Egidio D'Angelo– CV

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Born in Cremona, 03-07-1960
1979. Scientific Lyceum (60/60), Cremona.
1979. fellow by Collegio Ghislieri, Pavia.
1985. Degree in Medicine with honors.
1989. Specialization in Neurology with honors, IRCCS C. Mondino, Pavia.
1989. Fellow of European Science Foundation, Prof. John Garthwaite, Liverpool (UK).
1991. Fellow of European Science Foundation, Prof. Per Andersen, Oslo (Norway).
1995. SIF prize for young physiologist (Società Italiana di Fisiologia)
1996. Visiting Professor, Università di Heidelberg.
1996. University Researcher, University of Pavia.
1998. Associate Professor, University of Parma.
2000. Visiting Professor, University of Jerusalem.
2005. Full Professor of Physiology, University of Pavia. Sector BIO-09, Faculty of Pharmacy.
2008. Director of the PhD in Physiology and Neuroscience of the University of Pavia.
2009. Director of BCC (Brain Connectivity Center) for neuroscience research, IRCCS C.Mondino, Pavia.
2010. Director elect of the PhD in Biomedical Sciences of the University of Pavia.

Past projects

1) ESF *Short-term-fellowship* grant nr. 317, 1989. Responsabile del progetto.
2) ESF *Twinning grant* nr. 9118, 1991. Responsabile del progetto.
3) ESF *European Research Grant* nr. 89, 1993. Responsabile del progetto.
4) *Telethon grant E.464, 1996.* "A patch-clamp investigation of membrane properties in animal models of hereditary cerebellar ataxia". Responsabile del progetto.
5) *Telethon grant E.702, 1998-1999.* "A patch-clamp investigation of membrane properties in animal models of hereditary cerebellar ataxia". Responsabile del progetto.
6) *CNR* – 1999-2000. "Biomatematica". In collaborazione con il Prof. Naldi.

7) *INFM- (Progetto di ricerca avanzata).* 1998-2001. "Calcium dynamics". In collaborazione con il Prof. Taglietti.
8) *MURST (cofin).* 1998-2000. " Ruolo dei trasportatori e dei canali ionici nella fisiologia e nella patologia cellulare". Responsabile Prof. Taglietti.
9) *EC Biotechnology PL97 0182, 1999-2000.* "Information transfer and computation in the cerebellar cortex: an experimental and modeling analysis". Responsabile del progetto (Associate contractor).
10) *EC Biotechnology PL97 6060, 1999-2001*. "Cerebellar network alterations in prion diseases". Responsabile del progetto (Associate contractor).
11) *CRUI-British Council* , 2000. " Gene expression in synaptic plasticity ". Responsabile del progetto.
12) *PRIN (MURST).* 2001-2002. " Ruolo di proteine coinvolte nel ciclo di eso-endocitosi delle vescicole sinaptiche nella funzione e plasticità sinaptica". Responsabile Unità di ricerca
13) *CNR.* Neuroscienze "Mechanisms of synaptic plasticity in the central nervous system: the role of NO in cerebellar synapses"
14) *EC. CEREBELLUM – European Community FP5-LIFE BIOTECHNOLOGY* 2001-2004. "Computation and plasticity in the cerebellar system: experiments, modeling and database". BIO4CT98-0182.
15) *PRIN (MIUR).* 2003-2004. " Role of proteins involved in synaptic vesicle cycle in synaptic function and plasticity". Responsabile Unità di ricerca
16) *SPIKEFORCE 2002-2005 – European Community FP5- IST* 2001-2004. "Real-time spiking networks for robotic control". IST35271. Principal Investigator -
17) *FIRB (MIUR) 2002-2005– Neuroscienze* - "Experimental and modeling investigation of the processes regulating development, learning and memory in central neuronal networks ". (Coordinatore nazionale)
18) *FIRB (MIUR) – 2002-2005* - *Nanotecnologie* - "NOMADE" – Nanomolecular devices. Responsabile di unita' - Fondo locale 36000 Euro.
19) *FIRB (MIUR). –2003-2006 Neuroscienze (Pavia)* -
20) *PRIN (MIUR). 2005- 2006* – Molecular mechanisms underlying neurotransmitter release during formation and plasticità of central synapses – Responsabile di unita' -
21) *CARIPLO. Maggio 2005-maggio 2007.* - Recupero funionale di una patologia neurodegenerativa mediante trapianto di cellule staminali neurali. Coordinatore generale, in collaborazione con DIBIT
22) *SENSOPAC 2006-2010 – EC (IP).* Sensorimotor structuring of perception and action for emerging cognition. Direzione Scientifica e PI
23) *CNISM – progetti d'innesco – 2007-2009.* Imaging multiple single-neuron activities to reconstruct network computations. Coordinatore generale, in collaborazione con LENS – Firenze

