Task Force on Mild Cognitive Impairment in PD
- Task Force on Epidemiology
- Task Force on Neurosurgery
- Task Force on DBS in Dystonia
- Task Force on EBM in Movement Disorders
- Task Force on Development of Rating Scales for Parkinson's Disease



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13th International Congress Updates

Planning is well underway for The *Movement* Disorder Society's 13th International Congress of Parkinson's Disease and Movement Disorders, to be held June 7-11, 2009 in Paris, France.

Scientific Sessions

The 2009 Scientific Program will incorporate Therapeutic Plenary Sessions, Corporate Therapeutic Symposia, Plenary and Parallel Sessions, Video Sessions, Teaching Courses, Skills Workshops and Guided Poster Tours.

Sessions will focus on the latest developments in:

- Movement Disorder topics, including, but not limited to, ataxia, chorea, dystonia, myoclonus, Parkinson's disease, restless legs syndrome, spasticity, stereotypies, tics and tremors
- Basic Science issues, including, but not limited to, genetics, neuroimaging, neuropharmacology, surgical therapy and transplantation
- Other less common clinical conditions

A complete listing of all session offerings as well as faculty that have already confirmed may be found at <http://www.movementdisorders.org/congress/congress09/program.php>.

Abstracts

Although the regular abstract submission deadline is past, the late-breaking abstract submission deadline is April 15. A Late Breaking Abstract is any abstract reporting information that became available for public dissemination after the deadline of the regular abstract submission. It must be of critical importance to the clinical and/or scientific community and/or the public and should be newsworthy. Previously published material could also be considered as Late Breaking Abstract only if, in addition to the published material, the abstract contains additional, unpublished, new information, rectification, clarification, and/or correction of critical importance to the clinical and/or scientific community and/or the public and which became available for public dissemination after the deadline of the regular abstract submission. This is not designed to favor investigators who inadvertently missed the deadline for the regular abstract submission.

Social Events

Opening Ceremony and Welcome Reception

All International Congress attendees are warmly invited to meet friends and colleagues during the traditional International Congress Opening Ceremony at Le Palais des Congrès de Paris. A Welcome Reception, held in the exhibit area, will directly follow the Opening Ceremony. These events are open to all registered delegates. Guests are welcome to purchase a Welcome Reception pass that will allow them admission to the Opening Ceremony and Welcome Reception.

Video Olympics

This past International Congress marked the first ever Video Olympics which was a tremendous success with over 900 attendees! As the 13th International Congress is approaching, please save the date in your schedule to attend the 2nd Annual Video Olympics held on the evening of Wednesday, June 10, 2009. This event is open to all registered attendees without additional fees.

Please join Masters of Ceremony Anthony Lang and Kapil Sethi as they host a world-renowned panel of Movement Disorders experts in guiding participants through unique Movement Disorder cases. The cases will be presented by representatives from Movement Disorder Centers around the world, and the experts will discuss each case. The final diagnosis will then be provided by the case presenter. Country pride will add an enjoyable spirit of competition to this event. The goal of this session is for attendees to learn from a series of unusual, very interesting patients and see how senior experts approach these types of challenging cases.

The experts are:

Kailash Bhatia, *United Kingdom*

Susan Bressman, *United States*

Oscar Gershaink, *Argentina*

Andrew Lees, *United Kingdom*

Following the International Congress, the cases presented could be developed further for publication in the Journal or presentation on the Society's Web site. For more information about the Video Olympics, please contact Sarah Smith at ssmith@movementdisorders.org.



Upcoming Dates

April 6, 2009 – Early registration deadline

April 15, 2009 – Late-breaking abstract deadline

May 4, 2009 – Final registration deadline

June 7-11, 2009 – 13th International Congress of Parkinson's Disease and Movement Disorders

For information on travel grants for the 18th International Congress, please see page 8.



The MDS Congress comes to Europe this year, and we look forward to welcoming all MDS colleagues and guests to our Region and to the beautiful city of Paris. Thanks to the generosity of MDS, four young neurologists, the prize-winners from the MDS-ES Summer School video competition, will enjoy a free registration to the MDS Congress, and have the chance to renew acquaintances with their fellow students and the Summer School faculty.

Once again, we anticipate a busy year for MDS-ES in terms of educational activities meetings and publications. We are organizing a Dopamine Transporter Imaging (DTI) workshop in Glasgow on 5th February, hosted by Donald Grosset and Jim Patterson, and a second DTI workshop will be arranged in our Region later in the year at a venue to be confirmed. In collaboration with the EFNS/MDS-ES Scientist Panel on Parkinson's disease and other movement disorders we are planning a consensus meeting on the Treatment of Advanced Parkinson's Disease at the end of June close to Frankfurt, Germany, leading to the publication of a consensus document in the European Journal of Neurology. We are updating the 2006 EFNS/MDS-ES recommendations on the management of Parkinson's disease, and this work will be conducted in collaboration with the MDS Evidence Based Medicine Task Force, which is presently updating the MDS Review on Evidence Based Medicine in Parkinson's disease. Following the success of the first Summer School, a second activity is scheduled for Marburg, Germany, 10th-12th July 2009. Our next educational activity brings us to the EFNS Congress in Florence, 12-15th September, another attractive and accessible Congress venue, where MDS-ES has – under the leadership of Alfredo Beradelli, MDS-ES Chairman-Elect - once again planned an excellent Movement Disorders programme of teaching courses, a main topic symposium, the European Basal Ganglia Club, and Movement Disorders focused workshops. The full Movement Disorders program can be seen on the MDS Website at: <http://www.movement-disorders.org/sections/es/efns.php>

Please support this meeting and submit abstracts; MDS-ES and EFNS will provide 20 bursaries for young neurologists to attend the Congress to present abstracts on Movement Disorders, and application forms can be obtained from the EFNS Website www.efns.org.

Our European constituency is defined by reference to the geographical coverage of the EFNS, and our region is expanding in line with the broadening membership of the EFNS. Thus MDS members from the Southern Mediterranean countries of Algeria, Egypt, Lebanon, Libya, Jordan, Morocco, Syria and Tunisia, whose national neurological societies are associate members of EFNS, are considered members of MDS-ES, enabling us to widen our educational outreach to colleagues from those countries.

