

## CURRICULUM VITAE

<u>PERSONAL INFORMATION</u>	<u>EDUCATION</u>
Name: Marco Molinari Home Address: Via G. Pezzana 70 - 00197 Roma Italy Phone: Home: +39-06-8079154 Office: +39-06-51501600 Fax: +39-06-1501679 email: m.molinari@hsantalucia.it Date and Place of Birth: August 10, 1954, Milano, Italy. Marital Status: Married	1979 <b>MD Degree</b> 1983 Specialization in Neurology. 1987 <b>Ph.D. Degree</b> in Neuroscience (Dottorato di Ricerca) 1990 Specialization in Restorative Medicine (Fisioterapia)

### EMPLOYEMENT HISTORY

February 1998 – present	<b>Director</b> Neurorehabilitation Department A and Spinal Cord Rehab Unit – IRCCS S. Lucia Foundation – Rome Italy.
February 1998 – present	<b>Head</b> Experimental Neurorehabilitation Lab - IRCCS S. Lucia Foundation – Rome Italy.
January 1988 - 2005	<b>Assistant Professor</b> (Ricercatore) Neurological Institute, Catholic University Medical School Rome, Italy.
November 1994 - 1998	<b>Professor of Basic Neuroanatomy and Neurophysiology</b> ( <i>Professore a contratto, Fondamenti Anatomo Fisiologici dell'Attività Psichica</i> ), University of Rome "La Sapienza", Faculty of Psychology.
1989-1993:	<b>Visiting researcher</b> at the Frontier Research Program, RIKEN Institute, Wako, Saitama, Japan.
1987	<b>Visiting Research Assistant Professor</b> at the Institute of Psychology, Duke University, Durham, NC, USA.
1985 - 1986	<b>Visiting Researcher</b> at the Institute of Anatomy and Neurobiology, University of California Irvine, Irvine, CA, USA.

### PROFESSIONAL SOCIETIES

Society for Neuroscience (SfN)  
World Federation for NeuroRehabilitation (WFNR)  
International Brain Research Organization (IBRO)  
Italian Society of Neuroscience (SINS)  
Italian Society of Neurology (SIN)  
Italian Society of Neurological Rehabilitation (SIRN)  
Society for Research on the Cerebellum (SRC)

### Editorial Advisory Boards

Cerebellum (Springer)

### RESEARCH INTERESTS

Neuroanatomy, Neuroplasticity, Clinical Neurology, Neurorehabilitation, Neurohistochemistry, Neurophysiology. Main area of research: Cerebellar physiology and pathophysiology, Stroke, Spinal cord lesion and neurological rehabilitation.

### TEACHING EXPERIENCE AND RESPONSABILITY

- Course in Basic Neuroanatomy and Neurophysiology for Psychologists
- Lab tutorial to medical students and residents in Neurology.
- Tutorial for MD and Neurological specialization dissertations.
- Advanced neuroanatomy, integrated neuroanatomy, clinical neurology, neurophysiology, neurorehabilitation for MD students and residents in neurology.
- Course in Neurological Rehabilitation for Neuropsychologists.

