

# Curriculum vitae

## Guy Chéron

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**Date and place of birth:** July 1, 1955, Hal (Belgium)

**Nationality:** Belgian

**Marital status:** Married, one child

### Professional Degrees

Master in Motor Sciences, 1978, Université Libre de Bruxelles

PhD in Neurophysiology, 1980, Université Libre de Bruxelles

Aggregation Thesis in Neuroscience, 2003, Université Libre de Bruxelles

### Positions

- 1993-present Full Professor (PO) at the Université Libre de Bruxelles (Belgium) and Professor at the University of Mons (Belgium)  
Director of the Laboratory of Neurophysiology and Movement Biomechanics of the Faculty of Motor Sciences, Université Libre de Bruxelles (ULB)  
Director of the Laboratory of Electrophysiology of the University of Mons  
Professor in the Master in Neuroscience, Universidad Pablo De Olavide, Sevilla, Spain
- 1983-1993 Assistant-Professor at the Laboratory of Neuroscience (Prof. E. Godaux) Faculty of Medicine University of Mons-Hainaut (Belgium)
- 1983-1985 Visiting professor at the Department of Engineering (Prof. L. Stark) of the California University, Berkeley and at the Laboratory of Neurophysiology of the Medical Research Institut (Prof. E.Keller), San Francisco University.
- 1979-1983 Research assistant at the Faculty of Medicine and scientist at the Brain Research Unit of the ULB (Prof. J.E Desmedt)

### Academic responsibilities

President of the Institute of Physical Education and Kinesiology of the ULB (2001-2005)  
Counsellor of the Rector of the ULB for Lifelong Learning and Sports (2006-2010)  
Counsellor of the President and of the Rector of the ULB for Health Pole and Sports Activity and for High School-University relationships (2011-present)

## **Scientific responsibilities**

Principal investigator of NEUROCOG (ESA) space experiment (2002-2006) and of NEUROSPAT (ESA-NASA) space experiment (2009-2013). TRAMA project (2007-2010) (Alpha program of EC), international cooperation for motion analysis in cerebral palsies. Scientific responsibility in BIOFACT project (FEDER 2009-2013), MINDWALKER project (FP7 2010-2013), BIOWIN (NeuroATT) (2013-2017) and EasyMOVE (2014-2016).

## **Thesis supervisor**

- Dan Bernard (2002) (PhD thesis in medical sciences): Contribution to the study of organisation and control of movement in cerebral palsy.
- Bengoetxea Ana (2004)(PhD thesis in motor sciences, Kinesiology & Rehabilitation) : Contribution à l'étude de la coordination motrice dans les mouvements complexes.
- Leroy Axel (2006) (PhD thesis in motor sciences) : Contribution à l'étude des oscillations cérébrales liées aux processus de navigation en apesanteur.
- Servais Laurent (2007)(PhD thesis in medical sciences) :Contribution à l'étude des oscillations cérébelleuses rapides.
- Cebolla Ana-Maria (2010)(PhD thesis in motor sciences, Kinesiology & Rehabilitation): The N30 component of the somatosensory evoked potentials : a new tool for EEG dynamic exploration of human brain in space.

## **Consultant for the following international organisms:**

Fonds National Suisse de la Recherche Scientifique; Research Council for Earth and Life Sciences (The Netherlands). Research Council of Bourgogne (France.); National Science Foundation (USA) ; Institut National de la Santé et de la Recherche Médicale (France); Fonds Nature et Technologie (Québec) ; Medical Research Council (UK); European Science Foundation, Space science (EC); Wellcome Trust, Neuroscience and Mental Health, (UK);Agence de l'Evaluation de la Recherche Scientifique (AERS); Fonds National de la Recherche Scientifique (FNRS)(Belgium). Royal Society Newton International Fellowships (UK). Institut Universitaire de France. HRI IEEE International Conference on Human-Robot interaction. Danish Agency for Science Technology and Innovation.

