Biographical sketch

Bezard, Erwan

Birthdate : 17th of July 1970

A. Education

INSTITUTION AND LOCATION	DEGREE	YEAR(s)
University of Bordeaux 2 (Bordeaux, France)	DEA	1995
University of Bordeaux 2 (Bordeaux, France)	PhD	1998
University of Manchester (Manchester, UK)	Post-Doc	1999-2001
University of Bordeaux 2 (Bordeaux, France)	Habilitation	2003

B. Current Position

From 2010 Director of the "Institut des Maladies Neurodégénératives", INSERM Research Director (DR2), CNRS UMR, Université de Bordeaux 2, France,

Since 2004 Co-director of the "French Bank of Cells and Tissus from Primates" (J.L. Nahon, Nice)

Since 2007 Leader of the reseach group: Pathophysiology of parkinsonian syndromes (n=26)
http://www.inb.u-bordeaux2.fr/dev/FR/equipe.php?equipe=Physiopathologie%20des%20syndromes%20parkinsoniens

C. Other occupations

Since 2000 Non-executive director, Plénitudes Sarl (Consulting in management), France.

Since 2003 Chief Scientific Officer, Motac Neuroscience (Contract research organization), UK.

Since 2004 Non-executive director, Motac Cognition (Contract research organization), USA/UK.

Since 2006 Visiting Professor, China Academy of Medical Sciences, Beijing, China.

Since 2007 Collegium of Professors, Neurosciences PhD program, Tor Vergata University, Roma, Italy.

Since 2007 Member of executive committee, Institut Federatif de Neurosciences, Bordeaux, france

D. Consulting / Scientific and Editorial Boards

Since 2001 Drug Development Expert for Movement Disorders for several drug companies.

Since 2003 Member of grant review committees for the Michael J. Fox Foundation (USA)

Since 2005 Member of scientific advisory board (executive committee 2007-2009) at the Michael J. Fox Foundation (USA)

Since 2009 Member of scientific advisory board at France Parkinson (France)

Since 2009 Member of the FENS Communication committee

Since 2010 Member of the scientific advisory board at Association Française du Syndrome des Jambes sans Repos (France)

Since 2004 Member of Synapse Editorial Board

Since 2007 Member of Targeted Proteins database (Dopamine receptors section) Editorial Board

Since 2008 Member of Neurological Research Editorial Board

Since 2008 Member of Current Neuropharmacology Editorial Board

Since 2006 *Associate Editor* (+ Member Editorial Board since 2004) of Neurobiology of Disease

2006 *Editor* of the book "Recent Breakthroughs in basal Ganglia Research", Nova Pub., USA

Since 2010 *Science Associate Editor* of Movement Disorders (Editorial board member since 2008)

Since 2010 *Associate Editor* of Journal of Neural Transmission

2010 *Guest Editor* for Neuroscience

Since 2010 *Review Editor* of Frontiers in Neuroscience

2011 *Editor* of the book "Pathophysiology, Pharmacology, and Biochemistry of Dyskinesia", International Review of Neurobiology series, Elsevier, USA

2004 Organiser of symposium entitled « New therapeutic approaches to Parkinson's Disease » at the 8th Triennial International Basal Ganglia Society Meeting, Crieff, Scotland.
2004-2010 Councillor of the International Basal Ganglia Society
2006-2007 Scientific International Committee of "Abnormal plasticity in basal ganglia : from dyskinesia to deviant behaviour" meeting, Quebec, Canada.
2007 Organiser of symposium entitled « Understanding mechanisms of L-dopa induced side-effects » at the 9th Triennial International Basal Ganglia Society Meeting, Netherlands.
2009 Organiser of symposium entitled « Striatal signaling in hyperdopaminergic related disorders » at the 9ième Colloque de la Société des Neurosciences, Bordeaux.
2009 Organiser of symposium entitled « Valorisation in Neurosciences » at the 9ième Colloque de la Société des Neurosciences, Bordeaux.
2009 Member of Local Organizing Committee of the 13th International Congress of Parkinson's Disease and Movement Disorders, Paris
2010 Co-organizer of the International Symposium on Future Treatment Avenues in Parkinson's disease (and Related Disorders), Bordeaux
2011-2013 Congress Scientific Program Committee, Movement Disorders Society, for establishing 2012 (Dublin) and 2013 (Sydney) International Congress scientific programs.