The European Medicines Agency (EMA) has released guidelines for companies developing medicines for the treatment of Parkinson's disease, in the light of recent scientific progress in this area, and MDS-ES had the opportunity to contribute to and comment on this document. The '**Guideline on clinical investigation of medicinal products in the treatment of Parkinson's disease**' (CHMP/563/95 Rev.1) is available at: <http://www.emea.europa.eu/pdfs/human/ewp/056395en.pdf>

Finally, we have started the nomination and election process that will enable you to elect the 2009-2011 MDS-ES Officers and Executive Committee, please do cast your votes and participate in this democratic process for the governance of your Section!

On behalf of the Officers and the members of the European Section Executive Committee, and our European Secretariat, let me wish all the best for 2009 to you!

Prof. Wolfgang H. Oertel
Chairman

RENEW FOR 2009! RENEW FOR 2009! RENEW FOR 2009! RENEW FOR 2009!

The *Movement Disorder Society's* (MDS) 2009 Dues Renewal process is underway! With your 2009 membership renewal, you will be able to continue taking advantage of the many benefits MDS has to offer, including reduced fees to our 13th International Congress of Parkinson's Disease and Movement Disorders, June 7-11, 2009 in Paris, France.

If you have not yet renewed for 2009, you may do so by visiting our Web site, www.movementdisorders.org or by contacting the MDS Secretariat at +1 414-276-2145.

RENEW FOR 2009!

RENEW FOR 2009!

RENEW FOR 2009! RENEW FOR 2009! RENEW FOR 2009! RENEW FOR 2009!

Dystonia Europe 2008

—Alberto Albanese, MD, Professor of Neurology, Istituto Nazionale Neurologico C. Besta, Milan, Italy

The second European Dystonia meeting occurred in Hamburg on October 17-19, 2008 with a grant from the European Dystonia Federation (EDF, the European patients' advocacy group). Fourteen years have lapsed since the first European dystonia conference was held in Rome in March 1994. The Hamburg meeting provided an update on the aetiology, clinical features and treatment of dystonia with lectures given by several European and North American experts.

Research on dystonia has evolved steadily during the last decades, with an average 10% yearly increase of research publications indexed in Pubmed, from 48 in 1970 to 392 in 2007. A number of dystonia syndromes have been discovered and classified genetically during recent years, mainly non-primary dystonia syndromes (e.g., dystonia plus and paroxysmal dystonias). State-of-the-art reviews in this area were provided by Kailash P. Bhatia and Thomas Gasser. Primary dystonias are still insufficiently understood: although DYT1 dystonia is a well characterised form, it accounts for only a minority of primary dystonia cases. Many other, yet unclassified, forms still have unclear aetiology and pathophysiology. The clinical, genetic and pathogenetic features of primary dystonias were reviewed by Christine Klein, Tom Warner and Andrew Singleton.

Treatment of dystonia has been improved in recent years by the usage of deep brain stimulation in primary and non-primary forms. This new

treatment possibility has been reviewed by Mahlon DeLong, Joachim Krauss and J.D. Speelman. Stimulation of deep brain structures interferes with aberrant motor control leading to the phenomenology of dystonia. Botulinum toxin treatment was reviewed by Dirk Dressler and physical treatments were discussed by Jean-Pierre Bleton. Two workshops further provided interactive exchange on these latter two topics.

Dystonia 2008 also provided a forum to discuss the possible improvement and integration of research at the European level. There is a perception of insufficient investment on dystonia research by the European Union, particularly because dystonia has never been listed among topics of EU framework program calls. The EDF and Euro-dystonia (www.euro-dystonia.org), a recently constituted consortium of European researchers, will cooperate to foster dystonia research at the European level. Representatives of Euro-Dystonia and the North American Dystonia Medical Research Foundation also met in Hamburg to identify common priorities on dystonia research, such as the development of a global cooperative effort on the search for new genes. The next European dystonia meeting will occur in two years. It is hoped that by that time European cooperation on dystonia will be further developed.

ASIAN & OCEANIAN SECTION

The AOS membership is currently very actively involved in the forthcoming Asian and Oceanian Movement Disorders and Parkinson's Disease conference which is scheduled for the 15th to the 17th February, 2009 in New Delhi.

This meeting will also support the Asia and Pacific Parkinsons Association symposium which is a regular bi-annual meeting that has been part of the Asia and Pacific region for the last 10 years. This is focused on patients with Parkinsons and care givers.

The Scientific Committee has organised a very comprehensive and outstanding program which addresses educational, scientific and clinical aspects of movement disorders. It is a great opportunity for people within the region to have available such a large level of expertise at a regional conference. At the Asia and Pacific Parkinsons Association symposium there will be a very important WHO initiative announced which will assist service delivery in inexperienced centres that deal with Parkinsons on a worldwide basis. Overall the New Delhi meeting will truly be a focus for Movement Disorders and Parkinson's disease over this period.

We encourage all members of the AOS to try and attend the meeting and support the AOS to continue its endeavours to promote education and clinical expertise in Movement Disorders within the Asian and Oceanian region.

We had a very successful educational program arranged in Bandung, Indonesia in early January with 250 delegates. This was a 2 day

Movement Disorder course that was arranged by Earl Lim from Singapore. Dr Andrew Evans and Dr Richard Bhidayasiri were the faculty members at the 2 day course and I understand that it was a very successful meeting.

A number of other educational courses have been scheduled over the next 6 months in Kuala Lumpur and China.

We would also ask for the AOS membership to consider contributing to the development of the AOS Web site and any suggestions would be gratefully appreciated from the membership. It is recommended that they make contact with the AOS representatives on the Web Site Editorial Board which are Tim Anderson from New Zealand and Shu-Leong Ho from Hong Kong.

I look forward to the opportunity of meeting as many AOS members as possible in New Delhi in February for what will be a very exciting meeting.



Robert Ianssek, PhD, FRACP
Chairman, MDS-AOS

MDS Web site redesigned with you in mind

—Hubert H. Fernandez, MD, Gainesville, Florida; Marcelo Merello, MD, PhD, Buenos Aires, Argentina; MDS Co-Web Site Medical Editors

The *Movement Disorder Society* Web site (<http://www.movementdisorders.org>) is your best source for the latest educational information and research about Movement Disorders.

