

Scientific Area	Unit Label	City	Address	e-mail	Team's Name	Name, First Name of the Head of the team	Brief description of the research performed by the team (3 lines)	Web site	6 main publications related to the proposed thematic scope	proposed thematic scope(s)	Number of PhD	Number of Post-docs	Number of Post-docs
Neurodegenerative diseases	Inserm-CNRS U 975	Paris	CRICM - UPMC/Inserm UMR_S975/CNRS UMR7225 GH Pitie-Salpêtrière Bâtiment ICM-5ème étage-Aile D-Pièce 5.032 47 Bld de l'Hôpital 75651 Paris cedex 13	etienne.hirsch@upmc.fr	Experimental therapeutics of neurodegeneration	HIRSCH Etienne	They are working in neurodegenerative diseases like Parkinson Disease, and interested to better understand the mechanisms of neuronal death and also to discover new therapeutics for the disease.	http://www.cricm.upmc.fr/index.php?option=com_content&view=article&id=83&Itemid=87&lang=fr	<ul style="list-style-type: none"> Höglinger, G.U., Rizk, P., Muriel, M.-P., Duyckaerts, C., Oertel, H.W., Calile, I., Hirsch, E.C. - Dopamine depletion impairs precursor cell proliferation in Parkinson's disease. <i>Nat. Neurosci.</i> 7, 726-735, 2004 Salazar, J., Mens, N., Hunot, S., Prigent, A., Alvarez-Fischer, D., Arredondo, M., Duyckaerts, C., Zhao, L., Garrick, L.M., Nunez, M.T., Garrick, M.D., Raiman-Vozari, R., Hirsch, E.C. ? Divalent Metal Transporter 1 (DMT1) contributes to neurodegeneration in parkinsonian syndromes. <i>Proc. Natl Acad. Sci.</i>, 105 (47), 18578-18583, 2008. Brochard, V., Combadère, B., Prigent, A., Laouar, Y., Perrin, A., Beray-Berthet, V., Bonduelle, O., Alvarez-Fischer, D., Duyckaerts, D., Flavell, R.A., Hirsch, E.C., Hunot, S. - Brain infiltration of CD4 lymphocytes contributes to neurodegeneration in Parkinson's disease. <i>J. Clin. Invest.</i>, 119 (1), 182-192, 2009. Hirsch, E.C., Hunot, S. - Neuroinflammation in Parkinson's disease: A target for neuroprotection? <i>The Lancet Neurol.</i>, vol. 8: 382-397, 2009. Karachi, C., Gralló, D., Bernard Fa., Tandó, D., Wattiez, N., Belaid, H., Bardinet, E., Prigent, A., Nothacker, H.P., Hunot, S., Hartmann, A., Lehericy, S., François, C. - Cholinergic mesencephalic neurons are involved in gait and postural disorders in parkinsonian patients and monkeys. <i>J. Clin. Invest.</i>, 120 (8), 2745-54, 2010. Ros-Bernal, F., Hunot, S., Herrero, M., Pamadeau, S., Corvol, Jc, Lu, L., Alvarez-Fischer, D., Carrillo-De Sauvage, Ma, Saurin, F., Coussieu, C., Kinugawa, K., Prigent, A., Höglinger, G., Hamon, M., Tronche, F., Hirsch, E.C., Vyas, S. Microglial glucocorticoid receptors play a pivotal role in regulating dopaminergic neurodegeneration in parkinsonism. <i>Proc Natl Acad Sci (USA)</i>, 106 (16), 6632-6637, 2011. 			1	A new animal model for PD has been created in the lab, and they are very interested to recruit a post-doc student having some knowledge in animal behavior, molecular biology and biochemistry.
Neurodegenerative diseases	Inserm-CNRS U 975	Paris	CRICM - UPMC/Inserm UMR_S975/CNRS UMR7225 GH Pitie-Salpêtrière Bâtiment ICM-4ème étage-Aile A-Pièce 4.035 et 4.036 47 Bld de l'Hôpital 75651 Paris cedex 13	alexis.brice@inserm.fr	Molecular basis, physiopathology and treatment of neurodegenerative diseases	BRICE Alexis	The research team aims at elucidating the molecular basis (monogenic forms and genetic susceptibility factors, gene-environment interactions using next generation sequencing and various omics), physiopathology (animal models, iPS cells or other cellular systems, pathway and interactome analyses) and developing new treatments (in vitro and in vivo) of neurodegenerative diseases (i.e. Parkinson, fronto-temporal lobar degenerations, ataxias, spastic paraplegias)	http://www.cricm.upmc.fr/index.php?option=com_content&view=article&id=89&Itemid=82&lang=fr	<ul style="list-style-type: none"> Ibáñez P, Bonnet AM, Débarges B, Lohmann E, Tison F, Pollak P, Agid Y, Dürr A, Brice A (2004). Causal relation between alpha-synuclein gene duplication and familial Parkinson's disease. <i>Lancet</i>. 364(9440), 1169-71. Lesage S, Dürr A, Tazir M, Lohmann E, Leutenegger AL, Janin S, Pollak P, Brice A (2006). LRRK2 G2019S as a cause of Parkinson's disease in North African Arabs. <i>The New England journal of medicine</i>. 354(4), 422-3. Stevanin G, Santorelli FM, Azzedine H, Coutinho P, Chomilier J, Denora FS, Martin E, Ouvrard-Hernandez AM, Tesse A, Boualam N, Lossos A, Charles P, Loureiro JL, Elleuch N, Corfarre G, Cruz VT, Ruberg M, Leguern E, Grid D, Tazir M, Fontaine B, Filla A, Bertini E, Dürr A, Brice A (2007). Mutations in SPG11, encoding spatacsin, are a major cause of spastic paraplegia with thin corpus callosum. <i>Nature genetics</i>. 39(3), 366-72. Hameiri S, Martin E, Boukhris A, Byrne P, Golzet C, Hamri A, Benomar A, Lossos A, Denora F, Fernandez J, Elleuch N, Forlani S, Dürr A, Feki I, Hutchinson M, Santorelli FM, Mihri C, Brice A, Stevanin G (2008). Identification of the SPG11 gene, encoding spatacsin, as a frequent cause of complicated autosomal-recessive spastic paraplegia, including Kjerlin syndrome. <i>American journal of human genetics</i>. 82(4), 992-1002. Benajiba L, Le Ber I, Camuzat A, Lacoste M, Thomas-Anterion C, Couratier P, Legalic S, Salachas F, Hannequin D, Decoussus M, Lacomblez L, Guad E, Goffier V, Cami W, Dubois B, Campion D, Meininger V, Brice A (2009). TARDBP mutations in motor neuron disease with frontotemporal lobar degeneration. <i>Annals of neurology</i>. 65(4), 470-3. Janer A, Werner A, Takahashi-Fujigasaki J, Daret A, Fujigasaki H, Takada K, Duyckaerts C, Brice A, Dejean A, Sittler A (2010). SUMOylation attenuates the aggregation propensity and cellular toxicity of the polyglutamine expanded ataxin-7. <i>Human molecular genetics</i>. 19(1):181-95. 	neurodegenerative disorders (Parkinson's disease, frontotemporal lobar dementias, spinocerebellar degenerations) and autism		8	Possibility of hosting PhD students as well as post docs with training in neuroscience (physiopathology of diseases, animal and cellular models of diseases), bioinformatics (multimodal databases, analysis of NGS and omics data) or human genetics.
Neurodegenerative diseases	Institut Curie / CNRS UMR 3306 / Inserm U1105	Orsay	The Research Center - Orsay site University Center Buildings 110, 111, 112 91405 Orsay	Frederic.Saudou@curie.fr	Signalisation, neurobiology and cancer	SAUDOU Frédéric	This laboratory is studying the molecular mechanisms and the signal transduction pathways that control neuronal death in Huntington's disease (HD) (Gauthier, <i>Cell</i> , 2004; Borrell-Pages, <i>JCI</i> , 2006; Colin, <i>EMBO J</i> , 2008). HD is a fatal neurodegenerative disorder caused by a mutation in the ubiquitously expressed protein, huntingtin. The project will focus on the study of cellular dynamics in Huntington's disease and in particular the role of huntingtin in intracellular trafficking in relation to neuronal death. Techniques include molecular biology, biochemistry, primary cultures, microfluidic devices & state of the art live-imaging microscopy. We use primary mouse cell culture, transgenic mice and <i>Drosophila melanogaster</i> as model systems. The successful applicant will develop genetic tools to study the mechanisms by which huntingtin regulates axonal transport and neuronal death. We offer a close supervision in a motivated team and a stimulating scientific environment.	http://umr3306.curie.fr/en/section/section-0016	<p>Gauthier LR, Charrin BC, Borrell-Pages M, Dompiere JP, Rangone H, Cordelières FP, De Mey J, MacDonald ME, Lessmann V, Humbert S and Saudou F (2004) Huntingtin controls neurotrophic support and survival of neurons by enhancing BDNF vesicular transport along microtubules. <i>Cell</i>. 118, 127-138. (343 citations Top 1% publication ISI, F1000-12)</p> <p>Borrell-Pages M, Canals J.M., Cordelières F.P., Parker J.A., Pineda J.R., Grange G., Bryson E.A., Guillemier M., Hirsch, E., Hantraye P., Cheetham M.E., Néri C., Alberch J., Brouillet E., Saudou F.* and Humbert S* (2006) Cystamine and cysteamine increase brain levels of BDNF in Huntington's disease through HSP11b and transglutaminase. <i>J. Clin. Invest.</i> 116, 1410-1424. Epub 2006 Apr 6 *Co-corresponding authors. (66 citations)</p> <p>Dompiere J. P., Godin J.D., Charrin B.C., Cordelières F.P., King S.J., Humbert S.* and Saudou F.* (2007) HDAC5 inhibition compensates for the Transport Deficit in Huntington's Disease by Increasing Tubulin Acetylation. <i>J. Neurosci.</i>, 27, 3571-3583. *Co-corresponding authors. (152 citations. Top 1% publication ISI)</p> <p>Colin E., Zala D., Liot G., Rangone H., Li X.-J., Saudou F.* and Humbert S* (2008) Huntingtin phosphorylation acts as a molecular switch for anterograde/retrograde transport in neurons. <i>EMBO J.</i> 27, 2124-34. Epub 2008 Jul 10 *Co-corresponding authors. (62 citations)</p> <p>Zala D., Colin E., Rangone H., Liot G., Humbert S* and Saudou F* (2008) Phosphorylation of mutant huntingtin at S421 restores anterograde and retrograde transport in neurons. <i>Mol. Genet.</i> 17, 3837-3846. [Epub 2008 sep 4] *Co-corresponding authors (28 citations)</p> <p>Kerver G, Pineda JR, Liot G, Jinho Kim J, Dietrich P, Benstaali C, Smith K, Cordelières FP, Spassky N, Ferrante RJ, Dragatsis I and Saudou F. (2011) Oligogenesis is Regulated by the Huntingtin-HAP1-PCM1 Pathway and is Altered in Huntington Disease. <i>J. Clin Invest.</i> 121, 4372-4382. [Epub 2011 Oct 10].</p>	The project will focus on understanding the alterations in the function of huntingtin in axonal transport upon proteolysis using newly developed single molecule assays and advanced microscopy.		1	Candidate with excellent University grades. Knowledge and expertise in cellular & molecular biology and mammalian cell culture is required. Expertise in mouse or fly work or imaging would be an asset.

Neurodegenerative diseases	Inserm U 837	Lille	Faculté de Médecine Henri Warembourg Centre de recherche Jean Pierre Aubert Bâtiment Bisette Rue Polonovski - 1 Place de Verdun 59045 Lille	luc.buee@inserm.fr	Neurodegenerative disorders and neuronal death	BUÉE Luc	This laboratory works on Alzheimer's disease and related disorders referred to as Tauopathies. They are particularly interested in the aggregation of a family of proteins involved in neurofibrillary degeneration and called Tau proteins. They are characterizing new experimental models for identifying new biomarkers (posttranslational modifications, mRNA, miRNA, proteins...) and for testing therapeutic strategies (immunotherapy and classic pharmacology with small compounds) in order to translate this research to humans.	http://www.crjpa.lille.inserm.fr/scientific-project/scientific-project?lang=en	<ul style="list-style-type: none"> • Belarbi K, Burouf S, Fernandez-Gomez FJ, Laurent C, Lestavel S, Figeac M, Sultan A, Troquier L, Leboucher A, Callierez R, Grosjean ME, Demeyer D, Obriot H, Brion I, Barbot B, Galas MC, Staels B, Humez S, Sergeant N, Muhr-Tailleux A, Hamdane M, Buee L, Blum D (2011) Beneficial effects of exercise in a transgenic mouse model of Alzheimer's disease-like Tau pathology. <i>Neurobiol Dis</i> in press • Belarbi K, Burouf S, Fernandez-Gomez FJ, Laurent C, Lestavel S, Figeac M, Sultan A, Troquier L, Leboucher A, Callierez R, Grosjean ME, Demeyer D, Obriot H, Brion I, Barbot B, Galas MC, Staels B, Humez S, Sergeant N, Muhr-Tailleux A, Hamdane M, Buee L, Blum D (2011) Beneficial effects of exercise in a transgenic mouse model of Alzheimer's disease-like Tau pathology. <i>Neurobiol Dis</i> in press • Lambert JC, Dallongeville J, Ellis KA, Schraen-Maschke S, Lui J, Saw S, Dumont J, Richard F, Cotel O, Berr C, Ames D, Masters CL, Rowe CC, Szaeok C, Tzourio C, Dartigues JF, Buee L, Martins R, Amouyel P (2011) Association of plasma Aβ peptides with blood pressure in the elderly. <i>PLoS One</i>, 6(4): e18536. doi:10.1371/journal.pone.0018536 • Sultan A, Nieslany F, Violet M, Bégard S, Loyens A, Tahhani S, Mansuroglu Z, Marzin D, Sergeant N, Humez S, Collin M, Bonnefoy E, Buee L, Galas MC (2011) Nuclear Tau : a key player in neuronal DNA protection. <i>J Biol Chem</i>, 286(6): 4566 • Hébert SS, Papadopoulos AS, Smith P, Galas MC, Planel E, Silahatoglu AN, Sergeant N, Buee L, De Strooper B (2010) Genetic ablation of Dicer in adult forebrain neurons results in abnormal tau hyperphosphorylation and neurodegeneration. <i>Hum Mol Genet</i>, 19(20):3959-69 • Lambert JC, Schraen-Maschke S, Richard F, Fievet N, Rouaud O, Berr C, Dartigues JF, Tzourio C, Alperovitch A, Buee L, Amouyel P (2009) Association of plasma Aβ with risk of dementia: the prospective 3C study. <i>Neurology</i>, 73 :847-53 • Schindowski K, Bretteville A, Leroy K, Bégard S, Brion JP, Hamdane M, Buee L. Alzheimer disease-like tau neuropathology leads to memory deficits and loss of functional synapses in a novel mutated tau transgenic mouse without any motor deficits. <i>Am J Pathol</i>, 169(2):599-616 	The candidate must have basic knowledge in protein biochemistry and molecular biology. He/She has to be able to handle rodents (mice and rats). He/She must have worked in a research laboratory at the bench and developed specific skills. Basic knowledge in neurobiology with animal behavior would be an asset.	The candidate must have basic knowledge in protein biochemistry and molecular biology. He/She has to be able to handle rodents (mice and rats). He/She must have worked in a research laboratory at the bench and developed specific skills. Basic knowledge in neurobiology with animal behavior would be an asset.	
Neurodegenerative diseases	UMR 744 INSERM - INSTITUT PASTEUR	Lille	Institut Pasteur de Lille Unité d'Epidémiologie et de Santé Publique INSERM UMR744 BP 245 59019 LILLE Cedex -	inserm-UMR744@pasteur-lille.fr	Identification of the molecular determinants of neurodegenerative diseases using transcriptomics analysis and candidate gene approaches	LAMBERT Jean-Charles		http://www.pasteur-lille.fr/en/recherche/u744/topic/top3bas.html	<ul style="list-style-type: none"> • Goumidi L, Dahman-Wright K, Tapia-Paez I, Mattson H, Pasquier F, Amouyel P, Kere J, Lambert JC, Meirhaeghe A. Study of Estrogen Receptor-α and Receptor-β Gene Polymorphisms on Alzheimer's Disease. <i>J Alzheimers Dis</i>. 2011 Jun 14. • Delcourt C, Delyfer MN, Rouger MB, Amouyel P, Colin J, Le Goff M, Malet F, Dartigues JF, Lambert JC, Korobelnik JF. Associations of Complement Factor H and smoking with early age-related macular degeneration: the ALIENOR study. <i>Invest Ophthalmol Vis Sci</i>. 2011 Jun 3. • Genin E, Hannequin D, Wallon D, Sleegers K, Hiltunen M, Combarros O, Bullido MJ, Engelborghs S, De Deyn P, Berr C, Pasquier F, Dubois B, Tognoni G, Fievet N, Brouwers N, Bettens K, Arosio B, Coto E, Del Zompo M, Mateo I, Epelbaum J, Frank-Garcia A, Heilmann S, Porcellini E, Pilotto A, Forti P, Ferris R, Scarpini E, Siciliano G, Solfrizzi V, Sorbi S, Spalletta G, Valdivieso F, Vepsäläinen S, Alvarez V, Bosco P, Mancuso M, Panza F, Nacmias B, Bossù P, Hannon O, Piccardi P, Annoni G, Seripa D, Galimberti D, Licastro F, Soininen H, Dartigues JF, Kambh MI, Van Broeckhoven C, Lambert JC, Amouyel P, Campion D. APOE and Alzheimer disease: a major gene with semi-dominant inheritance. <i>Mol Psychiatry</i>. 2011 May 10. • Lambert JC, Grenier-Boley B, Chouraki V, Heath S, Zelenka D, Fievet N, Hannequin D, Pasquier F, Hannon O, Brice A, Epelbaum J, Berr C, Dartigues JF, Tzourio C, Campion D, Lathrop M, Amouyel P. Implication of the immune system in Alzheimer's disease: evidence from genome-wide pathway analysis. <i>J Alzheimers Dis</i>. 2010;20(4):1107-18. • Laumet G, Chouraki V, Grenier-Boley B, Legry V, Heath S, Zelenka D, Fievet N, Hannequin D, Delepine M, Pasquier F, Hannon O, Brice A, Epelbaum J, Berr C, Dartigues JF, Tzourio C, Campion D, Lathrop M, Berttram L, Amouyel P, Lambert JC. Systematic analysis of candidate genes for Alzheimer's disease in a French, genome-wide association study. <i>J Alzheimers Dis</i>. 2010;20(4):1181-8. • Goumidi L, Flamant F, Lendon C, Galimberti D, Pasquier F, Scarpini E, Hannequin D, Campion D, Amouyel P, Lambert JC, Meirhaeghe A. Study of thyroid hormone receptor alpha gene polymorphisms on Alzheimer's disease. <i>Neurobiol Aging</i>. 2011 Apr;32(4):624-30. Epub 2009 May 7. 			