E. Past Positions

1994-1995 Service d'Explorations Fonctionnelles du Système Nerveux, CHU de Bordeaux
1995-1998 Laboratoire de Neurophysiologie, CNRS UMR 5543, Université de Bordeaux 2
1999-2000 Visiting Research Fellow, University of Manchester
2001-2005 INSERM researcher at CNRS UMR 5543, Bordeaux, France
2005-2009 INSERM researcher,Group leader at CNRS UMR5227, Bordeaux, France;
2007-2009 Research Delegate, Agence Evaluation de la Recherche et de l'Enseignement Supérieur

F. Professional Memberships

1996-present Member, Societe des Neurosciences (France)
1996-present Member, Federation of European Neuroscience Societies
1996-present Member, Society For Neuroscience (USA)
1999-present Member, Club des Ganglions de la Base (France)
2002-present Member, Movement Disorders Society (USA).
2004-present Member, International Basal Ganglia Society
2005-present Member of the DopaNet network

G. Awards

2010 Paul Harris Fellow of the Rotary International
2010 J.W. Langston Award of the Michael J. Fox Foundation (USA)
2011-2014 INSERM Award for Scientific Excellence

H. Key bibliometric numbers (Isi Web of Knowledge - as of 19 November 2010)
Top 1% of most cited neuroscientists
Publications: 124
Total number of citations: 3208
Mean citation per publication: 25.87
H factor: 31

I. Selected peer-reviewed publications (in chronological order).

S. Fasano*, E. Bezard*, A. D'Antoni, M. Indrigo, V. Francardo, L. Qin, S. Dovero, M. Cerovic, M.A. Cenci and R. Brambilla. Inhibition of Ras-GRF1 signaling in the striatum reverts motor symptoms associated with L-DOPA-induced dyskinesia. Proceedings of National Academy of Sciences USA 2010 (in press) (Co-first author)

M. R. Ahmed, A. Berthet, E. Bychkov, G. Porras, Q. Li, B.H. Bioulac, Y.T. Carl, B. Bloch, S. Kook, I. Aubert, S. Dovero, E. Doudnikoff, V.V. Gurevich, E.V. Gurevich and E. Bezard. Lentiviral overexpression of GRK6 alleviates L-DOPA-induced dyskinesia in experimental Parkinson's disease. Science Translational Medicine 2010, 2 (28) 28ra28 (Highlighted in *Cell*, 2010, 141:737).

D. Rylander, M. Parent M., S. Dovero, S. O'Sullivan, A.J. Lees, E. Bezard, L. Descarries, M.A. Cenci. Maladaptive plasticity of serotonin axon terminals in L-DOPA-induced dyskinesia. Annals of Neurology 2010, 68: 619-628

D. Rylander, H. Iderberg, Q. Li, A. Dekundy, J. Zhang, H. Li, R. Baishen, W. Danysz, E. Bezard# and M.A. Cenci#. Fenobam, a metabotropic glutamate receptor 5 antagonist under clinical development, improves L-DOPA-induced dyskinesia in both rat and macaque models of Parkinson's disease. Neurobiology of Disease 2010, 39: 352-361 (Co-last author)

M. Storvik, M-J Arguel, S. Schmieder, A. Delerue-Audegond, Q. li, C. Qin, A. Vital, B. Bioulac, C. E Gross, G. Wong, J.-L. Nahon and E. Bezard. Genes regulated in MPTP-treated macaques and human Parkinson's disease suggest a common signature in prefrontal cortex. Neurobiology of Disease 2010, 38: 386-394.

E. Santini, V. Sgambato-Faure, Q? Li, M. Savasta, S. Dovero, G. Fisone and E. Bezard. Distinct changes in cAMP and extracellular signal-regulated protein kinase signalling in L-DOPA-induced dyskinesia. Plos ONE 2010, 5(8): e12322.

P.O. Fernagut, Q. Li, S. Dovero, P. Chan, T. Wu, P. Ravenscroft, M. Hill, Z. Chen and E. Bezard. Dopamine transporter is unaffected by L-DOPA: relevance to imaging studies. Plos ONE 2010, 5(11):e14053.

Q. Barraud, I. Obeid, I. Aubert, G. Barrière, H. Contamin, S. McGuire, P. Ravenscroft, G. Porras, F. Tison, E. Bezard and I. Ghorayeb. Neuroanatomical study of the catecholaminergic diencephalospinal pathway in the non-human primate. Plos ONE 2010, 5(10). pii: e13306

F. Leger, P.O. Fernagut, M.H. Canron, S. Léoni, C. Vital, F. Tison, E. Bezard, A. Vital. Protein aggregation in the aging retina. Journal of Neuropathology and Experimental Neurology 2010 (in press) (cover picture)

M. Krawczyk, F. Georges, R. Sharma, X. Mason, A. Berthet, E. Bezard and E. C. Dumont. Double-dissociation of the catecholaminergic modulation of synaptic transmission in the oval bed nucleus of the stria terminalis. Journal of Neurophysiology 2010 (in press)

E. Bezard. Treating Parkinson's disease: preserve the spines! (Commentary on Soderstrom et al.). European Journal of Neuroscience 2010, 31: 477.