## **Expert for the following international journals:**

Electroencephalography and Clinical Neurophysiology. IEEE Transactions on Biomedical Engineering. Brain Research Bulletin. Progress in Brain Research. Journal of Neurophysiology. Journal of Neuroscience. Clinical Neurophysiology /Neurophysiologie Clinique. Brain. Brain Research. Biological Cybernetics. Neuroscience Letters. IEEE Neural Network. Journal of Physiology (Lond). Medical & Biological Engineering & Computing. Brain and Behavioural Research. Neuroscience. Journal of Biomechanics. International Journal Artificial Intelligence in Medicine. Experimental Brain Research. Biological Psychology. BioEssay. European Journal of Neuroscience. Journal of Neuroscience Methods. Medical Science Monitor. IEEE Transactions on Neural Systems & Rehabilitation Engineering. NeuroImage. BMC Neuroscience. Journal of Cellular Physiology. Developmental Science. PlosOne. Cerebellum. European Journal of Neurology. Developmental Medicine & Child Neurology. Frontiers in Neuroanatomy. Cerebral Cortex. Frontiers in Neuroanatomy. Cerebellum. Currents Cells. The Journal of Injury, Function and Rehabilitation (PM&R).Anatomical Record. Motor Control. Journal of Neural Engineering. Journal of the Royal Society Interface. Nature Communication. Journal of Sleep Research. European Journal of Sport Sciences.

## **Editorial Board**

Member of the Editorial Board of the Scientific World JOURNAL.

Member of the Editorial Board of the Open Journal of Neuroscience  
Member of the Editorial Board of the World Journal of Clinical Cases (WJCC)  
Member of the Editorial Board of the Physiology Journal.  
Guest editor of Frontiers in Neuroscience (Topics Neurology).

**Member of the following scientific societies :**

Société Belge de Physiologie et de Pharmacologie Fondamentales et Cliniques. Société Belge d'Electromyographie et de Neurophysiologie Clinique. Société Médicale Belge d'Education Physique et des Sports. Société de Biomécanique de Langue Française. European Neuroscience Association. International Society for Myochemistry. Society for Neuroscience. American Association for the Advancement of Science. New York Academy of Sciences. Belgian Society for Neuroscience.

**Awards:**

Prix Paul Chevalier, Mons, 1974;  
Prix de Biomécanique, Paris, 1987  
Prix MAAF Santé, Montréal, 2000.

**Publications in International Journals**

1. HAINAUT, K., DUCHATEAU, J. et CHERON, G. (1983). Contribution à l'étude physiologique de l'adaptation du muscle à l'effort. *Journal de Médecine du Sport* 57: 159-162.
2. CHERON, G. et HAINAUT, K. (1980). Les effets du vieillissement sur le système sensori-moteur chez l'homme normal. *Journal Français de Biophysique et de Médecine Nucléaire* 4(3): 149-154.
3. CHERON, G. et DESMEDT, J.E. (1981). L'évaluation électrophysiologique du vieillissement nerveux. *La Revue de Gériatrie*, Tome 6, n° 5: 221-225.
4. DESMEDT, J.E. and CHERON, G. (1980). Somatosensory evoked potentials to finger stimulation in healthy octogenarians and in young adults: wave forms, scalp topography and transit times of parietal and frontal components. *Electroencephalography and Clinical Neurophysiology* 50: 404-425.
5. DESMEDT, J.E. and CHERON, G. (1980). Central somatosensory conduction in man: neural generators and interpeak latencies of the far-field components recorded from neck and right or left scalp and earlobes. *Electroencephalography and Clinical Neurophysiology* 50: 382-403.
6. CHERON, G. et DESMEDT, J.E. (1980). Voies somesthésiques périphérique et centrale et potentiels évoqués cérébraux au cours du vieillissement. *Revue d'Electroencéphalographie et de Neurophysiologie Clinique (Paris)* 10, 2: 146-152.
7. DESMEDT, J.E. and CHERON, G. (1981). Prevertebral (oesophageal) recording of subcortical somatosensory evoked potentials in man : the spinal P13 component and the dual nature of the spinal generators. *Electroencephalography and Clinical Neurophysiology* 52: 257-275.
8. DESMEDT, J.E. and CHERON, G. (1981). Non cephalic reference recording of early somatosensory potentials to finger stimulation in adult or aging normal man : differentiation of widespread N18 and contralateral N20 from the prerolandic P22 and N30 components. *Electroencephalography and Clinical Neurophysiology* 52: 553-570.