Neurodegenerative diseases	Inserm cnrs	VALBONNE	Institut de Pharmacologie Moléculaire et Cellulaire 660 Route des Lucioles Sophia Antipolis 06560 VALBONNE	checler@ipmc.cnrs.fr	Molecular and Cellular Biology of Normal and Pathological Cerebral Aging	Checler Frédéric	The laboratory aims at delineating the common molecular dysfunctions linking distinct neurodegenerative diseases such as Alzheimer and Parkinson's diseases as well as in cerebral cancer in cell systems as well as in diseases mice models.	http://www.ipmc.cnrs.fr/cgi-bin/standard.cgi?description=checler&idossier=1&equipe=&idossier=2&checler&site=inter&menu=1&smenu=5&lang=uk	<ul style="list-style-type: none"> • PETIT, A., BIHEL, F., ALVES da COSTA, C., POURQUÉ, O., KRAUS, J.L. and CHECLER, F. (2001). <i>Nat. Cell. Biol.</i> 3, 507-511 • ARMOGIDA, M., PETIT, A., VINCENT, B., SCARZELLO, S., ALVES da COSTA, C. and CHECLER, F. (2001). <i>Nat. Cell. Biol.</i> 3, 1030-1033 • PARDOSSI-PIQUARD, R., PETIT, A., KAWARAI, T., SUNYACH, C., ALVES da COSTA, C., VINCENT, B., RING, S., D'ADAMIO, L., SHEN, J., MÜLLER, U., ST. GEORGE-HYSLOP, P. and CHECLER, F. (2005). <i>Neuron</i>, 46, 541-554 • CHEN, F., HASEGAWA, H., SCHMITT-LIAMS, G., KAWARAI, T., BOHNI, C., KATAYAMA, T., GUL, Y., SANJO, N., GUSTAM, M., ROGAEVA, E., WAKUTAMI, Y., PARDOSSI-PIQUARD, R., RUAN, X., TANDON, A., CHECLER, F., MARAMBAUD, P., HANSEN, K., WESTAWAY, D., ST.GEORGE-HYSLOP, P. and FRASER, P. (2006) <i>Nature</i> 440, 1208-1212 • ALVES DA COSTA, C., SUNYACH, C., GAIOME, E., WEST, A., CORTI, O., BRICE, A., SAFE, S., ABOU-SLEIMAN, P.M., WOOD, N.W., TAKAHASHI, H., GOLDBERG, M.S., SHEN, J. AND CHECLER, F. (2009) <i>Nat. Cell. Biol.</i> 11, 1370-1375 • SUH, Y.H. and CHECLER, F. (2002) <i>Pharm. Rev.</i> 54, 469-525 	Alzheimer disease, Parkinson disease	The PhD should have obtained a master and been trained in Molecular and Cellular Biology.	Ideally, the post-doc applicant should have a solid experimental background in Molecular and Cellular Biology. A training in behavioral studies and in vivo approach would be appreciated!
Neurodevelopment	Inserm U 837	Lille	PREVOT Vincent 59045 Lille	vincent-prevot@inserm.fr	Development and postnatal brain plasticity	PREVOT Vincent	Their studies combine a variety of approaches including neuroanatomical, physiological, and genetic methods to understand the cellular and molecular mechanisms underlying the formation and plasticity of hypothalamic circuits that regulate reproduction, feeding and glucose homeostasis.	http://www.crjpa.lille.inserm.fr/axe-neurosciences/equipe-2/projet-scientifique	<ul style="list-style-type: none"> • Hanchate, N.K., Parkash, J., Bellefontaine, N., Mazur, D., Colledge, W.H., d'Anglemont de Tassigny, X., and Prevot, V. Kisspeptin-GPR54 Signaling in Mouse NO-Synthesizing Neurons Participates in the Hypothalamic Control of Ovulation. <i>J Neurosci</i> 2012;32:932-945. • Clasadonte, J., Poulain, P., Hanchate, N.K., Corfas, G., Ojeda, S.R., and Prevot, V. (2011). Prostaglandin E2 release from astrocytes triggers gonadotropin-releasing hormone (GnRH) neuron firing via EP2 receptor activation. <i>Proc Natl Acad Sci U S A</i> 2011;108:16104-16109. • Prevot, V., Hanchate, N.K., Bellefontaine, N., Sharif, A., Parkash, J., Estrella, C., Allet, C., de Seranno, S., Campagne, C., de Tassigny, X., et al. (2010). Function-related structural plasticity of the GnRH system: a role for neuronal-gliol-endothelial interactions. <i>Front Neuroendocrinol</i> 2010, 31: 241-258. Review • Baroncini, M., Jissendi, P., Cateau-Jonard, S., Dewailly, D., Privo, J.P., Francke, J.P., and Prevot, V. (2010). Sex steroid hormones-related structural plasticity in the human hypothalamus. <i>Neuroimage</i> 2010;50: 428-433. • de Seranno, S., d'Anglemont de Tassigny, X., Estrella, C., Loyens, A., Kasparov, S., Leroy, D., Ojeda, S.R., Beauvillain, J.C., and Prevot, V. Role of estradiol in the dynamic control of tanyocyte plasticity mediated by vascular endothelial cells in the median eminence. <i>Endocrinology</i> 2010;151:1760-1772. • d'Anglemont de Tassigny, X., Campagne, C., Dehouck, B., Leroy, D., Holstein, G.R., Beauvillain, J.C., Buee-Scherrer, V., and Prevot, V. Coupling of neuronal nitric oxide synthase to NMDA receptors via postsynaptic density-95 depends on estrogen and contributes to the central control of adult female reproduction. <i>J Neurosci</i> 2007;27: 6103-6114. 	To identify molecular determinants of cell plasticity in the adult brain using the hypothalamic control of reproduction as a model system	The ideal candidate would have a degree in neuroscience or physiology or related fields and be skilled in neuroanatomical approaches (including immunohistochemistry), physiological measures (estrous cyclicity, puberty onset, food intake, adiposity, glucose homeostasis), and animal models. Previous experience with transgenic mouse models would be particularly helpful. The candidate should be able to work both independently and in a collaborative environment, with a strong commitment to reaching research excellence and achieving assigned objectives. Good English speaking and writing skills are required (French is not required). Send CV and 3 letters of reference to Dr. Vincent Prevot, vincent.prevot@inserm.fr	The ideal candidate would have a degree in neuroscience or physiology or related fields and be skilled in neuroanatomical approaches (including immunohistochemistry), physiological measures (estrous cyclicity, puberty onset, food intake, adiposity, glucose homeostasis), and animal models. Previous experience with transgenic mouse models would be particularly helpful. The candidate should be able to work both independently and in a collaborative environment, with a strong commitment to reaching research excellence and achieving assigned objectives. Good English speaking and writing skills are required (French is not required). Send CV and 3 letters of reference to Dr. Vincent Prevot, vincent.prevot@inserm.fr

Neurodevelopment	UMR 7241 / Inserm 1050	Paris	Collège de France 11, place Marcelin Berthelot 75231 Paris Cedex 05	alain.prochiantz@college-de-france.fr	Chaire de Processus morphogénétiques	PROCHIANZT Alain	This laboratory studies the transducing function of homeoprotein transcription factors during development and in the adult with an interest for neural pathologies associated with specific failures in this signaling mechanism.	<ul style="list-style-type: none"> Torero Ibad R, Rhee J, Mrejen S, Forster V, Picaud S, Prochiantz A, Moya KL. Otx2 promotes the survival of damaged adult retinal ganglion cells and protects against excitotoxic loss of visual acuity in vivo. <i>J Neurosci</i>. 2011 Apr 6;31(14):5495-503. Wizenmann A, Brunet I, Lam ZS, Sonnier L, Beurdeley M, Zarbalis K, Weisenhorn-Vogt D, Weini C, Dwyedy A, Joliot A, Wurst W, Hill C, Prochiantz A. Extracellular Engrailed participates in the topographic guidance of retinal axons in vivo. <i>Neuron</i>. 2009 Nov 12;64(3):355-66. Joshi RL, Ibad RT, Rhee J, Castagner F, Prochiantz A, Moya KL. Cell non-autonomous functions of homeoproteins in neuroprotection in the brain. <i>FEBS Lett</i>. 2011 Jun 6;585(11):1573-8. Epub 2011 May 6. Layalle S, Völövitich M, Mugat B, Bonneaud N, Parnientier ML, Prochiantz A, Joliot A, Maschat F. Engrailed homeoprotein acts as a signaling molecule in the developing fly. <i>Development</i>. 2011 Jun;138(11):2315-23. Prochiantz A. Evolution of the nervous system: a critical evaluation of how genetic changes translate into morphological changes. <i>Dialogues Clin Neurosci</i>. 2010;12(4):457-62. Holcman O, Kasatkin V, Prochiantz A. Modelling homeoprotein intercellular transfer unveils a parsimonious mechanism for gradient and boundary formation in early brain development. <i>J Theor Biol</i>. 2007 Dec 7;249(3):503-17. Epub 2007 Aug 7. 			Good M1/M2 studies (or PhD for a post-doc) with basic knowledge in molecular biology, histology and biochemistry. It would be useful if the applicant had an interest for genetics. They had rather have some one with expertise or interest in the development/plasticity of the nervous system.		Good M1/M2 studies (or PhD for a post-doc) with basic knowledge in molecular biology, histology and biochemistry. It would be useful if the applicant had an interest for genetics. They had rather have some one with expertise or interest in the development/plasticity of the nervous system.	
Neurodevelopment	UMRS 7210	Paris	*Centre hospitalier national d'ophtalmologie des quinze-vingts Institut de la vision 17 rue Moreau 75012 Paris	alain.chedotal@inserm.fr	Role of axon guidance molecules	CHEDOTAL Alain	This team studies the function of axon guidance molecules in brain development and plasticity using mouse genetics and in vitro models. They also analyze their role in stem cells, angiogenesis and diseases.	http://www.institut-vision.org/index.php?option=com_content&view=article&id=32:equipe-da-chedotal&catid=17:filles&Itemid=158	<ul style="list-style-type: none"> Mehlen P, Delloye-Bourgeois C, Chédotal A. Novel roles for Slits and netrins: axon guidance cues as anticancer targets? <i>Nat Rev Cancer</i>. 2011 Mar;11(3):188-97. Epub 2011 Feb 17. Review. Ypsilanti AB, Zagar Y, Chédotal A. Moving away from the midline: new developments for Slit and Robo. <i>Development</i>. 2010 Jun;137(12):1939-52. Review. Renier N, Schoneville M, Giraudet F, Badura A, Tessier-Lavigne M, Avan P, De Zeeuw CJ, Chédotal A. Genetic dissection of the function of hindbrain axonal commissures. <i>PLoS Biol</i>. 2010 Mar 9;8(3):e1000325. Di Meglio T, Nguyen-Ba-Charvet KT, Tessier-Lavigne M, Sotelo C, Chédotal A. Molecular mechanisms controlling midline crossing by precerebellar neurons. <i>J Neurosci</i>. 2008 Jun 18;28(25):6285-94. Nguyen-Ba-Charvet KT, Di Meglio T, Fouquet C, Chédotal A. Robos and slits control the pathfinding and targeting of mouse olfactory sensory axons. <i>J Neurosci</i>. 2008 Apr 16;28(16):4244-9. Matsuoka RL, Nguyen-Ba-Charvet KT, Parry A, Badea TC, Chédotal A, Kolodkin AL. Transmembrane semaphorin signalling controls laminar stratification in the mammalian retina. <i>Nature</i>. 2011 Feb 10;470(7333):259-63. 		No specific profile			
Neurodevelopment	UMRS 839	Paris	Inserm - Institut du Fer à Moulin 17 rue du Fer à Moulin 75005 Paris (France)	patricia.gaspar@inserm.fr	Neurotransmission and Development	GASPAR Patricia	This team works on neural circuit formation and consequences of alterations in neural circuit development on adult behaviour. They study the development of the serotonergic systems, analysing the molecular pathways contributing to its development. They also analyse the effects of serotonin signaling pathways on the formation of sensory maps: the retinohthalamic and thalamocortical pathways. For this, they use a variety of mouse genetic models that modify serotonin metabolism during critical developmental periods and analyse the consequences on precise neuronal wiring and on behaviour.	http://www.u839.idf.inserm.fr/page.asp?page=5073	<ul style="list-style-type: none"> Vera Kiyasova*, Sebastian Fernandez*, Jeanne Laine, Lea Stakowski, Aude Muzerelle, Sèphane Doly, Patricia Gaspar. A genetically defined morphologically and functionally unique subset of 5-HT neurons in the mouse raphe nuclei. <i>Journal of Neuroscience</i> 2011, 31:2756-68. Judith Hombert, Dirk Schubert, Patricia Gaspar. New perspectives on the neurodevelopmental effects of SSRIs. <i>Trends in Pharmacological Sciences</i>, 2010 Feb 31(2):60-65. Rebsam A, Petros, T.J. & Mason, C.A. Switching retinogeniculate axon laterality leads to normal targeting but abnormal eye-specific segregation that is activity dependent. <i>J Neurosci</i> 29, 14855-14863 (2009). Nicol, M., Muzerelle, A., Rio, J.P., Metin, C. & Gaspar, P. (2006) Requirement of adenylyl cyclase 1 for the ephrin-A5-dependent retraction of exuberant retinal axons. <i>J Neurosci</i>, 26, 862-872. Rebsam, A., Sel, J., & Gaspar, P. (2005) Dissociating barrel development and lesion-induced plasticity in the mouse somatosensory cortex. <i>J Neurosci</i>, 25, 706-710 	Neuroscience, Neural Circuit development, behaviour	2	PhD : A PhD project would be to follow up on the previous research on the molecular determinants of axon growth/guidance in the descending serotonergic pathway. This work was initiated by a PhD student (V Kiyasova) who will be defending her PhD in 2012. Some basic knowledge of neuroscience and molecular biology would be required. The work would imply various morphological approaches in vivo and ex vivo to study the developing mouse brain. The student will receive all the relevant training in this field and will be exposed to an	2	Topic for a post-doc would be quite open and would need to be defined with the post-doctoral fellow according to his/her interest /competence. This could range from development, to behaviour along the research questions developed in the team.
Neurodevelopment	U676	Paris	Hôpital Robert Debré, Inserm U676, 3 ^e Etage Bat. Ecran, 48, Boulevard Séurier, 75019 Paris	pressens@rdebr.inserm.fr	Pathophysiology and Therapy of Mitochondrial Diseases	GRESSENS Pierre		http://www.u676.inserm.fr/page.asp?page=3784	<ul style="list-style-type: none"> Dammann O, Ferriero D, Gressens P. Neonatal encephalopathy or hypoxic-ischemic encephalopathy? Appropriate terminology matters. <i>Pediatr Res</i>. 2011 Jul;70(1):1-2. Passerat S, Sokolowska P, Schwendemann L, Gressens P. VIP-induced neuroprotection of the developing brain. <i>Curr Pharm Des</i>. 2011;17(10):1036-9. Titomanlio L, Boulama M, Le Verche V, Dalous J, Kaindl AM, Tsenkina Y, Lacaud A, Peineau S, El Ghouzi V, Lelièvre V, Gressens P. Implanted neurosphere-derived precursors promote recovery after neonatal excitotoxic brain injury. <i>Stem Cells Dev</i>. 2011 May;21(5):965-79. Verney C, Monier A, Fallet-Bianco C, Gressens P. Early microglial colonization of the human forebrain and possible involvement in periventricular white-matter injury of preterm infants. <i>J Anat</i>. 2010 Oct;217(4):436-48. Degos V, Favrais G, Kaindl AM, Peineau S, Guerrot AM, Verney C, Gressens P. Inflammation processes in perinatal brain damage. <i>J Neural Transm</i>. 2010 Aug;117(8):1009-17. Adelin U, Favrais G, Plaisant F, Winardani M, Felderhoff-Mueser U, Lampa J, Lelièvre V, Gressens P. Systemic inflammation sensitizes the neonatal brain to excitotoxicity through a pro-/anti-inflammatory imbalance: key role of TNFalpha pathway and protection by etanercept. <i>Brain Behav Immun</i>. 2010 Jul;24(5):747-58. 					
Epilepsy	U 901	Marseille	Institut de Neurobiologie de la Méditerranée : Parc scientifique de Luminy - 163 route de Luminy - BP13 - 13273 Marseille cedex 09	represa@imed.univ-mrs.fr	Cortical development disorders and neuronal migration	REPRESA Alphonso		http://www.imed.univ-mrs.fr/index.php?page=15&id=7	<ul style="list-style-type: none"> Lapray D, Popova IV, Kindler J, Jorquera I, Becq H, Manent JB, Luhmann HJ, Represa A. Spontaneous epileptic manifestations in a DCX knockdown model of human double cortex. <i>Cereb Cortex</i>. 2010 Nov;20(11):2694-701. Epub 2010 Feb 17. Ackman JB, Anikstein L, Crépel V, Becq H, Pellegrino C, Cardoso C, Ben-Ari Y, Represa A. Abnormal network activity in a targeted genetic model of human double cortex. <i>J Neurosci</i>. 2009 Jan 14;29(2):313-27. Manent JB, Jorquera I, Franco V, Ben-Ari Y, Perucca E, Represa A. Antiepileptic drugs and brain maturation: fetal exposure to lamotrigine generates cortical malformations in rats. <i>Epilepsy Res</i>. 2008 Feb;78(2-3):131-9. Epub 2007 Dec 31. Jagin OH, Poirier K, Sallouf Y, Buhler E, Tian G, Bah-Bousson N, Fallet-Bianco C, Phan-Dinh-Toy F, Kong XP, Bonmont P, Castelneau-Ptakhine L, Odent S, Loget P, Kossorotoff M, Snoeck L, Plessis G, Parent P, Beldjord C, Cardoso C, Represa A, Flint J, Keays DA, Cowan NJ, Chelly J. Mutations in the beta-tubulin gene TUBB2B result in asymmetrical polymicrogyria. <i>Nat Genet</i>. 2009 Jun;41(6):746-52. Epub 2009 May 24. Bonifazi P, Godin M, Picardo MA, Jorquera I, Cattani A, Bianconi G, Represa A, Ben-Ari Y, Cossart R. GABAergic hub neurons orchestrate synchrony in developing hippocampal networks. <i>Science</i>. 2009 Dec 4;326(5958):1419-24. Epsztein J, Sola E, Represa A, Ben-Ari Y, Crépel V. A selective interplay between aberrant EPSPKA and INaP reduces spike timing precision in dentate granule cells of epileptic rats. <i>Cereb Cortex</i>. 2010 Apr;20(4):898-911. Epub 2009 Aug 14. 					