Current projects:

1) *CYBERRAT* 2008-2010 – EC (STREP). A Brain-Chip Interface for High-resolution Bi-directional Communication. PI.
2) *CEREBNET* 2010-2014 – EC-ITN Marie-Curie. "Timing and plasticity in the olivo-cerebellar system". European Coordinator.
3) *REALNET* February 2011- January 2014 – EC (STREP). " Realistic Real-time Networks: computation dynamics in the cerebellum." European Coordinator.

4) *FONDAZIONE CARIPLO* . July 2010- june 2012 – " Modelling Parkinson's disease by iPS technology: generation of human affected dopaminergic neurons and analysis of their pathological molecular and cellular bases.".
5) *Italian Ministry of Health.* Finalized Research. "Markers of cortico-cerebellar dysfunctions associated with cognitive impairment in the aging brain". 2010-2011..
6) *Italian Ministry of Health.* Current research –2009-2011

Main research lines:

The group is presently working on the following projects in the cerebellar cortex in situ and in vivo:

- Biophysical properties of glutamate ionotropic receptors (AMPA and NMDA);
- Biophysical properties of Na+ channels and axonal membrane excitability
- LTP/LTD learning rule and modulation by acetylcholine
- Oscillations and resonance in local microcircuits
- Quantal analysis of synaptic transmission and plasticity
- Determination of excitation and learning dynamics in the cerebellar network
- Animal models of pathology (prion disease, channellopaties)
- VSD imaging and MEA recordings of network activity in situ and in vivo
- fMRI and EEG analysis of the cortico-cerebellar loop in physiological and pathological conditions in humans
- Mathematical modeling of neuronal excitability, synaptic transmission, and network dynamics

Main techniques:

- Patch-clamp and calcium imaging in brain slices;
- Extracellular field recording in brain slices and in vivo;
- Voltage-sensitive dye (VSD) imaging in vitro and in vivo
- Multielectrode (MEA) recordings in situ;
- Mathematical modeling of neuronal activity;

Academic activities

- Director of the PhD in Physiology and Neuroscience, University of Pavia
- Director elect of the PhD in Biomedical Sciences, University of Pavia
- Director of the Brain Connectivity Center (BCC), IRCCS National Neurological Institute, C. Mondino Foundation, Pavia
- Teaching Physiology, Neuroscience, Neurophysiophatology, Neuronal Modeling, by the University of Pavia
- Editor in Chief of Frontiers in Cellular Neuroscience
- Associate Editor of The Journal of Physiology
- Associate Editor of Functional Neurology
- Member of the directive committee of the Italian Society for Neuroscience (SINS)
- Organizer of the Meeting "Information transfer and computation in the cerebellum: an experimental and modelling approach" (3-5 september 1999, Pavia, Collegio Ghislieri)
- Organizer of the Meeting **"**The node and the network: the fundamental contribution of Camillo Golgi to modern neuroscience". Celebrazioni Golgiane, September 2006
- Organizer of the Meeting "The Cerebellum: from neurons to higher control and cognition", July 2010.