M.A. Silverdale, C. Kobylecki, P.J. Hallett, Q. Li, A.W. Dunah, P. Ravenscroft, E. Bezard, J.M. Brotchie. Synaptic recruitment of AMPA glutamate receptor subunits in levodopa-induced dyskinesia in the MPTP-lesioned non-human primate. Synapse 2010, 64: 177-180.

J.M. Li, H. Zhu, S. Lu, Y. Liu, Q. Li, P. Ravenscroft, Y.-F. Xu, L. Huang, C.-M. Ma, E. Bezard, R. Chun-Hua, R.-Z. Wang, C. Qin. Migration and differentiation of human mesenchymal stem cells in the normal rat brain. Neurological Research 2010 (in press).

M.C. Rodriguez-Oroz, M. Jahanshahi, P. Krack, I. Litvan, R. Macias, E. Bezard and J.A. Obeso. Initial clinical manifestations of Parkinson's disease: features and pathophysiological mechanisms. Lancet Neurololgy 2009, 8: 1128-1139.

V. Voon, P.O. Fernagut, J. Wickens, C. Baunez, M. Rodriguez, N. Pavon, J.L. Juncos, J.A. Obeso and E. Bezard. Disorders of dopamine stimulation in Parkinson´s disease: from dyskinesias to impulse control disorders. Lancet Neurology 2009, 8: 1140-1149.

O. Berton, C. Guigoni, Q. Li, B. H. Bioulac, I. Aubert, C. E. Gross, R. DiLeone, E. J. Nestler and E. Bezard. Striatal overexpression of ΔJunD resets L-DOPA-induced dyskinesia in a primate model of Parkinson disease. Biological Psychiatry 2009, 66: 554-561.

A. Berthet, G. Porras, E. Doudnikoff, H. Stark, M. Cador, E. Bezard and B. Bloch. Pharmacological analysis demonstrates dramatic alteration of D1 dopamine receptor neuronal distribution in the rat analog of L-DOPA-induced dyskinesia. Journal of Neuroscience 2009, 29: 4829-4835. (co-last author)

A. Vital, P.O. Fernagut, M.H. Canron, J. Joux, E. Bezard, M.L. Martin-Negrier, C. Vital, F. Tison. The nigro-striatal pathway in Creutzfeldt-Jakob disease. Journal of Neuropathology and Experimental Neurology 2009, 68: 809-815.

S. Schuster, E. Doudnikoff, D. Rylander, A. Berthet, I. Aubert, C. Ittrich, B. Bloch, M.A. Cenci, D.J. Surmeier, B. Hengerer and E. Bezard. Antagonizing L-type Ca2+ channel reduces development of abnormal involuntary movement in the rat model of L-DOPA-induced dyskinesia. Biological Psychiatry 2009 65: 518-526

A. Nadjar, C. Gerfen and E. Bezard. Priming for L-dopa-induced dyskinesia in Parkinson's disease: a feature inherent to the treatment or the disease? Progress in Neurobiology 2009, 87: 1-9

A. Nadjar, O. Berton, S. Guo, P. Leneuve, S. Dovero, E. Diguet, F. Tison, B. Zhao, M. Holzenberger and E. Bezard. The Janus face of IGF-1: increased sensitivity to MPTP of heterozygous Insulin-like growth factor type 1 receptor mice is stress oxidative independent but neuroinflammation dependent. Neurobiology of Aging 2009, 30: 2021-2030.

R. Reese, G. Charron, A. Nadjar, I. Aubert, M.L. Thiolat, M. Hamann, A. Richter, E. Bezard and W. Meissner. High frequency stimulation of the entopeduncular nucleus sets the cortico-basal ganglia network to a new functional state in the dystonic hamster. Neurobiology of Disease 2009, 35: 399-405

T. Chaumette, T. Lebouvier, P. Aubert, B. Lardeux, C. Qin, Q. Li, D. Accary, Erwan Bézard, Stanislas Bruley des Varannes, Pascal Derkinderen and Michel Neunlist. Neurochemical plasticity in the enteric nervous system of a primate animal model of experimental parkinsonism. Neurogastroenterology and Motility 2009 21: 215-222.