Epilepsy	U 1106	Marseille	faculté de Médecine 27 bd de Jean Moulin 13 385 Marseille	patrick.chauvel@univmed.fr	Stereoelectroencephalography in presurgical assessment of MRI-negative epilepsy.	CHAUVEL Patrick			<ul style="list-style-type: none"> Bartolomei F, Gavaret M, Hewett R, Valton L, Aubert S, Régis J, Wendling F, Chauvel P. Neural networks underlying parietal lobe seizures: a quantified study from intracerebral recordings. <i>Epilepsy Res</i>. 2011 Feb;93(2-3):164-76. Epub 2011 Jan 11. Wendling F, Chauvel P, Biraben A, Bartolomei F. From intracerebral EEG signals to brain connectivity: identification of epileptogenic networks in partial epilepsy. <i>Front Syst Neurosci</i>. 2010 Nov 25;4:154. Bartolomei F, Cosandier-Rimele D, McGonigal A, Aubert S, Régis J, Gavaret M, Wendling F, Chauvel P. From mesial temporal lobe to temporo-parietal seizures: a quantified study of temporal lobe seizure networks. <i>Epilepsia</i>. 2010 Oct;51(10):2147-58. doi: 10.1111/j.1528-1167.2010.02690.x. Vaugier L, Aubert S, McGonigal A, Trébuchon A, Guye M, Gavaret M, Régis J, Chauvel P, Wendling F, Bartolomei F. Neural networks underlying hyperkinetic seizures of "temporal lobe" origin. <i>Epilepsy Res</i>. 2009 Oct;86(2-3):200-8. Epub 2009 Jul 19. Bettus G, Ranjeva JP, Wendling F, Béнар CG, Confort-Gouny S, Régis J, Chauvel P, Cozzone PJ, Lemieux L, Bartolomei F, Guye M. Interictal Functional Connectivity of Human Epileptic Networks Assessed by Intracerebral EEG and BOLD Signal Fluctuations. <i>PLoS One</i>. 2011;6(5):e20071. Epub 2011 May 19. Guedj E, Bettus G, Barbeau EJ, Liégeois-Chauvel C, Confort-Gouny S, Bartolomei F, Chauvel P, Cozzone PJ, Ranjeva JP, Guye M. Hyperactivation of parahippocampal region and fusiform gyrus associated with successful encoding in medial temporal lobe epilepsy. <i>Epilepsia</i>. 2011 Jun;52(6):1100-9. doi: 10.1111/j.1528-1167.2011.03052.x. Epub 2011 Apr 11. 					

Epilepsy	U 975	Paris	CRICM - UPMC/Inserm UMR_S975/CNRS UMR7225 FGH Pitié Salpêtrière-Bâtiment ICM- 3ème étage, Pièce 3.036 47, Blvd de l'Hôpital 75634 Paris cedex 13	richard.miles@upmc.fr	Cortex and Epilepsy	MILES Richard	Two goals : - Cellular, synaptic and population activities in cortex, presubiculum and hippocampus. - Pathological activities, including human epilepsies: single cell, multi-cell and imaging approaches.	http://www.cricm.upmc.fr/index.php?option=com_content&view=article&id=99&Itemid=87&lang=en	<ul style="list-style-type: none"> Huberfeld G, Menendez de la Prida L, Pallud J, Cohen I, Le Van Quyen M, Adam C, Clemenceau S, Baulac M, Miles R. Glutamatergic pre-ictal discharges emerge at the transition to seizure in human epilepsy. Nat Neurosci. 2011 May;14(5):627-34. Epub 2011 Apr 3. Motti D, Le Duigou C, Eugène E, Chemaly N, Wittner L, Lazarevic D, Krnac H, Marstrand T, Valen E, Sanges R, Stupka E, Sandelin A, Cherubini E, Gustinich S, Miles R. Gene expression analysis of the emergence of epileptiform activity after focal injection of kainic acid into mouse hippocampus. Eur J Neurosci. 2010 Oct;32(8):1364-79. doi: 10.1111/j.1460-9568.2010.07403.x. Chabrol E, Navarro V, Provenzano G, Cohen I, Dinocourt C, Rikaud-Péhoux S, Fricker D, Baulac M, Miles R, Leguern E, Baulac S. Electroclinical characterization of epileptic seizures in leucine-rich, glioma-inactivated 1-deficient mice. Brain. 2010 Sep;133(9):2749-62. Epub 2010 Jul 21. Wittner L, Huberfeld G, Clemenceau S, Eross L, Dezamis E, Entz L, Ulbert I, Baulac M, Freund TF, Maglóczy Z, Miles R. The epileptic human hippocampal cornu ammonis 2 region generates spontaneous interictal-like activity in vitro. Brain. 2009 Nov;132(Pt 11):3032-46. Epub 2009 Sep 18. Le Duigou C, Boullieret V, Miles R. Epileptiform activities in slices of hippocampus from mice after intra-hippocampal injection of kainic acid. J Physiol. 2008 Oct 15;586(Pt 20):4891-904. Epub 2008 Aug 28. Nosten-Bertrand M, Kappeler C, Dinocourt C, Denis C, Germain J, Phan Dinh Tuy F, Verstraeten S, Alvarez C, Métin C, Chelly J, Giros B, Miles R, Depaulis A, Francis F. Epilepsy in Dcx knockout mice associated with discrete lamination defects and enhanced excitability in the hippocampus. PLoS One. 2008 Jun 25;3(6):e2473. 				Physiologist interested in how the brain works with Physics, especially optics, or neurological background.	
Psychiatry	U 894	Paris	Broca-Sainte Anne 2 Ter rue D'alesia Paris 75014 Paris	philip.gorwood@inserm.fr	Neurobiology and molecular pharmacology	GORWOOD Philip	Genetic vulnerability of addictive and psychiatric disorders, with a special interest in endophenotypes	http://www.broca.inserm.fr/site_cpn/new/revue.php	<ul style="list-style-type: none"> Versini A, Ramoz N, Le Strat Y, Scherag S, Ehrlich S, Boni C, Hinney A, Hebebrand J, Romo L, Gueffi JD, Gorwood P (2010). Estrogen Receptor 1 Gene (ESR1) Is Associated with Restrictive Anorexia Nervosa. Neuropsychopharmacology, 35(8):1818-25. Ramoz N, Boni C, Downing AM, Close SL, Peters SL, Prokop AM, Allen AJ, Hamon M, Purper-Ouakil D, Gorwood P (2009). A haplotype of the norepinephrine transporter (Net) gene Slc6a2 is associated with clinical response to atomoxetine in attention-deficit hyperactivity disorder (ADHD). Neuropsychopharmacology, 34(9), 2135-42. Gorwood P, Corvolle E, Faissard B, Goodwin GM (2008). Toxic effects of depression on brain function: impairment of delayed recall and the cumulative length of depressive disorder in a large sample of depressed outpatients. The American journal of psychiatry, 165(6), 731-9. Mercader JM, Saus E, Agüera Z, Bayés M, Boni C, Carreras A, Cellini E, de Cid R, Dierssen M, Escaramís G, Fernández-Aranda F, Forcades X, Gallego X, González JR, Gorwood P, Hebebrand J, Hinney A, Nacmias B, Puig A, Ribasés M, Ricca V, Romo L, Sorbi S, Versini A, Gratacós M, Estivill X (2008). Association of NTRK3 and its interaction with NGF suggest an altered cross-regulation of the neurotrophin signaling pathway in eating disorders. Human molecular genetics, 17(9), 1234-44. Gorwood P, Adès J, Bellodi L, Cellini E, Collier DA, Di Bella D, Di Bernardo M, Estivill X, Fernandez-Aranda F, Gratacos M, Hebebrand J, Hinney A, Hu X, Karwatz A, Kipman A, Mouron-Simeoni MC, Nacmias B, Ribasés M, Renschmidt H, Ricca V, Rotella CM, Sorbi S, Treasure J, (2002). The 5-HT(2A)-14386G/A polymorphism in anorexia nervosa: a combined analysis of 316 trios from six European centres. Molecular psychiatry, 7(1), 90-4. Gorwood P, Limosin F, Batel P, Hamon M, Adès J, Boni C (2003). The A9 allele of the dopamine transporter gene is associated with delirium tremens and alcohol-withdrawal seizure. Biological psychiatry, 53(1), 85-92. 	eating disorders, alcohol dependence, pathological gambling, schizophrenia, mood disorders	3	molecular genetics, pharmacogenetics, endophenotypes	1	neuro-endocrinology and genetics
Psychiatry	IMRB - Inserm U955	Crétel	Groupe Hospitalier Chenevier-Mondor, 40 rue de Mesly - Crétel 94000	marion.leboyer@inserm.fr	Psychiatry genetic	LEBOYER Marion	Our work aims at finding genetic and environmental susceptibility factors underlying major psychiatric disorders (autism, bipolar disorder, and schizophrenia). We use GWAS, as well as studying pathways such as genes implicated in synapse formation, immuno-genetics (HLA and retro-virus). In order to identify relevant intermediate phenotype, we study clinical and cognitive markers, brain imaging paradigms, inflammatory biomarkers etc.	http://www.imrb-en-uep.fr/research-pole/pole-2-medical-genomics/team-15-en-leboyer-psychiatry-genetic-280673.kjsp	<ul style="list-style-type: none"> PERRON H, MEKAOUJ L, BERNARD C., VEAS F, STEFAS I., LEBOYER M Endogenous Retrovirus type W (HERV-W) capsid (GAG) and envelope ENV antigenaemia in the serum of schizophrenic patients. Biological Psychiatry Dec 2008 15, 64 (12) : 1019-23 LEBOYER M, KUPFER DJ. Bipolar disorder: new perspectives in health care and prevention. J Clin Psychiatry. 2010 Dec;71(12):1689-95 ETAÏN B, DUMAÏNE A, MATHIEU F, CHEVALIER F, HENRY C, KAHN JP, DESCHOMMES J, BELLIVIER F, LEBOYER M, JAMAÏA S SNAP-25 promoter variant is associated with early-onset bipolar disorder and a high expression in the brain. Molecular Psychiatry, 2010, Jul;15(7):748-55. WESSA M, HOÛENOU J, LEBOYER M, CHANRAUD S, POUPON C, MARTINOT JL, PAILLERE-MARTINOT M. Microstructural white matter changes in euthymic bipolar patients: a whole-brain diffusion tensor imaging study. Bipolar Disord. 2009 Aug;11(5):504-14 Henry C, Etain B, Mathieu F, Raust A, Vibert JF, Scott J, Leboyer M. A French network of bipolar expert centres: a model to close the gap between evidence-based medicine and routine practice. J Affect Disord. 2011 Jun;131(1-3):358-63. Zalla T, Daparti E, Sav AM, Chaste P, Nicot D, Leboyer M. Memory for self-performed actions in individuals with Asperger syndrome. PLoS One. 2010 Oct 12;5(10):e13370. Leblond C et al. iGenetic and Functional Analyses of SHANK2 Mutations Suggest a Multiple Hit Model of Autism Spectrum Disorders. PLoS Genet. 2012 Feb;8(2):e1002521 	Psychiatry Genetics, Brain Imaging, Cognition, Immuno-inflammation, Clinical research	3		2	<p>1- Psychiatrist or psychologist (PhD level) with:</p> <ul style="list-style-type: none"> - Good knowledge of French; - Good clinical experience with psychotic patients - At least some experience with the cognitive evaluation and/or remediation of psychiatric patients; - Familiar with statistical and psychometric methods. <p>He/she will work under the supervision of senior psychiatrists/researchers on one of the ongoing projects on cognition in schizophrenia and related disorders: influence of genetic and environmental factors on cognition, influence of cognitive factors on the outcome of the disorder, development of new methods for the evaluation and remediation of cognitive deficits.</p> <p>2. MD or PhD with:</p> <ul style="list-style-type: none"> - Good knowledge of English ; fluent in French a plus; - Research experience in epidemiology and/or environmental factors in psychosis; - Good statistical expertise. <p>He/she will work under close supervision of senior psychiatrist/researcher on the analysis, synthesis/modeling and communication of epidemiological data on psychotic disorders. The collection of data is currently underway and data will be soon available. His/her work will involve descriptive statistics (prevalence, incidence), modeling of the geographic distribution, develop etiological models based on the roles of environmental factors and gene-environmental and environmental-environmental interactions.</p> <p>3. Postdoc in the area of neuroimaging in psychiatry. The successful applicant will take part in MRI protocols and data analysis in an interdisciplinary environment with psychiatrists, psychologists, as well as genetics and neuroimaging labs. Collaborations with these scientists</p> <p>The position will be based mostly at the Neurospin imaging facility near Paris (www-dsv.ces.fr/neurospin/) where 3T, 7T MR Scanners, EEG and MEG are available. The candidate will also be encouraged to develop his own related research</p> <p>Requirements:</p> <ul style="list-style-type: none"> • PhD in a relevant area, e.g. neuroimaging analysis in psychiatry, psychology, cognitive neuroscience or neurology (MSc) • Proven skills in study design, fMRI and/or DTI design and analysis would be a plus, as experience with conducting MRI experiments and with patients with neuropsychiatric disorders. • Experience in neuroimaging analysis tools (SPM, FSL, Freesurfer, Brainvisa...) • A background in psychology, psychiatry or genetics is preferable. • Communication and written skills in English
Psychiatry	URA 2182	Paris	25, rue du Dr Roux 75724 PARIS CEDEX 15	thomasb@pasteur.fr	Human genetics and cognitive functions	BOURGERON Thomas		http://www.ura2182.cnrs-bellevue.fr/ghtc/index.html	<ul style="list-style-type: none"> Konyukh M, Delorme R, Chaste P, Leblond C, Lemièrre N, Nygren G, Anckarsäter H, Rastam M, Ståhlberg O, Amsellem F, Gillberg IC, Mouren-Simeoni MC, Herbrecht E, Fauchereau F, Toro R, Gillberg C, Leboyer M, Bourgeron T. Variations of the candidate SEZ6L2 gene on Chromosome 16p11.2 in patients with autism spectrum disorders and in human populations. PLoS One. 2011 Mar 4;6(3):e17289. Fy E, Leblond CS, Bourgeron T. Behavioral profiles of mouse models for autism spectrum disorders. Autism Res. 2011 Feb;4(1):5-16. doi: 10.1002/aur.175. Pagan C, Botros HG, Polier K, Dumaine A, Jamain S, Moreno S, de Brouwer A, Van Esch H, Delorme R, Launay JM, Tschach A, Kalscheuer V, Lacombé D, Briault S, Laumonier F, Raynaud M, van Bon BW, Willemsen MH, Leboyer M, Chelly I, Bourgeron T. Mutation screening of ADMT, the last enzyme of the melatonin pathway, in a large sample of patients with intellectual disability. BMC Med Genet. 2011 Jun 20;12:17. Chaste P, Clement N, Mercati O, Guillaume JL, Delorme R, Botros HG, Pagan C, Périevier S, Scheid I, Nygren G, Anckarsäter H, Rastam M, Ståhlberg O, Gillberg C, Serrano E, Lemièrre N, Launay JM, Mouren-Simeoni MC, Leboyer M, Gillberg C, Jockers R, Bourgeron T. Identification of pathway-based and deleterious melatonin receptor mutants in autism spectrum disorders and in the general population. PLoS One. 2010 Jul 15;5(7):e11495. Delorme R, Betancur C, Scheid I, Anckarsäter H, Chaste P, Jamain S, Schurhoff F, Nygren G, Herbrecht E, Dumaine A, Mouren MC, Rastam M, Leboyer M, Gillberg C, Bourgeron T. Mutation screening of NOS1AP gene in a large sample of psychiatric patients and controls. BMC Med Genet. 2010 Jul 5;11:108. Gang X, Delorme R, Fauchereau F, Durand CM, Chaste P, Betancur C, Goubran-Botros H, Nygren G, Anckarsäter H, Rastam M, Gillberg IC, Kopp S, Mouren-Simeoni MC, Gillberg C, Leboyer M, Bourgeron T. An investigation of ribosomal protein L10 gene in autism spectrum disorders. BMC Med Genet. 2009 Jan 23;10:7. 					
Psychiatry	UMR7224/Inserm U 952	Paris	Université Pierre et Marie Curie Laboratoire de Physiopathologie des Maladies du Système Nerveux Central 7-9 quai Saint Bernard 75252 Paris	bruno.giros@snv.jussieu.fr	pathophysiology of psychiatric disorders	GIROS Bruno		http://pmsnc.snv.jussieu.fr/index.php/fr/giros	<ul style="list-style-type: none"> Mourlon V, Baudin A, Blanc O, Lauber A, Giros B, Naudon L, Daugé V. Maternal deprivation induces depressive-like behaviours only in female rats. Behav Brain Res. 2010 Dec 1;213(2):278-87. Aminlun B, Lepicard E, Renard T, Mongeau R, Popa D, Poirot O, Miel S, Gros C, Gardier AM, Gallego J, Hamon M, Lanfumey L, Gansnier B, Giros B, El Mestikawy S. VGLUT3 (vesicular glutamate transporter type 3) contribution to the regulation of serotonergic transmission and anxiety. J Neurosci. 2010 Feb 10;30(6):2198-210. Morel LJ, Giros B, Daugé V. Adolescent exposure to chronic delta-9-tetrahydrocannabinol blocks opiate dependence in maternally deprived rats. Neuropharmacology. 2009 Oct;34(11):2469-76. Nosten-Bertrand M, Kappeler C, Dinocourt C, Denis C, Germain J, Phan Dinh Tuy F, Verstraeten S, Alvarez C, Métin C, Chelly J, Giros B, Miles R, Depaulis A, Francis F. Epilepsy in Dcx knockout mice associated with discrete lamination defects and enhanced excitability in the hippocampus. PLoS One. 2008 Jun 25;3(6):e2473. Moutouillil L, Farley S, El Khoury MA, Chamot C, Sibarta JB, Racine V, El Mestikawy S, Mathieu F, Dumas S, Giros B, Travara ET. Antipsychotics increase vesicular glutamate transporter 2 (VGLUT2) expression in thalamolimbic pathways. Neuropharmacology. 2008 Mar;54(3):497-508. Mourlon V, Naudon L, Giros B, Crumeyrolle-Arias M, Daugé V. Early stress leads to effects on estrous cycle and differential responses to stress. Physiol Behav. 2011 Mar 1;102(3-4):304-10. 					
Neuron-Glia Interactions	CIRB - Centre interdisciplinaire de recherche en biologie –	Paris	Collège de France 11 place Marcelin Berthelot 75231 Paris	christian.giaume@college-de-france.fr	Junctional Communication And Interactions Between Glial And Neuronal Networks	GIAUME Christian	In the laboratory we are working on gap junction proteins in glial cells in the context of neuroglial and gliovascular interactions. These topics are investigated in normal and pathological situations with a special interest in mouse model of Alzheimer's disease.	http://www.college-de-france.fr/site/cirib/c_giaume.htm	<ul style="list-style-type: none"> Orellana JA, Shoji KF, Abudara V, Ezan P, Amigou E, Sáez PJ, Jiang JX, Naus CC, Sáez JC, Giaume C. Amyloidβ-induced death in neurons involves glial and neuronal hemichannels. J Neurosci. 2011 Mar 30;31(13):4962-77. Giaume C. Astroglial Wiring is Adding Complexity to Neuroglial Networking. Front Neuroenergetics. 2010 Sep 20;2: pii: 129. Froger N, Orellana JA, Calvo CE, Amigou E, Kozoriz MG, Naus CC, Sáez JC, Giaume C. Inhibition of cytokine-induced glial cells hemichannel activity in astrocytes is neuroprotective. Mol Cell Neurosci. 2010 Sep;45(1):37-46. Froger N, Orellana JA, Cohen-Salmon M, Ezan P, Amigou E, Sáez JC, Giaume C. Cannabinoids prevent the opposite regulation of astroglial connexin43 hemichannels and gap junction function in glial cells of a pro-inflammatory treatments. J Neurochem. 2009 Dec;111(6):1383-97. Giaume C, Koulakoff A, Roux J, Heffernan D, Rouach N. Astroglial networks: a step further in neuronal and glial-neuronal 	Analysis of connexin/pannexin expression and hemichannel function in glial cells of a murine model of Alzheimer's disease, the APP ⁹⁵¹ mouse.		Profile of the candidate: He/she could be apodstoc with an expertise, or interested in acquiring competences, in biochemistry, immunohistochemistry, confocal microscopy and some knowledge electrophysiology.	Profile of the candidate: He/she could be a postdoc with an expertise, or interested in acquiring competences, in biochemistry, immunohistochemistry, confocal microscopy and some knowledge electrophysiology.	