### **Recent RESEARCH GRANTS**

2000 Italian ministry of Health Grant ICS120.3/RA00. 85 - 80.500€;  
2001 CNR grant (n. CU01.00936.CT26) – 10.000€;

2002 Italian ministry of Health Grant RF01.37 - 31.000 €;  
2003 Health Work National Institute (ISPELS) grant - ISPELS.7 - 172.500 €;  
2004 Italian Ministry of University and Research Grant - FIRB RBNE01H3K5. - 63.000 €;  
2006 Health Work National Institute (ISPELS) grant - ISPELS.9 – 10.000€;  
2006 Italian ministry of Health Grant RF05.105.M - 48.500€;  
2007 Italian ministry of Health Grant - PS05.20 - €36.000,00;  
2007 Salvatore Maugeri Foundation grant MAU.1 - € 7.000,00.  
2008 Autism Speaks Grant Number: 4919. Associate Investigator (Principal Investigator: Flavio Keller) - \$324,340.  
2008 ICT-2007-224631- TOBI -FSL clinical center - Associate Investigator Total € 400.000,00  
2010 ICT-2009-247935- BETTER - FSL clinical center - Associate Investigator Total € 232.950,00  
2010 ICT-2009-247959- MindWalker - FSL clinical center – Ethical Manager Total € 400.000,00  
2011 Wings for Life Foundation – PI M.T. Viscomii – MM Lab Head € 100.000.  
2012 IRP/IFP Foundation - PI M. Pazzaglia – MM Dept Head.  
2013 IRP/IFP Foundation - PI M.T. Viscomi – MM Lab Head CHF 75.000.

## CITATIONS METRICS from Web of Knowledge.

- Total Articles in Publication List: 125
- Articles With Citation Data: 109
- Sum of the Times Cited: 3361
- Average Citations per Article: 30.83
- h-index: 35

Last Updated: 03/01/2013

TITOLI SCIENTIFICI 2008 2013IN EXtenso

Su riviste presenti in "Current Contents "

1. Florenzano F., P. Carrive, M.T. Visconti, D. Conversi, S. Cabib, M. Molinari. Cortical and subcortical distribution of P2X<sub>1</sub>R mRNA and protein in the rat forebrain. *Neuroscience*, 151 791–801; 2008. IF: 3,52
2. Scivoletto G; Cosentino E; Morganti B; Farchi S; Molinari M. Clinical prognostic factors for bladder recovery of patients with spinal cord and cauda equine lesions. *Disability and Rehabilitation*, 30 (5) 330-337 2008. IF: 1,414
3. Florenzano F., M.T. Visconti, C. Volonte` , and M. Molinari. Do ATP and NO interact in the CNS? *Progress in Neurobiology*. 84: 40-56, 2008. IF: 10.467.