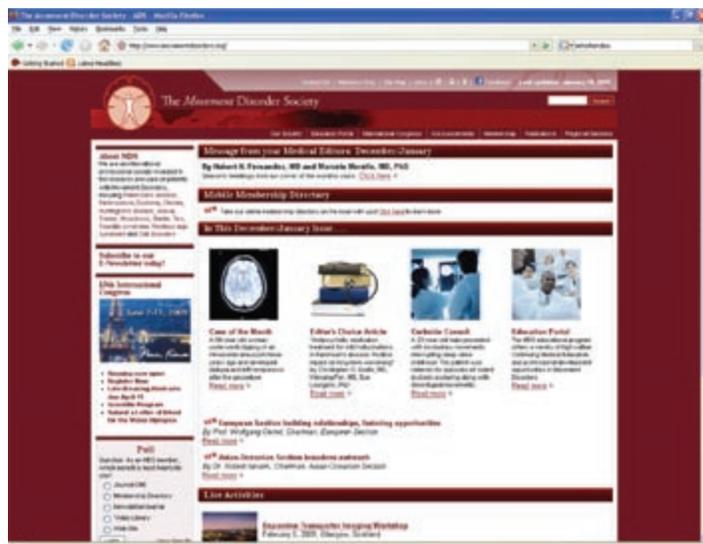
We've added numerous features to the Web site that are designed with *you* in mind. Now you can stay in touch with colleagues using our new mobile membership directory. Simply point your browser on your Web-enabled mobile device to <http://movementdisorders.mobi> to access the full membership directory, anywhere, anytime.

We also encourage you to interact with other members and share your insights and expertise with features like *Case of the Month* and *Curbside Consult*. *Curbside Consult* allows members to submit their most challenging cases online to a forum for discussion. *Case of the Month* allows you to test your knowledge of unique case studies by viewing a video and taking a self-guided quiz to determine the diagnosis.

Make your opinion count at our new Online Poll where every month we ask a new question on what matters to you most, such as CME, the latest research in Movement Disorders, membership benefits, and more.

More importantly, the Web site is also home to the complete listing of MDS educational activities, where members may register online for courses and workshops covering the whole spectrum of Movement Disorders. Use the Web site as your portal to PubMed, and all major not-for-profit organizations and funding institutions. Visit the newly redesigned Education page which will feature podcasts of past Congresses, links to live educational activities and registration for upcoming courses and workshops.

We encourage you to contact a task force or committee representative to learn how to contribute news to the Web site from your corner of the world. Whether it's an upcoming event or workshop, an idea for a new feature, or a guest commentary, we welcome your comments, suggestions and proposals! E-mail either of us at fernandez@neurology.ufl.edu or mmerello@fleni.org.ar.



MDS Presents New Online Feature: Case of the Month

Test your clinical skills!

A 60 year old man presented difficulty holding a pen and abnormal movement of his right hand...

Case of the Month (COM) is the new MDS online feature that presents unique and challenging Movement Disorders cases. Members are invited to answer questions after reviewing the video and case history, and are provided with the expert's analysis.

Visit the MDS Web site each month to review interesting cases.

Submit your own video:

MDS is currently accepting submissions for Case of the Month!

Case of the Month provides an opportunity for members to share interesting cases for educational purposes, in a forum dedicated to Movement Disorders experts. For information about submission requirements, including video format and patient consent forms, please visit the MDS Web site at www.movementdisorders.org.

MDS would like to offer special thanks to Case of the Month Editor Dr. Susan Fox for her efforts in launching this valuable MDS member benefit.



MDS Education Committee: Past, Present and Future

—Cynthia Comella, MD, Associate Professor, University Neurologist, Rush University Medical Center, Chicago, IL, USA; Chairman MDS Education Committee

The Education Committee of the MDS (EdC) was organized in 2002 as part of a new initiative by the MDS to develop educational programs for its international membership. The members of the EdC are selected to represent the global nature of the MDS. One of the first initiatives of the EdC was to organize a Continuing Education Committee and obtain accreditation through Accreditation Council for Continuing Medical Education (ACCME). This was achieved in 2003, with reaccreditation in 2006.

An international educational needs survey of the MDS membership in 2005 provided the EdC with a set of educational priorities. In response to this survey, the EdC developed a series of new, innovative programs presented in a variety of formats. These included regional, live programs related to Parkinson's disease, Evidence Based Medicine, Dystonia, Restless Legs syndrome, and Botulinum toxins. In addition, the EdC developed and implemented Journal CME, provided slide sets for common movement disorders, and web-based programs, including the "Case of the Month".

In addition to free standing and on-line courses, the EdC is now expanding number of "Teaching" courses for the International Movement Disorders Congress, providing syllabi from these courses on the MDS website as a resource for its members. The membership provides suggestions for the topics of these courses, which are then developed and presented at the Congress. In the future, web-casts of these courses are planned.

A successful Visiting Professor Program was developed in order to serve the needs of countries without access to education in Movement Disorders. Our Visiting Professors have provided educational programs in Romania, Tunisia, China, Armenia, South Africa, Chile, and India. With the organization of the MDS-European section and the Asian-Oceanic Section, the role of the EdC has evolved to provide support and oversight for the educational initiatives in these regions.

As the MDS looks toward the future, the EdC will face substantial challenges. With new regulations from the ACCME that seek to limit funding from industry, and new guidelines from industry that make funding requests increasingly complex, the implementation of

future programs may be limited. However, the mission of the EdC will continue to move forward, with web-based programs and collaborations with other educational organizations filling the gap and providing new opportunities.

As the chairman of the education committee, I would like to take this opportunity to thank the membership of the MDS for their participation, the members of the EdC for their enthusiasm and ideas, the leadership of the MDS for their support, and the Director of Education, Linda Caples, for her hard work and innovative new ideas.



MDS Now Accepting 2009 Travel Grant Applications

The *Movement* Disorder Society (MDS) is offering up to 60 travel grants of a maximum amount of \$1,000 USD each in partial support of International Congress delegates in financial need to facilitate their travel to and participation in the 13th International Congress of Parkinson's Disease and Movement Disorders in Paris, France, June 7-11, 2009. International Congress registration fees will be waived for all travel grant recipients.