• Pannasch U, Vargová L, Reingruber J, Ezan P, Holcman D, Glaume C, Sýková E, Rouach N. Astroglial networks scale synaptic activity and plasticity. Proc Natl Acad Sci U S A. 2011 May 17;108(20):8467-72.

Knowledge in
electrophysiology.

Neuron-Glia Interactions	2. INSERM U603 - CNRS UMR 8154	Paris	Neurophysiology & New Microscopies Laboratory 3rd floor, 45 rue des Saints Pères 75006 Paris	etienne.audinat@parisdescartes.fr	Neuron-glia interactions	AUDINAT Etienne	This lab is interested in neuron-glia interactions in the CNS. We use functional approaches (electrophysiology, imaging) combined with molecular biology and histochemistry to understand how astrocytes and microglia interact with neurons and also how the immune system modulates these interactions.	http://www.biomedicale.univ-paris5.fr/neurophysiologie/Groups/audinatgroup.php	<ul style="list-style-type: none"> Vélez-Fort M, Maldonado PP, Butt AM, Audinat E, Angulo MC. Postnatal switch from synaptic to extrasynaptic transmission between interneurons and NG2 cells. <i>J Neurosci</i>. 2010 May 19;30(20):6921-9. Angulo MC, Le Meur K, Kozlov AS, Charpak S, Audinat E. GABA, a forgotten gliotransmitter. <i>Prog Neurobiol</i>. 2008 Nov;86(3):297-303. Avignone E, Ullmann L, Levasseur F, Rassendren F, Audinat E. Status epilepticus induces a particular microglial activation state characterized by enhanced purinergic signaling. <i>J Neurosci</i>. 2008 Sep 10;28(37):9133-44. Menteigne A, Levasseur F, Audinat E, Avignone E. Predominant functional expression of Kv1.3 by activated microglia of the hippocampus after status epilepticus. <i>PLoS One</i>. 2009 Aug 26;4(8):e6770. Vélez-Fort M, Audinat E, Angulo MC. Functional alpha 7-containing nicotinic receptors of NG2-expressing cells in the hippocampus. <i>Glia</i>. 2009 Aug 15;71(10):1104-14. Kozlov AS, Angulo MC, Audinat E, Charpak S. Target cell-specific modulation of neuronal activity by astrocytes. <i>Proc Natl Acad Sci U S A</i>. 2006 Jun 27;103(26):10058-63. Epub 2006 Jun 16. Erratum in: <i>Proc Natl Acad Sci U S A</i>. 2006 Oct 24;103(43):16094. 				Candidates should have a good background in neurobiology or in immunology, some basic knowledge in electrophysiology or cellular imaging techniques and a strong motivation for multidisciplinary and collaborative work.
Computational neurosciences	UMR 6233	Marseille	Faculté des Sciences du Sport 163, avenue de Luminy, CP 910 13288 MARSEILLE cedex 9	viktor.jirsa@univmed.fr	Theoretical Foundations of Coordination Dynamics	JIRSA Viktor			<ul style="list-style-type: none"> Stefanescu RA, Jirsa VK. Reduced representations of heterogeneous mixed neural networks with synaptic coupling. <i>Phys Rev E Stat Nonlin Soft Matter Phys</i>. 2011 Feb;83(2 Pt 2):026204. Perdikis D, Huys R, Jirsa V. Complex processes from dynamical architectures with time-scale hierarchy. <i>PLoS One</i>. 2011 Feb 10;6(2):e16589. McIntosh AR, Kovacevic N, Lippe S, Garrett D, Grady C, Jirsa V. The development of a noisy brain. <i>Arch Ital Biol</i>. 2010 Sep;148(3):323-37. Calvin S, Huys R, Jirsa VK. Interference effects in bimanual coordination are independent of movement type. <i>J Exp Psychol Hum Percept Perform</i>. 2010 Dec;36(6):1553-64. Danilon F, Jirsa VK. Motor prediction at the edge of instability: alteration of grip force control during changes in bimanual coordination. <i>J Exp Psychol Hum Percept Perform</i>. 2010 Dec;36(6):1684-92. Huys R, Fernandez L, Bootsma RJ, Jirsa VK. Fitts' law is not continuous in reciprocal aiming. <i>Proc Biol Sci</i>. 2010 Apr 22;277(1685):1179-84. 				

Cellular and Molecular Neuroscience	INSERM U839	Paris	17 rue du Fer à Moulin, 75005 Paris, France	Jean-christophe.poncer@inserm.fr	Plasticity in Cortical Networks & Epilepsy	PONCER Jean Christophe	Our objective is to identify the alterations of GABAergic networks responsible for the initiation and maintenance of epileptiform activities in the hippocampal network. Specifically, we combine cellular electrophysiology and molecular imaging techniques to examine: - the long term changes in hippocampal GABAergic circuits initiated by a period of epileptiform activity, - the perturbations of chloride homeostasis induced in several pathological conditions, and their long term effects on synaptic transmission in cortical networks - the emergence and the functional consequences of the transient GABAergic phenotype of newborn dentate gyrus granule cells induced upon seizures	http://lab.jpconcer.info	- Role of the neuronal K-Cl co-transporter KCC2 in inhibitory and excitatory neurotransmission. Chamma I, Chevy Q, Poncer JC, Lévi S. Front Cell Neurosci. 2012;6:5. Epub 2012 Feb 21. - A Human Mutation in Gabrg2 Associated with Generalized Epilepsy Alters the Membrane Dynamics of GABAA Receptors. Bouthour W, Leroy F, Emmanuelli C, Carnaud M, Dahan M, Poncer JC, Lévi S. Cereb Cortex. 2011 Sep 9. [Epub ahead of print] - The neuronal K-Cl cotransporter KCC2 influences postsynaptic AMPA receptor content and lateral diffusion in dendritic spines. Gauvain G, Chamma I, Chevy Q, Cabezas C, Irinopoulou T, Bodrug N, Carnaud M, Lévi S, Poncer JC. Proc Natl Acad Sci U S A. 2011 Sep 13;108(37):15474-9. Epub 2011 Aug 30. - Two novel LLCN2 mutations accelerating chloride channel deactivation are associated with idiopathic generalized epilepsy. Saint-Martin C, Gauvain G, Teodorescu G, Goufinkel-An I, Fedirko E, Weber VG, Maljevic S, Ernst JP, Garcia-Olivares J, Fahike C, Nabbut R, LeGuern E, Lerche H, Poncer JC, Deplenne C. Hum Mutat. 2009 Mar;30(3):397-405. - GABA(A) receptor gamma 2 subunit mutations linked to human epileptic syndromes differentially affect phasic and tonic inhibition. Eugène E, Deplenne C, Baulac M, Fritschy JM, Le Guern E, Miles R, Poncer JC. J Neurosci. 2007 Dec 19;27(51):14108-16. - Loss of AP-3 function affects spontaneous and evoked release at hippocampal mossy fiber synapses. Scheuber A, Rudge N, Danglitz L, Raposo G, Bini T, Poncer JC, Galli T. Proc Natl Acad Sci U S A. 2006 Oct 31;103(44):16562-7.	1. Regulation of membrane dynamics of the neuronal KCC2 transporter in the normal and epileptic hippocampus. 2. Long term plasticity and vulnerability of perisomatic interneurons in the epileptic hippocampus	1 or 2	Training in cellular and molecular neuroscience. Competences in Matlab would be an asset but is not strictly required	1	Academic and practical training in cellular and molecular neuroscience. Partial experience in cellular electrophysiology (patch clamp) and/or imaging
Neural dynamics and learning: neurophysiology	UMR 1106, INSERM and Aix-Marseille University	Marseille	Institut de Neurosciences des Systèmes, UMR INSERM 1106, Aix-Marseille Université, Faculté de Médecine, 27, Boulevard Jean Moulin 13005 Marseille, France	driss.boussaoud@univ-amu.fr	PhysioNet	BERNARD Christophe	Physiology and pathophysiology of epilepsy: from molecules to large scale networks.	http://ms.medicine.univmed.fr/	Allami N, Paulignan Y, Brovelli A and Boussaoud D (2008). Visuo-motor learning with combination of different rates of motor imagery and physical practice. EXPERIMENTAL BRAIN RESEARCH, 184:105-113. Brovelli A, Laksiri N, Nazarian B, Meunier M, and Boussaoud D (2008). Understanding the neural computations of arbitrary visuomotor learning through fMRI and associative learning theory. CEREBRAL CORTEX, 18:1445-1455. Monfardini E, Brovelli A, Boussaoud D, Takerkart S, and Wicker B (2008). I learned from what you did: Retrieving visuosmotor associations learned by observation. NEUROIMAGE, 42:1207-1213. Meunier M, Monfardini E, Boussaoud D (2007). Learning by observation in rhesus monkeys. NEUROBIOLOGY OF LEARNING AND MEMORY, 88:243-248. Thura D., Hadj-Boutzane F., Meunier M., Boussaoud D. (2010). Hand Modulation of Visual, Preparatory, and Saccadic Activity in the Monkey Frontal Eye Field. CERE. CORTEX, 2011, 21(4):853-64. Brovelli A, Nazarian B, Meunier M, Boussaoud D. (2011) Differential roles of caudate nucleus and putamen during instrumental learning. NEUROIMAGE 2011, 57(4):1580-90.	Systems neuroscience: from physiology to pathology. Two projects are proposed for hosting 2 post-docs: Project 1: Neuronal dynamics of learning by observation. Project 2. A monkey model of Epilepsy: how epilepsy develops, how to prevent it and/or treat it?	1	Training in Neuroscience, experience with animal behavior and neurophysiology preferred. Candidates with expertise in computer science and modelling are highly welcome.	2	Training in Neuroscience, experience with animal behavior and neurophysiology preferred. Candidates with expertise in computer science and modelling are highly welcome.
Computational Neuroscience	INSERM U960	Paris	,29 rue d'Ulm 75005	boris.gutkin@gmail.com	Group for Neural Theory	GUTKIN Boris	computational and mathematical modelling of neural processes and computation		computational neuroscience	2	mathematics, informatics, physics	2	mathematics, informatics, physics.	
Longevity, Neurosciences, Genetics, Systems biology	Insem Unit 894	Paris	2-ter rue d'Alesia, 75014 Paris-France	Christian.neri@inserm.fr	Laboratory of Neuronal cell Biology and Pathology	NERI Christian	The laboratory research program is focused on the regulation of the early stages (neuronal dysfunction before cell death) of the pathogenic process in Huntington's disease (HD). More specifically, the laboratory studies the mechanisms that may underlie early-stage neuron survival deficiencies in HD with a focus on pro-longevity factors, here FOXO transcription factors and their regulators ('FOXO network'). The lab uses complementary approaches including C. elegans, mammalian cells and systems biology.	http://cpn.paris5.inserm.fr/equipe.php?tid_equipe=10	1) FX Lejeune et al. BMC Genomics 2012. In press. —2) C Burnett, et al. Nature 2011, 477 : 482-5.14. —3) Luthi-Carter R et al, PNAS USA 2010, 107 : 7927-32. —4) Parker JA et al., Journal of Neuroscience 2007 ; 27 : 11056-64. —5) Parker JA, et al. Nature Genetics 2005 ; 4 : 349-50. —6) Lefebvre C et al., Bioinformatics 2005 ; 21 : 1550-1558	1) Experimental biology: Role of longevity promoting factors in neurodegenerative disease pathogenesis. 2) Computational biology: Network-based data integration and target prioritization in Huntington's disease	One	expertise in Bioinformatics and programming, with training in mathematical/statistics/informatics	One	Expertise in C. elegans genetics and molecular biology OR Cellular and molecular biology, with PhD training in the aforementioned fields.
Neural networks of the cerebellum	CNRS UMR 8197	Paris	46 rue d'Ulm, 75005 Paris	boris.barbour@ens.fr	Cerebellum Team	BARBOUR Boris	Cerebellar synaptic function	http://www.jb.ens.fr/slip.php?particle=7	Bidoret C., Ayon A., Barbour B., Casado M., Presynaptic NR2Acontaining NMDA receptors implement a high-pass filter synaptic plasticity rule. Proc Natl Acad Sci USA. (2009), 106 : 14126-31. Operation of cerebellar neural network of Solages C., Szapiro G., Brunel N., Hakim V., Ispe P., Buisseret P., Rousseau C., Barbour B., Léna C., High-frequency organization and synchrony of activity in the Purkinje cell layer of the cerebellum. Neuron (2008), 58 : 775-88. Szapiro G., Barbour B., Multiple climbing fibers signal to molecular layer interneurons exclusively via glutamate spillover. Nat Neurosci (2007), 10 : 735-42. Barbour B., Brunel N., Hakim V., Nadal JP. What can we learn from synaptic weight distributions? Trends Neurosci (2007), 30 : 622-9.	Cerebellar synaptic function	1	Electrophysiology, Modelling.	1	Electrophysiology, Modelling.
Dissecting neuronal circuits underlying behavior	Insem CNRS UPMC ICM	Paris	I.C.M. CHU Pitié Salpêtrière, 47 bld de l'hôpital, 75013 Paris	claire.wyart@icm-institute.org	Optogenetic dissection of spinal circuits underlying locomotion	WYART, Claire	Optogenetics, population calcium imaging, electrophysiology, behavior in zebrafish larva	http://wyartlab.org	Warp, E et al, Current Biology 2012; Wyart and Del Bene, Rev in Neurosciences 2011; Wyart and Del Bene, Dev Neurobiol. 2011; Del Bene, Wyart Science 2010; Janovjak et al Nature Neuroscience 2010; Wyart et al Nature 2009	Theme 1: Identify the spinal circuits of slow locomotion, Theme 2: elucidate the proprioceptive interface with the cerebrospinal fluid, Theme 3 :unravel the contribution of mechanosensory inputs to shaping movements	1	physiology, computer science, engineering, computation	1	physiology, imaging, computer science, engineering, computation
Genetics of retinal dystrophies, genetics of inherited optic neuropathies, gene therapy, stem cells, cell therapy	Team 01 of INSERM unit 1051	Montpellier	Institut des Neurosciences de Montpellier (INM) 80 avenue Augustin Fliche, Hôpital Saint Eloi, 34295 Montpellier cedex 05	christian.hamel@inserm.fr	Genetics and therapy of retinal and optic nerve blindness	HAMEL Christian	The team has discovered important genes causing various forms of blindness (BRP65, OPA1). Using exome, the team continues to find new genes. The team is now strongly involved in therapies, especially gene and cell therapy in the retina and optic nerve.	inmfrance.com	Marthens et al Nature genetics, 1997; Delettre et al Nature Genetics 2000; Guignard et al J Biol Chem 2010; Elachouri et al Genome Res 2011; Hebrard et al Eur J Hum Genet 2011; Ttah et al Eur J Hum Genet 2011	There are several scopes : 1. Genetics of retinal dystrophies and inherited optic neuropathies (mapping, exome), 2. iPS from patients and preclinical gene therapy trials, 3. Getting retinal pigment epithelium cells from stem cells, 4. Analysing the pathophysiology of retinal ganglion cells, 5. Pathophysiology of the retinal pigment epithelium and visual cycle	5	In general, skills in cell and molecular biology, biochemistry, but knowledge or experience in electrophysiology, vectorology, eye anatomy and surgery, might also be appreciated	3	In general, skills in cell and molecular biology, biochemistry, but knowledge or experience in electrophysiology, vectorology, eye anatomy and surgery, might also be appreciated
Neuroscience, Synaptic plasticity Neurophysiology, Synaptopathy	INSERM U901	Marseille	Institut de Neurobiologie de la Méditerranée : Parc scientifique de Luminy - 163 route de Luminy - BP13 - 13273 Marseille cedex 09	olivier.manzoni@inserm.fr	Physiopathology of Synaptic Plasticity	MANZONI Olivier	In major neuropsychiatric disorders , disruption of a molecular cog of the synaptic machine impairs synaptic plasticity and leads to abnormal information processing. Our goal is to unravel synaptic dysfunctions and propose new therapeutic venues for synaptopathies.	http://www.jrmed.univ-mrs.fr/index.php?page=15&id=29	1-Polymodal activation of the endocannabinoid system in the extended amygdala. Puente N, Cui Y, Lásalle O, Lafourcade M, Georges F, Venance L, Grandes P, Manzoni OJ. Nature Neurosci. 2011 Nov 6;14(11):1542-7. 2-Nutritional omega-3 deficiency abolishes endocannabinoid-mediated neuronal functions. Lafourcade M, Larrieu T, Mato S, Duffaud A, Sepers M, Matias I, De Smedt-Peyrusse V, Labrousse VF, Bretillon L, Matute C, Rodríguez-Puertas R, Layé S, Manzoni OJ. Nature Neurosci. 2011 Mar;14(3):345-50. 3-Transition to addiction is associated with a persistent impairment in synaptic plasticity. Kasanetz F, Deroche-Gamonet V, Berson N, Balado E, Lafourcade M, Manzoni O, Piazza PV. *Shared seniority Science. 2010 Jun 25;328(5986):1709-12. 4-Altered surface trafficking of presynaptic cannabinoid type 1 receptor in and out synaptic terminals parallels receptor desensitization. Mikasova L, Gros L, Choquet D, Manzoni OJ. Proc Natl Acad Sci U S A. 2008 Nov 25;105(47):15856-60. 5-A single in-vivo exposure to delta 9THC blocks endocannabinoid-mediated synaptic plasticity. Mato S, Chevalier V, Robbe D, Pazos A, Castillo PE, Manzoni OJ. Nature Neurosci. 2004 Jun;7(6):585-6 6-Acute stress facilitates hippocampal CA1 metabotropic glutamate receptor-dependent long-term depression. Chaouloff F, Hémar A, Manzoni OJ. J Neurosci. 2007 Jul 4;27(27):7130-5.	We will combine electrophysiological, optical and behavioural methods to identify the molecular components and establish the morphofunctional and behavioral correlates of synaptic activity in normal and neuropsychiatric diseases mice models (Mental retardation, Schizophrenia, Autism Depression, Addiction and Dietary Deficiency). We will use already available and newly developed pharmacological agents and nutritional strategies acting on neurotransmitter systems and/or transduction pathways to restore normal synaptic plasticity and behaviors in diseased mice.	1	Basic knowledge in neuroscience and cellular biology is preferable.Previous experience with electrophysiology or microscopy is not necessary	1	Advanced knowledge in Neuroscience is required. Previous experience with microscopy and/or electrophysiology in vivo or in vitro is preferred but not necessary.

