



EDUCATIONAL OPPORTUNITIES IN THE AMERICAS

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DISCLOSURES:

Honoraria and Advisory Board from Roche Pharmaceuticals

Honoraria from TEVA Pharmaceuticals

Employer at the Federal University of Juiz de Fora

International Parkinson's Disease and Movement Disorders Society:

- Chair of the Young Members Group
- Co-Chair of the Web-Based Learning Committee
- Ah-Hoc Member of the Education Committee
- Member of the PAS Education Committee
- LEAP Member (2017)





Discussion points:

- Training opportunities offered by the MDS
 - Schools for the Young Neurologists
 - Movement Disorders Schools for Neurology Residents
 - The “Aspen Course”
 - Regional Education/Outreach courses
 - Visiting Training Grant Program
 - Regional and International Congresses
- Training opportunities/Fellowships offers within U.S./Canada
- Training opportunities/Fellowships in Central and South America





SCHOOLS FOR YOUNG NEUROLOGISTS

- **Target audience:**
 - Young neurologists in training or within 5 years of completion of general neurology training
- **Course objectives:**
 - Examine a patient with a movement disorder
 - Reach a diagnosis on straightforward movement disorders cases
 - Propose a differential diagnosis on more complex movement disorders patients
 - Present a movement disorders case history
 - Design, review, and modify a patient treatment plan





IMPACT OF THE INTERNATIONAL PARKINSON AND MOVEMENT DISORDER SOCIETY SCHOOLS IN YOUNG NEUROLOGISTS CAREERS: RESULTS FROM A WEB-BASED SURVEY

Authors: Thiago Cardoso Vale, MD, Msc¹; Santiago Perez-Lloret, MD, PhD²; Margherita Fabbri, MD³; Tiago Teodoro, MD, PhD⁴; Tomás de la Riesta, MD⁵; Sergio A. Rodriguez-Quiroga, MD⁶; Miryam Carecchio, MD⁷; Joaquim J Ferreira, MD, PhD⁸; Wassilos Meissner, MD, PhD⁹; Charles H. Adler, MD, PhD¹⁰.