In order to be considered, candidates must complete and return the official Travel Grant Application (which can be found on the International Congress Web site: www.movementdisorders.org/congress/congress09) as well as send a copy of the abstract(s) they have submitted to the meeting. Preference will be given to the Society's Waived Dues members, as well as residents and trainees with five or less years experience as a healthcare professional or scientist.

The deadline for the receipt of completed travel grant applications is February 27, 2009. Successful awardees will be notified by May 5, 2009.

Please send the completed application form and a copy of the abstract(s) you have submitted to the 13th International Congress via fax, e-mail or standard mail to:

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MDS is now on Facebook!

Join The *Movement* Disorder Society group on Facebook and network with your colleagues from around the world.



Treatment of Parkinson’s Disease: An Update – Course Summary

—Francisco Cardoso MD PhD, Professor of Internal Medicine, Neurology, at the Medical School of the Federal University of Minas Gerais; Chair of the Membership Committee of the Movement Disorder Society

On the 29th of November 2008 MDS held the course “Treatment of Parkinson’s Disease: An Update” in Rio de Janeiro, Brazil. The activity was held at the JW Marriott Hotel at the beautiful seaside of Copacabana Beach. The objectives of the course were: 1) to review the history of levodopa, 2) to discuss the controversies surrounding the therapeutic options for initiation of symptomatic treatment of Parkinson’s disease (PD), 3) to address the clinical and surgical management of levodopa-related motor complications, 4) to review the options to manage psychosis and dementia associated with PD. The course, directed by Francisco Cardoso MD PhD (The Federal University of Minas Gerais, Belo Horizonte, Brazil) had the following faculty (Picture 1): Andrew Lees MD FRCP (Reta Lila Weston Institute of Neurological Studies, University College London), Anthony Lang MD FRCPC (Faculty of Medicine, University of Toronto, Canada), Oscar Gershanik MD (Fundacion Falavoro, Buenos Aires, Argentina) and Joaquim Ferreira MD (Centro de Estudos Egas Moniz, Faculdade de Medicina de Lisboa, Portugal). The course manager was Bridgit Nelezen. In addition to lectures, there were also two lively sessions of questions and answers and a discussion of cases illustrated by video presentations.

The course, supported by a unrestricted educational grant from Roche, was the first educational initiative of MDS in Latin America. It was highly successful, having attracted a crowd of 150 physicians, primarily from Brazil but also from other areas of the American continent. Taking advantage of the large turnout (Picture 2), the MDS officers therein present also discussed with the audience means to enhance the participation of Latin Americans in the Society, including the recruitment of new members. The course demonstrated that MDS has a large role to play in the education of physicians and allied health care professionals in Latin America.



The *Movement* Disorder Society

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on Psychogenic
Movement Disorders
and Other Conversion Disorders

APRIL 2-4, 2009 • WASHINGTON, DC

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March 13, 2009 - Registration Deadline



From left to right, Francisco Cardoso, Andrew Lees, Oscar Gershanik, Anthony Lang and Joaquim Ferreira.



View of the room with a large number of participants.

(NO) Continued from Cover

most of the neurons of interest, such as the dopaminergic neurons, are gone and the number of glial cells, in contrast, has grown due to neurodegeneration-associated gliosis. Consequently, it is legitimate to posit that it is unlikely that the reported complex I deficit could have originated from dopaminergic neurons, since the vast majority of the cells contained in the studied samples are probably non-dopaminergic neurons. Also unfruitful have been the attempts to pinpoint the origins of this problem. While the use of engineered cells called cybrids have suggested that the deficit in complex I in PD may be genetic in origin [10,11], repeated efforts to identify the putative mutation(s) have been inconclusive (reviewed in [12]). A more up-to-date view of the problem is to consider the mitochondrial respiratory defect in PD not as the cause but rather a consequence of the disease process and not as the primary but rather as a secondary (i.e. contributive) pathogenic mechanism. Indeed, the discoveries that both DJ-1 and PINK1, whose mutations give rise to familial forms of PD, may control some key aspects of mitochondrial function including mitochondrial dynamics and may represent the crucial missing piece to this puzzle. For instance, it was reported that a loss of PINK1 function in flies is associated not only with mitochondrial morphology alterations but also with mitochondrial respiration defects [13-16]. Given these new findings, there is now a real sense that we may be on the verge of breaking the secret surrounding the mitochondrial defect in PD.

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(YES) Continued from Cover

3. A specific and significant defect of complex I activity has been repeatedly demonstrated in PD substantia nigra since its first description. This defect has also been identified in peripheral tissues in a proportion of PD patients.
4. Complex I inhibitors e.g. MPTP, rotenone, annonacin cause death of nigral dopaminergic neurons and human parkinsonism.
5. Knockdown of mtDNA polymerase gamma (POLG) in mice induces a progressive loss of dopaminergic neurons and a motor deficit. Mutations of mtDNA POLG cause parkinsonism – although usually with a co-existing myopathy.
6. A defect of mitochondrial function can result in increased free radical production, impaired function of the ubiquitin proteasomal system and protein aggregate formation.
7. Improvement of mitochondrial function with co-enzyme Q10 or creatine have shown promising early results in terms of slowing disease progression in PD.

Thus, mitochondria represent a convergence of genetic and toxin-induced causes of PD or parkinsonism. This is not to say that mitochondria are *the* primary cause of PD, but rather to indicate that mitochondrial dysfunction is either a primary target in some causes e.g. PINK1, DJ1, or a secondary, but contributing factor in others.

The discovery of complex I deficiency in PD came at almost the same time as the description of mtDNA mutations as a cause of encephalomyopathies e.g. progressive ophthalmoplegia, MELAS. MtDNA encodes 7 of the 43 subunits of complex I. However, no consistent abnormality of mtDNA has been identified in PD tissues. Given the lack of maternal inheritance in PD, in retrospect, this is not a surprising finding.

In conclusion, mitochondrial function is comprehensively integrated into the known genetic and biochemical pathogenetic pathways of dopaminergic cell death in PD and appears to offer a valid target for therapeutic intervention.

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Announcements

Join the International RLS Study Group

We are inviting individuals with a special interest in Movement Disorders to join the International Restless Legs Syndrome Study Group (IRLSSG).

The IRLSSG is responsible for:

- Developing the criteria for the essential clinical features of Restless Legs Syndrome (RLS).
- Developing and validating a severity rating scale for RLS.
- Defining the clinical criteria for measuring Periodic Limb Movements in Sleep.