9. DESMEDT, J.E. and CHERON, G. (1982). Somatosensory evoked potentials in man : subcortical and cortical components and their neural basis. *Annals of the New York Academy of Sciences* 388: 388-411.
10. DESMEDT, J.E. and CHERON, G. (1983). Spinal and far-field components of human somatosensory evoked potentials to posterior tibial nerve stimulation analysed with oesophageal derivations and non-cephalic reference recording. *Electroencephalography and Clinical Neurophysiology* 56:635-651.
11. BORENSTEIN, S., CHERON, G., TOSCANO-AGUILAR, M. and LUDWIG, M. (1987). Comparative study of amplitude, surface and duration of pre- and post-impulsive waves of CNV in a group of 40 schizophrenic and schizoaffective patients with respect to normal subjects. *Clinical Neurophysiology* 67: 78-88.
12. HANNAFORD, B., CHERON, G. and STARK, L. (1985). The effects of applied vibration on the tri-phasic EMG pattern in Neurologically ballistic head movements. *Experimental Neurology* 88: 447-460.
13. CHERON, G. (1986). Les aspects neurophysiologiques du stress. *Archives Belges de Médecine Sociale, Hygiène, Médecine du travail et Médecine légale* 44: 81-154.
14. CHERON, G., GODAUX, E., LAUNE, J.-M. and VANDERKELEN, B. (1986). Lesions in the cat prepositus complex : effects on the vestibulo-ocular reflex and saccades. *Journal of Physiology (Lond)* 372: 75-94.
15. CHERON, G., GODAUX, E. and VANDERKELEN, G. (1986). Lesions in the cat prepositus complex : effects on the optokinetic system. *Journal of Physiology (Lond)* 372: 95-111.
16. CHERON, G. and GODAUX, E. (1986). Self-terminated fast movement of the forearm in man : amplitude dependence of the triple burst pattern. *Journal de Biophysique et de Biomécanique* 10, 3: 109-117.
17. CHERON, G. and GODAUX, E. (1986). Long latency reflex regulation in human ballistic movement. *Human Movement Science* 5: 217-233.
18. CHERON, G. and GODAUX, E. (1987). Disabling of the oculomotor neural integrator by microinjections of kainic acid in the prepositus vestibular nuclear complex of the cat. *Journal of Physiology (Lond)* 394: 267-290.
19. BALAND, J.F., GODAUX, E. and CHERON, G. (1987). Algorithms for the analysis of the nystagmus eye movements induced by sinusoidal head rotations. *IEEE Transactions on Biomedical Engineering* Vol BME-34, n° 10, 811-816.
20. CHERON, G. and BORENSTEIN, S. (1987). Specific gating of the early somatosensory evoked potentials during active movement. *Electroencephalography and Clinical Neurophysiology* 67: 537-548.
21. BORENSTEIN, S., CHERON, G., TOSCANO, M. et LUDWIG, M. (1988). Etude comparative de l'amplitude, de la surface et de la durée des ondes pré et post impératives de la V.C.N. chez un groupe de 40 schizophrènes par rapport à des sujets normaux. *Revue d'Electroencéphalographie et de Neurophysiologie clinique (Paris)* 18: 129-140.
22. GODAUX, E., CHERON, G. and GRAVIS, F. (1989). Eye movements evoked by microstimulations in the brainstem of the alert cat. *Experimental Brain Research*. 77: 94-102.
23. GODAUX, E., CHERON, G. and METTENS, P. (1990). Ketamine induces failure of the oculomotor neural integrator in the cat. *Neuroscience Letters* 116: 162-167.
24. CHERON, G. (1990). The effects of incisions in the brainstem network on the adaptive plasticity of the vestibulo-ocular reflex of the cat. *Journal of Vestibular Research : Equilibrium and orientation* 1:223-239.