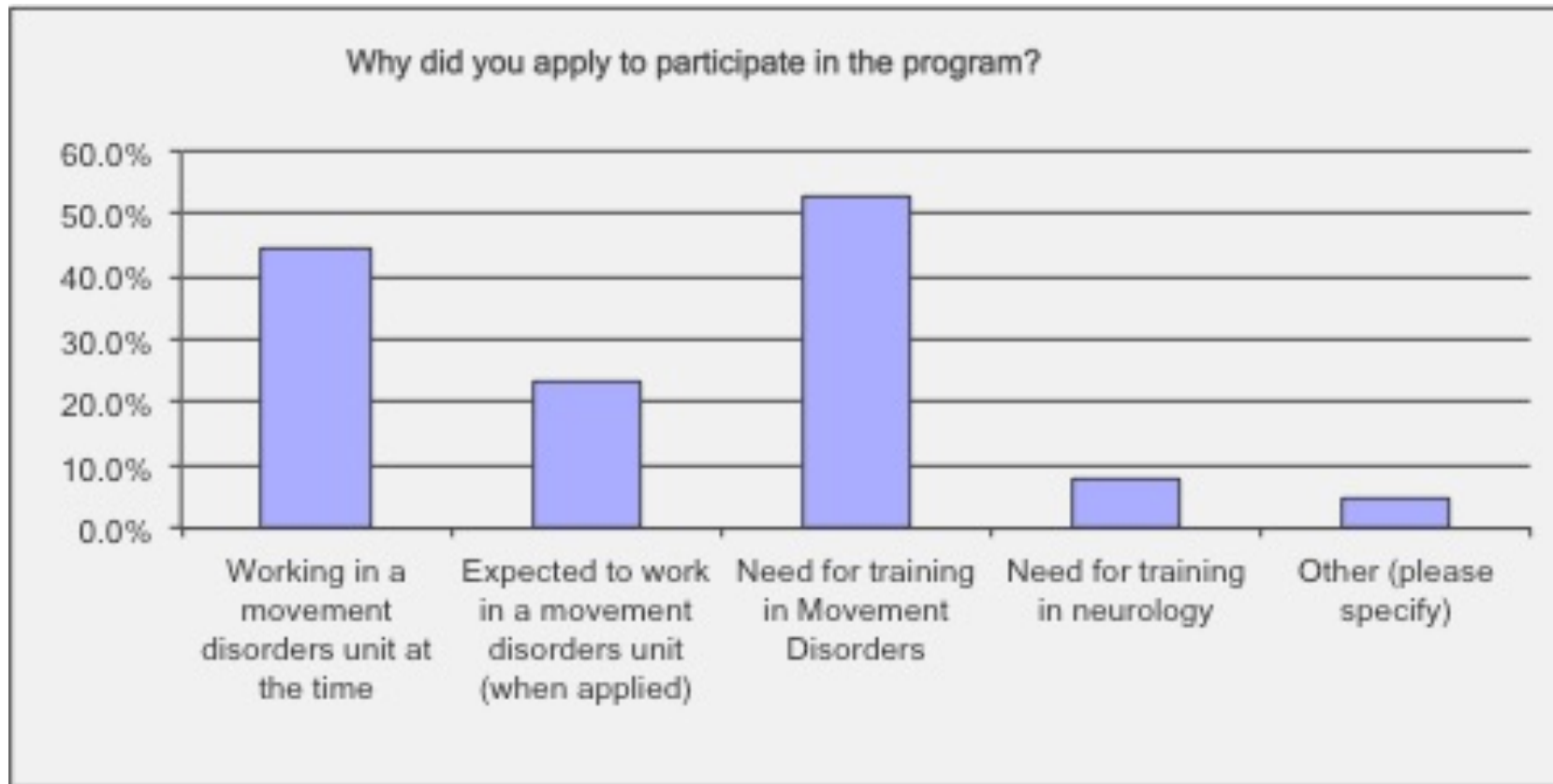
<https://www.movementdisorders.org/MDS/About/Young-Members-Group.htm>



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Pan American Section

2nd Pan American Parkinson's Disease and Movement Disorders Congress

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	YES	NO	TOTAL
Do you feel that having attended this course influenced your career path?	88.41% 122	11.59% 16	138
Did involvement in the MDS School for Young Neurologists directly impact your involvement with the Movement Disorders field?	86.13% 118	13.87% 19	137
Did you do a Movement Disorder Fellowship after your MDS School for Young Neurologists participation?	35.77% 49	64.23% 88	137
Did involvement in the MDS School for Young Neurologists help to increase your status at your institution?	43.07% 59	56.93% 78	137

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MOVEMENT DISORDERS SCHOOL FOR NEUROLOGY RESIDENTS

- **Target audience:**
 - 1st, 2nd and 3rd-year general neurology residents who are undecided in a sub-specialty and open to learning about movement disorders. Open to MDS-PAS members with emphasis on the USA and Canada.
- **Course objectives:**
 - Examine a patient with a movement disorder
 - Reach a diagnosis on straightforward movement disorders cases
 - Propose a differential diagnosis on more complex movement disorders patients
 - Present a movement disorders case history
 - Design, review and modify a patient treatment plan





MOVEMENT DISORDERS SCHOOL FOR NEUROLOGY RESIDENTS

- **Participants feedback:**

“The patient rounds were incredible. I learned not only about the individual diagnoses, but also about other disorders/diseases that would fit within the differential diagnosis. It was also interesting to see how different faculty approaches the physical exam for various conditions. “

“There were refreshing comments that opened my mind to consider movement disorder as career, especially due to the great opportunities for research.”