IRLSSG members are currently carrying out joint linkage studies in an attempt to find the gene(s) responsible for RLS symptoms. The IRLSSG has advised pharmaceutical companies on the experimental design of therapeutic trials, and IRLSSG members have participated in several large industry-sponsored RLS treatment trials.

There are two types of membership:

1. VOTING MEMBERS

- a) Individuals with a doctoral degree or equivalent who are currently working in areas related to RLS research or clinical practice.
- b) Students or para-professionals (including study coordinators and technicians) who provide evidence of significant contributions to the field within the past five years (such as working with an RLS support group) or one or more publications in the field.

2. NON-VOTING MEMBERS

Students or para-professionals who have not published or made significant contributions to the field may apply for non-voting membership.

Excluded from membership are individuals working full time for for-profit organizations with potential conflicts of interest, such as pharmaceutical companies.

Membership is free. To apply, please submit a letter of intent and attached curriculum vitae to Dr. Marco Zucconi at zucconi.marco@hsr.it.

Parkinson Study Group: Request for Proposals for a Mentored Clinical Research Award for new investigators in patient oriented research in Parkinson's Disease and related disorders

Submission deadline: Friday, March 27, 2009

The Mentored Clinical Research Award (MCRA) for new investigators is funded by a grant from the Parkinson's Disease Foundation (PDF) to the Parkinson Study Group (PSG). The purpose of this grant is to support a new investigator for a 1 year project in patient oriented research in Parkinson's disease or other parkinsonian disorders under the mentorship of an experienced investigator. The goal of the Award is to provide funding for an investigator with the potential to become an independent researcher.

Two awards of \$75,000 each will be available this year. Appropriate applicants are clinicians and scientists who are within 5 years of having completed formal training. The proposal should be hypothesis driven and amenable to completion in one year. The proposal

should be directed toward patient oriented research in Parkinson's disease or related parkinsonian disorders. The applicant must identify an appropriate mentor or mentors with extensive research experience. Either the applicant or the mentor must be a member of the PSG.

Proposals should be sent electronically to roseanna.battista@ctcc.rochester.edu with a cover note that includes the candidate's name and the title of study. Proposals received will be reviewed by the PSG Mentoring Committee and applicants notified by May 22, 2009. Funding will begin on July 1, 2009 and continue until June 30, 2010.

For more details, please visit the PSG web site at www.parkinson-study-group.org.

Progressive Supranuclear Palsy Study

The University of Louisville Movement Disorder Program, is seeking patients with progressive supranuclear palsy for a multi-center study to identify environmental and genetic risk factors associated with the disease. Subjects will be provided with a physical and neuropsychological examination, will be asked to provide a blood sample for DNA testing and will take part in a detailed phone interview. This study is sponsored by the National Institutes of Health (NIH). Subjects can be seen at eight medical centers throughout the United States. For more information please call 1-866-PSP-0448 (1-866-777-0448).

PILOT FUNDING AND TECHNICAL SUPPORT AVAILABLE Neuro-Cognitive Rehabilitation Research Network

Background

The Neuro-Cognitive Rehabilitation Research Network (NCRRN, funded by NCMRR/NICHHD), a collaborative effort between Moss Rehabilitation Research Institute and the University of Pennsylvania, provides research infrastructure and consultation to individuals engaged in cognitive rehabilitation research. Grants of \$10,000 - \$25,000 are available for pilot research leading to extramural funding.

NCRRN mission:

- Synthesize and disseminate the tools for studying cognitive impairment;
- Understand mechanisms of action of cognitive treatments;
- Gather data to support larger efficacy trials of promising treatments

We offer technical assistance in advanced neurophysiologic techniques (fMRI, ERP, TMS), cognitive theory, experimental designs, medical informatics, and naturalistic functional assessment. The NCRRN also provides research methods consultation, brief preceptorships to learn focused skills, and pilot funding to gather preliminary data to support larger extramural funding proposals. A subject recruitment infrastructure within the NCRRN facilitates recruitment of appropriate subjects for study during brief research visits.

Requests for pilot funding should provide a 1-2 page summary of the desired project, including how the proposed funding will advance the research program, and a biosketch or CV of the ap-

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pllicant. After initial screening, NCRRN will request a fleshed out proposal with a budget. Inquiries and funding applications to ncrrn@einstein.edu.

To learn more about other services provided by NCRRN, please visit us at www.ncrrn.org.

Job Postings

Austin, Texas, NSC Fellowship Trained Movement Disorders Neurologist Needed

Neurology Solutions Consultants, P.A., a private practice movement disorders clinic in Austin, Texas is seeking a full time, board-certified or board-eligible neurologist. Completion of a movement disorders fellowship is required.

The successful and motivated candidate will join a growing interventional program consisting of another fellowship trained neurologist, a certified nurse practitioner and an experienced physical therapist. We have an established DBS program integrating both the neurosurgeon and neurologist in the OR. Experience in movement disorders research, botulinum toxin and intrathecal pump therapies will be preferred.

For information about NSC, visit www.neurologysolutions.com.

Interested individuals should send or e-mail (rizor@yahoo.com) personal statements and CVs to Rob Izor, MD, director of NSC.

Movement Disorders Fellowship at Wake Forest University

Wake Forest University School of Medicine is offering a 1-2 year fellowship in movement disorders starting on July 1, 2009. Fellows will be trained under the supervision of Dr Allison Brashear, Professor and Chair of Neurology; Dr Francis Walker MD, Professor of Neurology and Director of the Victor T. Rogers Huntington's Disease clinic, and Dr Mustafa Saad Siddiqui, Assistant Professor and Director of Movement Disorders program, Co-Director Deep Brain Stimulation (DBS) program.

Training combines experience in;

- 1) EMG/ultrasound guided botulinum toxin therapy with Dr Brashear and Dr Walker.
- 2) Management of movement disorders in subspecialty clinics of Dr Siddiqui (Parkinson's disease and DBS), Dr Brashear (Dystonia & Spasticity) and Dr Walker (Huntington's disease and Chorea)
- 3) Intra-operative physiological brain mapping and microelectrode recording techniques for DBS surgeries with Dr Siddiqui
- 4) Clinical research trials in dystonia, Parkinson's disease and Huntington's disease in collaboration with the Dystonia, Parkinson's and Huntington study groups.