4. Scivoletto Giorgio, Angela Romanelli, Andrea Mariotti, Daniele Marinucci, Federica Tamburella, Alessia Mamnone, Elena Cosentino, Silvia Sterzi, Marco Molinari MD. Clinical factors affecting walking level and performances in chronic spinal cord lesion patients. *Spine*. 2008, 33(3) p259-64; 2008. IF: 2,499
5. Scivoletto G., Cosentino E., Mamnone A, Molinari M. . Inflammatory mielopathies and traumatic spinal cord lesions: comparison of functional and neurological outcome. *Physical Therapy*, 88 (4) 471-84; 2008. IF: 2,152
6. Chiricozzi Francesca R., Silvia Clausi, Marco Molinari and Maria G. Leggio. Selective impairment of the verbal working memory phonological short- term store after focal cerebellar lesion. A case report. *Neuropsychologia*, 46(7) 1940-53, 2008. IF: 3,63.
7. Leggio M.G, Tedesco A.M., Chiricozzi F.R., Clausi S., Orsini A, Molinari M.. Cognitive sequencing impairment in patients with focal or atrophic cerebellar damage. *Brain*, 131 (Pt 5) 1332-43, 2008. IF: 9.808.
8. Visconti M.T., F. Florenzano, L. Latini, D. Amantea, G. Bernardi and M. Molinari Sustained Methylprednisolone treatment delays secondary cell death after focal brain lesion. *Neuroscience*, 154 : 1267–1282, 2008. IF: 3,52.
9. Visconti M.T., L. Latini, F. Florenzano, G. Bernardi, and M. Molinari. Minocycline attenuates microglial activation but fails to mitigate remote degenerative changes after focal cerebellar lesion. *The Cerebellum*, 7:401–405, 2008. I.F.: 3.847.
10. Molinari Marco, Francesca Chiricozzi, Silvia Clausi, Anna Maria Tedesco, Maria Grazia De Lisa and Maria G. Leggio. Cerebellum and detection of sequences, from perception to cognition. *The Cerebellum*, 7: 611-615, 2008. I.F.: 3.847.
11. Molinari M.. Plasticity properties of CPG circuits in humans: Impact on gait recovery. *Brain Research Bulletin*, 78(1): 22-25 - 15 January 2009; IF: 2.281.
12. Molinari M., Scivoletto G.. Editorial to special issue on “Gait recovery after spinal cord injury. From bench to bed”. *Brain Research Bulletin*, 78(1): 1 - 15 January 2009. IF: 2.281.
13. di Penta Alessandra, Valentina Mercaldo, Fulvio Florenzano, Sebastian Munck, M. Teresa Ciotti, Francesca Zalfa, Delio Mercanti, Marco Molinari, Claudia Bagni, and Tilmann Achsel. Dendritic LSm1/CBP80-mRNPs mark the early steps of transport commitment and translational control. *The Journal of Cell Biology*, 184: 423 – 435; 2009. I.F.: 9.921.