A COMPREHENSIVE REVIEW OF MOVEMENT DISORDERS FOR THE CLINICAL PRACTITIONER (THE “ASPEN COURSE”)

- **Target audience:**
 - Residents and fellows new to the field
 - Current movement disorders practitioners
 - Other clinical practitioners and allied health professions
- **Course objectives:**
 - Recognize, diagnose, and classify movement disorders
 - Differentiate atypical parkinsonism from Parkinson's disease
 - Describe the treatment approaches for movement disorders.
 - Recognize the phenomenology and classification of functional (psychogenic) disorders



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Aspen COLORADO
USA JULY 29 - AUGUST 2, 2018

'The Aspen Course'

A Comprehensive Review of Movement Disorders for the Clinical Practitioner

Aspen, CO, USA – July 29-August 2, 2018



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COURSE	DURATION	ATENDEES	GRANTS	COSTS	TARGET AUDIENCE
Schools YN	3 days	16-48	6-39	+	Fellows and early-career (< 5 years)
Residency	2 days	72-107	0	-	Only residents
Aspen	4-5 days	210-220	30-50	++	Wider audience
Allied-Health	3 days	78-150	0-40	+	Allied-Health Professionals
Industry Course	1 day	40	0	+	Industry from pharmaceutical and devices company



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Regional Education Courses (2014-2018):

- Treatment of Parkinson's Disease: Past, Present and Future – Miami (USA), 2014
- Botulinum toxin in neurological practice – Santiago (Chile), 2014
- Evidence-Based Medicine Update on Treatments for PD – Salvador (Brazil), 2015
- Fostering New Directions in Parkinson's Research – White Plains (USA), 2015
- PD and Other Movement Disorders: A Practical Approach – Houston (USA), 2016
- Pan-American Botulinum Toxin Workshop – Cartagena (Colombia), 2017
- Clinical Update on Parkinson's Disease: 2017 – Boston (USA), 2017
- Rare Disease Course – Montevideo (Uruguay), 2017
- Hyperkinetic Movement Disorders Course – Seattle (USA), 2018
- Neuroimaging in PD and Related Disorders Symposium, Calgary, Canada, 2017
- Clinical Update on Parkinson's Disease (at AANN), 2018
- The 1st Peruvian Course on PD and Movement Disorders – Lima (Peru), 2018





Outreach courses (2016-2018)

- Regional Symposia of Movement Disorders – Toluca, 2016
- 10th Course of Movement Disorders – Puebla, 2016
- 53rd Argentinean Neurology Congress – Mar Del Plata City, 2016
- Pan-American Congress of Neurology 2016 /40th Mexican Academy of Neurology Annual Meeting - Cancun, 2016
- Ambassador Brazil – Natal, 2016
- XXV Peruvian Neurological Congress – Lima, 2016
- Genetic in Movement Disorders – Buenos Aires, 2016
- Movement Disorder-Regional Reunion – San Luis Potosí, 2016
- 2nd Parkinson Summit – Pueblo, 2017
- 7th Movement Disorder Scientific Department of the Brazilian Academy of Neurology– Sao Paulo, 2017
- Curso De Actualización De Medicina Interna - Panamá, 2017
- Educational Course on Proteinopathies – Buenos Aires, 2017
- Movement Disorders Breaking Barriers – Tegucigalpa, 2017
- 3rd Annual Symposium of PD and other Movement Disorders, Santo Domingo, Dominican Republic, 2017
- Second Congress of Movement and Parkinson's Disorders in Puebla – Puebla, 2018
- An Introduction to Rare Movement Disorders Diseases – Santiago, Chile - July 24, 2018



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MDS-PAS Upcoming Live Courses in 2018



A Comprehensive Review of Movement Disorders for the Clinical Practitioner

July 29-August 2, 2018

Aspen, CO, USA

[Read More...](#)



Neuroscience of Movement Disorders

November 2, 2018

San Diego, CA, USA

[Read More...](#)



Allied Health Team Training for Parkinson's Disease and Other Movement Disorders

August 23-25, 2018

Puebla, Mexico

[Read More...](#)



Ataxias and Spastic Paraplegias: From Molecular Biology to Bedside and Treatment

November 9-10, 2018

São Paulo, Brazil

[Read More...](#)