Q. Barraud, V. Lambecq, C. Forni, S. McGuire, M. Hill, B. Bioulac, E. Balzamo, E. Bezard, F. Tison, and I. Ghorayeb, Sleep disorders in Parkinson's disease: the contribution of the MPTP non-human primate model. Exp Neurol, 2009, 219: 574-582.

A. Muñoz, Q. Li, F. Gardoni, E. Marcello, C. Qin, T. Carlsson, D. Kirik, M. Di Luca, A. Björklund, E. Bezard# and Manolo Carta#. Serotonin autoreceptor agonists for the treatment of L-dopa-induced dyskinesia. Brain 2008, 131: 3380-3394 (Co-last author + corresponding)

B. Scholz, M. Svensson, H. Alm, K. Sköld, K. Kultima, C. Guigoni, E. Doudnikoff, Q. Li, A. R. Crossman, E. Bezard and Per E Andrén. Striatal proteomic analysis sugests that first L-dopa dose equates to chronic exposure: does priming exist? PLoS ONE 3(2): e1589. doi:10.1371/journal.pone.0001589 (co-last author)

S. Schuster, A. Nadjar, J.T. Guo, Q. li, C. Ittrich, B. Hengerer and E. Bezard. The HMG-CoA Reductase Inhibitor Lovastatin reduces severity of L-dopa-induced abnormal involuntary movements in experimental Parkinson's disease. Journal of Neuroscience 2008, 28: 4311-4316

A.P. Nicholas, F.D. Lubin, P.J. Hallett, P. Vattem, P. Ravenscroft, E. Bezard, S. Zhou, S.H. Fox, J.M. Brotchie, J.D. Sweatt and D.G. Standaert. Striatal Histone Modifications in Models of Levodopa-Induced Dyskinesia. Journal of Neurochemistry 2008, 106: 486-494.

B. Ballion, N. Mallet, E. Bezard, J.L. Lanciego and F. Gonon. Intratelencephalic corticostriatal neurons equally excite striatonigral and striatopallidal neurons and their discharge activity is selectively reduced in experimental parkinsonism European Journal of Neuroscience 2008, 27: 2313-2321

S.J. Gold, C.V. Hoang, B.W. Potts, G. Porras, E. Pioli, K.W. Kim, A. Nadjar, C. Qin, G.J. LaHoste, Q. Li, B.H. Bioulac, J.L. Waugh, E. Gurevich, R.L. Neve and E. Bezard. RGS9-2 negatively modulates L-dopa-induced dyskinesia in experimental Parkinson's disease. Journal of Neuroscience 2007, 27 : 14338-14348.

P. Belujon, E. Bezard, A. Taupignon, B.H. Bioulac and A. Benazzouz. Noradrenergic modulation of subthalamic nucleus activity: behavioural and electrophysiological evidence in intact and 6-hydroxydopamine lesioned rats. Journal of Neuroscience 2007, 27: 9595-9606.

S. Guo, T. Yang, X. Yang, E. Bezard and B. Zhao. Protective effect of green tea polyphenols on rat model of Parkinson's disease caused by 6-OHDA through ROS-NO pathway. Biological Psychiatry 2007, 62:1353-1362.

B. Pasquereau, A. Nadjar, D. Arkadir, E. Bezard, B.H. Bioulac, C.E. Gross and T. Boraud. Shaping of motor responses by incentive values through the basal ganglia. Journal of Neuroscience 2007, 27: 1176-1183.

C. Guigoni, E. Doudnikoff, Q. Li, B. Bloch and E. Bezard. Altered D1 dopamine receptor trafficking in parkinsonian and dyskinetic non-human primates. Neurobiology of disease 2007, 26: 452-463.

AHV Schapira, E Bezard, J Brotchie, F Calon, G L Collingridge, B. Ferger, B.Hengerer, E Hirsch, P Jenner, N Le Novere, JA Obeso, M A Schwarzschild, U. Spampinato and G Davidai,. Novel pharmacological targets for the treatment of Parkinson's disease. Nature Reviews Drug Discovery 2006, 5: 845-854.

A. Nadjar, J.M. Brotchie, C. Guigoni, Q. Li, S.B. Zhou, G.J. Wang, P. Ravenscroft, F. Georges, A.R. Crossman, and E. Bezard. Phenotype of striatofugal medium spiny neurons in parkinsonian and dyskinetic non-human primates: a call for a reappraisal of the functional organization of the basal ganglia. Journal of Neuroscience 2006, 26: 8653-8661.

I. Aubert*, C. Guigoni*, Q. Li, S. Dovero, B. H. Bioulac, A.R. Crossman, C. E. Gross, B. Bloch and E. Bezard. Enhanced preproenkephalin-B-derived opioid transmission in striatum and subthalamic nucleus converges upon globus pallidus internalis in L-dopa-induced dyskinesia. Biological Psychiatry 2007, 61: 836-844.

