

Corneliu Luca, MD, Ph.D

Neurology Instructor

University of Miami, Miller School of Medicine

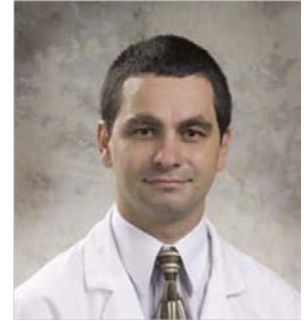
Department of Neurology

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EDUCATION:

- 06/2012 – **Clinical Research Training Fellowship-** American Academy of Neurology.
- 06/2011- present **Fellowship in Movement Disorders** at the University of Miami Miller School of Medicine and the National Parkinson Foundation.
- 06/2007- 06/2011- **Neurology Residency** -University of Miami Miller School of Medicine as part of Neurology **Resident Clinician Researcher Program**.
- 08/2002–06/2007 **Ph.D** in Molecular Cell and Developmental Biology, University of Miami, Miller School of Medicine.
- 01/1999-08/2002–**Internal Medicine Residency**, Coltea Hospital, Bucharest, Romania
- 08/1992- 12/1998–**Medical Doctor-** Carol Davila University of Medicine and Pharmacy, Bucharest, Romania.

PROFESSIONAL CAREER

- **Neurology Instructor** University of Miami - As a physician scientist I am involved in clinical and translational research in Parkinson' disease. My research interest focuses on gait dysfunction in Parkinson's disease and other neurodegenerative disorders. Currently I am principal investigator in a clinical trial to study new therapeutical approaches for gait dysfunction in Parkinson's disease.
- **Neurology Residency University of Miami/Jackson Memorial Hospital**

- **Ph.D** in Molecular Cell and Developmental Biology- University of Miami.
My research project focused on understanding the molecular basis of mitochondrial transcription regulation using in vivo models. We have identified in mouse a new mitochondrial transcription factor involved in regulation of mitochondrial gene expression, mTERF2 in brain and muscle.
- **Internal Medicine Residency** as and medical doctor in training I was involved in the care of patients and training medical students at Coltea Hospital Bucharest.

PEER REVIEWED PUBLICATIONS:

- Dong C; Della-Morte D; Wang L; Cabral D; Beecham A; McClendon MS; **Luca CC** ; Blanton SH; Sacco RL; Rundek T, “Association of the Sirtuin and Mitochondrial Uncoupling Protein Genes with Carotid Plaque”- *PLoS One*. 2011;6(11):e27157. Epub 2011 Nov 7
- **Luca C**, Wenz T, Toraco A, Moraes CT “MTERF2 regulates skeletal muscle oxidative phosphorylation by modulating mtDNA transcription” – *Cell Metabolism* 2009 Jun;9(6): 499-511
- **Luca C**, Wenz T, Moraes C MTERF2 Is a Novel Mitochondrial Transcription Factor That Modulates Oxidative Phosphorylation In Vivo *Neurology* 2009, Mar 72 (11) A18 Suppl. 3
- **Luca C**, Moraes CT “Functional Analysis of mTERF.D3, a novel mitochondrial transcription termination–like factor” – *Mitochondrion* 2006, Oct 5(1): 15
- **Luca CC**, Lam BL, Moraes, CT “Erythromycin as a potential precipitating agent in the onset of Leber's hereditary optic neuropathy”. *Mitochondrion* 2004 Jun;4(1):31-6.

PUBLISHED CHAPTERS AND BOOKS

- **Luca CC**, Nahab F- Neuroimaging in Movement Disorders- Springer Science Inc- to be submitted April 2012.
- **Luca CC**, Singer C – “Peripheral Dystonia “in Gilman S, editor. MedLink Neurology. San Diego: MedLink Corporation. Available at www.medlink.com Accessed March 11, 2011.

- Moore H, **Luca CC**, Singer C – Progressive Supranuclear Palsy – “Uncommon Causes of Movement Disorders” - University Cambridge Press 2010.
- **Luca CC**, Singer C – “Limb Dystonia in Gilman S, editor. MedLink Neurology. San Diego: MedLink Corporation. Available at www.medlink.com Accessed November 10, 2010.