MDS-PAS 1st Summer School on Neuromodulation for Movement Disorders

September 7-8, 2018

Ottawa, ON, Canada

[Read More...](#)



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October 5-9, 2018
HONG KONG

[#MDSCongress](https://twitter.com/MDSCongress)



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Future World Congresses



XXIII

WORLD CONGRESS ON PARKINSON'S
DISEASE AND RELATED DISORDERS
A COMPREHENSIVE EDUCATIONAL PROGRAM

LYON / FRANCE

2018
19 – 22 August



www.iaprd-world-congress.com



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MDS-PAS Educational Needs Assessment

- 252 responses (Brazil, United States and Argentina)
- ~40% were MD specialists / ~40% general neurologists
 - 43% trained in country of practice
 - 42% did not have formal training
 - 16% trained overseas from EU
- Obstacles:
 - Limited finances to attend courses
 - Location/distance of the courses
 - Languages
 - Lack of MD specialists or allied-health professionals in the country
 - Lack of local resources





Fellowship in movement disorders

- *“To train abroad is crucial: we tend to remain embedded in our practices – some of them are excellent others not so much. To get out of this shell allows one to get a lot of fresh air that rejuvenates one’s career”* Francisco Cardoso, Brazil.
- *“Be proactive – go out and look for research (projects/collaborations). Move around to get experience. Don’t stay at one institution from med student to staff”* Susan Fox, Canada
- *“Find mentors for each aspect of your career. 2. Seek out collaborations. 3. Be open to new opportunities, learn new things, and go outside of your comfort zone.....”*
Cindy Comella, USA





MDS-PAS Visiting Trainee Grant Program

- 1) Clinical or Research Visiting Training Program
- 2) 6-week, 6-month or 1-year program duration
- 3) Residents, fellows, recent graduates or trained neurologists < 5 years
- 4) Funding: US\$ 3,300 / 6,600 / 13,200
- 5) 17 members were already awarded: Mexico, Argentina, Colombia, Brazil, Chile Cuba and Honduras.





Applying for a fellowship in movement disorders in US/CANADA

- Start early !
 - AAN Fellowship directory in movement disorders
 - MDS Fellowship directory in movement disorders
 - SF Match
 - FREIDA (American Medical Association)
 - CMDG (Canadian Movement Disorders Group)





Hindawi Publishing Corporation
Parkinson's Disease
Volume 2013, Article ID 701426, 7 pages
<http://dx.doi.org/10.1155/2013/701426>

Research Article

The Current State and Needs of North American Movement Disorders Fellowship Programs

Ludy C. Shih,¹ Daniel Tarsy,¹ and Michael S. Okun²

¹ Department of Neurology, Beth Israel Deaconess Medical Center, Kirstein 228, 330 Brookline Avenue, Boston, MA 02215, USA

² Department of Neurology, University of Florida Center for Movement Disorders and Neurorestoration, Gainesville, FL 32607, USA



Mexico

- **A Waived-Dues Country with a travel warning**
 - **25-50% with subspecialization**
 - **10-20 residency programs (> 10 residents/year)**
 - **3-5 movement disorders centers/units**
 - **< 3 courses on movement disorders per year**
 - **Clinical fellowship offers**
-
- Instituto Nacional de Neurología y Neurocirugía:
<http://www.innn.salud.gob.mx/>





Mexico: Survey participants

Christian Pérez Lohman
Carlos Eduardo Martínez Cortes
Alejandro
Sergio Andrés Castillo Torres
Teresa Perez-Torres
Lidia Mendoza Vega

Faculty:

Mayela Rodríguez-Violante
Guillermo Enriquez-Coronel



Academia Mexicana de Neurologia

<https://www.neurologia.org.mx/>

Sociedad Mexicana de Neurología Pediátrica

www.neuropediatria.org.mx/



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Central America

- **Waived-Dues Countries with travel warning**
- **< 25% with subspecialization**
- **< 5 residency programs (~5 residents/year)**
- **< 3 movement disorders centers/units**
- **< 3 courses on movement disorders per year**
- **Clinical Fellowship offers:**
 - Instituto Salvadoreño del Seguro Social (El Salvador)
 - www.issv.gob.sv/
 - Hospital General San Juan de Dios (Guatemala)
 - <http://www.hospitalsanjuandediosguatemala.com/>