K. Kultima, B. Scholz, H. Alm, K. Sköld, M. Svensson, A.R Crossman, E. Bezard, P.E. Andrén, I. Lönnstedt. Normalization and expression changes in predefined sets of proteins using 2D gel electrophoresis: A proteomic study of L-DOPA-induced dyskinesia in an animal model of Parkinson's disease using DIGE. BMC Bioinformatics 2006, 7: 475.

E. Bezard (Editor). Recent breakthroughs in Basal Ganglia Research. ISBN: 1594548803. Nova Publishing, New York.

E. Bezard, I. Gerlach, R. Moratalla, C.E. Gross and R. Jork. 5-HT1A receptor agonist-mediated protection from MPTP toxicity in mouse and macaque models of Parkinson's disease. Neurobiology of Disease 2006, 23: 77-86.

W. Meissner, P. Ravenscroft, R. Reese, D. Harnack, H. Klitgaard, B. Bioulac, C.E. Gross, E. Bezard and T. Boraud. Increased slow oscillatory activity in substantia nigra pars reticulata triggers abnormal involuntary movements in the 6-OHDA-lesioned rat in the presence of excessive extracelullar striatal dopamine. Neurobiology of Disease 2006, 22: 586-598.

A. Leblois, W. Meissner, E. Bezard, B. Bioulac, C. E. Gross and T. Boraud. Temporal and spatial alterations in GPi neuronal encoding might contribute to slow down movement in parkinsonian monkeys. European Journal of Neuroscience 2006, 24: 1201-1208.

A. Bilbao, A. Cippitelli, A. B. Martín, N. Granado, O. Ortiz, E. Bezard, J.F. Chen, M. Navarro F. Rodríguez de Fonseca and R. Moratalla. Absence of quasi-morphine withdrawal syndrome in adenosine A2a receptor knockout mice. Psychopharmacology 2006, 10: 1-9.

C. Guigoni, L. Qin, I. Aubert, S. Dovero, B. H. Bioulac, B. Bloch, A.R. Crossman, C. E. Gross and E. Bezard. Involvement of sensorimotor, limbic, and associative basal ganglia domains in levodopa-induced dyskinesia. Journal of Neuroscience 2005, 25: 2102-2107.

I. Aubert, C. Guigoni, L. Qin, S. Dovero, K. Hakansson, N. Barthe, B. H. Bioulac, C. E. Gross, G. Fisone, B. Bloch and E. Bezard. Increased D1 dopamine receptor signalling in levodopa-induced dyskinesia. Annals of Neurology 2005, 57: 17-26.

X. Yu-Xiang, E. Bezard, Z. Bao-Lu. Investigating the receptor-independent neuroprotective mechanisms of nicotine in mitochondria. Journal of Biological Chemistry 2005, 280: 32405-32412.

A. Benazzouz, C.H. Tai, W. Meissner, B. Bioulac, E. Bezard and C.E. Gross. High frequency stimulation of both zona incerta and subthalamic nucleus induces similar normalisation of basal ganglia metabolic activity in experimental parkinsonism. FASEB Journal 2004, 10.1096/fj.03-0576fje.

E. Bezard, C.E. Gross, L. Qin, J.L. Benovic, V.V. Gurevich and E.V. Gurevich. L-DOPA reverses MPTP-induced elevation of arrestin2 and GRK6 expression and enhanced ERK activation in monkey brain. Neurobiology of Disease 2005, 18: 323-335.

F. Bassilana, N. Mace, L. Qin, J.M. Stutzmann, C.E. Gross, L. Pradier, J. Benavides, J. Ménager and E. Bezard. Unraveling substantia nigra sequential gene expression in a progressive MPTP-lesioned macaque model of Parkinson's disease. Neurobiology of disease 2005, 20: 93-103.

C. Guigoni, S. Dovero, I. Aubert, Q. Li, B. H. Bioulac, B. Bloch, E. V. Gurevich, C. E. Gross and E. Bezard. Levodopa-induced dyskinesia in MPTP-treated macaque is not dependent of the extent and pattern of the nigrostrial lesion. European Journal of Neuroscience 2005, 22: 283-287.