ABSTRACTS:

- **Luca C**, Singer C. “4 -aminopyridine for gait dysfunction in Parkinson’s disease” 26th Annual Symposium on Etiology, Pathogenesis, and Treatment of Parkinson’s Disease and Other Movement Disorders, Irving, Texas May 11, 2012
- **Luca C**, Singer C, Mash D: “Altered SIRT4 Expression Is Associated with Lewy Body Pathology”. American Academy of Neurology- New Orleans April 2012.
- **Luca C**, Moore H, Singer C: “Dopa-responsive dystonia presenting as writer’s cramp”. XIX World Congress on Parkinson’s Disease and Related Disorders- Shanghai, December 2011.
- **Luca CC**, Carlos Singer “Sleep related falling out of bed –case report and literature review” Florida Society of Neurology October 2010.
- **Luca CC**, Tina Wenz, Carlos Moraes “ MTERF2 is a modulator of mitochondrial transcription” American Academy of Neurology –Seattle, April 2009.
- **Luca CC**, Carlos Moraes, “Functional Characterization of mTERFD3, a novel mitochondrial transcription termination–like factor”. United Mitochondrial Disease Foundation- Atlanta, June 2006.

INVITED SPEAKER:

- University of Texas at San Antonio Grand Rounds- February 17th 2012 “Gait dysfunction in Parkinson’s disease”
- University of Miami-Neurology Update and Stroke intensive- Coconut Grove, Jan 27th 2012. “Unusual movement disorders- video case presentations and practice points”.
- Cell Biology and Anatomy Seminar -July 2008 “mTERFD3 is a novel mitochondrial protein that modulates oxidative phosphorylation”

CURRENT RESEARCH

A Randomized Trial to Evaluate Ampyra for Gait Impairment in Parkinson's Disease, Acorda Therapeutics Inc.,
2011 – ongoing. PI: Corneliu Luca.
Role: **Principal Investigator**

Magnetic resonance imaging in gait disorders-
2011- ongoing.
PI Fatta Nahab,
Role: **Co-Investigator**

Fatigue and Cardiac Sympathetic Denervation in Parkinson Disease,
2011 –ongoing.
PI: Carlos Singer
Role: **Co-Investigator**

A double-blind, randomized, placebo-controlled study of the safety and efficacy of SYN115 as adjunctive therapy in levodopa-treated Parkinson's subjects with end of dose wearing off, Biotie Therapies, Inc.
2011 – ongoing.
PI: Carlos Singer.
Role: **Co-Investigator**

FS-ZONE: A Multi-Center, Double-Blind, Placebo-Controlled Phase II Study of Pioglitazone in Early Parkinson's Disease., NINDS,
2010 – ongoing. PI: Carlos Singer MD.
Role: **Co-Investigator**

UMBRELLA: Natural history study of neurological movement disorders, 2009 – ongoing.
PI : Carlos Singer MD.
Role: **Co-Investigator**

PREVIOUS FUNDED RESEARCH

- American Heart Association fellowship grant- “A mouse model of cardiomyopathy”
-PI Carlos Moraes
-**Corneliu Luca** co-investigator: 2004-2006
- total award \$50,000.
- University of Miami Graduate School Research scholarship 2003-2007- yearly fellowship \$22,000

INVITED PEER REVIEWER OF SCIENTIFIC JOURNALS:

- Mitochondrion
- Biochimica et Biophysica Acta
- Journal of Inherited Metabolic Disease
- Audiology & Neurotology

HONORS AND AWARDS

- American Academy of Neurology **Clinical Research Training Fellowship** 2012
- NINDS/NIH Clinical Trials Methodology Course Scholarship 2011
- Resident Teacher of the Year Award 2011- University of Miami Dept. of Neurology
- American Neurology Association- Resident Scholarship 2008
- American Heart Association Fellowship 2004-2006
- University of Miami Graduate School Scholarship 2002-2007
- Carol Davila University of Medicine and Pharmacy Scholarship 1992-1998

PROFFESIONAL MEMBERSHIP

- Gait and Clinical Movement Analysis Society -2011
- Movement Disorder Society -member since 2009
- American Academy of Neurology- member since 2008
- Mitochondrial Research Society – member since 2004
- New York Academy of Sciences – member since 2003

TEACHING/SUPERVISORY EXPERIENCE

As a neurology Instructor I am involved in teaching of medical students, observers and residents on a daily basis during rounds with patients. I was selected to be the junior faculty coordinating the Departmental Journal Club presented by residents and responsible for evidence based medicine principles teaching. For my teaching abilities I was rewarded with “**Resident Teacher of the Year Award**” in 2011. As a fellow in movement disorders I am involved in training residents in clinical aspects of diseases like Parkinson’s and Alzheimer’s. Listed below are activities related with teaching and education performed in the past years:

-Evidence based medicine lecture series EBM Toolkit- This is a monthly presentation to neurology residents to present the principle of evidence based research and apply this principles to medical practice. This curriculum has been developed by the American Academy of Neurology.

-Journal Club Resident Committee- As junior faculty I am responsible for journal club organization and residents training in evidence based medicine following American Academy of Neurology curriculum-EBM Toolkit.

-Neurology Residents lecture series- As movement disorder fellows I am actively involved in teaching residents the clinical manifestations of movement disorders.