14. Maccarrone Mauro, Valentina De Chiara, Valeria Gasperi, Maria Teresa Visconti, Silvia Rossi, Sergio Oddi, Marco Molinari, Alessandra Musella, Alessandro Finazzi-Agrò, Diego Centonze. Lipid rafts regulate 2-arachidonoylglycerol metabolism and physiological activity in the striatum. *Journal of Neurochemistry.* 109, (2): 371-381; 2009. IF: 4,451
15. Visconti M. T., S. Oddi, L. Latini, N. Pasquariello, F. Florenzano, G. Bernardi, M. Molinari, and M. Maccarrone. Selective CB2 receptor agonism protects central neurons from remote axotomy-induced apoptosis through the PI3K/Akt pathway. *Journal of Neuroscience.* 29: 4542-4547; 2009. I.F.: 7,49.
16. Clausi S, M. Bozzali, MG Leggio, M Di Paola, G Hagberg, C. Caltagirone, M Molinari. Quantification of grey matter changes in the cerebral cortex as a consequence of isolated cerebellar damage: a voxel based morphometry study. *Neuroscience,* 162: 827-835; 2009. IF: 3,52
17. Visconti M.T., F. Florenzano, L. Latini and M. Molinari. Remote cell death in the cerebellar system. *The Cerebellum* 8 (3):184–191, 2009. I.F.: 3.280..
18. Molinari Marco, Domenico Restuccia and Maria G. Leggio. State estimation, response prediction, and cerebellar sensory processing for behavioral control. *The Cerebellum* 8 (3): 399–402, 2009. I.F.: 3.280.
19. Latini, Laura; Geloso, Maria Concetta; Corvino, Valentina; Giannetti, Stefano; Florenzano, Fulvio; Visconti, Maria Teresa; Michetti, Fabrizio; Molinari, Marco. TMT intoxication upregulates NOS in neurons and P2X2R in astrocytes in the hippocampus. *Journal of Neuroscience Research,* 88:500-509 2010. I.F.: 3.086.
20. Cucchiaroni Maria Letizia, Maria Teresa Visconti, Giorgio Bernardi, Marco Molinari, Ezia Guatteo and Nicola B. Mercuri. Metabotropic glutamate receptor 1 mediates the electrophysiological and toxic actions of the cycad derivative  $\beta$ -N-methylamino-L-alanine (BMAA) on substantia nigra pars compacta DAergic neurons. *Journal of Neuroscience.* Apr 14;30(15):5176-88., 2010. I.F.: 7,49.
21. Visconti M.T., Oddi S., Latini L., Bisicchia E., Maccarrone M., and Molinari M.. The endocannabinoid system: a new entry in remote cell death mechanisms. *Experimental Neurology.* Jul;224(1):56-65. 2010. I.F.: 4.436.
22. Carunchio Irene, Livia Curcio, Massimo Pieri, Francesca Pica, Silvia Caioli, Maria Teresa Visconti, Marco Molinari, Nadia Canu, Giorgio Bernardi and Cristina Zona. Increased levels of p70S6 phosphorylation in the G93A mouse model of Amyotrophic Lateral Sclerosis and in valine-exposed cortical neurons in culture. *Experimental Neurology.* Nov;226(1):218-30. 2010. I.F.: 4.436.
23. Leggio MG, Chiricozzi FR, Clausi S, Tedesco AM, Molinari M. The neuropsychological profile of cerebellar damage: The sequencing hypothesis, *CORTEX* 47 (1) 137-144, 2011, doi: 10.1016/j.cortex.2009.08.011. IF: 7.251.
24. Scivoletto G., Morganti B., Cosentino E., Farchi S., Molinari M.. Traumatic and non traumatic spinal cord lesion: an Italian comparison of neurological and functional outcome. *Spinal Cord* 49: 391-396; 2011. IF: 2,071.
25. Pichiorri F., F. De Vico Fallani, F. Cincotti, F. Babiloni, M. Molinari, S. Kleih, C. Neuper, A. Kübler and D. Mattia “Sensorimotor Rhythm-Based Brain Computer Interface Training: The Impact on Motor Cortical Responsiveness” *Journal of Neural Engineering* 8 (2) 2011. DOI: 10.1088/1741-2560/8/2/025020. IF: 2.628.
26. Scivoletto G., F. Tamburella, L. Laurenza, C. Foti, JF. Ditunno, M. Molinari. Validity and reliability of the ten meter walk test and the six minute walk test in spinal cord injury patients. *Spinal Cord:* 49, 736–740; 2011 doi:10.1038/sc.2010.180 I.F.: 2,071.
27. Cucchiaroni Maria Letizia , Peter S. Freestone, Nicola Berretta, Maria Teresa Visconti, Elisa Bisicchia, Hideyuki Okano, Marco Molinari, Giorgio Bernardi, Janusz Lipski, Nicola B. Mercuri1, and Ezia Guatteo. Properties of dopaminergic neurons in organotypic mesencephalic-striatal co-