P.J. Hallett, A.W. Dunah, P. Ravenscroft, S. Zhou, E. Bezard, A.R. Crossman, J.M. Brotchie and D.G. Standaert. Alterations of striatal NMDA receptor subunits associated with the development of dyskinesia in the MPTP-lesioned macaque model of Parkinson's disease and dyskinesia. Neuropharmacology 2005, 48 : 503-516

E. Bezard, C. Gross and J. M. Brotchie. Presymptomatic compensation in Parkinson's disease is not dopamine-mediated – reply to Obeso et al.. Trends in Neuroscience 2004, 27: 127-128.

W. Meissner, M. Hill, F. Tison, C. E. Gross and E. Bezard. Neuroprotective strategies for Parkinson's disease: conceptual limits of clinical trials and animal models. Trends in Pharmacological Sciences 2004, 25: 249-253.

E. Diguet, C.E. Gross, E. Bezard, F. Tison, N. Stefanova, G. Wenning, and. Neuroprotective agents for clinical trials in Parkinson's disease: A systematic assessment Neurology 2004, 62: 158.

E. Bezard, M.P. Hill, S.G. McGuire, A.R. Crossman, J.M. Brotchie, A. Michel, R. Grimée, H. Klitgaard. Levetiracetam improves choreic levodopa-induced dyskinesia in the MPTP-treated macaque. European Journal of Pharmacology, 2004, 485: 159-164.

E. Diguet, P.-O. Fernagut, X. Wei, Y. Du, R. Rouland, C.E. Gross, E. Bezard and F. Tison. Deleterious effects of minocycline in animal models of Parkinson's disease and Huntington's disease. European Journal of Neuroscience 2004, 19 :3266-3276.

M.P. Hill, P. Ravenscroft, E. Bezard, A.R. Crossman, J.M. Brotchie, A. Michel, R. Grimée and H. Klitgaard. Levetiracetam potentiates the anti-dyskinetic action of amantadine in the MPTP-lesioned primate model of Parkinson's disease. Journal of Pharmacology and Experimental Therapeutics 2004, 310: 386-394.

A. Hsu, D.M. Togasaki, E. Bezard, P. Sokoloff, J.W. Langston, D.A. Di Monte, M. Quik. Antidyskinetic efficacy of the partial dopamine D3 agonist BP897 is dependent on L-dopa dose and parkinsonism severity in squirrel monkeys. Journal of Pharmacology and Experimental Therapeutics 2004, 311: 770-777.

E. Bezard, S. Ferry, U. Mach, H. Stark, L. Leriche, T. Boraud, C.E. Gross and P. Sokoloff. Attenuation of levodopa-induced dyskinesia by normalizing dopamine D3 receptor function. Nature Medicine 2003, 9: 762-767.

E. Bezard, C. Gross and J. M. Brotchie. Presymptomatic compensation in Parkinson's disease is not dopamine-mediated. Trends in Neuroscience 2003, 26: 215-221.

E. Bezard. Neuroprotection for Parkinson's disease: call for clinically driven experimental. Lancet Neurology 2003, 2: 393.

E. Bezard, J. Baufreton, G. Owens, A. R. Crossman, H. Dudek, A. Taupignon and J. M. Brotchie. Sonic Hedgehog is a neuromodulator in the adult basal ganglia. FASEB Journal 2003, 10.1096, fj.03-0291fje.

M. Marvanova, J. Menager, E. Bezard, R.E. Bontrop, L. Pradier and G. Wong. Microarray (comparative genomic) analysis of non human primates : validation of experimental models in neurological disorders. FASEB Journal 2003, 10.1096/fj.02-0681fje.

C.H. Tai, T. Boraud, E. Bezard, B. Bioulac, C.E. Gross and A. Benazzouz. Electrophysiological and Metabolic Evidence that High Frequency Stimulation of the Subthalamic Nucleus Bridles Neuronal Activity in the Subthalamic Nucleus and the Substantia Nigra Reticulata. FASEB Journal 2003, 17: 1820-1830.

E. Bezard, S. Dovero, D. Belin, S. Duconger, V. Jackson-Lewis, S. Przedborski, P. V Piazza, C.E. Gross and M. Jaber. Enriched environment confers resistance to MPTP and cocaine: involvement of dopamine transporter and neurotrophic factors. Journal of Neuroscience 2003, 23: 10999-11007

C. Prunier, E. Bezard, J. Montharu, M. Marina, J.C. Besnard, J.L. Baulieu, C.E. Gross, D. Guilloteau and S. Chalon. Presymptomatic diagnosis of experimental parkinsonism with 123I-PE2I SPECT. Neuroimage 2003, 19: 810-816.

C.E. Gross, P. Ravenscroft, S. Dovero, M. Jaber, B. Bioulac and E. Bezard. Pattern of levodopa-induced striatal changes depends on the level of nigrostriatal lesion in the MPTP-lesioned rodent model of Parkinson's disease. Journal of Neurochemistry 2003, 84: 1246-1255.