Duration of fellowship is one year and second year is optional. Opportunities in basic science research are also available. Wake Forest University has the oldest Movement Disorders program in the Carolinas. The DBS program under Dr Mustafa Siddiqui, Dr Thomas Ellis and Dr Stephen Tatter is among the nation's busiest,

and offers close collaboration between neurology and neurosurgery.

Applications are being accepted via e-mail: please send CV and inquiries to Dr. Mustafa Saad Siddiqui, fellowship director, mssid-diq@wfubmc.edu. Applicants must have completed a residency in neurology in USA. Interested candidates are requested to submit their curriculum vitae and a personal statement explaining their interest and career goals in movement disorders.

Minorities and women are encouraged to apply.

Movement Disorder Faculty Positions Available

The Parkinson's Disease Center and Movement Disorder Clinic (PDCMDC), Department of Neurology, Baylor College of Medicine, Houston, Texas, is seeking a full time, board-certified or board-eligible neurologist at assistant or associate professor level. Completion of a movement disorder fellowship is required. The successful candidate will be joining other movement disorders faculty and fellows involved in patient care, education, and clinical as well as translational research in Parkinson disease, tremors, dystonia, Huntington disease, Tourette syndrome, drug-induced movement disorders, restless legs syndrome, and other movement disorders. The PDCMDC has an active therapeutic program, including botulinum toxin, deep brain stimulation, and experimental therapeutics. Baylor College of Medicine is an equal opportunity/affirmative action employer. Interested individuals should send their CV and contact Joseph Jankovic, MD, director of the PDCMDC at +1-713-798-6556 or by e-mail at josephj@bcm.edu.

Movement Disorder Fellowships Available

The Parkinson's Disease Center and Movement Disorder Clinic (PDCMDC), Department of Neurology, Baylor College of Medicine, Houston, Texas, has fellowship positions available. The PDCMDC, established in 1977, is primarily dedicated to patient care and research in movement disorders, including Parkinson disease and related neurodegenerative disorders, hyperkinetic movement disorders, such as tremors, dystonia, Tourette syndrome, Huntington disease, drug-induced movement disorders, restless legs syndrome, and other movement disorders. The focus of research at the PDCMDC has been on clinical, epidemiological, and genetic studies designed to elucidate the pathogenic mechanisms of the various movement disorders. In addition, experimental therapeutics and surgical treatment of movement disorders have been among the important areas of investigation. Selected fellows are invited to the Annual Course: A Comprehensive Review of Movement Disorders for the Clinical Practitioner, held each year the first week of August in Aspen, Colorado (<http://ColumbiaCME.org>). We offer a 2-year fellowship, which can be designed to accommodate the specific needs or interests of the fellow. Baylor College of Medicine is an equal opportunity/affirmative action employer. Interested candidates should send their CV and contact Joseph Jankovic, MD, the director of the program by e-mail at josephj@bcm.edu. Further information about the PDCMDC and the Fellowship Training Program are available at www.jankovic.org.

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University of Texas, Southwestern Medical Center Fellowships

The University of Texas, Southwestern Medical center, Clinical Section of Movement Disorders in Dallas, Texas is offering a one year fellowship for qualified applicants beginning July 1, 2009.

The one year movement disorders fellowship is offered under the supervision of three fellowship-trained movement disorders neurologists. It consists of clinical patient care in movement disorders, introduction to basic and clinical research in Parkinson's disease and hands-on mentorship by experienced faculty during clinical care of patients.

A movement disorders video conference will be offered periodically which will expose the fellows to numerous examples of movement disorders including uncommon ones not frequently seen in clinic.

At the end of the training, the fellow will be proficient in clinical care of patients with various movement disorders including use of botulinum toxins for various dystonias and deep brain stimulation (DBS) patient selection and postoperative care including programming for essential tremor, Parkinson's disease and dystonia.

An application form is available on the fellowship website.

Candidates should send the application form, CV, personal statement and three letters of recommendation to:

Shilpa Chitnis MD, Ph.D.

5323 Harry Hines Blvd, J3.134 E, Dallas, Texas 75390-9036

shilpa.chitnis@utsouthwestern.edu

Movement Disorders Fellowship at University of Florida

This fellowship is specially designed for excellent candidates interested in Movement Disorders. Unique to this experience will be training identification and treatment of all movement disorders (parkinsonism, tremor, dystonia, tic, myoclonus, peripheral, etc), training in clinical trials, stereotaxic surgery, and neurophysiology for movement disorders surgery (programming and intra-operative placement). The fellowship is 1-2 years and offers a comprehensive experience including superior teaching from faculty with expertise in movement disorders, clinical trials, stereotaxic surgery, imaging for movement disorders surgery, and detailed microelectrode mapping techniques. The fellow will receive superior teaching and will have access to one of the largest organized clinical and video databases of movement disorders. The goal of the fellowship is to turn out truly outstanding movement disorders experts. For more information, please visit <http://www.neurology.ufl.edu/fellowship/movementdisorders.shtml>

Movement Disorders Fellowship – USC/Keck School of Medicine

The Parkinson's disease and Movement Disorder Clinic at the USC/Keck School of Medicine is offering a one-two year fellowship starting July 2009. Training will involve participation in an active movement disorders clinic with 4 fellowship trained faculty. Fellowship includes in depth exposure to the diagnosis and

management of a large variety of Movement disorders including PD and related disorders, tremor, dystonia and spasticity. Fellows will be trained to inject botulinum toxins and participate in a large clinical trials program. Training also includes an active program for the evaluation and treatment of DBS patients. Requirements: Neurology Residency eligible for California Medical License. Contact: Gloria Regalado; 323-442-5889 or email gregalado@surgery.usc.edu to request an application.