- cultures: Evidence for a facilitatory effect of dopamine on the glutamatergic input mediated by  $\alpha$ -1 adrenergic receptors. European Journal of Neuroscience;33(9):1622-36; 2011. DOI: 10.1111/j.1460-9568.2011.07659.x I.F.: 3,385
28. Scivoletto Giorgio, Lapenna Luisa Maria, Di Donna Valentina, Laurena, Letizia, Sterzi Silvia, Molinari Marco. Neoplastic mielopathies and traumatic spinal cord lesions: an italian comparison of functional and neurologic outcome. Spinal Cord: 49, 799–805; 2011. doi:10.1038/sc.2011.6 I.F.: 2,071.
  29. Scivoletto Giorgio, Laurena Letizia, Mammone Alessia, Foti Calogero, Molinari Marco. Recovery following ischemic myelopathies and traumatic spinal cord lesions. Spinal Cord: 49, 897-902; 2011. doi:10.1038/sc.2011.31 I.F.: 2,071.
  30. Marco Iosa, Febo Cincotti, Iolanda Pisotta, Federica Tamburella, Donatella Mattia, Marco Molinari. What users need. Requirements in BNCI-driven robot for gait rehabilitation after stroke: a pilot study. International Journal of Bioelectromagnetism. Vol. 13, No. 1, pp. 13 - 15, 2011.
  31. Tedesco A.M., Chiricozzi F.R., Clausi S., Lupo M., Molinari M., Leggio M.G.. The Cerebellar Cognitive Profile. Brain: 134; 3672–3686 2011; doi: 10.1093/brain/awr266.2011. IF: 9,457.
  32. Juan-Manuel Belda-Lois, Silvia Mena-del Horno, Ignacio Bermejo-Bosch, Juan C. Moreno, José L. Pons, Dario Farina, Marco Iosa, Marco Molinari, Federica,Tamburella, Ander Ramos, Andrea Caria, Teodoro Solis-Escalante, Clemens Brunner and Massimiliano Rea. Rehabilitation of gait after stroke: a review towards a top-down approach. Journal of NeuroEngineering and Rehabilitation 2011, 8:66. <http://www.jneuroengrehab.com/content/8/1/66> IF: 2.64.
  33. Visconti Maria Teresa, Marcello D'Amelio, Laura Latini, Virve Cavallucci, Elisa Bisicchia, Francesca Nazio, Francesca Fanelli, Mauro Maccarrone, Sandra Moreno, Francesco Cecconi, Marco Molinari. Stimulation of autophagy by rapamycin protects neurons from remote degeneration after acute focal brain damage. Autophagy, 8:2, 222 - 235; February 2012. IF: 7.453.
  34. Oddi Sergio, L. Latini, M. T. Visconti, E. Bisicchia, M. Molinari, and M. Maccarrone. Distinct regulation of nNOS and iNOS by CB2 receptor in remote delayed neurodegeneration. Journal of Molecular Medicine, 90:371–; 2012. 387 DOI 10.1007/s00109-011-0846-z IF: 5.192.
  35. Mario Manto, James M. Bower, Adriana Bastos Conforto, José M. Delgado-García, Suzete Nascimento Farias da Guarda, Marcus Gerwig, Christophe Habas, Nobuhiro Hagura, Richard B. Ivry, Peter Mariën, Marco Molinari, Eiichi Naito, Dennis A. Nowak, Nordeyn Oulad Ben Taib, Denis Pelisson, Claudia D. Tesche, Caroline Tilikete, Dagmar Timmann. Roles of the cerebellum in motor control - The diversity of ideas on cerebellar involvement in movement. Cerebellum, Volume 11, Number 2, Pages 457-487 2012. DOI 10.1007/s12311-011-0331-9, IF: 3.280.
  36. Bigna Lenggenhager, Mariella Pazzaglia, Giorgio Scivoletto, Marco Molinari, Salvatore Maria Aglioti. The sense of the body in individuals with spinal cord injury. PLOS ONE, in press 2013. IF: 4.411
  37. Pichiorri, F, Morone, G., Cincotti, F., Paolucci, S., Molinari, M., Inghilleri, M., Mattia, D. Clinical trial design to validate a BCI-supported task-specific training in neurorehabilitation after stroke. European Journal of Neurology 19- SI( 1); 566-566; 2012. I.F.: 3.692.
  38. Silvia Clausi, Maria De Luca; Francesca R Chiricozzi, Anna Maria Tedesco, Carlo Casali, Marco Molinari, Maria Giuseppa Leggio. Oculomotor deficits affect neuropsychological performance in oculomotor apraxia type 2. Cortex 49: 691-701; 2013 IF: 7.251.
  39. Elisa Bisicchia, Valerio Chiurchiù, Maria Teresa Visconti, Laura Latini, Filomena Fezza, Luca Battistini, Mauro Maccarrone, Marco Molinari. Activation of type-2 cannabinoid receptor inhibits neuroprotective and anti-inflammatory actions of glucocorticoid receptor alpha: when one is better than two. Cellular and Molecular Life Sciences. In press DOI: 10.1007/s00018-012-1253-5. 2013. IF: 7.047.