W. Meissner, B. Bioulac, C.E. Gross and E. Bezard. Within-basal ganglia compensatory mechanisms after striatal dopaminergic homeostasis breakdown. Neurobiology of Disease 2003, 13: 46-54.

C. Prunier, P. Payoux, D. Guilloteau, S. Chalon, B. Giraudeau, C. Majorel, M. Tafani, M. Mantzarides, E. Bezard, J.C. Besnard, J.P. Esquerre and J.L. Baulieu. Quantification of the dopamine transporter by 123I-PE2I SPECT and non invasive logan graphical method in Parkinson's disease. Journal of Nuclear Medicine 2003, 44: 663-670.

M.P. Hill, E. Bezard, S.G. McGuire, A.R. Crossman, J.M. Brotchie, A. Michel, R. Grimée, H. Klitgaard. Novel antiepileptic drug levetiracetam decreases dyskinesia elicited by L-dopa and ropinirole in the MPTP-lesioned marmoset. Movement Disorders 2003, 18: 1301-1305.

T. Boraud, E. Bezard, B. Bioulac and C. Gross. From single extracellular unit recording in experimental and human parkinsonism to the development of a functional concept of the role played by the basal ganglia in motor control. Progress in Neurobiology 2002, 66: 265-283.

E. Bezard, J. M. Brotchie and C. Gross. Pathophysiology of levodopa-induced dyskinesias: Potential for new therapies. Nature Reviews Neuroscience 2001, 2: 577-588.

E. Bezard, A.R. Crossman, C. Gross and J.M. Brotchie. Structures outside the basal ganglia may compensate for dopamine loss in the presymptomatic stages of Parkinson's disease. FASEB Journal 2001, 10.1096/fj.00-0637fje.

E. Bezard, S. Dovero, C. Prunier, P. Ravenscroft, S. Chalon, D. Guilloteau, A.R. Crossman, B. Bioulac J.M. Brotchie, and C. Gross. Relationship between the appearance of symptoms and the level of nigrostriatal degeneration in a progressive MPTP-lesioned macaque model of Parkinson's disease. Journal of Neuroscience 2001, 21:6853-6861.

T. Boraud, E. Bezard, B. Bioulac and C. Gross. Dopamine agonist-induced dyskinesias are correlated to both firing pattern and frequency alterations of pallidal neurons in the MPTP-treated monkey. Brain 2001, 124: 546-557.

E. Bezard, P. Ravenscroft, C. Gross, A.R. Crossman and J.M. Brotchie. Upregulation of Striatal Preproenkephalin Gene Expression Occurs Before the Appearance of Parkinsonian Signs in MPTP monkeys. Neurobiology of Disease 2001, 8: 343-350.

J. Patent

Title: A method for the pre-symptomatic and early diagnosis of Parkinson's disease.
Co-inventors : E. Bezard, M.P. Hill, A.R. Crossman and J.M. Brotchie (Canadian Patent N° 236469).

Title: Use of eltoprazine for treating L-dopa-induced dyskinesia.
Co-inventors : E. Bezard, M. Carta and A. Bjorklund (Patent filed).

K. Invited seminars

(limited to 2005 - 2010)

Pathophysiology of L-dopa-induced dyskinesia in Parkinson's disease. University of Navarra, Pamplona, Spain.

Etude microarray de la dégénérescence dopaminergique dans un modèle progressif de la maladie de Parkinson chez le primate-MPTP. 7éme Colloque de la Société des Neurosciences, Lille, France.

Opiates in Parkinson's disease and Levodopa-induced dyskinesia. Boehringer Ingelheim Meeting on "New Treatments for Parkinson's dDisease", Amalfi, Italy.

Levodopa-induced dyskinesia : from single cell to network (re)organization. Universita Tor Vergata, Roma, Italy.

Levodopa-induced dyskinesia : from single cell to network (re)organization. San Raffaele Institute, Milano, Italy

Levodopa-induced dyskinesia : from single cell to network (re)organization. National Hospital for Neurology and Neurosurgery, Queen Square, London, UK

Levodopa-induced dyskinesia : from single cell to network (re)organization. IFR de Neurosciences, Hôpital de la Pitié Salpétrière, Paris, France

Levodopa-induced dyskinesia : from single cell to network (re)organization. World Parkinson Congress, Washington DC, USA.

Unraveling substantia nigra sequential gene expression in a progressive MPTP-lesioned macaque model of Parkinson's disease. UCB Pharma, Bruxelles, Belgique.