Publications

1. Toselli M., and Taglietti V., Tanzi F., and *D'Angelo E*. (1989). Calcium-dependent chloride transient currents in the immature oocyte of the frog, *Rana esculenta*. ***Archive Italienne de Biologie*** 127:69-80

2. *D'Angelo E*., Rossi P., and Garthwaite J. (1990). Dual component NMDA receptor currents at a single central synapse. **Nature** 346:467-470

3. *D'Angelo E*., Rossi P., Tanzi F. and Taglietti V. (1992). Protein kinase C facilitation of acetylcholine release at the rat neuromuscular junction. **European Journal of Neuroscience** 4:823-831.

4. Rossi P. and *D'Angelo E.* (1992). Synaptic mechanisms in long-term potentiation. **Functional Neurology** 7:57-70.

5. *D'Angelo E.*, and Rossi P. (1992). Excitatory amino acid regulation of neuronal functions. **Functional Neurology** 7:145-161.

6. Dagani F., and *D'Angelo E.* (1992). Glutamate metabolism, release, and quantal transmission at central excitatory synapses: implications for neural plasticity. **Functional Neurology** 7:315-336.

7. *D'Angelo E.*, Rossi P., Taglietti V. (1993) Different proportions of N-methyl-D-aspartate and non-N-methyl-D-aspartate receptor currents at the mossy fibre-granule cell synapse of developing rat cerebellum. **Neuroscience** 53:121-130

8. *D'Angelo E*., Rossi P., Taglietti V. (1994) Voltage-dependent kinetics of N-methyl-D-aspartate synaptic currents in rat cerebellar granule cells. **European Journal of Neuroscience** 6: 640, 645.

9. Comincioli V., *D'Angelo E*., Funaro D., Rossi P., Torelli A. (1994) A mathematical model of potential spreading along neuron dendrites of cerebellar granule cells. **Applied Mathematic Computation** 59:73-87

10. *D'Angelo E.*, Rossi P., De Filippi G., Magistretti J., Taglietti V. (1994) The relationship between synaptogenesis and expression of voltage-dependent currents in cerebellar granule cells *in situ*. **Journal of Physiology (Paris)**, 88:197-207.

11. Rossi P., *D'Angelo E.*, Magistretti J., Toselli M., Taglietti V. (1994) Age-dependent expression of high-voltage activated calcium currents during cerebellar granule cell development *in situ*. **Pflueger Archive – European Journal of Physiology** 429:107-116.

12. *D'Angelo E.*, De Filippi G., Rossi P., Taglietti V. (1995) Synaptic excitation of individual rat cerebellar granule cells *in situ*: evidence for the role of NMDA receptors. **Journal of Physiology (London***)*, 484:397-413.

13. Tanzi F., *D'Angelo E.* (1995) Miniature endplate current kinetics at the mouse neuromuscular junction: the effect of temperature and medium viscosity**. European Journal of Neuroscience,** 7:1926-1933.

14. Rossi,P., *D'Angelo,E.*, Taglietti V. (1996) Differential long-lasting potentiation of the NMDA and non-NMDA synaptic currents induced by metabotropic and NMDA receptor coactivation in cerebellar granule cells. **European Journal of Neuroscience**, 8:1182-1189.

15. *D'Angelo,E.*, De Filippi G., Rossi,P., Taglietti V. (1997) Synaptic activation of Ca^{2+} action potentials in immature rat cerebellar granule cells in situ. **Journal of Neurophysiology,** 78: 1631-1642.

16. *D'Angelo,E.*, De Filippi G., Rossi,P., Taglietti V. (1998) Ionic mechanism of electroresponsiveness in cerebellar granule cells implicates the action of a persistent sodium current. **Journal of Neurophysiology,** 80:493-503.

17. Rossi,P., De Filippi G., Armano S, Taglietti V., *D'Angelo,E* (1998) The weaver mutation causes a loss of inward rectifier current regulation in premigratory granule cells of the mice cerebellum. **Journal of Neuroscience,** 18:3537-3547.

18. *D'Angelo,E.*, Rossi,P. (1998) Integrated regulation of signal coding and plasticity by NMDA receptors at a central synapse. **Neural plasticity,** 1: 71-79.

