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	profil, expertise, training (1)	Number of Post-docs	profil, expertise, training (1)
Neurodegenerative diseases	Inserm-CNRS U 975	Paris	CRICM - UPMC/Inserm UMR_S975/CNRS UMR7225 GH Pitié-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=838&Itemid=878&lang=fr	• Höglinger, G.U., Rizk, P., Muriel, M.-P., Duyckaerts, C., Oertel, H.W., Caille, I., Hirsch, E.C. - Dopamine depletion impairs precursor cell proliferation in Parkinson's disease. Nat. Neurosci.,7, 726-735, 2004 • Salazar, J., Mena, N., Hunot, S., Prigent, A., Alvarez-Fischer, D., Arredondo, M., Duyckaerts, C., Zhao, L., Garrick, L.M., Nunez, M.T., Garrick, M.D., Raisman-Vozari, R., Hirsch, E.C. ? Divalent Metal Transporter 1 (DMT1) contributes to neurodegeneration in parkinsonian syndromes. Proc. Natl Acad. Sci., 105 (47), 18578-18583, 2008. • Brochard, V., Combadière, B., Prigent, A., Laouar, Y., Perrin, A., Beray-Berthat, 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 model. J. Clin. Invest., 119 (1), 182-192, 2009. • Hirsch, E.C., Hunot, S. - Neuroinflammation in Parkinson's disease: A target for neuroprotection? The Lancet Neurol., vol. 8: 382-397, 2009. • Karachi C., Grabli D., Bernard Fa., Tandé D., Wattiez N., Belaid H., Bardinet E., Prigent A., Nothacker H.P., Hunot S., Hartmann A., Lehéricy S., Hirsch E.C., François C. - Cholinergic mesencephalic neurons are involved in gait and postural disorders in parkinsonian patients and monkeys. J. Clin. Invest., 120 (8), 2745-54, 2010. • Ros-Bernal F, Hunot S, Herrero Mt, Parnadeau S, Corvol Jc, Lu L, Alvarez-Fischer D, Carrillo-De Sauvage Ma, Saurini F, Coussieu C, Kinugawa K, Prigent A, Höglinger G, Hamon M, Tronche F, Hirsch Ec, Vyas S. Microglial glucocorticoid receptors play a pivotal role in regulating dopaminergic neurodegeneration in parkinsonism. Proc Natl Acad Sci (USA), 108 (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 Pitié-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 interactor 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=839&Itemid=828&lang=fr	• 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. Lancet, 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. The New England journal of medicine, 354(4), 422-3. • Stevanin G, Santorelli FM, Azzedine H, Coutinho P, Chomilier J, Denora PS, Martin E, Ouvrard-Hernandez AM, Tessa A, Bouslam N, Lossos A, Charles P, Loureiro JL, Elleuch N, Confavreux C, Cruz VT, Ruberg M, Leguern E, Grid D, Tazir M, Fontaine B, Filla A, Bertini E, Durr A, Brice A (2007). Mutations in SPG11, encoding spatacsin, are a major cause of spastic paraplegia with thin corpus callosum. Nature genetics, 39(3), 366-72. • Hanein S, Martin E, Boukhris A, Byrne P, Goizet C, Hamri A, Benomar A, Lossos A, Denora P, Fernandez J, Elleuch N, Forlani S, Durr A, Feki I, Hutchinson M, Santorelli FM, Mhiri C, Brice A, Stevanin G (2008). Identification of the SPG15 gene, encoding spastizin, as a frequent cause of complicated autosomal-recessive spastic paraplegia, including Kjellin syndrome. American journal of human genetics, 82(4), 992-1002. • Benajiba L, Le Ber I, Camuzat A, Lacoste M, Thomas-Anterion C, Couratier P, Legallic S, Salachas F, Hannequin D, Decousus M, Lacomblez L, Guedj E, Golfier V, Camu W, Dubois B, Campion D, Meininger V, Brice A, (2009). TARDBP mutations in motoneuron disease with frontotemporal lobar degeneration. Annals of neurology, 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. Human moloecular genetics, 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.	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 U1005	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, Cell, 2004; Borrell-Pages, JCI, 2006; Colin, EMBO J, 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 Drosophila melanogaster 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	Gauthier LR, Charrin BC, Borrell-Pages M, Dompierre 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. Cell, 118, 127-138. (343 citations Top 1% publication ISI, F1000=12) Borrell-Pagès M., Canals J.M., Cordelières F.P., Parker J.A., Pineda J.R., Grange G., Bryson E.A., Guillermier 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 HSJ1b and transglutaminase J. Clin. Invest. 116, 1410-1424. Epub 2006 Apr 6 *Co-corresponding authors. (66 citations) Dompierre J. P., Godin J.D., Charrin B.C., Cordelières F.P., King S.J., Humbert S.* and Saudou F.* (2007) HDAC6 Inhibition Compensates for the Transport Deficit in Huntington's Disease by Increasing Tubulin Acetylation J. Neurosci., 27, 3571-3583. *Co-corresponding authors. (152 citations. Top 1% publication ISI) 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 EMBO J. 27, 2124-34. Epub 2008 Jul 10 *Co-corresponding authors. (62 citations) 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 Hum. Mol. Genet. 17, 3837-3846. [Epub 2008 sep 4] *Co-corresponding authors (28 citations) Keryer 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) Ciliogenesis is Regulated by the Huntingtin-HAP1-PCM1 Pathway and is Altered in Huntington Disease. J. Clin Invest.,121, 4372-4382. [Epub 2011 Oct 10].	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.	2	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. For the postdoc applicant, a good publication record is expected.