25. METTENS, P., GODAUX, E. and CHERON, G. (1991). Effects of ketamine on ocular movements of the cat. *Journal of Vestibular Research : Equilibrium and orientation* 1: 325-338.
26. CHERON, G. and BORENSTEIN, S. (1991). Gating of the early components of the frontal and parietal somatosensory evoked potentials in different sensory-motor interference modalities. *Electroencephalography and Clinical Neurophysiology* 80: 522-530.
27. CHERON, G., METTENS, P. and GODAUX, E. (1992). Gaze holding defect induced by injections of ketamine in the cat brainstem. *Neuroreport*, 3 (1): 97-100.
28. CHERON, G. and BORENSTEIN, S. (1992). Mental movement simulation affects the N30 frontal component of the somatosensory evoked potential. *Electroencephalography and Clinical Neurophysiology* 84: 288-292.
29. DRAYE, J.P., CHERON, G., LIBERT, G. and GODAUX, E. (1993). Simulation of the neural integrator of the oculomotor system: a biologically plausible model. *Proceedings IVth International Symposium on Computer Simulation in Biomechanics* (Paris), pp 2-5.
30. GODAUX, E. and CHERON, G. (1993). Testing of the common neural integrator hypothesis at the level of the individual abducens motoneurons in the alert cat. *Journal of Physiology*, (Lond) 469: 549-570.
31. GODAUX, E. and CHERON, G. (1993). The role of the vestibular commissure in the gaze holding of the cat. *Neurosciences Letters*, 153: 149-152.
32. GODAUX, E., METTENS, P. and CHERON, G. (1993). Differential effect of kainic acid microinjections into the prepositus and the medial vestibular nuclei of the alert cat. *Journal of Physiology*, (Lond) 472: 459-482.
33. METTENS, P., GODAUX, E., CHERON, G. and GALIANA, H.L. (1994). Effect of muscimol microinjections into the prepositus hypoglossi and the medial vestibular nuclei on cat eye movements. *Journal of Neurophysiology*, 72:785-802
34. CHERON, G., PIETTE, T., THIRIAUX, A., JACQUY, J. and GODAUX, E. (1994). Somatosensory evoked potentials at rest and during movement in Parkinson's disease: Evidence for a specific apomorphine effect on the frontal N30 wave. *Electroencephalography and clinical Neurophysiology*, 92: 491-501.
35. METTENS, P., GODAUX, E. and CHERON, G. (1994). NMDA receptors are involved in temporal integration in the oculomotor system of the cat. *Neuroreport* 5: 1333-1336.
36. METTENS, P., CHERON, G. and GODAUX, E. (1994). Involvement of the N-methyl-D-aspartate receptors of the vestibular nucleus in the gaze holding system. *Neuroscience Letters* 174: 209-212.
37. METTENS, P., CHERON, G. and GODAUX, E. (1994). Role of the vestibular commissure in the gaze holding of the cat: a pharmacological evaluation. *Neuroreport* 5: 1421-1424.
38. DRAYE, J.P., PAVISIC, D., CHERON, G. and LIBERT, G. (1995) Adaptive time constant improved the prediction capacity of recurrent neural network. *Neural Processing Letters*, 2, n°3: 1-5.
39. DRAYE, J.P., CHERON, G., BOURGEOIS, M., PAVISIC, D. and LIBERT, G. (1995) Identification of the human arm kinetics using dynamic recurrent neural networks. *Proceedings of the third European Symposium on Artificial Neural Networks* (ESANN'95), pp 33-38.
40. DRAYE, J.P., PAVISIC, D., CHERON, G. and LIBERT, G. (1995) Analysis of the influence of adaptive time constants on the dynamical behaviour of recurrent