19. *D'Angelo E*, Rossi P, Armano S, Taglietti V (1999) Evidence for NMDA and mGlu receptor-mediated long-term potentiation of mossy fibre - granule cell transmission in the rat cerebellum. **Journal of Neurophysiology,** 81:277-287.

20. Armano S, Rossi P, Taglietti V, *D'Angelo* E (2000) Long-term potentiation of intrinsic excitability at the mossy fiber – granule cell synapse of rat cerebellum. **J Neurosci**, 15:5208-5216.

21. D'Angelo E, Nieus T, Maffei A, Armano S, Rossi P, Taglietti V, Fontana A, Naldi G (2001) Theta-frequency bursting and resonance in cerebellar granule cells: experimental evidence and modeling of a slow K^+-dependent mechanism. **J. Neurosci**. 21, 759-770.

22. Christian Hansel, David J. Linden, Egidio D'Angelo (2001) Beyond Parallel Fiber LTD: The Diversity of Synaptic and Non-Synaptic Plasticity in the Cerebellum. **Nature Neuroscience** *4:467-475*.

23. Arianna Maffei, Francesca Prestori, Paola Rossi, Vanni Taglietti, Egidio D'Angelo (2002) Presynaptic current changes at the mossy fiber – granule cell synapse of cerebellum during LTP. **J. Neurophysiology** 88:627-638

24. Paola Rossi, Elisabetta Sola, Vanni Taglietti, Thilo Borchardt, Frank Steigerwald, Kristian Utvik, Ole Petter Ottersen, Georg Kohr, Egidio D'Angelo (2002) NMDA receptors 2 (NR2) C-terminal control of NR open probability regulates synaptic treansmission and plasticity at a cerebellar synapse. **J. Neuroscience** 22: 9687-9697.

25. A. Maffei, F. Prestori, K. Shibuki, P. Rossi, V. Taglietti, and E. D'Angelo (2003) NO Enhances Presynaptic Currents During Cerebellar Mossy Fiber-Granule Cell LTP. **J Neurophysiol** 90:2478-2483

26. Gall D, Roussel C, Susa I, D'Angelo E, Rossi P, Bearzotto B, Galas D Blum MC, Schurmans S, Schiffmann S (2003) Altered neuronal excitability in cerebellar granule cells of mice lacking calretinin. **J Neuroscience** 23: 9320-9327

27. Elisabetta Sola, Francesca Prestori, Paola Rossi, Vanni Taglietti, Egidio D'Angelo (2004) Increased neurotransmitter release during Long-term Potentiation at mossy fibre-granule cell synapses in rat cerebellum. **J. Physiol**. 557.3: 843–861

28. D'Angelo E, Rossi P, Gall D, Prestori F, Nieus T, Maffei A, Sola E (2004) Long-term potentiation of synaptic transmission at the mossy fiber – granule cell relay of cerebellum. **Progr Brain Res**, 248:71-80.

29. Gall D, Roussell C, Nieus T, Cheron G, Servais L, D'Angelo E, Shiffmann S (2004) Role of calcium binding proteins in the control of cerebellar granule cell excitability: experimental and modeling studies. **Progr Brain Res**, 248:321-328.

30. Michele Bezzi, Thierry Nieus, Olivier J-M coenen, Egidio D'Angelo (2004) An integrate-and-fire model of a cerebellar granule cell. **Neurocomputing** 58-60: 593-598.

31. David Gall, Francesca Prestori, Elisabetta Sola, Anna D'Errico, Celine Roussel, Lia Forti, Paola Rossi, and Egidio D'Angelo (2005) Intracellular calcium regulation by burst discharge determines bidirectional long-term synaptic plasticity at the cerebellum input stage. **J Neuroscience**, 4813-1822.

32. D'Angelo, E. (2005) Synptic psticity at the cerebellum input stage: mechanisms and functional implications. **Arch. It. Biol** 143:143-156

33. Nieus T, Sola E, Mapelli J, Saftenku E, Rossi P, D'Angelo E (2006) Regulation of repetitive neurotransmission and firing by releaSe probability at the input stage of cerebellum: experimental observations and theoretical predictions on the role of LTP. **J Neurophysiol** 95:686-699.