Fellowship opening – Stanford Comprehensive Movement Disorders Center

The Stanford Comprehensive Movement Disorders Center offers a Fellowship in Movement Disorders starting July 2009. Fellows will receive training in the following areas: the diagnosis and treatment of a wide variety of movement disorders in the outpatient and inpatient settings, botulinum toxin administration in adults and children, intra-operative electro-physiological recording, neuronal firing pattern recognition and signal analysis. Fellows will also learn methods of computerized kinematics in the Stanford Human Motor Control and Balance Laboratory. Candidates with an interest in pursuing an academic career are encouraged to apply. Candidates should send curriculum vitae and 3 letters of recommendation to: Helen Bronte-Stewart, MD, MSE, Department of Neurology and Neurological Sciences, Rm. A-343, Stanford University Medical Center, 300 Pasteur Drive, Stanford, CA 94305-5235; Fax: 650-725-7459, or hbs@stanford.edu

Emory University Fellowship

Emory Movement disorders program has an opening for a fellow for July 2009. This 1-2 year comprehensive movement disorders fellowship consists of a first year with intensive clinical training. Caring for more than 5000 patients annually, the Emory Movement Disorders Program offers fellows exposure to the full range of movement disorders including Parkinson's disease, atypical parkinsonism dystonia, tremor disorders, Tourette's Syndrome, Huntington's Disease, drug-induced movement disorders and other neurogenetic disorders. In addition, a very active Botulinum Toxin Injection Clinic performs over 700 patients with dystonia and a very active deep brain stimulation programs provides experience in the operating room and with programming post-operatively. We perform surgery routinely on patients with tremor, Parkinson's disease and dystonia. The second year can be tailored to the interest of the fellow including experience in sleep, cognitive disorders clinical and basic research. The Department of Neurology consistently ranks among the top few institutions in federal research funding with the largest portion in movement disorders. With a large and highly productive research faculty, fellows have the opportunity to design an individualized research training program in either clinical or laboratory aspects of movement disorders. Our goal is to prepare fellows for an independent career in academic neurology. For more information please contact Dr. Stewart Factor by phone or email at 404-728-4952 or sfactor@emory.edu.

***February 15-17, 2009**

2nd Asian and Oceanian Parkinson's Disease and Movement Disorders Congress. Contact: Conference Secretariat, Room No. 702, Neurosciences Centre, All India Institute of Medical Sciences, New Delhi, 110029, India; TEL: +91-11-26588886; FAX: +01-11-26588166; E-mail: info@apomcindia.com; Web site: www.aopmcindia.com.

February 16-17, 2009

5th Annual Update Symposium on Clinical Neurology and Neurophysiology. Tel Aviv, Israel. Contact: ISAS International Seminars, P.O. Box 574, Jerusalem 91004, Israel; TEL: +972-2-6520574; FAX: +972-2-6520558; E-mail: conventions@isas.co.il; Web site: http://www.neurophysiology-symposium.com

***February 26-28, 2009**

Old and New Dopamine Agonists in Parkinson's disease: A Reappraisal. Pisa Congress Center, Pisa, Italy. Contact: Ubaldo Bonuccelli, MD, Department of Neuroscience, University of Pisa, Via Roma 67, Pisa 56126, Italy; TEL: +39 0586 806712; FAX: +39 0586 349920; Email: u.bonuccelli@med.unipi.it; Web site: www.parkinsonpisa.it

***March 8-9, 2009**

5th International Workshop on Dementia with Lewy Body and Parkinson's Disease Dementia. Kassel, Germany. Contact: Dr. Brit Mollenhauer, Klinikstrasse 16, D-34128 Kassel, Germany; TEL: +49 561-60090; FAX: +49 561-6009126; E-mail: brit.mollenhauer@pk-mx.de; Web site: www.paracelsus-kliniken.de

March 11-15, 2009

9th International Conference on Alzheimer's and Parkinson's Disease (AD/PD). Prague, Czech Republic. Contact: Maya Ronen, Kenes International, 1-3, Rue de Chantepoulet, P.O. Box 1726 CH-1211, Geneva 1 Switzerland; TEL: + 41 22 908 0488; FAX: + 41 22 732 2850; Email: adpd@kenes.com

***March 21, 2009**

4th Meeting of the UK PK NonMotor Group: NonMotor Symptoms of PD. Contact: Dr. K. Ray Chaudhuri, Royal Society of Medicine, London; E-mail: chaudhuriray@hotmail.com; Web site: www.pdnmg.com

March 27-31, 2009

Marseille Neurosurgery 2009 Joint Annual Meeting (EANS-SFNC). Marseille, France. Contact: Kenes International, 1-3 rue de Chantepoulet, P.O. Box 1726, CH-1211 Geneva 1, Switzerland; TEL: +41 22 908 0488; FAX: +41 22 732 2850; E-mail: eans-snfc@kenes.com; Web site: www.kenes.com/eans-sfnc.

***April 2-4, 2009**

International Symposium on Psychogenic Movement Disorders and Other Conversion Disorders, L'Enfant Plaza Hotel, Washington, DC, USA. Contact: Larissa Sevcik, Program Manager, The Movement Disorder Society, 555 East Wells Street, Suite 1100, Milwaukee, WI 53220 USA; TEL: +1 414-276-2145; FAX: +1 414-276-3349; E-mail: lsevcik@movement-disorders.org



The Movement Disorder Society

AMBASSADOR PROGRAM

The goal of the Ambassador Program is to improve the quality of treatment available to persons living with Movement Disorders. MDS is committed to assisting the healthcare profession in countries throughout the world where Movement Disorders are under-represented. In accordance with this mission, MDS implements educational opportunities in regions of the world that may not have adequate available resources. By supporting the continuing medical education needs of healthcare professionals in these countries, MDS hopes to enhance the quality of treatment and care provided to the Movement Disorder patients dwelling in these countries.

The goals of the Ambassador Program are to:

- Provide international speakers to regional neurological society meetings to educate physicians and other healthcare professionals about Movement Disorders and the management of such disorders, in countries without adequate means to fund international speakers.
- Provide educational materials about Movement Disorders and their treatment.
- Provide a way to advance the educational mission of the MDS in under-represented countries without the costs of planning and implementing an additional program.

If you are aware of, or currently hosting a regional neurological society meeting in a region that could benefit from the program, please contact the MDS International Secretariat in order to submit an application.

Visit www.movementdisorders.org or email education@movementdisorders.org for more information.

