Marco Tulio Medina, MD
Honduras

Dear Colleagues,

I am honored to have been selected as a candidate to the ILAE Executive Committee 2013-2 017

In the last four years I served as 3rd Vice-President of the ILAE Executive Committee, where I had the great opportunity to work with my colleagues in several important proposals, and I would like to highlight two of them:1)The Strategic Plan for Epilepsy that has been approved by PAHO in September 2011. This Plan formally establishes epilepsy as a health care priority in the Americas. Carlos Acevedo (IBE Secretary General), Dr Jorge Rodriguez of PAHO, I and others has worked over many months in this project that represent the first initiative in this continent on the epilepsy field. 2). The World Health Organization International Classification of Diseases (ICD).A Neurology Task Force Advisory Group was charged to produce a revision that reflects scientific advances and new concepts of pathophysiology since 1992. Donna Bergen, Ettore Beghi and myself have worked on the ICD-11 Seizures and Epilepsy Classification and the first proposal has been published (Epilepsia 2012 Jul;53 Suppl 2:3-5).

I am professor of Neurology and Epileptology as well as Dean of the School of Medical Sciences at the National Autonomous University of Honduras. I have performed my neurology training at the National Institute of Neurology in Mexico, and my epileptology/neurophysiology training at the Saint Paul Center, Marseilles, France, under the direction of Charlotte Dravet and colleagues, and later at the University of California, Los Angeles (UCLA). We have co-discovered the EFHC1 Juvenile Myoclonic Epilepsy gene and the GABRB3 Childhood Absence epilepsy gene, and we established a community epilepsy intervention program in Salama, Honduras where we reduced the rate of epilepsy from neurocysticercosis (NCC).

I would like to work with the ILAE Executive Committee and its elected President Emilio Perucca on the following projects 1) Promoting the Epilepsy Global Campaign, working mainly on the preventable epilepsies (such as NCC), Epilepsy treatment gap, etc; 2) Improving epilepsy education worldwide, supporting the Regional Epilepsy Academies; and 3) Improving research in basic sciences, epidemiology and clinical research. Together We can improve the Epilepsy care worldwide. I am asking for your support in voting for me as an officer of the ILAE Executive.

Prof Marco Tulio Medina

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
MEDINA, Marco Tulio	**Professor of Neurology** **National Autonomous University of Honduras**

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	MM/YY	FIELD OF STUDY
Universidad Nacional Autónoma de Honduras	M.D.	1985	Medicine
Institute of Neurology and Neurosurgery, Mexico	Diploma	1985	Neurology
Centre Saint-Paul, France	Certificate	1991	Pediatric and Adult Epileptology
Université Aix, Marseille, France	Diploma	1991	Clinical Electrophysiology
Comprehensive Epilepsy Program, UCLA	Certificate	1993	Pediatric/ Adult Epileptology, Clinical Neurophysiology
Wolfson Institute/University College London	PhD (in process)	2010-2014	Neuroscience

B. Positions and Honors

Positions and Employment

2010- Dean, School of Medical Sciences, National Autonomous University of Honduras
2009- 3rd Vice-President International League Against Epilepsy
1998- Director, Neurology Training Program, National Autonomous University
2004-2009 Chairman, Education Sub-committee on Spanish Speaking Countries, World Federation of Neurology,
2006-2009 Chairman, Latin American Commission, International League Against Epilepsy,
2003-2005 President of the Ibero American Cerebro Vascular Society,
2007-2011 Chairman, Latin American Academy of Epilepsy (ALADE/ILAE)
1998-2001 Director, Scientific Research Unit, School of Medical Science, National Autonomous University of Honduras

Other Experience and Professional Memberships

1998 - President, Salvador Moncada's Foundation for Development of Science, Honduras.
1994-1996 Founder, Honduran Society of Epilepsy, Chapter of International League Against Epilepsy (ILAE)
1995-2002 President Founder of the Honduran Association of Neurology, World Federation of Neurology Chapter

Honors

2008 Decoration (Condecoration) Jose Cecilio del Valle order, Gran Cruz de Plata, for the Promotion of Science in Honduras, given by the President of Honduras and the Government of Honduras
2007 Belarmino Rodriguez Arias Lecture, Spanish Neurological Society, Barcelona
2006-2009 Ad -hoc Member, Fogarty International Brain Disorders Study group, National Institute of Health, Bethesda, USA.
2009-2011 Ad-hoc member, WHO International Advisory Group for the Revision of ICD-10 Diseases of the Nervous System, Geneva, Switzerland.
1996 National Prize of Science "José Cecilio del Valle", Tegucigalpa, Honduras.
2004 Award to the Best Basic Science research , Honduran Medical College.
2004 First Award in Research , National Institute of Neurology and Neurosurgery Of Mexico.
2003 Second Place, Annual Research Award, National Institute of Neurology and Neurosurgery "Manuel Velasco Suárez", México,.
2003 Trelles Award on Epidemiology Research, Stroke Research, Santiago de Chile.
2002 "Humberto Cisne" Annual Award of Clinical Research, Medical College Of Honduras.
1993 Recognition As A Distinguished Postdoctoral Research By The Department Of Veterans Affairs, Los Angeles, CA, USA.
1991 Certificate For The First Place (Cum laude) during the promotion of Clinical Neurophysiology By Professor Yves Millet, Aix-Marseille University, Marseille, France, September.
1990 First Award In Research By The National Institute of Neurology And Neurosurgery of Mexico.