- neural networks. *Proceedings of the International Conference on Artificial Neural Networks (ICANN'95)* II, 455-460.
41. CHERON, G. SAUSSEZ, S., GERRITS, N. and GODAUX, E. (1995). Existence of horizontal eye-movement related burst-tonic neurones in the nucleus incertus projecting to the flocculus in the alert cat. *Journal of Neurophysiology*. 74: 1367-1372.
  42. CHERON, G., ESCUDERO, M. and GODAUX, E. (1996). Discharge properties of the brain stem neurons projecting to the flocculus in the alert cat: I. Medial vestibular nucleus. *Journal of Neurophysiology*. 76: 1759-1774.
  43. ESCUDERO, M., CHERON, G. and GODAUX, E. (1996). Discharge properties of the brain stem neurons projecting to the flocculus in the alert cat: II. Prepositus hypoglossi nucleus. *Journal of Neurophysiology*. 76: 1775-1785
  44. GODAUX, E. and CHERON, G. (1996). The hypothesis of the uniqueness of the oculomotor neural integrator: direct experimental evidence in the cat. *Journal of Physiology (Lond)* 492.2: 517-527
  45. CHERON, G., DRAYE, J.P., BOURGEOIS, M. and LIBERT, G. (1996). A dynamic neural network identification of electromyography and arm trajectory relationship during complex movements. *IEEE Transactions on Biomedical Engineering* 43.5: 552-558
  46. DRAYE, J.P., PAVISIC, D., CHERON, G. and LIBERT, G. (1996). Dynamic recurrent neural networks: a dynamical analysis. *IEEE Transactions on Systems Man, and Cybernetics* 26. 5: 692-706
  47. CHERON, G., DUFIEF, M.P., GERRITS, N. and GODAUX, E. (1996). Properties of nucleus incertus neurons of the cat projecting to the cerebellar flocculus. *Annals of the New York Academy of Sciences* 781: 589-593
  48. DRAYE, J.P., CHERON, G., LIBERT, G. and GODAUX, E. (1996). Improvements of the neural network simulation of the vestibulo-oculomotor integrator. *Annals of the New York Academy of Sciences* 781:594-597.
  49. DRAYE, J.P., PAVISIC, D., CHERON, G., LIBERT, G. (1996). Adaptive time constants improve the dynamic features of recurrent neural networks. *Proceedings of the 4th European Symposium on Artificial Neural Networks (ESANN'96)* pp 31-36
  50. PAVISIC, D., DRAYE, J.P., TERAN, R., CALDERON, G., CHERON, G. and LIBERT, G. (1996) Negative initial weights improve learning in recurrent neural networks. *Proceedings of the 4th European Symposium on Artificial Neural Networks (ESANN'96)* pp 43-48.
  51. DRAYE, J.P. PAVISIC, D., CHERON, G. and LIBERT, G. (1997). Evidence of efficiency of recurrent neural networks with ARMA-like units. *Proceedings of the 4th European Symposium on Artificial Neural Networks (ESANN'97)* pp 327-332.
  52. DRAYE, J.P., CHERON, G. LIBERT, G. and GODAUX, E. (1997) Emergence of clusters in the hidden layer of a dynamic recurrent neural network. *Biological Cybernetics* 76: 365-374.
  53. DRAYE, J.P., PAVISIC, D., CALDERON, G. ,TERAN, R., CHERON, G. and LIBERT, G. (1997) Inhibitory initial weights improve the speed and quality of recurrent neural network learning. *Neurocomputing* 16, 3: 207-224.
  54. DRAYE, J.P., CHERON, G., BOURGEOIS, M., PAVISIC, D., LIBERT, G. (1997) Improved identification of complex temporal systems with dynamic recurrent neural networks. Application to the identification of electromyography and human