Non-human primate models of movement disorders. "Symposium on Animal models of Parkinson disease: limits and opportunities". Universita Tor Vergata, Roma, Italy

Neuroprotection for Parkinson's disease: call for clinically driven experimental design in animal models. Parkinson's Disease: Insights From Genetic and Toxin Models, Cold Spring Harbor, USA.

Animal models for Parkinson's disease symptoms and/or dyskinesias: Non-human primates models. UCB Pharma, Bruxelles, Belgique.

Future drug targets for Parkinson's disease. UCB Pharma, Bruxelles, Belgique.

Neurophysiological investigations in Parkinson's disease and levodopa-induced dyskinesia. First EMBO International Summer School on Molecular and Cellular Cognition, Venezia, Italy.

Pathophysiology of levodopa-induced dyskinesia in parkinson's disease: opportunities for novel treatments. European Behavioural Pharmacology Society Meeting, Krakow, Poland.

Levodopa-induced dyskinesia: from single cell to network (re)organization. Northwestern University, Chicago, USA.

Levodopa-induced dyskinesia: from single cell to network (re)organization. Grenoble, France.

Oscillatory neural activities in the basal ganglia and their role in L-DOPA-induced dyskinesia Dopamine 50 years, Goteborg, Sweden.

Priming for L-dopa-induced dyskinesia in Parkinson's disease: Myth or reality? Château Frontenac, Quebec, Canada

Current medical management of parkinson's disease. Chinese Academy of Medical Sciences Lectures, Beijing, China

Publish or perish : objective assessment of scientific production. Tor Vergata University, Roma, Italy

Non-Human Primate Models of Motor and Non-Motor Symptoms of Parkinson's Disease. EPHAR meeting, Manchester, UK

Conducting pre-clinical Parkinson's disease research in China. Parkinson's Disease Therapeutics Conference, Chicago, USA

Levodopa-induced dyskinesia: from target identification to therapeutic intervention. Rosalind Franklin University of Medicine and Science, Chicago, USA.

Levodopa-induced dyskinesia: from target identification to therapeutic intervention. Capital University of Medicine, Beijing, China

Dopamine receptors and levodopa-induced dyskinesia. LIMPE Seminar “Old and new dopamine agonists in Parkinson’s disease”, Pisa, Italy

Parkinson’s disease brain storming: hot targets for symptom management. Air Liquide, Paris, France.

Innovative targets for Parkinson’s disease and L-dopa induced dyskinesia, Merck Serono Future of Neurology Think Tank on Parkinson’s disease, Geneva, Switzerland

Pharmacological and genetic modulation of signalling pathways improves L-dopa induced dyskinesia: RGS, GRK and Ras-ERK. 9ième Colloque de la Société des Neurosciences, Bordeaux.

Non-dopaminergic neurotransmission in Parkinson's disease: Pre-clinical evidence for newer therapeutic targets. 13th Movement Disorders meeting, Paris, France.

Translational value of MPTP macaque model of L-DOPA-induced dyskinesia “Merz Translational issues in Parkinson’s Disease Research: Focus on Dyskinesia”, Frankfurt, Germany.

Levodopa-induced dyskinesia: from target identification to therapeutic intervention. WFN XVIII World Congress on Parkinson's Disease and Related Disorders, Miami, USA.

Priming for L-dopa-induced dyskinesia in Parkinson’s disease: Myth or reality? University of Lund, Lund, Sweden.

Dégénérescence du système dopaminergique: mécanismes et corrélats physiologiques. Congrès de Physiologie, de Pharmacologie et de Thérapeutique. Bordeaux, France

Involvement of canonical and non-canonical D1 signalling pathways in L-dopa-induced dyskinesia. 30th Anniversary of the Institute of Lab Animal Sciences, Chinese Academy of Medical Sciences, Beijing, China.

Innovative targets for Parkinson’s disease and L-dopa induced dyskinesia, Abbot Meeting, Weesp, Netherlands

Functional Inhibition of RasGRF1 in the MPTP-lesioned NHP Model for Treating Levodopa-induced Dyskinesia. Parkinson’s Disease Therapeutics Conference, New York, USA.

A randomised, placebo-controlled, multiple crossover (n-of-1), pilot trial of simvastatin for the treatment of LID. Michael J Fox Foundation, New York, USA

Modèles Primates de Maladies Neurologiques et Psychiatriques. XXXVI eme colloque annuel de l'AFSTAL, Lyon, France.

Pharmacological and genetic modulation of signalling pathways improves L-dopa induced dyskinesia: RGS, GRK and Ras-ERK. SiNAPSA FENS meeting, Ljubliana, Slovenia.