C. Selected Publications (Selected from over 111 peer-reviewed publications)

Most relevant to the current application

1. Liu AW, Delgado-Escueta AV, Serratosa JM, Alonso ME, **Medina MT**, Gee MN, Cordova S, Zhao HZ, Spellman JM, Peek JR, et al. Juvenile myoclonic epilepsy locus in chromosome 6p21.2-p11: linkage to convulsions and electroencephalography trait. **Am J Hum Genet 1995**;57(2):368-81. PMID: 7668263.

2. Serratosa JM, Delgado-Escueta AV, **Medina MT**, Zhang Q, Iranmanesh R, Sparkes RS. Clinical and genetic analysis of a large pedigree with juvenile myoclonic epilepsy. Ann Neurol. 1996;39(2):187-95 PMID: 8967750

3. Fong GC, Shah PU, Gee MN, Serratosa JM, Castroviejo IP, Khan S, Ravat SH, Mani J, Huang Y, Zhao HZ, **Medina MT**, Treiman LJ, Pineda G, Delgado-Escueta AV. Childhood absence epilepsy with tonic-clonic seizures and electroencephalogram 3-4-Hz spike and multispike-slow wave complexes: linkage to chromosome 8q24. **Am J Hum Genet 1998**;63(4):1117-29. PMID: 9758624.

4. Bai DS, Alonso ME, **Medina MT**, Bailey JN, Morita R, Cordova S, Rasmussen A, Ramos-Peek J, Ochoa A, Jara Prado A, Rubio-Donnadieu F, Cadena G, Yamakawa K, Delgado-Escueta AV. Juvenile myoclonic epilepsy: Linkage to chromosome 6p12 in Mexico families. **AJMG 2002**;113(3):268-274. PMID: 12439895

5. Suzuki T, Morita R, Sugimoto Y, Sugawara T, Bai DS, Alonso ME, **Medina MT**, Bailey JN, Rasmussen A, Ramos-Peek J, Cordova S, Rubio-Donnadieu F, Ochoa A, Jara-Prado A, Inazawa J, Delgado-Escueta AV, Yamakawa K. Identification and mutational analysis of candidate genes for juvenile myoclonic epilepsy on 6p11-p12: LRRC1, GCLC, KIAA0057 and CLIC5. **Epilepsy Res 2002**;50(3):265-75. PMID: 12200217

6. Suzuki T, Delgado-Escueta AV, Aguan K, Alonso ME, Shi J, Hara Y, Nishida M, Numata T, **Medina MT**, Takeuchi T, Morita R, Bai D, Ganesh S, Sugimoto Y, Inazawa J, Bailey JN, Ochoa A, Jara-Prado A,

Rasmussen A, Ramos-Peek J, Cordova S, Rubio-Donnadieu F, Inoue Y, Osawa M, Kaneko S, Oguni H, Mori Y, Yamakawa K. Mutations in EFHC1 cause juvenile myoclonic epilepsy. **Nat Genet 2004**;36(8):842-849. PMID: 15258581

7. Ganesh S, Delgado-Escueta AV, Suzuki T, Francheschetti S, Riggio C, Avanzini G, Rabinowicz A, Bohlega S, Bailey J, Alonso ME, Rasmussen A, Thomson AE, Ochoa A, Prado AJ, **Medina MT**, Yamakawa K. Genotype-phenotype correlations for EPM2A mutations in Lafora's progressive myoclonus epilepsy: exon 1 mutations associate with an early-onset cognitive deficit subphenotype. **Hum Mol Genet 2002**;11(11):1263-71. PMID: 12019207

8. **Medina MT**, Durón RM, Alonso ME, Dravet C, León L, López-Ruiz M, Ramos-Ramírez R, Castroviejo IP, Weissbecker K, Westling B, Perez-Gosiengfiao KT, Khan S, Pineda G, Morita R, Rasmussen A, Peek JR, Cordova S, Martínez-Juárez IE, Rubio-Donnadieu F, Ochoa-Morales A, Jara-Prado A, Bailey JN, Tanaka M, Bai D, Machado-Salas J, Delgado-Escueta AV. Childhood absence epilepsy evolving to juvenile myoclonic epilepsy: electroclinical and genetic features. **Adv Neurol 2005**;95:197-215. PMID: 15508924

9. Alonso ME, **Medina MT**, Martínez-Juárez IE, Durón RM, Bailey JN, López-Ruiz M, Ramos-Ramírez R, Ochoa-Morales A, Jara-Prado A, Rasmussen-Almarez A, León L, Pineda G, Castroviejo IP, Khan S, Silva R, Mija L, Portilla L, Bai D, Perez-Gosiengfiao KT, Machado-Salas J, Delgado-Escueta AV. Familial juvenile myoclonic epilepsy. **Adv Neurol 2005**;95:227-43. PMID: 15508926