Pain – transmission, control and modulation in normals and patients Pain – transmission, control and modulation in normals in patients	NEUROPAIN Team– Centre for Neuroscience of Lyon (CRNL) – Inserm U1028	Lyon	Neurological Hospital, 59 Bd Pinel, 69003 Lyon, France	larrea@univ-lyon1.fr	NEUROPAIN	GARCIA-LARREA Luis	Research on the transmission, cortical processing, mechanisms of modulation, and non-pharmacological treatment of pain, with especial emphasis on chronic neuropathic pain.	http://crnl.univ-lyon1.fr/index.php/fr/Recherche/Equip/es/3	1. Godinho F, Fallenet L, Perchet C, Magnin M, Garcia-Larrea L. How the pain of others enhances our pain: Searching the cerebral correlates of "compassional hyperalgesia". Eur J Pain 2011; doi: 10.1002/1532-2149.2011.00039.x. 2. Bastuji H, Mazza S, Perchet C, Frot M, Mauguière F, Magnin M, Garcia-Larrea L. Filtering the reality: Functional dissociation of lateral and medial pain systems during sleep in humans. Human Brain Mapping 2011, in press- doi: 10.1002/hbm.21390. 3. Inard J, Magnin M, Jung J, Mauguière F, Garcia-Larrea L. Does the Insula tell the brain that we are in pain? Pain 2011 152: 946-51. 4. Garcia-Larrea L, Perchet C, Craich C, Convers P, Peyron R, Laurent B, Mauguière F, Magnin M. Opeculo-insular pain (parasympathic pain): a distinct central pain syndrome. Brain 2010; 133: 2528-2539 5. Magnin M, Mauguière F, Bastuji H, Garcia-Larrea L. Sleep-related Thalamic Deactivation Precedes that of the Cerebral Cortex in Humans. PNAS 2010, 107: 3829-33 6. Dantzer N, Fallenet L, Peyron R. Can we share a pain we never felt? Neural correlates of empathy in patients with congenital insensitivity to pain. Neuron, 2009, 61 (2): 203-12.	Investigation of cortical EEG markers of ongoing pain – predictors of efficacy of cortical neurostimulation	1	Basic knowledge of human electrophysiology. Knowledge in psychophysiology and cognitive science appreciated	1	Knowledge of human electrophysiology and/or functional imaging. Clinical background appreciated
Therapeutic Strategies for Inherited Retinal Degenerations	Institut de la Vision Université Pierre et Marie Curie Inserm CNRS	Paris	17, rue Moureau 75012 Paris France	theiry.levellard@inserm.fr	Rod-Cone Interactions: Therapeutic Perspectives	LEVEILLARD Thierry		www.institut-vision.org	Jailard C, Mouret A, Niepon ML, Clérin E, Yang Y, Lee-Rivera I, AR-Ali N, Millet-Puel G, Cronin T, Sedmak T, Raffelsberger W, Kinzel B, Trembleau A, Poch O, Bennett J, Wolfrum U, Lledo PM, Sahel JA, Léveillard T. Nxn2 splicing results in dual functions in neuronal cell survival and maintenance of cell integrity. Hum Mol Genet. 2012 Feb 27. [Epub ahead of print]. Delyfer MN, Raffelsberger W, Mercier D, Korobelnik JF, Gaudric A, Charteris DG, Tadayoni R, Metzger F, Caputo G, Barale PO, Ripp R, Muller JD, Poch O, Sahel JA, Léveillard T. Transcriptomic analysis of human retinal detachment reveals both inflammatory response and photoreceptor death. PLoS One. 2011;6(12):e28791. Cronin T, Raffelsberger W, Lee-Rivera I, Jailard C, Niepon ML, Kinzel B, Clérin E, Petrosian A, Picaud S, Poch O, Sahel JA, Léveillard T. The disruption of the rod-derived cone viability gene leads to photoreceptor dysfunction and susceptibility to oxidative stress. Cell Death Differ. 2010 Jul;17(7):1199-210. Reichms S, Kalzharh R, Lambard S, An-Ali N, Yang Y, Lardenois A, Ripp R, Poch O, Zack DJ, Sahel JA, Léveillard T. The homeobox gene CHX10/VSX2 regulates RdCVF promoter activity in the inner retina. Hum Mol Genet. 2010 Jan 15;19(2):250-61. Epub 2009 Oct 20. Fridlich R, Delalande F, Jailard C, Lu J, Poidevin L, Cronin T, Perrocheau L, Millet-Puel G, Niepon ML, Poch O, Holmgren A, Van Dorsselaer A, Sahel JA, Léveillard T. The thiodoxin-like protein rod-derived cone viability factor (RdCVF) interacts with TAU and inhibits its phosphorylation in the retina. Mol Cell Proteomics. 2009 Jun;8(6):1206-18. Yang Y, Mohand-Said S, Danan A, Simonutti M, Fontaine V, Clerin E, Picaud S, Léveillard T, Sahel JA. Functional cone rescue by RdCVF protein in a dominant model of retinitis pigmentosa. Mol Ther. 2009 May;17(5):787-95.	One of the major challenges for scientists and ophthalmologists working in the field of inherited retinal degenerations is to provide both rationales for therapeutic interventions to prevent blindness. Our approach to the question was inspired by the sequential occurrence of the clinical manifestations in the retinal degeneration disorders. In patients suffering from retinitis pigmentosa, the most common form of these genetic diseases, the vision loss develops in two successive steps. Early in their adult life, these patients lose ability to see in dim light conditions that refers to a night vision loss, and corresponds to the loss of function and degeneration of rod photoreceptors that is felt as a minor handicap. The disease then progresses through another debilitating step resulting from loss of function and degeneration of the second class of photoreceptors, the cones, that dominate at the centre of the retina, the fovea. Cones represent only 3-5% of all photoreceptors in most mammals, but their role for vision is essential. This secondary event leads to central vision loss and potentially complete blindness. Because the cones underlie all visual functions in lighted environment, cone rescue was deemed to be a clinically relevant target. In the past decade, we have demonstrated that following rod death, the degeneration of cones is triggered by a mechanism reminiscent of the loss of trophic support. We have performed a high content screen based on cone-enriched cultures and identified in 2004 a novel protein: Rod-derived Cone Viability Factor (RdCVF), encoded by the Nucleoredoxin-like 1 gene (Nxl1). Interestingly, RdCVF is part of the thiodoxin family of proteins whose role in protection against oxidative stress has been described in great details. While the transfer of this therapy to the clinic is pending, our team is concentrating on understanding RdCVF signaling at the molecular and cellular level.	3	Biochemistry, Molecular Biology, Neurobiology	6	
Neuroimaging and Neurophysiology of executive functions	U846 Inserm stem cell and brain research institute	Bron (Lyon)	18 av doyen Lépine, 69500 Bron	emmanuel.procyk@inserm.fr	Neurobiology of Executive Functions	PROCYK Emmanuel	Our team focuses on the functional organisation and dynamical relationships within fronto-striatal networks and on its role in adaptive/flexible cognition. Works involved human and non-human primates studies using neurophysiology, neuroimaging, and computational neuroscience tools	http://www.sbrl.fr/teams/neurobiology-of-executive-functions.html	Amiez C, Hadj-Bouziane F, Petrides M. Response selection versus feedback analysis in conditional visuo-motor learning. NeuroImage. 2012 Feb 15;59(4):3723-35. Epub 2011 Oct 25. PMID:22040737 Khamassi M, Lalié S, Eriel P, Procyk E, & Dominey P.F. Robot cognitive control with a neurophysiologically inspired reinforcement learning model. Front Neurobot. 2011;5:1-14. Rothé M, Quilodran R, Sallet J, & Procyk E. Coordination of high gamma activity in anterior cingulate and lateral prefrontal cortical areas during adaptation. J. Neurosci. 2011 Aug 3;31(31):11110-7. Amiez C and Petrides M. Feedback valuation processing within the prefrontal cortex. In "Handbook of reward and decision making". Eds J.C. Dreyer and L. Tremblay. Elsevier, pp 213-228, 2009. Quilodran R., Rothé M. and Procyk E. Behavioral shifts and action valuation in the anterior cingulate cortex. Neuron, 2008, 57:314-325. Amiez, C., Joseph, J.P. and Procyk E. Reward Encoding in the Monkey Anterior Cingulate Cereb Cortex. 2006, 16(7):1040-55.	Uncertainty and recurrence: neurobiological and computational bases of learning indices for adaptation Exploration and learning to react to the environment requires forming decisions based on the identification of positive or dangerous events. We have expanded our knowledge on feedback based mechanisms of adaptation, however many real life adaptations are based on the progressive elaboration and recognition of statistical links between external events and changes in performance or payoff (see Khamassi et al 2011). The goal of this PhD work is to work on the computational and neurobiological base of such adaptations, testing its anatomical relationship with feedback-based learning.	1	behavioural neuroscience, neurophysiology or neuroimaging, skills in programming preferred	1	behavioural neuroscience, neurophysiology or neuroimaging, skills in programming preferred
Brain, neuroscience, neurotransmission, psychiatric disease	Pathophysiologie des maladies du SNC, Paris	Paris	INSERM U952, CNRS UMR7224	salah.elmestikawy@snv.jussieu.fr	Normal and Pathologic Glutamatergic Systems	EL MESTIKAWY Salah	Glutamate is the major excitatory transmitter in the brain. Before its release glutamate is uploaded into synaptic vesicles by transporters named VGLUT3-3. Vesicular glutamate transporters are key anatomical and functional markers of excitatory transmission. We study the involvement of VGLUT3-3 in the normal and pathological brain.	http://pmsnc.snv.jussieu.fr/index.php/en/elmestikawy	HERZOG E., BELLENCHIG C., GRASC, BERNARD V., RAVASSARD P., BEDETC., GASNIER B., GIROS B. ANDEL MESTIKAWY S. The existence of a second vesicular glutamate transporter specifies subpopulations of glutamatergic neurons. J. Neurosci. 21 RC181: 1-6 (2001).	Involvement of VGLUT3 in psychiatric diseases	3	Molecular biology, biochemistry, anatomy, electrophysiology, behavior	3	Molecular biology, biochemistry, anatomy, electrophysiology, behavior
NEUROSCIENCE	Inserm U862	Bordeaux	146 rue Léo Saignat	stephane.oliet@inserm.fr	Glia-Neuron relations	OLIET Stephane	Contribution of glial cells to synaptic transmission and synaptic plasticity in the context of learning, memory, neurodegeneration and chronic pain	www.neurocentre-magendie.fr/oliet	Fossat et al (2012) Cerebral Cortex 21(3):595-606 Bonfardin et al (2010) Journal of Neuroscience 30: 985-995. Henneberger et al (2010) Nature 463: 232-236. Pawlatier et al (2006) Cell 125, 775-784. Piet et al (2004) PNAS 100(1), 2151-2155 Oliet et al (2001) Science 292, 923-926	Morphofunctional plasticity of the tripartite synapse in the hippocampus	1		1	Neurophysiology, electrophysiology, cell imaging would be an added-value
neuroscience, plasticity, behaviour	U862	Bordeaux	146 rue Léo-Saignat, 33077 Bordeaux	muriel.koehl@inserm.fr	Neurogenesis & Physiopathology	ABOURS DIOHER Nora	Our aim is to study the role of a novel form of plasticity, adult hippocampal neurogenesis, in memory and in the appearance of memory disorders that appear after stressful events or during aging			Impact of prenatal stress on adult neurogenesis & memory	1	anatomy, behaviour, memory	0	
neuroscience, plasticity, behaviour	U862	Bordeaux	146 rue Léo-Saignat, 33077 Bordeaux	nora.abrous@inserm.fr	Neurogenesis & Physiopathology	ABOURS DIOHER Nora	Our aim is to study the role of a novel form of plasticity, adult hippocampal neurogenesis, in memory and in the appearance of memory disorders that appear after stressful events or during aging			Influence of spatial learning on adult hippocampal neurogenesis	1	anatomy, behaviour, memory	1	electrophysiology (hippocampus)
Neurosciences	INSERMUnit 1000	Paris	978d Port Royal 75014 Paris	jean-luc.martinot@cea.fr	Imaging & psychiatry	MARTINOT Jean-Luc	Clinical, psycho-behavioural studies of mental disorders using MRI and/or PET (see: http://www.u1000.idf.inserm.fr/en/)	www.u1000.idf.inserm.fr/en/	Whellan, et al., Adolescent impulsivity phenotypes characterized by distinct brain networks. Nature Neuroscience 2012 [Accepted] Artiges E. Baseline brain metabolism in resistant depression and response to transcranial magnetic stimulation Neuropsychopharmacology 2011 36:2710-9. Wessa M, Houenou J, Paillère-Martinot ML, Berthoz S, Artiges E, Leboyer M, Martinot JL. Fronto-striatal overactivation in euthymic bipolar patients during an emotional go/no-go task. Am J Psychiatry 2007 164: 638-46. Houenou J, Wessa M, Douaud G, Leboyer M, Chamaud S, Perrin M, Fougeon C, Martinot JL, Paillère-Martinot ML. Increased white matter connectivity in euthymic bipolar patients diffusion tensor tractography between the subgenual cingulate and the amygdalo-hippocampal complex. Molecular Psychiatry 2007 12: 1001-10. Dehaene S, Artiges E, Nacache L, Martelli C, Viard A, Schürhoff F, Recasens C, Paillère-Martinot ML, Leboyer M, Martinot JL. Conscious and Subliminal Cofacts in Normal Subjects And Patients With Schizophrenia: The role of the anterior cingulate. Proc Natl Acad Sci U S A. 2003 100:13722-7. Berthoz S, Artiges E, Van De Moortele PF, Poline JB, Rouquette S, Martinot JL. Impaired Recognition And Expression Of One's Emotions Engages Fronto- Cingulate Cortices. American Journal of Psychiatry, 2002,159:961-967	Brain imaging emotional dysregulation & adolescence	1	MRI experience, or neuropsychology, or psychiatry	1	MRI, fMRI or DTI image analyses, neuropsychology or psychiatry
NEUROBIOLOGY OF REWARD	INSERM UMR S 839 Institut du Fer à moulin	Paris	8-10 Rue Fosses Saint Marcel	manuel.mameli@inserm.fr	Synapses and pathophysiology of reward	MAMELI Manuel	We aim at identifying the synaptic circuits mediating drug-related memories	http://www.u839.idf.inserm.fr/page.asp?page=5079	Neuroscience. Synaptic switch and social status. Maroteaux M, Mameli M. Science. 2011 Nov 4;334(6056):608-9. In utero exposure to cocaine delays postnatal synaptic maturation of glutamatergic transmission in the VTA. Bellone C, Mameli M, Lüscher C. Nat Neurosci. 2011 Oct 2;14(11):1439-4. Cocaine inverts rules for synaptic plasticity of glutamate transmission in the ventral tegmental area. Mameli M, Bellone C, Brown MT, Lüscher C. Nat Neurosci. 2011 Apr;14(4):414-6. Cocaine-evoked synaptic plasticity: persistence in the VTA triggers adaptations in the NAC. Mameli M, Halbout B, Creton C, Engblom D, Parkitna JR, Spanagel R, Lüscher C. Nat Neurosci. 2009 Aug;12(8):1036-41. Rapid Synthesis and synaptic insertion of GluR2 for mGluR-LTD in the ventral tegmental area. Mameli M, Balland B, Luján R, Lüscher C. Science. 2007 Jul 27;317(5837):530-3.	The team is interested in dissecting the neural circuits implicated in reward and aversion integration and how addictive substance drive synaptic adaptations in the same circuit. We use the habenula as a model and we employ in vitro approaches combined with anatomy and optogenetics to understand the role of this region in reward and drug-seeking. Thematic #1: Identify the interaction stress system-drugs in the habenula- Role of cAMP in modulating synaptic transmission. Thematic #2: Development of in vivo single cell recordings in the context of reward learning. Thematic#3: Role of mGluR and Endocannabinoids in habenula	1	Profili: Background in neurobiology or pharmacology. Expertise: Functional physiology or anatomy, reward system; Training: In vitro or in vivo physiology, or biochemistry and immunohistochemistry	1	Profili: Background in neurobiology or pharmacology. Expertise: Functional physiology or anatomy, reward system; Training: In vitro or in vivo physiology, or biochemistry and immunohistochemistry

Neurosciences Hearing Research Auditory synapses Vestibular synapses Hair cell transduction Deafness	UMR 587	Bordeaux	Hopital Pellegrin Bat PQR3 33076 Bordeaux	didier.dulon@inserm.fr	Neurobiology of the auditory synapse	DULON Didier	Our main objective is to characterize the molecular mechanisms underlying synaptic transmission in sensory hair cells. We are specifically studying the role of otoferlin, a putative calcium sensor, whose mutation is responsible for non-syndromic deafness in humans. We are also studying the role of harmonin and Clarin1 which are associated with Usher syndrome type 1C3 and type 3, respectively.	www.inb.u-bordeaux2.fr	Levic S, Bouleau Y, Dulon D. Developmental acquisition of a rapid calcium-regulated vesicle supply allows sustained high rates of exocytosis in auditory hair cells. <i>PLoS One</i> . 2011;6(10):e25714. Beurg M, Michalski N, Safieddine S, Bouleau Y, Schneggenburger R, Chapman ER, Petit C, Dulon D (2010) Control of exocytosis by synaptotagmins and otoferlin in auditory hair cells. <i>J Neurosci</i> 30, 13261-90. Dulon D, Safieddine S, Jones SM, Petit C (2009) Otoferlin is critical for a highly sensitive and linear calcium-dependent exocytosis at vestibular hair cell ribbon synapses. <i>J Neurosci</i> 29, 10474-87. Beurg M, Safieddine S, Roux I, Bouleau Y, Petit C, Dulon D (2008) Calcium- and otoferlin-dependent exocytosis by immature outer hair cells. <i>J Neurosci</i> 28, 1798-803.	By using mouse models having sensory hair cells specifically lacking clarin-1 or harmonin (conditional KO), we propose to characterize the function of these proteins at the auditory and vestibular ribbon synapses.	1	good knowledge in cell biology and electrophysiology	1	good knowledge in cellular biology and electrophysiology	
Neurosciences Serine proteases Neurodegeneration Glutamate Cerebral ischemia Spinal cord trauma	Unit Label City UMR-S U919 Inserm Caen Univ. Caen Univ. Paris Descartes GIP Cyceron	Caen	GIP Cyceron Blv Henri Becquerel 14073 Caen France	vivien@cyceron.fr	Serine proteases and pathophysiology of neurovascular unit	VIVIEN Denis	The U919 team investigates the fundamental role of serine proteases, especially the plasminogen/plasminogen activation system, in the pathophysiology of the neurovascular unit. Regarding pathologies, beside emerging projects on multiple sclerosis, spinal cord injury and cardiac arrest, the main area of investigation of the team aims at deciphering the molecular and cellular mechanisms of stroke (ischemic or hemorrhagic).	http://www.unicaen.fr/ulr/lbfa/inserm-u919	Preclinical evidence toward the use of ketamine for recombinant tissue-type plasminogen activator-mediated thrombolysis under anesthesia or sedation. Gakuba C, Gauberti M, Mazighi M, Defer G, Hanouf JL, Vivien D. <i>Stroke</i> . 2011 Oct;42(10):2947-9. Antibodies preventing the interaction of tissue-type plasminogen activator with N-methyl-D-aspartate receptors reduce stroke damages and extend the therapeutic window of thrombolysis. Macrez R, Oubang P, Gauberti M, Kousset B, Baron A, Parcq J, Casé F, Hommet Y, Orset C, Agin V, Bezin L, Berroccio TG, Petersen KU, Montaner J, Maubert E, Vivien D, Ali C. <i>Stroke</i> . 2011 Aug;42(8):2315-22. Tissue plasminogen activator prevents white matter damage following stroke. Correa F, Gauberti M, Parcq J, Macrez R, Hommet Y, Oubang P, Herranz Gomez M, Montagne A, Lot G, Guaza C, Maubert E, Ali C, Vivien D, Docagne F. <i>J Exp Med</i> . 2011 Jun 6;208(6):1229-42. Stroke and the immune system: from pathophysiology to new therapeutic strategies. Macrez R, Ali C, Toutrais D, Le Mauff B, Defer G, Dirnagl U, Vivien D. <i>Lancet Neurol</i> . 2011 May;10(5):471-80. Review. NR2D-containing NMDA receptors mediate tissue plasminogen activator-promoted neuronal excitotoxicity. Baron A, Montagne A, Casé F, Launay S, Maubert E, Ali C, Vivien D. <i>Cell Death Differ</i> . 2010 May;17(5):860-71. Age and albumin D site-binding protein control tissue plasminogen activator levels: neurotoxic impact. Roussel BD, Macrez R, Julienne A, Agin V, Maubert E, Dauphinaud L, Potier MC, Plawinski L, Castel H, Hommet Y, Munuera J, Montaner J, Yepes M, Ali C, Vivien D. <i>Brain</i> . 2009 Aug;132(Pt 8):2219-30.	Influence of the tissue type plasminogen activator (tPA) at the tri-partite synapse			1	very good background in neurosciences is requested, including molecular and cellular biology with a clear experience for in vitro and in vivo cell imaging (confocal, two-photon ...).	