-Morning report- clinical cases presentation and differential diagnosis. During morning report, students present clinical findings of patient with neurological disorders. My responsibility during morning report is to discuss the differential diagnosis, educate medical students and present the most pertinent findings of a specific disease.

-Medical students in neurology clerkship- teaching of students in 3rd and 4th year basic clinical neurology skills and mechanisms of disease during neurology rotation. Also, clinical exam and patient interaction are important part in the teaching process.

-Chief resident case based teaching- overview of student’s case presentation and grading appropriately their performance.

-Medical student research project. In the molecular biology laboratory of Dr. Mash I am supervising and teaching medical student Dalal Eldik molecular biology techniques.

-Undergraduate student summer research project 2007- supervision and project leader of summer student in molecular biology laboratory. In this project an undergraduate student has been under my supervision for research project coordination.

JOURNAL CLUBS AND ORAL PRESENTATIONS:

“The Interplay of Cholinergic Function, Attention, and Falls in Parkinson’s Disease”- Movement Disorder Journal Club presentation, February 3rd 2012.

“Parkinson’s disease pathophysiology and treatment updates”- October 17th 2011 Residents teaching lecture University of Miami.

“Mitochondrial disorders in paediatric neurology”- clinical presentation. Paediatric Neurology Journal Club -April 26 2011

“Paraneoplastic jaw dystonia and laryngospasm with antineuronal nuclear antibody type 2 (anti-Ri)” – Movement Disorders Journal Club- National Parkinson Foundation – September 17th 2010

"Optical deconstruction of Parkinsonian Neural Circuitry", Wednesday February 17th 2010. Neurology Department Journal club.

“54 year old male with involuntary movements and acute confusional state” -January 30th 2009 Neurology Department Clinical pathology Conference- LPLC 7th floor

“Mterfd3 is a mitochondrial transcription factor that modulates OXPHOS”- May 8th, 2008 in the RMSB 4th floor – Cell Biology and Anatomy lecture series

“Sudden onset of paraparesis associated with areflexia and ophthalmoplegia” Neurology Department Professor Rounds – august 2007

“Regulation of mitochondrial transcription by mTERF family members”- October 2007- Graduate student research Seminar- Cell Biology conference room.

“Cell Biology of disease. Mechanisms of disease that affect specific cellular processes” Wednesday, March 29, 2006 Cell Biology conference room

“Embryonary and adult stem cells, differentiation and applications. Genetics of pluripotency/totipotency “Wednesday, December 7, 2005 Cell Biology Conference room

“The Fragile X Syndrome Protein FMRP Associates with *BC1* RNA and Regulates the Translation of Specific mRNAs at Synapses”, October 2003, Molecular Cell and Developmental Biology Journal Club

CONGRESS/MEETING PARTICIPATION

NINDS Clinical Trial Methodology Course- Vail, Colorado- August 2011.

A comprehensive review of Movement Disorders for the Clinical practitioner Aspen- Colorado -July 2011.

Florida Society of Neurology-2010 Annual Meeting. October 2010, Lake Buena Vista.

A comprehensive review of Movement Disorders for the Clinical practitioner Aspen- Colorado -July 2010.

Neurology Update and Stroke Intensive 2010– University of Miami Miller School of Medicine, January 2010.

XVIII WFN World Congress on Parkinson's Disease and Related Disorders –December 2009 Miami Beach, Florida.

Multiple Sclerosis and Parkinson's disease- Recent Developments - University of South Florida 2009.

American Academy of Neurology- Seattle 2009.

American Neurology Association – Salt Lake City 2008 .

Mitochondrial Disease Society Meeting –Unravelling Mitochondrial Maze, Atlanta, 2007.

Neuroscience Graduate Research Retreat –University of Miami- Marco Island, Florida, 2005

Miami Winter Symposium - Miami Beach, 2004.

Neuroscience Graduate Research Retreat- Islamorada, Florida 2003.

CARRER DEVELOPMENT SEMINARS AND WORKSHOPS:

Evidence Based Medicine Toolkit Training – American Academy of Neurology- Washington, October 2011.

NINDS Clinical Trial Methodology Course –Vail/Colorado 2011- this course is specifically designed by NIH for young faculty to develop clinical trial expertise.

Faculty and Resident Development Workshop – University of Miami June 24 2010- this is a departmental development course dedicated for faculty career advice.

Foundations of Translational Research Training - Bootcamp Training 2009 –University of Miami September 21 – 25 2009, Miami. The bootcamp is one week intensive course that initiateds young investigators in the methodology of translational research.

American Neurology Association -Career Development Symposium and Junior Faculty Development Course -2008, Salt Lake City

Basic Science Research Boot Camp Training – 2006- University of Miami Graduate School. – This is a one week course dedicated for basic scientists that provides information regarding funding sources and grant writing.