* Meetings Sponsored, Supported and/or Endorsed by MDS

April 17, 2009

A Tribute to Mahlon DeLong, MD: Basal ganglia: Function, Movement Disorders and Treatment Options. Emory University School of Medicine, Auditorium 110. Contact: Stewart Factor, DO, Emory University, 1841 Clifton Road NE, Atlanta, GA 30329 USA; TEL: +1-404-728-4952; FAX: +1-404-728-6685; E-mail: sfactor@emory.edu

April 24-26, 2009

IV-Neurotoxicity Society Meeting: Neurochemical Mechanisms for Neurodegenerative Disorders. Cusco, Peru. Contact: Juan Segura Aguilar, PhD, University of Chile, Independencia 1027, Casilla 70000, Santiago, Chile; TEL: +5629786057; FAX: +5627372783; E-mail: jsegura@med.uchile.cl; Web site: <http://nts.med.uchile.cl/2009/>

April 25, 2009

AOS Education Course Treatment of Parkinson's disease & Recognizing Hyperkinetic and Hypokinetic Movement Disorders. Venue: Ho Chi Minh City, Vietnam; Contact: Email drthihung@gmail.com or cbreckenridge@movementdisorders.org.

April 25-May 2, 2009

American Academy of Neurology 61st Annual Meeting. Washington State Convention & Trade Center, Seattle, Washington, USA. Contact: American Academy of Neurology, 1080 Montreal Avenue, Saint Paul, MN, 55116 USA; TEL: +1(651) 695-2756; FAX: +1(651) 361-4856; Web site: www.aan.com/am

April 27-30, 2009

Cusco-Machupichu Satellite Meeting: Neurotoxins. Cusco, Peru. Contact: Juan Segura Aguilar, PhD, University of Chile, Independencia 1027, Casilla 70000, Santiago, Chile; TEL: +5629786057; FAX: +5627372783; E-mail: jsegura@med.uchile.cl; Web site: <http://nts.med.uchile.cl/2009/>

May 13-16, 2009

6th Baltic Congress of Neurology. Vilnius, Lithuania. Contact: Balcone 2009 Congress Secretariat, Indre Deltuvaite, Registration Manager; TEL: +370 52101436; Fax: +370 52120013; E-mail: info@balcone2009.com; Web site: www.balcone2009.com

***June 7-11, 2009**

13th International Congress of Parkinson's Disease and Movement Disorders. Le Palais des Congres de Paris, Paris, France. Offered by The Movement Disorder Society. Contact: The Movement Disorder Society, 555 E. Wells Street, Suite 1100, Milwaukee, WI 53202 USA; TEL: +1 414-276-2145; FAX: +1 414-276-3349; E-mail: congress@movementdisorders.org; Web site: www.movementdisorders.org

June 12-13, 2009

Neural Plasticity in Dystonia. Villa Mondragone, Rome, Italy. Contact: Antonio Pisani, MD, University of Rome Tor Vergata, Rome, Italy; TEL: +39-0672596010; FAX: +39-0672596006; E-mail: pisani@uniroma2.it; Web site: <http://dystonia.uniroma2.it/>

June 22-26, 2009

Association of British Neurologists Annual Meeting. Arena & Convention Centre, Liverpool, United Kingdom. Contact: Karen Reeves, Executive Manager, ABN, Ormond House 27, 27 Boswell Street, London WC1N 3JZ, United Kingdom; TEL: +44-2074054060; FAX: +44-2074054070; E-mail: Karen.reeves@theabn.org; Web site: <http://abn.org.uk/meetings/annual-meeting.php>

June 29-July 3, 2009

XXIVth International Symposium on Cerebral Blood Flow, Metabolism and Function & IXth International Conference on Quantification of Brain Function with PET. Chicago, IL USA. Contact: Kenes International, 1-3 Rue de Chantepolet, P.O. Box 1726, CH-1211 Geneva 1, Switzerland; TEL: +41 22 908 0488; FAX: +41 22 732 2850; E-mail: brain@kenes.com; Web site: www.kenes.com/brain

July, 2009

Visiting Professor Program Beijing, 2009. Treatment of Movement Disorders. Venue: Xuanwu Hospital, Capital Medical University in Beijing, China. Contact: Xuanwu Hospital, Capital Medical University; Department of Neurology and Neurobiology, #45 Changchun Street, Xuanwu District, Beijing 100053 CHINA. Tel: +86-13501086287; Fax: +86-10-83161294; Email: pbchan@jsap.org or cbreckenridge@movementdisorders.org

September 12-15, 2009

13th Congress of the European Federation of Neurological Societies – EFNS 2009. Florence, Italy. Contact: Kenes International - EFNS, 17 Rue du Cendrier, P.O. Box 1726, CH-1211 Geneva 1, Switzerland; TEL: +41 22 908 0488; FAX: +41 22 732 2850; E-mail: efns09@kenes.com; Web site: www.kenes.com/efns2009/index.asp

October 8-11, 2009

The Third World Congress on Controversies in Neurology (CONY). Prague, Czech Republic. Contact: Comtec Med – Medical Congresses, P.O. Box 68, Tel Aviv, 61000 Israel; TEL: +972-3-5666166; Fax: +972-3-566177; E-mail: cony@comtecmed.com; Web site: www.comtecmed.com/cony

October 24-30, 2009

19th World Congress of Neurology, WCN 2009. Bangkok, Thailand. Contact: Congress Secretariat; E-mail: wcn2009@congrex.com; Web site: www.wcn2009bangkok.com

December 13-16, 2009

XVIII WFN World Congress on Parkinson's Disease and Related Disorders. Miami Beach, FL, USA. Contact: KENES International, 1-3, Rue de Chantepolet PO Box 1726, CH-1211 Geneva 1 Switzerland; Tel : +41 22 908 0488; Fax : +41 22 732 2850, E-mail: parkinson@kenes.com

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Further reading:

1. Chaudhuri KR, Healy DG, Schapira AH; Non-motor symptoms of Parkinson's disease: diagnosis and management. *Lancet Neurol.* 2006 Mar;5(3):235-45.
2. Schapira AH. Mitochondrial disease. *Lancet.* 2006 Jul 1;368(9529):70-82.
3. Schapira AH. Mitochondria in the aetiology and pathogenesis of Parkinson's disease. *Lancet Neurol.* 2008 Jan;7(1):97-109.
4. Schapira AH, Cooper JM, Dexter D, Jenner P, Clark JB, Marsden CD. Mitochondrial complex I deficiency in Parkinson's disease. *Lancet.* 1989 Jun 3;1(8649):1269.



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13th International Congress
OF PARKINSON'S DISEASE AND MOVEMENT DISORDERS
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Paris, France