Central America: Survey participants

Gabriel Torrealba Acosta (Costa Rica)

Manuel Vides (El Salvador)

Enrique Pérez Jovel (El Salvador)

Fanny Herrera (Honduras)

Hector Pineda (Honduras)



Faculty:

Ricardo Lopez-Contreras (El Salvador)

Ernesto Cornejo-Valse (El Salvador)

Daniel Enrique Pereira Contreras (El Salvador)

Walter Diaz (Nicaragua)

Jorge Gramajo (Guatemala)

Alex Medina (Honduras)

Norbel (Costa Rica)





Venezuela

- **A Waived-Dues Country with a travel warning**
- **Mostly general neurologists**
- **< 25% with subspecialization**
- **~ 5 residency programs (5 residents/year)**
- **< 3 movement disorders centers/units**
- **< 3 courses on movement disorders per year**
- **Fellowship offers are very limited**
 - University Hospital of Caracas



Sociedad Venezolana de Neurología

www.neurologiavenezuela.org



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Venezuela: Survey participants

- Nestor Eduardo Paredes
- Jesus Castro
- Andrea Rodríguez Morales





Colombia

- **A Waived-Dues Country with travel warning**
- **Mostly general neurologists**
- **< 25% with subspecialization**
- **10-20 residency programs (3-5 residents/year)**
- **5-10 movement disorders centers/units**
- **5-10 local courses on movement disorders per year**
- **Fellowship offers are very limited**



Asociación Colombiana de Neurología

<https://www.acnweb.org/es/>



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Colombia: Survey participants

- Melisa Ibarra Quiñonez
- Lesly Alejandra Colmenares Becerra
- Luis Jose Fernandez Yepez
- Juan Diego Vargas Jaramillo
- Viviana Alexandra Martinez Villota



Faculty:

Gabriel Arango

William Fernandez

Catalina Cerquera





Ecuador

- **A Waived-Dues Country with travel warning**
- **Mostly general neurologists**
- **< 25% with subspecialization**
- **< 5 residency programs (3-5 residents/year)**
- **Less than 3 movement disorders centers/units**
- **Receive less than 3 educational courses a year**
- **Fellowship offers are very limited**



Sociedad Médica Ecuatoriana de Neurología

<http://neuroecuador.com/>



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Ecuador: Survey participants

Faculty:

Marcos Serrano-Dueñas





Peru

- A Waived-Dues Country with travel warning
- Mostly general neurologists
- < 25% with subspecialization
- 5-10 residency programs (5-10 residents/year)
- < 3 movement disorders centers/units
- Receive less than 3 educational courses a year
- Fellowship offers are limited





Peru: Survey participants

- Karen Vásquez
- Marlene Huamaní Mendoza
- Victor Arias Hancoco
- Yanet Astete
- Jose Carlos Huilca Flores



Faculty:

Carlos Cosentino

Mario Cornejo-Olivas





Bolivia

- **A Waived-Dues Country with travel warning**
- **Mostly general neurologists**
- **< 25% with subspecialization**
- **5-10 residency programs (3-5 residents/year)**
- **< 3 movement disorders centers/units**
- **Receive less than 3 courses a year**
- **Fellowship offers are limited**



Sociedad Boliviana de Neurologia

<https://www2.bago.com.bo/sbn/>



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Bolivia: Survey participants

Faculty:

Erick Gonzalez Delgado

Marcia Andrea Gonzales Revollo





Chile

- **A Waived-Dues Country with travel warning**
 - **Mostly general neurologists**
 - **< 25% with subspecialization**
 - **5-10 residency programs (>10 residents/year)**
 - **3-5 movement disorders centers/units**
 - **Receive less than 3 courses a year**
 - **Fellowship program**
-
- **Universidad de Santiago: www.usach.cl/**
 - **Universidad Católica de Chile: www.uc.cl/**