34. Jacopo Magistretti, Loretta Castelli and Egidio D'Angelo (2006) Kinetic and functional analysis of transient, persistent, and resurgent sodium currents in rat cerebellar granule cells in situ. **J Physiology,** 573:83-106.

35. Paola Rossi, Lisa Mapelli, Leda Roggeri, David Gall, Alban de Kerchove d'Exaerde, Serge N. Schiffmann, Vanni Taglietti, Egidio D'Angelo (2006) Long-lasting inhibition of constitutive inward rectifier currents in cerebellar granule cells by synaptic activation of $GABA_B$ receptors. **Eur. J. Neuroscience,** 24(2):419-432

36. Lia Forti, Elisabetta Cesana, Jonathan Mapelli and Egidio D'Angelo (2006) Ionic mechanisms of autorhythmic firing in rat cerebellar Golgi cells. **J Physiology,** 574.3: 711–729

37. Anna Fassio, Daniela Merlo, Jonathan Mapelli, Andrea Menegon, Anna Corradi, Simona Zappettini, Giambattista Bonanno, Flavia Valtorta, Egidio D'Angelo & Fabio Benfenati. The synapsin domain E accelerates the exo-endocytotic cycle of synaptic vesicles in cerebellar Purkinje cells.. **J. of Cell Science,** 119: :4257-4268

38. Offenhauser N, Castelletti D, Mapelli L, Soppo BE, Regondi MC, Rossi P, D'Angelo E, Frassoni C, Amadeo A, Tocchetti A, Pozzi B, Disanza A, Guarnieri D, Betsholtz C, Scita G, Heberlein U, Di Fiore PP. (2006) Increased ethanol resistance and consumption in Eps8 knockout mice correlates with altered actin dynamics. **Cell** 127(1):213-226.

39. Jonathan Mapelli, Egidio D'Angelo. (2007) The Spatial Organization of Long-Term Synaptic Plasticity at the Input Stage of Cerebellum. **J. Neuroscience** 27(6): 1285-1296.

40. Goldfarb M, Schoorlemmer J, Williams A, Mukundanunny SD, Huang X, Giza J, Tchetchik D, Kelley K, Vega A, Matthews G, Rossi P, Ornitz D, and D'Angelo E (2007) Fibroblast growth factor homologous factors control neuronal excitability through modulation of voltage-gated sodium channels. **Neuron**,55:449-463

41. Sergio Solinas, Lia Forti, Elisabetta Cesana, Jonathan Mapelli, Erik De Schutter, Egidio D'Angelo. (2007) Computational reconstruction of pacemaking and intrinsic electroresponsiveness in cerebellar Golgi cells. **Frontiers in Cellular Neuroscience** 1-2:1-12.

42. Sergio Solinas, Lia Forti, Elisabetta Cesana, Jonathan Mapelli, Erik De Schutter, Egidio D'Angelo. (2007) Fast-reset of pacemaking and theta-frequency resonance patterns in cerebellar Golgi cells. **Frontiers in Cellular Neuroscience** 1-4:1-9 .

43. Roggeri L, Rivieccio B, Rossi P, D'Angelo E (2008) Tactile stimulation evokes long-term synaptic plasticity in the granular layer of cerebellum". **J Neuroscience**, 28:6354-6359

44. Francesca Prestori, Paola Rossi, Bertrand Bearzatto, Jeanne Lainé, Daniela Necchi, Shyam Diwakar, Serge N. Schiffmann, Herbert Axelrad, Egidio D'Angelo (2008) Altered neuron

excitability and synaptic plasticity in the cerebellar granular layer of juvenile prion protein knock-out mice with impaired motor control. **J Neuroscience**, 28:7091-2103.

