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## BIOGRAPHICAL SKETCH

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NAME Carmen M. Cirstea	POSITION TITLE Research Assistant Professor
eRA COMMONS USER NAME CCIRSTEA	

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

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
College of "Sf-Sava", Bucharest, Romania	--	1986	Mathematics
University of Bucharest, Bucharest, Romania	M.D.	1993	General Medicine
University of Montreal, Montreal, Canada	M.Sc.	1999	Neurological Science
University of Montreal, Montreal, Canada	Ph.D.	2004	Neurological Science
University of Kansas Medical Center, Kansas City, KS	PDF	2006	Neuroimaging/Neurophysiology

### A. Positions and Honors

#### Positions and Employment

- 1993-94 Internship - Department of Gynecology/Obstetrics, University Hospital Bucharest  
1994-95 Residency - Department of Medical Emergency, Emergency Hospital, University of Bucharest  
1996-98 Research Assistant - Motor Control Laboratory, Rehabilitation Institute of Montreal, University of Montreal  
1999-04 Doctoral Research - Neurological Science, Department of Physiology, University of Montreal  
2000 Research Associate - Neurophysics and Physiology of the Motor System, Université René Descartes Paris V  
2004-06 Postdoctoral Fellow - Neuroimaging/Neurophysiology (Dr. Nudo, Dr. Brooks), University of Kansas Medical Center  
2006 – Research Assistant Professor – Department of Physical Therapy and Rehabilitative Sciences and the Høglund Brain Imaging Center, University of Kansas Medical Center, Kansas City, KS.

#### Awards and Honors

- 1990-93 M.D. training award, University of Medicine and Pharmacy of Bucharest  
1997-98 M.Sc. training award, FRSQ-FCAR-Santé (Healthy Research Network of Quebec)  
M.Sc. training award, REPAR (Rehabilitation Research Network of Quebec, declined)  
M.Sc. training award, RRRMOQ (Rehabilitation Research Network of Montreal, declined)  
1998 Best student poster award, XVII Congress of Association of Advanced Studies Faculty of Medicine University of Montreal  
1999-00 Student Travel Fellowships, Local Congress  
2000 Student Travel Fellowship l'INSERM-CREARE, Neuroscience et Modélisation, Université de Paris V France  
1999-01 Ph.D. training award, FRSQ-FCAR-Santé (Healthy Research Network of Quebec)  
2001 Student Travel Fellowships, Local Congress  
2001-03 Ph.D. training award, Canadian Stroke Network  
2001-03 Award for excellence, Faculty of advanced studies, University of Montreal  
2001-03 Ph.D. fellowship, Rehabilitation Institute of Montreal  
2004-06 Postdoctoral training award, Canadian Stroke Network (declined)  
2005-06 Postdoctoral training award, Natural Sciences and Engineering Research Council of Canada

#### Memberships

- Canadian Stroke Network  
Society for Neuroscience  
Quebec Mental Health and Neuroscience Network  
Association of graduates of University of Montreal

Centre for Interdisciplinary Research in Rehabilitation  
Réseau Provinciale Adaptation et Réadaptation du Québec  
Regroupement provincial de recherche en imagerie cerebrale  
Romanian Association of Physicians

### **Informal teaching activities**

- 1997-98 Supervision undergraduate students: School of Rehabilitation, University of Montreal
- 1998-03 Supervision MSc and PhD students: Neurological Sciences, School of Rehabilitation, University of Montreal
- 1998-04 Lectures and Lab presentations: Neurological Science, Department of Physiology, University of Montreal (graduates students)
- 1998-04 Supervision research assistants: Rehabilitation Institute of Montreal
- 2005 Teaching: Pathobiology of Human Function II, PTRS 863, University of Kansas Medical Center
- 2007 Instructor: Pathobiology of Human Function II, PTRS 863, University of Kansas Medical Center

### **Academic Service**

- 2005 - Regular reviewer for *Stroke*
- 2007- Reviewer for *Neurorehabilitation and Neural Repair*

### **B. Selected Publications**

1. **Cirstea MC**, Levin MF. Practice improves kinematics of reaching in hemiparetic subjects. *Cdn J Rehab*, 11: 215-216, 1998
2. Levin MF, Dancause N, **Cirstea MC**. Rehabilitation strategies for motor recovery following stroke. *Motor control III*. Varna, Bulgaria. 1999, pp. 451-457
3. Levin MF, Dancause N, **Cirstea MC**. Récupération et apprentissage des mouvements atteints après lésion cérébrale. In: *Restauration de la Motricité après Lésion du Système Nerveux Central*. Actes des 12e Entretiens de l'Institut Garches, Arnette: Paris, 1999, pp. 39-48
4. Levin MF, **Cirstea MC**, Archambault P, Son F, Roby-Brami A. Impairment and compensation of reaching in hemiparetic and cerebral palsied patients. *Bernstein's Traditions in Motor control. Progress in Motor Control II*, 1999
5. Roby-Brami A, **Cirstea MC**, Michaelsen SM, Levin MF. Compensation motrice et récupération fonctionnelle chez les patients hémiparétiques à la suite d'un AVC. In : *La préhension et l'hémiplégie vasculaire*. Pélissier J, Benaïm C, Enjalbert M. eds. Masson, 2000
6. **Cirstea MC**, Levin MF. Compensatory strategies for reaching in stroke. *Brain*, 123: 940-953, 2000
7. Levin MF, Michaelsen S, **Cirstea MC**, Roby-Brami A. Trunk involvement during reaching in adult hemiparesis. *Exp Brain Res*, 143: 171-180, 2002
8. **Cirstea MC**, Mitnitski AB, Feldman AG, Levin MF. Interjoint coordination dynamics during reaching in stroke. *Exp Brain Res*, 151: 289-300, 2003
9. **Cirstea MC**, Ptito A, Levin MF. Arm reaching improvements with short-term practice depend on the severity of the motor deficit in stroke. *Exp Brain Res*, 152: 476-488, 2003
10. **Cirstea MC**, Ptito A, Levin MF. Feedback and cognition in arm motor skill reacquisition after stroke. *Stroke*, 37(5):1237-42, 2006
11. **Cirstea MC**, Levin MF. Improvement of arm movement patterns and endpoint control depends on type of feedback during practice in stroke survivors. *Neurorehab Neural Repair*, in press 2006.
12. **Cirstea MC**, Levin MF. Improvement of arm movement patterns and endpoint control depends on type of feedback during practice in stroke survivors. *Neurorehabilitation and Neural Repair*. 2007; 21(5): 398-411.

### **C. Research Support**

#### **Ongoing Research Support**

0860041Z (Cirstea, C.) 01/01/08 – 12/31/09

AHA-Heartland

Multimodal neuroimaging in stroke motor rehabilitation

The goals of this project are to understand the relationship between changes in biological properties of remote motor areas and functional motor recovery following an intervention in patients with focal brain damage using combined magnetic resonance spectroscopy and functional magnetic resonance imaging.

Role: PI

0655759Z (Brooks, W.)

07/01/2006 – 6/30/2008

AHA-Heartland

(No cost ext.)

*Arm Movement Patterns in Stroke: Neural Substrates*

The major goals of this project are characterize brain plasticity in a motor task in stroke patients using magnetic resonance spectroscopy and functional magnetic resonance imaging.

Role: Co-Investigator

**Completed Research Support**

None