- arm trajectory relationship. *Journal of Intelligent Systems Special Issue on Neural Networks Applications* 7: 83-102.
55. CHERON, G., BENGOETXEA, A., POZZO, T., BOURGEOIS, M. and DRAYE, J.P. (1997). Demonstration of a pre-programmed deactivation of the hamstring muscles for triggering rapid change of posture in human. *Electroencephalography and clinical Neurophysiology, Motor Control* 105: 58-71.
  56. PAVISIC, D., DRAYE, J.P., TERAN, R., CALDERON, G., CHERON, G. and LIBERT, G. (1996). Negative initial weights improve learning in recurrent neural networks. *Proceedings of the 4th European Symposium on Artificial Neural Networks (ESANN'96)* pp 43-48.
  57. POZZO, T., McINTYRE, J. and CHERON, G. (1998) Hand trajectory formation during a whole body reaching movement. *Neuroscience Letters* 140 : 159-162
  58. DE GROOTE, A., WANTIER, M., CHERON, G., ESTENNE, M. and PAIVA, M. (1997) Chest wall motion during tidal breathing. *Journal of Applied Physiology* (83)5 : 1531-1537
  59. DRAYE, J.P., CHERON, G., PAVISIC, D. and LIBERT, G. (1997) Improved identification of the human shoulder kinematics with muscle biological filters. *Lecture Note Series in Computer Science* 1211: 417-428.
  60. CHERON, G. DAN, B., DRAYE, J.P., BENGOETXEA, A. (1996) Tridimensional analysis of complex drawing movements: effect of initial direction on kinematics and electromyographic signals. *Proceedings of the 3D Symposium* pp 50-56.
  61. DRAYE, J.P., PAVISIC, D., CHERON, G. and LIBERT, G. (1997) Improved signal processing with dynamic recurrent neural models using ARMA-like units. *Proceedings of the IEEE International Symposium on Circuits and Systems I*, 525-528.
  62. CHERON, G. DUFIEF, M.P., GERRITS, N., DRAYE, J.P. and GODAUX, E. (1997) Behavioural analysis of Purkinje cells output of the horizontal zone of the cat flocculus. *Progress in Brain Research*, 114: 367-376.
  63. CHERON G., BENGOETXEA, A. DAN, B. and DRAYE, J-P. (1998) Multi-joint coordination strategies for straightening up movement in humans. *Neuroscience Letters* 242: 135-138.
  64. SCHIFFMANN, S.N. , CHERON, G. , LOHOF, A. , D'ALCANTRA, P., MEYER, M., PARMENTIER, M. and SCHURMANS S. (1999) Impaired motor coordination and Purkinje cells excitability in mice lacking calretinin. *Proceedings of National Academy of Sciences* 96 :5257-5262
  65. STAPLEY, P. POZZO, T., CHERON, G. and GRISHIN, A (1999). Does the coordination between posture and movement during human whole-body reaching ensure center of mass stabilization ? *Experimental Brain Research* 129:134-146.
  66. CHERON, G., DRAYE, J.P., BENGOETXEA, A., DAN, B. (1999) Kinematics invariance in multi-directional complex movement in free space: effect of changing initial direction. *Clinical Neurophysiology, Motor Control* 110 : 757-764.
  67. CHERON, G., SCHURMANS, S., LOHOF, A., d'ALCANTARA, P , MEYER, M., DRAYE, J.P., PARMENTIER, M. and SCHIFFMANN, S. (2000) Firing behaviour of Purkinje cells and sensori-motor coordination in calretinin knockout mice. *Progress in Brain Research* 124 :299-308
  68. DAN, B., BOUILLOT, E., BENGOETXEA, A., NOEL, P., KAHN, A. and CHERON, G. (1999). Adaptative motor stability for squatting in spastic diplegia. *European Journal of Paediatrics*, 3 : 159-165
  69. DAN, B. and CHERON, G. (2000) Intrathecal baclofen normalizes motor strategy for squatting in familial spastic paraplegia. *Clinical Neurophysiology*, 30: 1-6

This paper was highlighted in Clinical Neurophysiology.