Neuroscience	CIRB-UMR7241-U1050	Paris, France	Collège de France, 11 Place Marcelin Berthelot 75005 Paris	fekrije.selimi@college-de-france.fr	Mice, Molecules and Synapse formation	SELIMI Fekrije	The goal of our team is to provide new insights on the molecular basis of synapse specificity and synapse remodeling, and its contribution to neurological diseases. We are combining transgenic mice, transcriptomics and proteomics to find and analyze new signalling pathways controlling the formation of functional neuronal networks.	http://www.college-de-france.fr/site/cirb/fekrije_selimi_1.htm	Selimi F et al. (2009). <i>PLoS Biology</i> 7(4): e83. Zanjani SH et al. (2006). <i>J Comp. Neurol.</i> 497(4):622-35. Selimi & N. Heitz (2005) <i>Nature neuroscience</i> , 8(11):1417-8. Selimi F. et al. (2003) <i>Neuron</i> 37(5):813-9. Yue Z. et al. (2002) <i>Neuron</i> 35: 921-933.	functional studies of new signaling pathways controlling the formation of the olivo-cerebellar network	1	neuroscience and/or molecular biology and/or biochemistry	1	neuroscience and/or molecular biology and/or biochemistry	
Neurodevelopment	Inserm UMRs 839	Paris	Institut du Fer à Moulin, Inserm UMRs 839, UPMC, 75005 Paris, France	fiona.francis@inserm.fr	Cytoskeleton and neuronal migration disorders	FIONA Francis	We hypothesize that abnormal functioning of the microtubule cytoskeleton is one of the major underlying causes of migration abnormalities resulting in aberrantly positioned cortical neuronal cells. We question the molecular and cellular mechanisms responsible for altered migration in models mutated for cytoskeletal-associated genes and the functional consequences of these alterations.	http://www.u839.idf.inserm.fr/	1. Bazelot M*, Simonnet J*, Dinocourt C*, Bruel-Jungerman E, Miles R, Fricker D, Francis F (2012) Cellular anatomy, physiology and epileptiform activity in the CA3 region of Dcx KO mice: a neuronal lamination defect and its consequences. <i>Eur J Neurosci</i> 35(2):244-56. 2. Fallet-Blanco C, Loeuillet L, Poirier K, Loget P, Chapon F, Pasquier L, Saillour Y, Beldjord C, Chelly J, Francis F. (2008) Neuropathological phenotype of a distinct form of lissencephaly associated with mutations in TUBA1A. <i>Brain</i> . 131:2304-20. 3. Nosten-Bertrand M, Kappeler C, Dinocourt C, Denis C, Germain J, Phan Dinh Tuy F, Verstraeten S, Alvarez C, Métin C, Chelly J, Gros B, Miles R, Dupuis A, Francis F. (2008) Epilepsy in Dcx knockout mice associated with discrete lamination defects and enhanced excitability in the hippocampus. <i>PLoS ONE</i> . 3(6):e2473. 4. Kappeler C, Dhenain M, Phan Dinh Tuy F, Saillour Y, Marty S, Fallet-Blanco C, Souville I, Souil E, Pinard J-M, Meyer G, Encha-Razavi F, Volk A, Beldjord C, Chelly J, Francis F (2007) Magnetic resonance imaging and histological studies of corpus callosum and hippocampal abnormalities linked to doublecortin deficiency. <i>J Comp Neurol</i> 500(2):239-254. 5. Moorens CA, Perrieret M, Kappeler C, Kato S, Drummond D, Perkins SJ, Chelly J, Cross R, Houdusse A, Francis F. (2006) Distinct roles of doublecortin modulating the microtubule cytoskeleton. <i>EMBO J</i> 25 (19), 4448 - 4457. 6. Kappeler C, Saillour Y, Baudoin J-P., Phan Dinh Tuy F., Alvarez C., Houbroun C., Gaspar P., Hamard G., Chelly J., Métin C., Francis F. (2006) Branching and nucleokinesis defects in migrating interneurons derived from doublecortin knockout mice. <i>Hum. Mol. Gen.</i> 15:1387-1400.	Cortical development and malformations – dissecting the roles of essential cytoskeletal proteins			1	First post-doc. Neuronal cell biology. Interested in joining pathophysiology group (epilepsy and intellectual disability).	
Neuroscience	Inserm U1072 UNIS	MARSEILLE	Faculté de Médecine Nord, boulevard Pierre Dramard 13015 MARSEILLE	jean-marc.goaillard@univ-amu.fr	Homeostasis of Excitability & Neuromodulation	GOAILLARD Jean-Marc	Determine the molecular and cellular bases of the robustness & homeostatic plasticity of neuronal activity	Not yet available	1) Schulz et al., <i>Nat. Neurosci.</i> (2006) 2) Marder E. & Goaillard J.M., <i>Nat. Rev. Neurosci.</i> (2006) 3) Schulz et al., <i>PNAS</i> (2007) 4) Taylor et al., <i>J. Neurosci.</i> (2009) 5) Goaillard et al., <i>Nat. Neurosci.</i> (2009) 6) Amendola et al., <i>J. Neurosci.</i> (2012)	Determine the changes in expression of multiple ion channels in dopaminergic neurons after activity manipulation	1	The student must have a good knowledge of neuroscience, in particular at the cellular and/or molecular level. Knowledge in molecular biology and/or electrophysiology strongly advised	1	The post-doc must have a good knowledge of neuroscience, in particular at the cellular and/or molecular level. Knowledge in molecular biology and/or electrophysiology strongly advised	
Neuroscience	Inserm U1072 UNIS	MARSEILLE	Faculté de Médecine Nord, boulevard Pierre Dramard 13015 MARSEILLE	oussama.el-far@univ-amu.fr	Molecular Mechanisms of Neurotransmitter release	EL FAR Oussama	Understand the interplay between calmodulin and synaptotagmin in the control of neurotransmitter release and dissect the implication of the V-ATPase V0 domain in SNARE dependant neurotransmitter release.	http://cvs.cscience.avesan.fr/cv/538/oussama-el-far	1) DiGiovanni et al, <i>Neuron</i> (2010) 2) EL FAR & Seagar, <i>J. Neurochem</i> (2011) 3) Hiesinger et al Cell (2005) 4) Peters et al. <i>Nature</i> (2001) 5) Liegeois et al, <i>J Cell Biol</i> (2006) 6) Peri et al, <i>Cell</i> (2008)	Understand the dynamic and molecular organization of the fusion pore	1	Biochemistry, bacterial protein expression, DNA cloning	1	Proteoliposome fusion	
Neuroscience and Audiology	Team 02 of INSERM unit 1051	Montpellier	Institut des Neurosciences de Montpellier (NM) 80 avenue Augustin Fliche, Hôpital Saint Eloi, 34295 Montpellier cedex 05	jean-luc.puel@inserm.fr	Deafness, Tinnitus and Therapies	PUEL Jean-Luc	Our goal is to unravel the mechanisms of deafness and tinnitus to envision therapies. This requires i) to decipher the logic of sound encoding, ii) the analysis of animals mutant that recapitulate human auditory deficits and iii) to develop new diagnostic tools for auditory disorders screening.	imfrance.com	1. Menardo et al., <i>Antioxid Redox Signal</i> . 2012. 2. Nouvian et al., <i>Nat Neurosci</i> , 2011. 3. Ruel et al., <i>J Neurosci</i> , 2008. 4. Ruel et al., <i>Am J Hum Genet</i> , 2008. 5. Wang et al., <i>Mol Pharmacol</i> , 2007. 6. Wang et al., <i>Cancer Res</i> , 2004.		5	knowledge/skill in molecular and cellular biology or electrophysiology is valuable. Computer programming/analysis would be appreciated but is not mandatory	3	knowledge/skill in molecular and cellular biology or electrophysiology is valuable. Computer programming/analysis would be appreciated but is not mandatory	
Human diseases from mitochondrial origin; pathophysiology and therapy	INSERM U676	Paris	Hôpital Robert Debré, 48 Bd Sévrieur, Paris 75019	pierre.rustin@inserm.fr	Pathophysiology and Therapy of Mitochondrial Diseases	RUSTIN Pierre	Our team projects focus on the understanding of a set of mitochondrial diseases with the aim to develop therapeutic approaches making use of cell and animal models, in close connection with clinicians allowing rapid transfer towards clinical developments.	http://www.u676.inserm.fr/	#311 Bénil P, Rustin P. 2012 Changing the diet to make more mitochondria and protect the heart. <i>Circ Res</i> (in press) #313 Bouaita A, Augustin S, Lechaux C, Owerman-Thibault H, Bénil P, Simonutti M, Paques M, Rustin P, Sahel J, and Corral-Debrinski M. Downregulation of apoptosis-inducing factor in Harlequin mice induces progressive and severe optic atrophy which is durably prevented by AAV2-AIF1 gene therapy. <i>Brain</i> . 2012 135 : 35-52 #297 Bayot, A., Santos, R., Camadro, J.M. and Rustin, P. 2011. Friedreich ataxia: The vicious cycle hypothesis revisited. <i>BMC Medicine</i> 9, 112 #308 Schiff M, Bénil P, El-Khoury R, D Schlemmer, Benoist F and Rustin P. Mouse studies to shape clinical trials for mitochondrial diseases: High fat diet in Harlequin mice. <i>PLoS One</i> . 2011;6(12):e28823. #295 Sanz A, Soikkeli M, Portero-Otin M, Wilson A, Kempainen E, McIlroy G, Eilola S, Kempainen K.K., Tuomela T, Lakanmaa M, Kiviranta E, Stefanatos R, Dufour E, Hutz B, Naudi A, Jové M, Zeb A, Vartiainen S, Matsuno-Yagi M, Yagi T, Rustin P, Pamplon R, Jacobs HT. Expression of the yeast NADH dehydrogenase ND5 in <i>Drosophila confers</i> increased lifespan independently of dietary restriction. <i>Proc Natl Acad Sci</i> 107:9105-10 #288 Bénil P, El-Khoury R, Schiff M, Sainsard A, Rustin P. 2010 Genetic background influences mitochondrial function: modeling mitochondrial disease for therapeutic development. <i>Trends Mol Med</i> 16, 210-217	Developing therapy using the Harlequin mouse model		0	Biochemistry, Cell and Molecular biology	1	Biochemistry, Cell and Molecular biology

new targets and compounds for glioblastoma therapy	INSERM U-1051	Montpellier	Hôpital Saint Eloi - Bâtiment INM 80, rue Augustin Fliche - BP 74103 34091 Montpellier cedex 5 - France	norbert.bakalara@enscm.fr	Cerebral Plasticity, Stem Cells and Glioma Therapy	Hugues DUFFAU	Study of cerebral plasticity associated with low-grade glioma, identification of new agent and therapeutic target and to study migration and differentiation of tumoral cells	http://www.inmfrance.com/	<p>Oxaphosphinanes: new therapeutic perspectives for glioblastoma. Clarion L, Jacquard C, Sainte-Catherine O, Loiseau S, Filippini D, Hirlemann MH, Volle JN, Virieux D, Lecouvey M, Pirat JL, Bakalara N. <i>J Med Chem.</i> 2012 Mar 8;55(5):2196-211. Epub 2012 Feb 14.</p> <p>7β-Hydroxycholesterol-induced energy stress leads to sequential opposing signaling responses and to death of C6 glioblastoma cells. Clarion L, Schindler M, de Weille J, Lohméde K, Laroche-Clary A, Uro-Coste E, Robert J, Mersel M, Bakalara N. <i>Biochem Pharmacol.</i> 2012 Jan 1;83(1):37-46. Epub 2011 Sep 29.</p> <p>Oxaphosphinanes: new therapeutic perspectives for glioblastoma. Clarion L, Jacquard C, Sainte-Catherine O, Loiseau S, Filippini D, Hirlemann MH, Volle JN, Virieux D, Lecouvey M, Pirat JL, Bakalara N. <i>J Med Chem.</i> 2012 Mar 8;55(5):2196-211. Epub 2012 Feb 14.</p> <p>7β-Hydroxycholesterol-induced energy stress leads to sequential opposing signaling responses and to death of C6 glioblastoma cells. Clarion L, Schindler M, de Weille J, Lohméde K, Laroche-Clary A, Uro-Coste E, Robert J, Mersel M, Bakalara N. <i>Biochem Pharmacol.</i> 2012 Jan 1;83(1):37-46. Epub 2011 Sep 29.</p>	New therapeutic approach against glioblastoma	4	molecular and cell biology, oncology, in vivo models for glioblastoma	1	molecular and cell biology, oncology, in vivo models for glioblastoma
brain plasticity	INSERM U-1051	Montpellier	Hôpital Saint Eloi - Bâtiment INM 80, rue Augustin Fliche - BP 74103 34091 Montpellier cedex 5 - France	h-duffau@chu-montpellier.fr	Cerebral Plasticity, Stem Cells and Glioma Therapy	DUFFAU Hugues	Study of cerebral plasticity associated with low-grade glioma, investigation of functional anatomy of the human brain, identification of new agent and therapeutic target in cerebral glioma, study of migration and differentiation of tumoral cells	http://www.inmfrance.com/	<p>1. Duffau H. Lessons from brain mapping in low-grade glioma surgery: insights into relationships between tumor and brain plasticity. <i>Lancet Neurology</i> 2005;4:476-486</p> <p>2. Thiebaut de Schotten M, Urbanski M, Duffau H, et al. Direct evidence for a parietal-frontal pathway subserving spatial awareness in humans. <i>Science</i> 2005;309:2226-2228</p> <p>3. Garbuzi Vidoretta J, Garcia R, Moritz-Gasser S, Duffau H. Double dissociation between syntactic gender and picture naming processing: a brain stimulation study. <i>Hum Brain Mapp</i> 32:331-340, 2011 4. Ius T, Angelini E, Thiebaut de Schotten M, Mandonnet E, Duffau H. Evidence for potentials and limitations of brain plasticity using an atlas of functional resectability of WHO grade II gliomas: towards a "minimal common brain". <i>NeuroImage</i> 56:992-1000, 2011.</p> <p>5. Maldonado I, Moritz-Gasser S, Duffau H. Does the left superior longitudinal fascicle subserve language semantics? A brain electrostimulation study. <i>Brain Struct Funct</i> 216:263-274, 2011</p> <p>6. Duffau H: The "frontal syndrome" revisited: lessons from electrostimulation mapping studies. <i>Cortex</i> 48:120-31, 2012</p>	Functional anatomy of human brain and surgical applications in neurooncology	3	Brain plasticity, brain connectivity, functional anatomy, glioma, cognitive neurosciences, neuroimaging	1	Cognitive neurosciences, spatial cognition
Cancer Stem Cells	INSERM U-1051	Montpellier	Hôpital Saint Eloi - Bâtiment INM 80, rue Augustin Fliche - BP 74103 34091 Montpellier cedex 5 - France	hugnot@univ-montp2.fr	Cerebral Plasticity, Stem Cells and Glioma Therapy	DUFFAU Hugues	We are currently studying pathways and genes involved in cancer stem cell migration, differentiation and self-renewal	http://www.inmfrance.com/us/1_tea_m4_gp2_Hugnot.php	<p>1-PO Guichet, JP Hugnot: Cellular Origin of Low grade diffuse glioma. In press, Springer</p> <p>2-Brain tumor stem cells: bringing order to the chaos of brain cancer. <i>Dirks PB. J Clin Oncol.</i> 2008 Jun 10;26(17):2916-24. Review</p> <p>3-Cancer stem cells in gliomas: identifying and understanding the apex cell in cancer's hierarchy. <i>Venere M, Fine HA, Dirks PB, Rich JN. Glia.</i> 2011 Aug;59(8):1148-54</p> <p>4-Brain tumour stem cells. <i>Vescovi AL, Galli R, Reynolds BA. Nat Rev Cancer.</i> 2006 Jun;6(6):425-36.</p>	Regulation of self-renewal, differentiation and migration of glioma cancer stem cells	0	In vitro and in vivo models for low and high grade gliomas, Migration tests, Videomicroscopy, Cytometry, Molecular Biology	1	In vitro and in vivo models for low and high grade gliomas, Migration tests, Videomicroscopy, Cytometry, Molecular Biology
Neurobiology	INSERM U1051	Montpellier	Institut des Neurosciences de Montpellier, Hôpital Saint Eloi, 80 rue A. Fliche, 34091 Montpellier	nicolas.tricaud@inserm.fr	Avenir Myelin molecular mechanisms of myelination/demyelination and gene therapy in peripheral nerves	TRICAUD Nicolas	we use viral tools to investigate molecular mechanisms of myelination/demyelination in peripheral nerves. Our research focus on the role of cell polarity protein during myelination, on the function of mitochondria in the axon-glia couple in healthy and diseased conditions, on the transcription factors involved during demyelination and on gene therapy approaches to treat hereditary peripheral nerve diseases	http://www.inmfrance.com/avenir_2.php	<p>Jacob C, Christen CN, Pereira JA, Somandín C, Baggioini A, Löscher P, Özçelik M, Tricaud N, Meijer D, Yamaguchi T, Matthias P and Suter U. HDAC1 and HDAC2 control the transcriptional program of myelination and the survival of Schwann cells. <i>Nat. Neurosci.</i> 14:429-436 (2011).</p> <p>Cotter L, Özçelik M, Jacob C, Pereira JA, Locher V, Baumann R, Relvas JB, Suter U and Tricaud N. Dlg1-PTEN Interaction Regulates Myelin Thickness to Prevent Damaging Peripheral Nerve Overmyelination. <i>Science</i> 268:1415-18 (2010).</p> <p>Özçelik M, Cotter L, Jacob C, Pereira JA, Relvas JB, Suter U and Tricaud N. Palis is a major regulator of the epithelial-like polarization and the extension of the myelin sheath in peripheral nerves. <i>J. Neurosci.</i> 30(11): 4120-31 (2010).</p> <p>E. Arnaud, J. Zenker, AS, de Preux Charles, C. Stendel, A. Roos, JJ, Médard, N. Tricaud, J. Weis, U. Suter, J. Senderek and R. Christ. SH3TC2/KIAA1985 protein is required for proper myelination and the integrity of the node of Ranvier in the peripheral nervous system. <i>Proc. Natl. Acad. Sci. USA</i> 106(41): 17528-33 (2009).</p> <p>J.A. Pereira, Y. Benninger, R. Baumann, A.F. Gonçalves, M. Özçelik, T. Thurnherr, N. Tricaud, D. Meijer, R. Fässler, U. Suter, and J.B. Relvas. Integrin-linked kinase is required for radial sorting of axons and Schwann cell remyelination in the peripheral nervous system. <i>J. Cell Biol.</i> 185(1): 147-61 (2009).</p> <p>Perrin-Tricaud C, Rutishauser U, Tricaud N. P120 catenin is required for thickening of Schwann cell myelin. <i>Mol. Cell. Neurosci.</i> 35: 120-129 (2007).</p> <p>Tricaud N, Perrin-Tricaud C, Bruses J, Rutishauser U. Adherens junctions in myelinating Schwann cells stabilize Schmidt-Lanterman incisures via recruitment of p120 catenin to E-cadherin. <i>J. Neurosci.</i> 25(3): 3259-3269 (2005).</p>	Molecular mechanisms of Lepre infection in Schwann cells	1	Medical doctor with an expertise in neurology or in lepre biology	1	Research scientist with an expertise in cell biology or in viral tools for gene therapy
Neuroendocrinology, Endocrinology.	U676.	Paris				DE ROUX Nicolas	Physiology of the pubertal onset and genetics of associated diseases. Investigating the neuroendocrine role and molecular mechanism of Kisspeptin function. Understanding molecular mechanisms of pubertal onset.	http://www.u676.inserm.fr/	<p>de Roux, N., Genin, E., Carel, J.C., Matsuda, F., Chaussain, J.L., and Milgrom, E. (2003). Hypogonadotropic hypogonadism due to loss of function of the KISS1-derived peptide receptor GPR54. <i>Proc Natl Acad Sci U S A</i> 100, 10972-10976.</p> <p>Marot, D., Bieche, I., Aumas, C., Esselin, S., Bouquet, C., Vacher, S., Lazennec, G., Perricaudet, M., Kuttern, F., Lidereau, R., et al. (2007). High tumoral levels of Kiss1 and G-protein-coupled receptor 54 expression are correlated with poor prognosis of estrogen receptor-positive breast tumors. <i>Endocr Relat Cancer</i> 14, 691-702.</p> <p>Tenenbaum-Rakover, Y., Commenges-Ducos, M., Iovane, A., Aumas, C., Admoni, O., and de Roux, N. (2007). Neuroendocrine phenotype analysis in five patients with isolated hypogonadotropic hypogonadism due to a L102P inactivating mutation of GPR54. <i>J Clin Endocrinol Metab</i> 92, 1137-1144.</p> <p>Huijbregts, L., and de Roux, N. (2010). KISS1 is down-regulated by 17beta-estradiol in MDA-MB-231 cells through a nonclassical mechanism and loss of ribonucleic acid polymerase II binding at the proximal promoter. <i>Endocrinology</i> 151, 3764-3772.</p> <p>Nimri, R., Leberthal, Y., Lazar, L., Chevrier, L., Phillip, M., Bar, M., Hernandez-Mora, E., de Roux, N., and Gat-Yablonski, G. (2011). A novel loss-of-function mutation in GPR54/KISS1R leads to hypogonadotropic hypogonadism in a highly consanguineous family. <i>J Clin Endocrinol Metab</i> 96, E536-545.</p> <p>Huijbregts, L., Roze, C., Bonafe, G., Houang, M., Le Bouc, Y., Carel, J.C., Leger, J., Alberti, P., and de Roux, N. (2012). DNA polymorphisms of the KISS1 3' untranslated region interfere with the folding of a G-rich sequence into G-quadruplex. <i>Mol Cell Endocrinol</i> 351, 239-248.</p>	Characterisation of proteins interacting with the intra-cellular domain of KISS1R. Several candidate proteins have been defined by a double hybrid screening. The aim of the project is to confirm the interaction and delineate the function of candidate proteins.	1	PhD in Biochemistry. First experience in protein biochemistry or molecular biology. Knowledge of G-protein coupled receptor biochemistry and cell biology.	1	PhD in Biochemistry. First experience in protein biochemistry or molecular biology. Knowledge of G-protein coupled receptor biochemistry and cell biology.