45. E. D'Angelo. The critical role of Golgi cells in regulating spatio-temporal integration and plasticity at the cerebellum input stage. **Frontiers in Cellular Neuroscience, 2: 35-46.**

46. L. Sacconi, J. Mapelli, D. Gandolfi, J. Lotti, R. P. O'Connor, E. D'Angelo and F. S. Pavone. Optical recording of electrical activity in intact neuronal networks with random access second-harmonic generation microscopy. **Opt. Express** 16**,** 14910-1492

47. D'Angelo, E., DeZeeuw, C (2008). Timing and plasticity in the cerebellum: focus on the granular layer. **TINS**, 32(1):30-40.

48. R Carillo, E Ros, S Tolu, T Nieus, E D'Angelo. (2008) Event-driven simulation of cerebellar granule cells, **Biosystems** 94:10-7.

49. Bastianello S, Pezzella FR, D'Angelo E. (2008) Non-invasive imaging of brain structure and function in neural connectivity analysis. **Funct Neurol** 23:169-170

50. Shyam Diwakar, Jacopo Magistretti, Mitchell Goldfarb, Giovanni Naldi, Egidio D'Angelo. Axonal Na^+ channels ensure fast spike activation and back-propagation in cerebellar granule cells. **J Neurophysiology** 101(2):519-32

51. Mapelli L, Rossi P, Nieus T, D'Angelo E . Tonic activation of GABA-B receptors reduces release probability at inhibitory connections in the cerebellar glomerulus. **J Neurophysiology**. 101:3089-3099

52. D'Angelo E, Koekkoek SK, Lombardo P, Solinas S, Ros E, Garrido J, Schonewille M, De Zeeuw CI. (2009) Timing in the cerebellum: oscillations and resonance in the granular layer. **Neuroscience.** PMID: 19409229

53. Anna D'Errico, Francesca Prestori and Egidio D'Angelo (2009) Differential induction of bidirectional long-term changes in neurotransmitter release by frequency-coded patterns at the cerebellar input. **J Physiology**, 2009, pp 1–15.

54. Sergio Solinas, Thierry Nieus3 and Egidio D'Angelo (2010). A realistic large-scale model of the cerebellum granular layer predicts circuit spatio-temporal filtering properties. **Frontiers in Cellular Neuroscience**, April 2010, volume 4, article 12.

55. Egidio D'Angelo. (2010) on "Homeostasis of intrinsic excitability: making the point". **J Physiol** 588.6 (2010) pp 901–902

56. Jonathan Mapelli, Daniela Gandolfi, and Egidio D'Angelo. (2010) Combinatorial Responses Controlled by Synaptic Inhibition in the Cerebellum Granular Layer. **J Neurophysiol** 103: 250 – 261.

57. Arleo A, Nieus T, Bezzi M, D'Errico A, D'Angelo E, Coenen OJ.. How synaptic release probability shapes neuronal transmission: information-theoretic analysis in a cerebellar granule cell. **Neural Comput**. 2010 Aug;22(8):2031-58.

58. Boso M, Emanuele E, P F, Politi P, Barale F, D'Angelo E.Autism and genius: is there a link? The involvement of central brain loops and hypotheses for functional testing. **Funct Neurol**. 2010 Jan/Mar;25(1):15-20

59. Galliano E, Mazzarello P, D'Angelo E. Discovery and rediscoveries of Golgi cells. **J Physiol**. 2010 Jun 25.

60. Mapelli J, Gandolfi D, D'Angelo E.High-Pass Filtering and Dynamic Gain Regulation Enhance Vertical Bursts Transmission along the Mossy Fiber Pathway of Cerebellum. **Front Cell Neurosci**. 2010 May 28;4:14

61. Katarzyna Dover, Sergio Solinas, Egidio D'Angelo and Mitchell Goldfarb. Long-Term Inactivation Particle for Voltage-Gated Sodium Channels (2010). **J Physiol** October 1, 2010 588 (19) 3695-3711