70. CHERON, G. (1999) Is the frontal N30 component of the somatosensory evoked potentials a reliable physiological index of the dopaminergic motor pathways ? *Clinical Neurophysiology, Evoked Potentials*, 110: 1698-1699.
71. DAN, B., BOUILLOT, E., BENGOTXEA, A., NOEL, P. and CHERON, G. (2000). Head stability during whole body movements in spastic diplegia. *Brain and Development* 14;22 (2): 99-101.
72. DAN, B., BOUILLOT, E., BENGOTXEA, A. and CHERON, G. (2000) Effect of intrathecal baclofen on gait control in hereditary spastic paraparesis. *Neuroscience Letters* 280: 175-178.
73. DAN, B. and CHERON, G. (2000) Linking motor impairment to function. *Developmental Medicine & Child Neurology, (Letter to editor)* 42 : 850
74. DAN, B., CHRISTIEANS, F. and CHERON, G. (2000) Automatic-voluntary dissociation in Angelman Syndrome. *Brain and Development (Letter to editor)* 22: 139.
75. CHERON, G., DAN, B. and BORENSTEIN, S. (2000) Sensory and motor interfering influences upon somatosensory evoked potentials. (invited review). *The Journal of Clinical Neurophysiology* 17 (3): 280-294
76. CHERON, G., BOUILLOT, E., DAN, B., BENGOTXEA, A., DRAYE, J.P. and LACQUANITI F. (2001) Development of a kinematic coordination pattern in toddler locomotion: planar covariation. *Experimental Brain Research* 137(3-4):455-466
77. CHERON, G., BENGOTXEA, A., BOUILLOT, E., LACQUANITI F. and DAN, B. (2001) Early emergence of temporal coordination of lower limb segments elevation angles in human locomotion. *Neuroscience Letters* 308(2):123-127.
78. DAN, B., BOUILLOT, E. BENGOTXEA, A., BOYD, S. and CHERON, G. (2001) Distinct multi-joint control strategies in spastic diplegia associated with prematurity or Angelman syndrome. *Clinical Neurophysiology* 112(9):1618-1625.
79. CHERON, G., DAN B. (2001) High frequency evoked response to somatosensory stimulation. *Neuroreport (Letter to the Editor)* 13;12(8):A51-52
80. DRAYE, J.P., WINTERS, J.M., CHERON, G. (2002) Self-selected modular recurrent neural networks with postural and inertial subnetworks applied to complex movements. *Biological Cybernetics* 87(1):27-39.
81. MEWASINGH, L.D., DEMIL, A., CHRISTIAENS, F.J.C., MISSA, A.M., CHERON, G., DAN, B. (2002) Motor strategies in standing up in leukomalacic spastic diplegia. *Brain and Development*,24(5):291-295.
82. CHERON, G. LEURS, F., BENGOTXEA, A., LOONIS, A., DRAYE, J.P. and DAN, B. (2003) A dynamic recurrent neural network for multi-muscles electromyographic mapping to elevation angles of the lower limb in human locomotion. *Journal of Neuroscience Methods* 129(2):95-104.
83. DAN, B. et CHERON, G. (2003) Le syndrome d'Angelman: un modèle clinique et génétique. (invited review) *Revue Neurologique* 159(5):499-510.
84. DAN, B.; SERVAIS, L.; WAGSTAFF, J. and CHERON, G. (2003) Neurophysiological behaviour of Purkinje cells in mice with inactivated maternally inherited *ube3a* gene. *European. Journal of Paediatric Neurology*. 7, 295-296.
85. DAN, B., BOUILLOT, E., DEVALCK, C., CHRISTOPHE, C. and CHERON, G. (2004) Gait control in spinal palsies. *Brain and Development* 26 (7):463-468.



86. CHERON, G., GALL, D., SERVAIS, L., DAN, B., MAEX, R. and SCHIFFMANN, S. (2004) High-frequency oscillations in cerebellar cortex induced by inactivation of calcium binding protein genes. *Journal of Neuroscience* 24: 434-441.
87. DAN, B. and CHERON, G. (2004) Reconstructing cerebral palsy. *Journal of Pediatric Neurology* 2: 57-64.
88. SERVAIS, L., BEARZATTO, B., DAN, B., SCHIFFMANN, S. and CHERON, G. (2004) Spontaneous simple spike firing predicts short term plasticity of complex spike waveform in cerebellar Purkinje cell. *Neuroscience Letters*, 367(2):171-176.
89. DAN, B. and CHERON, G. (2004) Postural rhythmic muscle bursting activity in Angelman syndrome. *Brain and Development*, 26(6):389-393
90. GALL, D., ROUSSEL, C., NIEUS, T., CHERON, G., SERVAIS, L., D'ANGELO, E. and SCHIFFMAN, S. (2004) Role of calcium-binding proteins in the control of cerebellar granule cells neuronal excitability : experimental and modelling studies. *Progress in Brain Research*, 148 (24): 321-328.
91. MEWASINGH, LD., SEKHARA, T; PELC, K., CHERON, G. and DAN, B. (2004). Motor strategies in standing up in hemiplegia. *Pediatric Neurology* 30(4):257-261.
92. DAN, B., BOYD, S.G. and CHERON, G. (2004) From genomic imprinting to development physiology: identifying stepping stones. *Current Pharmacogenomics*, 2 (3):233-242
93. CHERON, G., GALL, D., SERVAIS, L., DAN, B., BEARZATTO, B. and SCHIFFMANN, S. (2004) Fast oscillation in the cerebellar cortex of calcium binding protein-deficient mice: a new sensorimotor arrest rhythm. *Progress in Brain Research*, 148 (14): 167-180.
94. DAN, B., SERVAIS, L., BOYD, SG., WAGSTAFF, J. and CHERON, G (2004) From electrophysiology toward chromatin: a bottom-up approach to Angelman syndrome. *Annals of the New York Academy of Sciences* 1030: 599-611;
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**Citation Index** : For all of my publications the CI is **2,941** times from 1980 to 2013

#### **Five most important publications**

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