Neuroendocrinology, Endocrinology.	U676.	Paris				DE ROUX Nicolas	Physiology of the pubertal onset and genetics of associated diseases. Investigating the neuroendocrine role and molecular mechanism of Kisspeptin function. Understanding molecular mechanisms of pubertal onset.	http://www.u676.inserm.fr/	<p>de Roux, N., Genin, E., Carel, J.C., Matsuda, F., Chaussain, J.L., and Milgrom, E. (2003). Hypogonadotropic hypogonadism due to loss of function of the KISS1-derived peptide receptor GPR54. <i>Proc Natl Acad Sci U S A</i> 100, 10972-10976.</p> <p>Marot, D., Bieche, I., Aumas, C., Esselin, S., Bouquet, C., Vacher, S., Lazennec, G., Perricaudet, M., Kuttern, F., Lidereau, R., et al. (2007). High tumoral levels of Kiss1 and G-protein-coupled receptor 54 expression are correlated with poor prognosis of estrogen receptor-positive breast tumors. <i>Endocr Relat Cancer</i> 14, 691-702.</p> <p>Tenenbaum-Rakover, Y., Commenges-Ducos, M., Iovane, A., Aumas, C., Admoni, O., and de Roux, N. (2007). Neuroendocrine phenotype analysis in five patients with isolated hypogonadotropic hypogonadism due to a L102P inactivating mutation of GPR54. <i>J Clin Endocrinol Metab</i> 92, 1137-1144.</p> <p>Huijbregts, L., and de Roux, N. (2010). KISS1 is down-regulated by 17beta-estradiol in MDA-MB-231 cells through a nonclassical mechanism and loss of ribonucleic acid polymerase II binding at the proximal promoter. <i>Endocrinology</i> 151, 3764-3772.</p> <p>Nimri, R., Leberthal, Y., Lazar, L., Chevrier, L., Phillip, M., Bar, M., Hernandez-Mora, E., de Roux, N., and Gat-Yablonski, G. (2011). A novel loss-of-function mutation in GPR54/KISS1R leads to hypogonadotropic hypogonadism in a highly consanguineous family. <i>J Clin Endocrinol Metab</i> 96, E536-545.</p> <p>Huijbregts, L., Roze, C., Bonafe, G., Houang, M., Le Bouc, Y., Carel, J.C., Leger, J., Alberti, P., and de Roux, N. (2012). DNA polymorphisms of the KISS1 3' untranslated region interfere with the folding of a G-rich sequence into G-quadruplex. <i>Mol Cell Endocrinol</i> 351, 239-248.</p>	Molecular function of a G-quadruplex recently described in the 3'UTR of KISS1. Role in the post-transcriptional regulation of KISS1 and/or in the subcellular location of KISS1 mRNA.	1	Master in sciences. Interest for molecular and cellular biology.	1	Master in sciences. Interest for molecular and cellular biology.
									<p>1. Kabashi Es, Berrier V, Lissouba A, Brustein E, Liao M, Rouleau GA, Drapeau P Genetic interactions between FUS and TARDBP but not SOD1 in an in vivo ALS model. <i>PLoS Genetics</i> 2011 Aug;7(8):e1002214. Epub 2011 Aug 4 (Citations 6; IF 9.5) and s Selected by Faculty of 1000.</p> <p>2. Kabashi E, Lin L, Tradewell M, Dion P, Bourgoin P, Rochefort D, Durham H, Vande Velde C, Rouleau GA, Drapeau P. Gain and loss of function of ALS-related mutations of TARDBP (TDP-43) cause motor deficits in vivo. <i>Hum Mol Genet</i> 2010 Feb 15;19(4):671-83. (Citations 73; IF 8.1)</p>					

Neurodegenerative diseases	CRICM Centre de Recherche de l'Institut du Cerveau et de la Moelle epiniere	Paris	47 Blvd de l'Hopital	edor.kabashi@icm-institute.org	ALS: From Genetics to Treatment	KABASHI Edor	The mission of this new AVENIR team established at the Brain and Spinal Cord Institute (ICM) is to identify novel genetic causes, to understand molecular mechanisms and to discover therapeutics for neurodegenerative diseases, thus having significant clinical impact.	http://www.cricm.upmc.fr/	<p>3. Kabashi E, Valdmanis PN, Dion P, Spiegelman D, McConkey BJ, Vande Velde C, Bouchard JP, Lacombes L, Pochigaeva K, Salachas F, Pradat PF, Camu W, Meininger V, Dupre N, Rouleau GA. TARDBP mutations in individuals with sporadic and familial amyotrophic lateral sclerosis. <i>Nat Genet.</i> 2008 May;40(5):572-4. (Citations 422; IF 36.4)</p> <p>4. Kabashi E, Valdmanis PN, Dion P, Rouleau GA. Oxidized/misfolded superoxide dismutase-1: the cause of all amyotrophic lateral sclerosis? <i>Ann Neurol.</i> 2007 Dec;62(6):553-9. (Citations 43; IF 10.8)</p> <p>5. Kabashi E, Ager JN, Hong Y, Taylor DM, Minetti S, Figlewicz DA, Durham HD. Proteasomes remain intact, but show early focal alteration in their composition in a mouse model of amyotrophic lateral sclerosis. <i>J Neurochem.</i> 2008 Apr;105(6):2353-2366.</p> <p>6. Kabashi E, Daoud H, Riviere JB, Bourgoin P, Provencher P, Pourcher E, Dion P, Dupré N, Rouleau GA. No TARDBP mutations in a French-Canadian population of patients with Parkinson's disease. <i>Arch Neurol.</i> 2009 Feb;66(2):281-2. (Citations 7; IF 7.1)</p>	Develop transgenic lines in zebrafish for mutant genes involved in disease. Perform chemical and genetic screens and identify novel partners of mutant proteins	1	Molecular Biology	1	PhD in Biochemistry. Training in Genetics and Molecular Biology preferable
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neuroendocrinology, energy balance, obesity	INSERM U862	Bordeaux	neurocentre magendie, 146 rue Leo Saignat, 33077 Bordeaux	daniela.cota@inserm.fr	energy balance and obesity	COTA Daniela	Our major interest is the understanding of the mechanisms underlying the regulation of food intake and body weight. Our work focuses on the role of the endocannabinoid system (ECS) and of the mammalian Target Of Rapamycin complex 1 (mTORC1) pathway in the pathophysiology of obesity.	http://www.neurocentre-magendie.fr/NCM_Pages/Equipes/eq_cota/UK_equipe_cota.php	1. Cota D*, Manciano G*, Tschöp M, Grübler Y, Flachskamm C, Schubert M, Auer D, Yassouridis A, Thöne-Reineke C, Ortman S, Tomasson F, Cervino C, Nisoli E, Lombard AC, Pasquali R, Lutz B, Stalla GK & Pagotto U. The endogenous cannabinoid system affects energy balance via central oreogenic drive and peripheral lipogenesis. <i>Journal of Clinical Investigation</i> , 2003; 112, 423-431 2. Cota D, Proulx K, Blake smith KA, Kozma SC, Thomas G, Woods SC & Seeley RJ. Hypothalamic mTOR signaling regulates food intake. <i>Science</i> , 2006; 312, 927-30. 3. Cota D, Matter EK, Woods SC & Seeley RJ. The role of hypothalamic mTOR signaling in diet-induced obesity. <i>Journal of Neuroscience</i> 2008; 28, 7202-8. 4. Quarta C*, Bellocchio L*, Mancini G*, Mazza R, Cervino C, Braulke LJ, Fekete C, Latorre R, Nanni C, Bucchi M, Clemens LA, Helmstaedter G, Watanabe M, Leste-Lassere T, Maitre M, Tedesco L, Faneli F, Reuss S, Klaus S, Srivastava RK, Monroy K, Valerio A, Grandis A, De Giorgio R, Pasquali R, Nisoli E, Cota D, Lutz B, Manciano G & Pagotto U. CB1 signalling in forebrain and sympathetic neurons is a key determinant of endocannabinoid actions on energy balance. <i>Cell Metabolism</i> 2010;11, 273-85. 5. Gatta-Cherri B*, Matias P*, Vallée M, Tabarin A, Manciano G, Piazza PV & Cota D. Simultaneous post-prandial deregulation of the oreogenic endocannabinoids anandamide and the anoreogenic peptide YY in obesity. <i>International Journal of Obesity</i> , 2011 [Epub ahead of print] 6. Bajzer M*, Olivieri M*, Haas MK, Pflüger PT, Magrissio U, Foster MT, Tschöp MH, Cota D & Obici S. CB1 antagonism enhances glucose utilization and activates brown adipose tissue in diet-induced obese mice. <i>Diabetologia</i> , 2011 [Epub ahead of print]	study of the interaction between the mTOR pathway and the endocannabinoid system in energy balance regulation	1	Preferred expertise in the study of energy balance in animal models (rats and/or mice), expertise in neuroanatomical studies, expertise in cell culture studies, expertise in the use of RNA interference		
Neurosciences	Centre de Recherche de l'Institut du Cerveau et de la Moelle	Paris	ICM, Hôpital de la Pitié-Salpêtrière, 47-83 boulevard de l'Hôpital, 75013	richard.miles@upmc.fr vincent.navarro@psi.aphp.fr	Cortex and Epilepsy	MILES Richard	We study cortical function and dysfunction in focal epilepsies, mostly from the temporal lobe. We have defined <i>in vitro</i> neuronal properties and organization in the presubiculum. We have demonstrated field potentials generated by single interneurons and shown how they contribute to sharp-waves <i>in vitro</i> . In work on human epileptic hippocampus, we have identified a defect in Ca ²⁺ -homeostasis associated with interictal-like activity and described a novel population event that emerges just before convulsant-induced ictal-like events. We identified changes of the EEG signal <i>in vivo</i> preceding the occurrence of the seizures.	http://icm-institute.org/memo/actualites http://www.chups.jussieu.fr/ext/lu739/Home.html	1. Jacobs J., Staba R., Asano E, Otsubo H., Wu J., Zijlman M., Mohamed I., Kahane P., Dubeau F., Navarro V., Gotman J. <i>Progress in Neurobiology</i> , in press 2. Valderrama M, Crepon B, Botella-Soler V, Marinierie J, Hasboun D, Baulac M, Adam C, Navarro V, Le Van Quyen M. <i>PLOS One</i> (2012) 3. Huberfeld G, Menendez de la Prida L, Pallud J, Cohen I, Le Van Quyen M, Adam C, Clemenceau S, Baulac M & Miles R. <i>Nature Neurosci.</i> 2011, 14, 627-34. 4. Crépon B, Navarro V, Hasboun D, Clemenceau S, Marinierie J, Baulac M, Adam C & Le Van Quyen M. <i>Brain</i> 2010 133: 33-45. 5. Bazzelot M, Dinocourt C, Cohen I & Miles R. <i>J Physiol</i> . 2010, 588: 2077-90. 6. Cohen I, Navarro V, Clemenceau S, Baulac M & Miles R. <i>Science</i> . 2002, 298:1418-21.	In vivo micro-electrodes recordings in human epileptic patients, in order to better understand the pathophysiology of the seizure building	1	MD, and master with a solid background in epilepsy and EEG analysis		
Neuroscience	Institut Genomique Fonctionnelle (IGF) - UMRS203 CNRS - U661 INSERM - Montpellier University	Montpellier	141, rue de la Cardonille	philippe.lory@igf.cnrs.fr	Calcium channels: structure-function studies and channelopathies	LORY Philippe	From molecular to <i>in vivo</i> studies of T-type calcium channels (epilepsy), P/Q-type calcium channels (episodic ataxia type 2) and NALCN (sodium leak channel)	http://www.igf.cnrs.fr/	1- Weiss et al (2012) <i>J Biol Chem</i> 287(4):2810-8. 2- Barbara et al (2009) <i>J Neurosci</i> . 29:13106-14. 3- Swayne et al (2009) <i>EMBO Rep</i> 10(8): 873-80. 4- Mezghrani et al (2008) <i>J Neurosci</i> . 28(17):4501-11. 5- Vitko et al (2007) <i>J Neurosci</i> . 27(2):322-30. 6- DePuy et al (2006) <i>Proc Natl Acad Sci U S A</i> . 103(39):14590-5.	1- How T-type calcium channels become hyperactive in epilepsy ? ; 2- Characterization of novel regulations for neuronal T-type channels ; 3-P/Q channel degradation in episodic ataxia ; 4- NALCN in alzheimer disease	0	Electrophysiology, Cell biology, Biochemistry and Behavioral studies	1	Electrophysiology, Molecular and Cell biology, Biochemistry and Behavioral studies
Cell biologist, Biophysicist, Biochemist	Institut Genomique Fonctionnelle (IGF) - UMRS203 CNRS - U661 INSERM - Montpellier University	Montpellier	141, rue de la Cardonille	jean-philippe.pin@igf.cnrs.fr	Molecular Dynamic Of Family 3G3-Protein Coupled Receptors	PIN Jean-Philippe	Structural dynamics of neurotransmitter receptors	http://www.igf.cnrs.fr/	1 Mornier, C. et al. <i>EMBO J</i> 2011 2 Huang, S. et al. <i>Proc Natl Acad Sci</i> 2011 3 Comps-Agrar, L. et al. <i>EMBO J</i> 2011 4 Magalhaes, A. et al. <i>Nat Neurosci</i> 2010 5 Rives, M.L. et al. <i>EMBO J</i> 2009 6 Ferre, S. et al. <i>Nat Chem Biol</i> 2009 7 Rondard, P. et al. <i>EMBO J</i> 2008 8 Maurel, D. et al. <i>Nat Meth</i> 2008 10 Hlavackova, V. et al. <i>EMBO J</i> 2005 11 Kniazeff, J. et al. <i>Nat. Str. Mol. Biol.</i> 2004	Study of the structural dynamics of metabotropic glutamate receptors, their regulation by interacting proteins and various ligands, and their functional cross-talk with other receptors - in relation to drug development in neurodegenerative and neurologic disorders.	1	cell biologist, Biophysicist, Biochemist	0	cell biologist, Biophysicist, Biochemist, Chemist,
Molecular pharmacology, cell transduction pathways, G protein-coupled receptors	IGF, CNRS UMRS203, INSERM U661	Montpellier	141, rue de la Cardonille	Bernard.Mouillac@igf.cnrs.fr	Membrane receptors: structure, dynamics and pathologies	MOUILLAC Bernard	The program is dedicated to increase our knowledge in the field of transmembrane heptahelical receptors and their associated signaling pathways, and to develop new potential therapeutic molecules.	http://www.igf.cnrs.fr	Jean-Alphonse F. et al. Biased agonist pharmacochaperones of the AVP V2 receptor may treat congenital nephrogenic diabetes insipidus. <i>J. Am. Soc. Nephrol.</i> 2009, 20, 2190-2203. Arcemibéhère L. et al. Leukotriene BLT2 receptor monomers activate the G12 GTP-binding protein more efficiently than dimers. <i>J. Biol. Chem.</i> 2010, 285, 6337-6347. Albizu Let al. Time-resolved FRET between GPCR ligands reveals oligomers in native tissues. <i>Nature Chem. Biol.</i> 2010, 6, 587-594. Banères J.L., Popot L.L. and Mouillac B. New advances in production and functional folding of G protein-coupled receptors. <i>Trends. Biotechnol.</i> 2011, 29, 314-322. Rahme R et al. Structural insights into biased GPCR signaling revealed by fluorescence spectroscopy. <i>Proc. Natl. Acad Sci. USA</i> 2012, accepted for publication.	study of the interactions between a snake venom toxin and the arginine-vasopressin V2 receptor	0	pharmacology, biochemistry, molecular biology, cell biology, biophysics	1	pharmacology, biochemistry, molecular biology, cell biology, biophysics
Development of GABAergic circuitry in cerebellar cortex	IGF, CNRS UMRS203, INSERM U661	Montpellier	141, rue de la Cardonille	fabrice.ango@igf.cnrs.fr	Development of Cerebellar Gabaergi Circuit	ANGO Fabrice	Development of GABAergic circuitry in cerebellar cortex	http://www.igf.cnrs.fr	1 Ango F, et al. <i>PLoS Biol</i> 6(4): e103. 2008 2-Huang ZJ, et al <i>Nat Rev Neurosci</i> . 2007 3-Ango, F., et al. <i>Cell</i> . 2004 4- Cristo GD, et al. <i>Nat Neurosci</i> . 2004	Our current thematic scope is to study the early events of interneuron neurites outgrowth and branching. Identify the molecules involved during this process using state-of-the-art "transcriptomic approaches". The ultimate goal is to describe how environmental signals specifically shape and build functional neuronal circuit in relation to their gene expression profile.	1	Neurobiologist, cell biologist, molecular biologist, biochemist	0	Neurobiologist, cell biologist, molecular biologist, biochemist
Role of signaling pathway alterations in tumor initiation, metastasis development and relapse after treatment	IGF, CNRS UMRS203, INSERM U661	Montpellier	141, rue de la Cardonille	frederic.hollande@igf.cnrs.fr	Signalisation and Cancer	HOLLANDE Frédéric	Analysis of molecular mechanisms and signalling pathways that underlie the capacity of "cancer stem cells" (tumor-initiating cells) to adapt to their new microenvironment during metastasis development and to resist conventional therapy	http://www.igf.cnrs.fr	1. Raynal C, <i>Molecular Cancer</i> , 2010 2. Hollande F, <i>Drug Resistance Updates</i> 2010 3. Buchert M, <i>Proc Natl Acad Sci</i> 2010 4. Pannequin J, <i>Cancer Res</i> 2009 5. Diouf B, <i>J Biol Chem</i> . 2009 6. Buchert M et al., <i>Gastroenterology</i> 2009 7. arido C et al., <i>Cancer Res</i> 2008 8. Pannequin J et al. <i>Gastroenterology</i> 2007 9. Boireau S et al., <i>Carcinogenesis</i> 2007 10. Collazos A et al, <i>Mol Cell Biol</i> 2006	Analysis of molecular mechanisms and signalling pathways that underlie the capacity of "cancer stem cells" (tumor-initiating cells) to adapt to their new microenvironment during metastasis development and to resist conventional therapy	0	cell biologist, biochemist, pharmacologist, pharmacogenomics	1	cell biologist, biochemist