10. **Medina MT**, Durón RM, Alonso ME, Dravet C, León L, López-Ruiz M, Ramos-Ramírez R, Castroviejo IP, Weissbecker K, Westling B, Perez-Gosiengfiao KT, Khan S, Pineda G, Morita R, Rasmussen A, Peek JR, Cordova S, Martínez-Juárez IE, Rubio-Donnadieu F, Ochoa-Morales A, Jara-Prado A, Bailey JN, Tanaka M, Bai D, Machado-Salas J, Delgado-Escueta AV. Childhood absence epilepsy evolving to juvenile myoclonic epilepsy: electroclinical and genetic features. **Adv Neurol 2005**;95:197-215. PMID: 15508924

11. **Medina MT**, Durón RM, Martínez L, Osorio JR, Estrada AL, Zúniga C, Cartagena D, Collins JS, Holden KR. Prevalence, incidence, and etiology of epilepsies in rural Honduras: the Salamá Study. **Epilepsia 2005**;46(1):124-31. PMID: 15660778

12. Martínez-Juárez IE, Alonso ME, **Medina MT**, Bailey JN, López-Ruiz M, Ramos-Ramírez R, León L, Pineda G, Castroviejo IP, Silva R, Mija L, Perez-Gosiengfiao K, Machado-Salas J, Delgado-Escueta AV. Juvenile myoclonic epilepsy subsyndromes: family studies and long-term follow-up. **Brain 2006**;129(Pt 5):1269-80. PMID: 16520331

13. Durón RM, Bailey JN, **Medina MT**, Martinez-Juárez IE, Tanaka M, Alonso ME, Ortega RHC Perez-Gosiengfia KT, Pascual-Castroviejo I, Ochoa A, JAra-Prado A, Machaddo-Salas J, Mija L, Delgado-Escueta A.V. Tonic-clonic and clonic-tonic-clonic seizures in human primary generalized epilepsies. Hirsch E, Arzimanoglou A, Aicardi J. Eds. Primary Generalized epilepsies in Humans. **Epileptic Disorders**, Vol 8, No. 1. John-Libbey-Eurotext, **2006** ISBN 2-7420-0621-4

14. **Medina MT**, Suzuki T, Alonso ME, Durón RM, Martínez-Juárez IE, Bailey JN, Bai D, Inoue Y, Yoshimura I, Kaneko S, Montoya MC, Ochoa A, Prado AJ, Tanaka M, Machado-Salas J, Fujimoto S, Ito M, Hamano S, Sugita K, Ueda Y, Osawa M, Oguni H, Rubio-Donnadieu F, Yamakawa K, Delgado-Escueta AV. Novel mutations in Myoclonin1/EFHC1 in sporadic and familial juvenile myoclonic epilepsy. **Neurology 2008**;70(22 Pt 2):2137-44. PMID: 18505993

15. Tanaka M, Olsen RW, **Medina MT**, Schwartz E, Alonso ME, Duron RM, Castro-Ortega R, Martinez-Juarez IE, Pascual-Castroviejo I, Machado-Salas J, Silva R, Bailey JN, Bai D, Ochoa A, Jara-Prado A, Pineda G, Macdonald RL, Delgado-Escueta AV. Hyperglycosylation and reduced GABA currents of mutated GABRB3 polypeptide in remitting childhood absence epilepsy. **Am J Hum Genet 2008**;82(6):1249-61. PMID: 18514161

16. **Medina MT**, Aguilar-Estrada RL, Alvarez A, Durón RM, Martínez L, Dubón S, Estrada AL, Zúniga C, Cartagena D, Thompson A, Ramirez E, Banegas L, Osorio JR, Delgado-Escueta AV, Collins JS, Holden KR. Reduction in rate of epilepsy from neurocysticercosis by community interventions: The Salamá, Honduras Study. **Epilepsia 2011** Jan 28. Epub ahead of print. PMID: 21275975.

D. Research Support

R01 NS055057-01A2 Delgado-Escueta (PI) 04/01/2010-03/31/2015
Discovering More Juvenile Myoclonic Epilepsy Genes by a Consortium.
The goals of this study are to accelerate discovery of epilepsy causing genes for JME, their pathogenetic mechanisms and cures through an international "GENESS" consortium. This consortium includes various sites in the developing world which provide human genetic resources, such as many large families.
Role: Site Director (Honduras Site)

Grant 2009- Marco T Medina (PI) National Autonomous University of Honduras
Stroke and hyperhomocystinemia
The Goal of this study is to evaluate the mechanisms of endothelial dysfunction, stroke and hyperhomocystinemia

E. PATENT

US Patent # 7,829,279 B1'

COMPOSITIONS AND METHODS FOR DIAGNOSIS AND TREATMENT OF EPILEPSY