62. Joanna Giza, Michael J. Urbanski, Francesca Prestori, Bhaswati Bandyopadhyay, Annie Yam, Victor Friedrich, Kevin Kelley, Egidio D'Angelo, and Mitchell Goldfarb. Behavioral and Cerebellar Transmission Deficits in Mice Lacking the Autism- Linked Gene Islet Brain-2 (2010). **The Journal of Neuroscience**, November 3, 2010 • 30(44):14805–14816

63. E. D'Angelo, P ., Mazzarello, F. Prestori, J. Mapelli, S. Solinas, P. Lombardo, E. Cesana, D. Gandolfi, L. Congi. The cerebellar network: From structure to function and dynamics (2010). **Brain Research Reviews** doi: 10.1016/j.brainresrev.2010.10.002

64. Andreescu CE, Prestori F, Brandalise F, D'Errico A, De Jeu MT, Rossi P, Botta L, Kohr G, Perin P, D'Angelo E, De Zeeuw CI.NR2A subunit of the N-methyl d-aspartate receptors are required for potentiation at the mossy fiber to granule cell synapse and vestibulo-cerebellar motor learning. **Neuroscience**. 2010 Dec 2

65. D'Angelo E (2011) Neural circuits of the cerebellum: hypothesis for function. J Integr Neurosci. 2011 Sep;10(3):317-52.

66. Diwakar S, Lombardo P, Solinas S, Naldi G, D'Angelo E. (2011) Local field potential modeling predicts dense activation in cerebellar granule cells clusters under LTP and LTD control. PLoS One. 2011;6(7):e21928. Epub 2011 Jul 19.

67. Colnaghi S, Ramat S, D'Angelo E, Cortese A, Beltrami G, Moglia A, Versino M. (2011) Theta-burst stimulation of the cerebellum interferes with internal representations of sensory-motor information related to eye movements in humans. Cerebellum. 2011 Dec;10(4):711-9.

68. Colnaghi S, Ramat S, D'Angelo E, Versino M. (2011) Transcranial magnetic stimulation over the cerebellum and eye movements: state of the art. Funct Neurol. 2010 Jul-Sep;25(3):165-71. Review.

69. D'Angelo E. (2011) Neuronal circuit function and dysfunction in the cerebellum: from neurons to integrated control. Funct Neurol. 2010 Jul-Sep;25(3):125-7.

Books

1. Editor and author of the textbook of Physiology: D'Angelo E, Peres A. - ***FISIOLOGIA: molecole, cellule, sistemi***. 2006 – EDIERMES, Milano, Italy

Book chapters

2. *D'Angelo E*. and Rossi P. (1992) Applicazione delle tecniche di patch-clamp allo studio dell'attività sinaptica in fettine cerebrali. In **Approcci molecolari allo studio dei canali ionici**, Pythagora Press, pp. 63-70.

3. *D'Angelo E*. (1997). Elementary and functional aspects of glutamate receptor-mediated signal transduction at a central synapse. **Istituto Lombardo Accademia di Scienze e Lettere (Rend. Sc.)** B 131:55-78.

4. *D'Angelo E*. (1997). Integration and storage of sensory motor information: computation in the cerebellum. In **Human and Machine perception: Sensory Fusion**, Springer Verlag, Berlin, pp 109-122.

5. *D'Angelo E.* (1999). The emerging properties of neuronal networks: focus on the cerebellum. In **Human and Machine perception: Emergence, Attention, and Creativity**, Springer Verlag, Berlin, pp. 51-57.

6. *D'Angelo E.*, Rossi P., and Taglietti V. (1999). Eccitamento e memoria nelle sinapsi centrali. **Le Scienze**, 374:72-77.

7. Egidio D'Angelo1,2, Thierry Nieus1, Michele Bezzi3,Angelo Arleo3, and Olivier J.-M.D. Coenen J. (2005) **Modeling Synaptic Transmission and Quantifying Information Transfer in the Granular Layer of the Cerebellum. In** Cabestany, A. Prieto, and D.F. Sandoval (Eds.): IWANN 2005, LNCS 3512, pp. 107–114, Springer-Verlag, Berlin Heidelberg.