In situ processes that govern hormone pulsatility	IGF, CNRS UMRS203, INSERM U661	Montpellier	141, rue de la Cardonille	patrice.mollard@igf.cnrs.fr	Networks and Rhythms in Endocrine Glands	MOLLARD Patrice	Study of the role of pericytes and cell network organization in the build-up of pituitary hormone pulses	http://www.igf.cnrs.fr	1. Budry, L. et al. <i>Proc Natl Acad Sci</i> 2011 2. Sanchez-Cardenas, C. et al. <i>Proc Natl Acad Sci</i> 2010 3. Lafont, C. et al. <i>Proc Natl Acad Sci</i> 2010 4. Bar, J. et al. <i>JBC</i> 2009 5. Baccam, N. et al. <i>J. Neurosci</i> . 2008 6. Bonnefont, X. et al. <i>Proc Natl Acad Sci</i> 2005	Study of the role of pericytes and cell network organization in the build-up of pituitary hormone pulses	1	Cellular in vivo imaging, cell biologist, molecular biologist, bioinformatician, electrophysiologist	0	Cellular in vivo imaging, cell biologist, molecular biologist, bioinformatician, electrophysiologist
Genomics of cell proliferation and cell death	IGF, CNRS UMRS203, INSERM U661	Montpellier	141, rue de la Cardonille	frederic.bienvenu@igf.cnrs.fr	Cell Cycle Clock Genomics (C3G)	BIENVENU Frédéric	The goal of our young team is to decipher the anti-apoptotic and pro-proliferative consequence of Cyclin D1 activity on gene expression regulation. This is the springboard for future custom therapeutics aiming at preventing cancer cell progression and also at promoting dopaminergic neurons' life expectancy to prevent Parkinson disease.	http://www.igf.cnrs.fr/	1. <i>Dev. Cell</i> . Oct 18;21(4):655-68. 2. <i>Nature</i> . 2011 Jun 9;474(7350):230-4. 3. <i>Nature</i> . 2010 Jan 21;463(7279):374-8. 4. <i>Mol Biol Cell</i> . 2005 Apr;16(4):1850-8. 5. <i>J Biol Chem</i> . 2001. 276(20):16840-16847	Candidates will be part of scientists willing to use modern "omics" approaches (genomics, proteomics, transcriptomics) to discover new therapeutic targets (belonging historically to cell cycle machinery) against cancer and neurodegenerative disorders. Mainly new members of the team will fundamentally explore the transcriptional impact of Cyclins and CDKs in order to contribute to technology transfers and clinical applications within the next decade.	0	Genetics, biochemistry, molecular biology, animal biology, bioinformatics	2	Genetics, biochemistry, molecular biology, animal biology, bioinformatics
stem cells and cancer	IGF, CNRS UMRS203, INSERM U661	Montpellier	141, rue de la Cardonille	philippe.jay@igf.cnrs.fr	Developpement and Physiopathologie of Epithelia	JAY Philippe	Aim: understand the relationship between stem cells of the intestinal epithelium and their niche, in the healthy context and in diseases, including chronic inflammatory diseases and cancer. The study is performed mainly in animal models, then validated in human biopsies.	http://www.igf.cnrs.fr/	1 Gerbe F. et al. <i>JCB</i> 2011 2 Escobar M. et al. <i>Nat. Commun.</i> 2011 3 Legraverend C. et al. <i>Cell stem Cell</i> 2010 4 Gerbe F. et al. <i>Gastroenterology</i> 2009 5 Dupasquier S. et al. <i>J. Cell Science</i> 2009 6 Zalati H. et al. <i>Oncogene</i> 2008 7 Bastide P. et al. <i>JCB</i> 2007 8 van Es J. et al. <i>Nat Cell Biol</i> . 2005 9 Jay P. et al. <i>Cancer Research</i> 2005 10 Blache P. et al. <i>JCB</i> 2004	Aim: understand the relationship between stem cells of the intestinal epithelium and their niche, in the healthy context and in diseases, including chronic inflammatory diseases and cancer. The study is performed mainly in animal models, then validated in human biopsies.	0		1	

Physiological and genetic aspects of cardioprotection	IGF, CNRS UMRS203, INSERM U661	Montpellier	141, rue de la Cardonille	Stephanie.Barrere@igf.cnrs.fr	Cardioprotection	BARRERE Stéphanie	Physiology and genetics of the molecular mechanisms involved in the control of heart rate. Control of cell death and survival during myocardial infarction, in relation to development of new therapeutic cardioprotective strategies.	http://www.igf.cnrs.fr/	2 Boigüerín, P. et al. J Control Release 2013 3 Baig, S. et al. Nat Neurosci 2011 4 Marger, L. et al. Channels 2011 5 Gros, D. et al. Cardiovasc Res 2010 6 Aitaj, J. et al. Proc Natl Acad Sci 2009 7 Mangoni & Nargeot Physiol Rev 2008 8 Rouille, F. et al. Circulation 2007 9 Mangoni M. et al. Circ Res 2006 10 Mangoni, M. et al. Proc Natl Acad Sci 2003	Physiology and genetics of the molecular mechanisms involved in the control of heart rate. Control of cell death and survival during myocardial infarction, in relation to development of new therapeutic cardioprotective strategies.	1	Electrophysiology, Ca2+ imaging, Cell Biology, Molecular Biology	0	Electrophysiology, Ca2+ imaging, Cell Biology, Molecular Biology
Purinergic signaling in inflammation and cancer	IGF, CNRS UMRS203, INSERM U661	Montpellier	141, rue de la Cardonille	francois.rassendren@igf.cnrs.fr	New ion channel families	RASSENDREN Francois	We are investigating the signaling pathways involved in the contribution of P2X receptors to inflammatory response in neurodegenerative and peripheral inflammatory diseases. Our approaches include phenotyping of P2X-deficient mice, proteomic and transcriptome profiling and cell biology.	http://www.igf.cnrs.fr/spip.php?article314	1 Ulmann et al. Embo J 2010. 2 Ulmann et al. J Neurosci 2008 3 Avignone et al. 2008 4 Chaumont et al. Science Signal. 2008 5 Sim et al. J Neurosci. 2006. 7 Virginio C et al. Nat Neurosci 1999	-P2X receptors and bioactive lipids signaling in inflammation and cancer. -P2X receptors and immune cell trafficking -P2X receptors in neurodegenerative disorders	1	Physiologist and cell biologist, Biochemist, electrophysiologist	1	Physiologist and cell biologist, biochemist, immunologist
Neural bases of anorexia and addiction: from gene to behavior	IGF, CNRS UMRS203, INSERM U661	Montpellier	141, rue de la Cardonille	valerie.compan@igf.cnrs.fr	Limits of Neuroplasticity : Anorexia and Addiction	COMPAN Valérie	Study of the signaling pathways of metabotropic serotonin 4 receptors in animal model of feeding disorders (anorexia-like, binge-type eating) and addiction (cocaine, ecstasy).	http://www.igf.cnrs.fr/	1 Segu, L. et al. PLoS ONE 2010 2 Jean, A. et al. Proc Natl Acad Sci 2007 3 Conduictier, G. et al. Eur J Neurosci 2006 4 Conduictier, G. et al. Nature PG, NPsy. 2005 5 Lucas, G. et al. Biol Psychiatry 2005 6 Compan, V. et al. J. Neurosci 2004	Identification of new markers involved in anorexia and binge-type eating disorders, using a large spectrum of techniques in freely moving animals. The project is aimed at identifying new strategy to treat addiction and eating-related disorders in collaboration with international groups	1	Neuroscientist	1	Neuroscientist
Neurobiology of Drosophila	IGF, CNRS UMRS203, INSERM U661	Montpellier	141, rue de la Cardonille	Marie-Laure.Parmetier@igf.cnrs.fr	Normal and Pathological Neurobiology in Drosophila	PARMENTIER Marie-Laure	Study of neurodegenerative disease in the model organism Drosophila melanogaster using molecular biology, cell biology and genetic techniques	http://www.igf.cnrs.fr/	1 Taimat-Amar et al. HMG 2011 2 Laville et al. Development 2011 3 Mitr et al. PLoS Biology 2009 4 Bogdanik et al. PLoS One 2008 5 Mugat et al. HMG 2008 6 Devaud et al. Neuroreport 2008 7 Joly et al. Dev Biol 2007 8 Franco et al. J. Neurosci 2004 9 Bogdanik et al. J. Neurosci 2004		1	cell biologist, Biophysist, Biochemist	0	cell biologist, Biophysist, Biochemist, Chemist,
Neurobiology	IGF, CNRS UMRS203, INSERM U661	Montpellier	141, rue de la Cardonille	philippe.marin@igf.cnrs.fr	Serotonin and Physiopathologies	MARIN Philippe		http://www.igf.cnrs.fr/spip.php?article271	1: Labasque M, Mefre J, Carrat G, Becamel C, Bockaert J, Marin P. Constitutive activity of serotonin 2C receptors at G protein-independent signaling: modulation by RNA editing and antidepressants. Mol Pharmacol. 2010 Nov;78(5):818-26. Epub2010 Aug 10. PubMed PMID: 20699324. 2: Barhet G, Carrat G, Cassier E, Barker B, Gaven F, Pillot M, Framery B, Pellissier LP, Augier J, Kang OS, Clayesen S, Reiter E, Banères JL, Benovic JL, Marin P, Bockaert J, Dumuis A. Beta-arrestin1 phosphorylation by GRK5 regulates G protein-independent 5-HT4 receptor signalling. EMBO J. 2009 Sep 16;28(18):2706-18. Epub 2009 Aug 6. PubMed PMID: 19661922; PubMed Central PMCID: PMC2750015. 3: Thouvenot E, Urbach S, Dantec C, Poncet J, Séveno M, Demette E, Jouin P, Touchon J, Bockaert J, Marin P. Enhanced detection of CNS cell secretome in plasma protein-depleted cerebrospinal fluid. J Proteome Res. 2008 Oct;7(10):4409-21. Epub 2008 Sep 6. PubMed PMID: 18774838. 4: Labasque M, Reiter E, Becamel C, Bockaert J, Marin P. Physical interaction of calmodulin with the 5-hydroxytryptamine2C receptor C-terminus is essential for G protein-independent, arrestin-dependent receptor signaling. Mol Biol Cell. 2008 Nov;19(11):4640-50. Epub 2008 Sep 3. PubMed PMID: 18768750; PubMed Central PMCID: PMC2575147. 5: Channon B, Mannoury la Cour C, Gavarini S, Seimandi M, Vincent L, Pujol JF, Bockaert J, Marin P, Millan MJ. Inverse agonist and neutral antagonist actions of antidepressants at recombinant and native 5-hydroxytryptamine2C receptors: differential modulation of cell surface expression and signal transduction. Mol Pharmacol. 2008 Mar;73(3):748-57. Epub 2007 Dec 14. PubMed PMID: 18083778. 6: Delcourt N, Thouvenot E, Channon B, Galiotti N, Jouin P, Bockaert J, Marin P. PACAP type 1 receptor transactivation is essential for IGF-1 receptor signaling and antiapoptotic activity in neurons. EMBO J. 2007 Mar 21;26(9):1542-51. Epub 2007 Mar 1. PubMed PMID: 17332755; PubMed Central PMCID: PMC1829375.	Functional study of the phosphorylation of serotonergic targets of antipsychotics Phosphorylation of G protein-coupled receptors (GPCRs) plays a key role in the regulation of their functional activity, especially in their desensitization/internalization, in the triggering of G protein-independent signaling pathways and in the selective response to distinct ligands of the same receptor (reviewed in Tobin et al. Trends Pharmacol Sci. 2008 Aug;29(8):413-20). This PhD project focuses on several serotonin receptors (5-HT2A, 5-HT2C et 5-HT6) which are the main targets of both hallucinogens like lysergic acid diethylamide (LSD), and fast generation of antipsychotics (clozapine, olanzapine...).	0	protein biochemistry, cell culture	1	
Neuroscience, ophthalmology, vision, vision restoration	INSERM UMR_5968, CNRS 7210, UPMC 80	Paris	Serge Picaud, Institut de la vision, 17 rue Moreau, 75012 Paris	serge.picaud@inserm.fr	Retinal information processing: pharmacology and pathologies	PICAUD Serge	The aim is to unravel the molecular mechanisms of our vision to design new therapeutic treatment of retinal pathologies. The understanding of retinal information processing is also used to develop new strategies to restore vision in blind patients and implement biomimetic machine vision.	http://www.fondave.org/Equipements-membres.html#fon	Djilas M, Olibi C, Lorach H, Bendali A, Dégardin J, Dubus E, Lissorgues-Bazin G, Rousseau L, Benosman R, Ieng SH, Joucla S, Yvert B, Bergonzio P, Sahel J, Picaud S. Three-dimensional electrode arrays for retinal prostheses: modeling, geometry optimization and experimental validation. J Neural Eng. (2011) 8:046020. Fradot M, Buskamp V, Forster V, Cronin T, Léveillard T, Bennett J, Sahel JA, Roska B, Picaud S. Gene therapy in ophthalmology: validation on cultured retinal cells and explants from post-mortem human eyes Human Gene Therapy (2011) 22:587-93. Deniz S, Wersinger E, Schwab V, Mura C, Erdelyi F, Szabo G, Sahel JA, Picaud S, Roux M. Mammalian retinal horizontal cells are unconventional GABAergic neurons. Journal of neurochemistry (2011) 116: 350-362. Buskamp V, Dabel J, Balya D, Fradot M, Visey TJ, Siegler S, Groner AC, Cabuy E, Forster V, Seeliger M, Biel M, Humphries P, Paques M, Mohand-Said S, Trono D, Deisseroth K, Sahel JA, Picaud S, Roska B. Genetic Reactivation of Cone Photoreceptors Restores Visual Responses in Retinitis pigmentosa Science (2010) 329: 413-7. Kolomiets, B., Dubus E, Simonutti M., Rosolen SG, Sahel JA., Picaud S. Late histological and functional changes in the P23H rat retina after photoreceptor loss Neurobiology of diseases (2010) 38, 47-58. Jammouli F*, Wang Q*, Nabouh R, Coriat C, Duboc A, Simonutti M, Dubus E, Craft C M, Ye W, Collins S D, Dulac O, Chiron C, Sahel JA., Picaud S. Taurine deficiency is a cause of vigabatrin-induced retinal phototoxicity Annals of Neurology (2009) 65:98-107.	1) Restoration of vision using retinal prostheses or optogenetic therapy, 2) Modeling retinal information processing toward biomimetic machine vision, 3) Retinal information processing in the primate retina	2	Profil: Depending on the selected project the candidate can have biological background or coming with an engineering profile. Expertise: accordingly the expertise can be either in molecular biology for studies on optogenetic therapy, in biophysics for electrophysiological recordings or studies on retinal prostheses. training can be included in cell culture including postmortem human retina, neuronal recording with patch-clamp and multielectrode arrays, animal phenotyping and histology using confocal microscope and section scanning. Finally, generating biomimetic retinal information processing can provide training in mathematical modelling of vision and asynchronous camera	1	Profil: Depending on the selected project the candidate can have biological background or coming with an engineering profile. Expertise: accordingly the expertise can be either in molecular biology for studies on optogenetic therapy, in biophysics for electrophysiological recordings or studies on retinal prostheses. training can be provided in cell culture including postmortem human retina, neuronal recording with patch-clamp and multielectrode arrays, animal phenotyping and histology using confocal microscope and section scanning. Finally, generating biomimetic retinal information processing can provide training in mathematical modelling of vision and asynchronous camera
The Ecole des Neurosciences de Paris (ENP)	The Ecole des Neurosciences de Paris (ENP) is an advanced research network comprised of leading neuroscience research laboratories in the Paris region. It includes over 100 research teams in the different subfields of Neuroscience from basic to clinical research, and includes also frontier research at the intersection of Neuroscience with physics, maths, computer sciences and experimental psychology. Part of ENP's mission is to recruit outstanding students and post-doctoral researchers worldwide from a variety of academic backgrounds and to orchestrate their doctoral training. Foreign recruits will benefit from the strengths of the network and from administrative help for their installation and studies in French Universities							http://www.paris-neuroscience.fr/enp-uk/who-we-are/index.php						