40. Tamburella Federica, Scivoletto Giorgio, and Molinari Marco. Eight weeks of visual biofeedback balance training improves static stability and gait in chronic motor incomplete spinal cord injury subjects. European Journal of Physical Rehabilitation Medicine in press. 2013. IF: 1,402
41. Giorgio Scivoletto, Federica Tamburella, Letizia Laurenza, Marco Molinari. The spinal cord independence measure. how much change is clinically significant for spinal cord injury subjects. European Journal of Physical Rehabilitation Medicine in press. 2013. IF: 1,402
42. Tamburella Federica, Elena Cosentino, Giorgio Scivoletto, Valentina Di Donna, Marco Molinari. Walking in water and on land after spinal cord lesion. A two dimensional kinematic study in subjects with incomplete injuries. American Journal of Physical Medicine & Rehabilitation, in press. I.F.: 1.581
43. Mariella Pazzaglia, Giulia Galli, Giorgio Scivoletto, Marco Molinari. A functionally-relevant tool for the body following spinal cord injury. PLOS ONE, in press 2013. IF: 4.411.

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44. Molinari M and Leggio M G. "Cerebellum: Clinical Pathology". In: Squire LR (ed.) *Encyclopedia of Neuroscience*, volume 2, pp. 737-742. Oxford: Academic Press. 2009.
45. Molinari M., Paolucci S.. "Approccio clinico e riabilitativo alle sindromi cerebellari". In "Medicina Fisica e Riabilitazione" a cura di Giorgio Gino Valobra, Renato Gatto e Marco Monticane. UTET Scienze Mediche Torino. Vol 4, Capitolo 125, pp 2257-2271, 2009.
46. Marco Molinari. "Riabilitazione Neurologica". In Enciclopedia Italiana Treccani Terzo Millennio diretta dal prof. Tullio Gregory. ISTITUTO DELLA ENCICLOPEDIA ITALIANA FONDATA DA GIOVANNI TRECCANI S.p.A. pp 631-639, 2010.
47. M. Molinari, G. Scivoletto. Mielopatie: clinica. In Compendio di Neuroriabilitazione. G. Sandrini and R. Dattola Editors, Capther 21 pp 327-340, 2012 Verduci Editore - Roma. ISBN 88-7620-861-5 / ISBN 978-88-7620-861-4
48. G. Scivoletto, F. Tamburella, M. Molinari,. Mielopatie: riabilitazione. In Compendio di Neuroriabilitazione. G. Sandrini and R. Dattola Editors, Capther 22 pp 341-354, 2012 Verduci Editore - Roma. ISBN 88-7620-861-5 / ISBN 978-88-7620-861-4
49. Marco Molinari, Maria Teresa Visconti, and Maria G. Leggio. Hemicerebellectomy. In: M. Manto, D.L. Gruol, J.D. Schmahmann, N. Koibuchi, F. Rossi (eds.), Handbook of the Cerebellum and Cerebellar Disorders, Springer Science+Business Media Dordrecht 2013. Vol. 3, chapter 70, pp 1579-1594. DOI 10.1007/978-94-007-1333-8\_70.
50. Marco Molinari and Maria G. Leggio. Cerebellar Sequencing for Cognitive Processing. In: M. Manto, D.L. Gruol, J.D. Schmahmann, N. Koibuchi, F. Rossi (eds.), Handbook of the Cerebellum and Cerebellar Disorders, Springer Science+Business Media Dordrecht 2013. Vol. 3, chapter 77, pp 1701-1715. DOI 10.1007/978-94-007-1333-8\_76, #
51. Federica Tamburella, Giorgio Scivoletto e Marco Molinari. "La deambulazione del soggetto affetto da lesione incompleta del midollo spinale in ambiente acquatico" in "Trattato di riabilitazione in acqua". Tibaldi S. e Bortone A, eds. Edizioni Martina Bologna. **In press**.

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52. Scivoletto G, Di Lucente L, Fuoco U, Di Donna V, Laurenza L, Macellari V, Giacomozzi C, Molinari M. Riabilitazione e valutazione dei pazienti mielolosi: l'esperienza della Fondazione S. Lucia di Roma. Roma: Istituto Superiore di Sanità; 2008. (Rapporti ISTISAN 08/39).