Chile: Survey participants

- Daniela Muñoz

Faculty:

Pedro Chana



Chilean Society of Neurology: SONEPSYN

<http://www.sonepsyn.cl/web/>



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Uruguay

- A Waived-Dues Country with travel warning
- Mostly general neurologists
- < 25% with subspecialization
- < 5 residency programs (< 3 residents/year)
- < 3 movement disorders centers/units
- 3-5 courses a year
- Fellowship offers are very limited





Uruguay: Survey participants

- Noelia Sorondo
- Bettina Aguiar
- Nicolás Labaure



Faculty:

Ignacio Amorin





Argentina

- **A Waived-Dues Country with travel warning**
- **25-50% with subspecialization**
- **10-20 residency programs (5-10 residents/year)**
- **5-10 movement disorders centers/units**
- **3-5 courses a year**



Sociedad Neurológica Argentina

<http://www.sna.org.ar/>



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Argentina

- **Clinical (research*) fellowship offers:**

- Hospital JM Ramos Mejía:

<http://www.buenosaires.gob.ar/hospitalramosmejia>

- FLENI Foundation

<https://www.fleni.org.ar/>

- CEMIC *

<http://www.cemic.edu.ar/>

- INEBA*

<http://www.ineba.net/>

- Fundacion Favaloro*

<https://www.fundacionfavaloro.org/>





Argentina: Survey participants

Julieta Arena

Maria Eugenia González Toledo

Lucia Ameghino

Mauricio Chamorro

Pavel Alejandro Hernandez

Martin Turreilles

Miguel Wilken

Maira

Faculty:

Oscar Gershanik

Emilia Gato

Cecilia Peralta

Sergio Rodriguez-Quiroga

Tomoko Arakaki





Brazil

- A Waived-Dues Country with travel warning
- 25-50% with subspecialization
- >20 residency programs (5-10 residents/year)
- > 10 movement disorders centers/units
- 3-5 courses a year
- Clinical and research fellowship offers ~1-2 ys





Brazil

- **Clinical (research*) fellowship offers:**
 - **Universidade Federal do Rio de Janeiro:** <https://ufrj.br/>
 - **Universidade Federal de Minas Gerais*:** <https://ufmg.br/>
 - **Universidade Federal do Paraná*:** www.ufpr.br/
 - **Escola Paulista de Medicina*:** www.epm.br/
 - **Hospital das Clínicas de Porto Alegre*:** <https://www.hcpa.edu.br/>
 - **Hospital das Clínicas da USP-São Paulo*:** www.hc.fm.usp.br/
 - **Faculdade de Medicina de Ribeirão Preto da USP*:**
<https://site.hcrp.usp.br/>
 - **Universidade Federal de Pernambuco:** <https://www.ufpe.br/>





Brazil: Faculty survey participants

Carlos Rieder (RS)

Denise Nicaretta (RJ)

Débora Maia (MG)

Flávio Henrique Costa (RJ)

Francisco Cardoso (MG)

Hélio Teive (PR)

Henrique Ferraz (SP)

Lorena Barcelos (SP)

Mariana Spitz (RJ)

Márcio da Cunha Andrade (PE)

Mauro Cunningham (MG)

Mônica Haddad (SP)

Orlando Barsottini (SP)

Rachael Brandt (SP)

Roberta Saba (SP)

Rubens Gisbert Cury (SP)

Sarah Camargos (MG)

Vitor Tumas (SP)

Ylmar Correa Neto (SC)





CONCLUSION

- MDS-PAS region has many opportunities for training in movement disorders
- There are various options for clinical and research fellowships in US/Canada
- There are limited opportunities for fellowship training in Central America and most of South America for numerous reasons:
 - Financial barriers (lack of governmental support/funding)
 - Many countries with no demand for specific training in movement disorders
 - Organizational/structural/logistic problems



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THANK YOU

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