Neurodegenerative diseases	Inserm U 837	Lille	Faculté de Médecine Henri Warembourg Centre de recherche Jean Pierre Aubert Bâtiment Biserte Rue Polonovski - 1 Place de Verdun 59045 Lille	luc.buee@inserm.fr	Neurodegenerative disorders and neuronal death	BUEE 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	• Belarbi K, Burnouf S, Fernandez-Gomez FJ, Laurent C, Lestavel S, Figeac M, Sultan A, Troquier L, Leboucher A, Caillierez 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. Neurobiol Dis in press • Belarbi K, Burnouf S, Fernandez-Gomez FJ, Laurent C, Lestavel S, Figeac M, Sultan A, Troquier L, Leboucher A, Caillierez 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. Neurobiol Dis in press • Lambert JC, Dallongeville J, Ellis KA, Schraen-Maschke S, Lui J, Laws S, Dumont J, Richard F, Cottel D, Berr C, Ames D, Masters CL, Rowe CC, Szoeke C, Tzourio C, Dartigues JF, Buée L, Martins R, Amouyel P (2011) Association of plasma Aß peptides with blood pressure in the elderly. PLoS One, 6(4): e18536. doi:10.1371/journal.pone.0018536 • Sultan A, Nesslany F, Violet M, Bégard S, Loyens A, Talahari S, Mansuroglu Z, Marzin D, Sergeant N, Humez S, Colin M, Bonnefoy E, Buée L, Galas MC (2011) Nuclear Tau : a key player in neuronal DNA protection. J Biol Chem, 286(6): 4566 • Hébert SS, Papadopoulou AS, Smith P, Galas MC, Planel E, Silahtaroglu AN, Sergeant N, Buée L, De Strooper B (2010) Genetic ablation of Dicer in adult forebrain neurons results in abnormal tau hyperphosphorylation and neurodegeneration. Hum Mol Genet, 19(20):3959-69 • Lambert JC, Schraen-Maschke S, Richard F, Fievet N, Rouaud O, Berr C, Dartigues JF, Tzourio C, Alpérovitch A, Buée L, Amouyel P (2009) Association of plasma Ab with risk of dementia: the prospective 3C-study. Neurology, 73 :847-53 • Schindowski K, Bretteville A, Leroy K, Bégard S, Brion JP, Hamdane M, Buée 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. Am J Pathol, 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. For post-doctoral fellows, a list of publications in the field of neuroscience is required with expertise on animal models.
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/top3abs.html	• Goumidi L, Dahlman-Wright K, Tapia-Paez I, Matsson 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. J Alzheimers Dis. 2011 Jun 14. • Delcourt C, Delyfer MN, Rougier 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. Invest Ophthalmol Vis Sci. 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, Fiévet N, Brouwers N, Bettens K, Arosio B, Coto E, Del Zompo M, Mateo I, Epelbaum J, Frank-Garcia A, Helisalmi S, Porcellini E, Pilotto A, Forti P, Ferri 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, Hanon O, Piccardi P, Annoni G, Seripa D, Galimberti D, Licastro F, Soininen H, Dartigues JF, Kamboh MI, Van Broeckhoven C, Lambert JC, Amouyel P, Campion D. APOE and Alzheimer disease: a major gene with semi-dominant inheritance. Mol Psychiatry. 2011 May 10. • Lambert JC, Grenier-Boley B, Chouraki V, Heath S, Zelenika D, Fievet N, Hannequin D, Pasquier F, Hanon 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. J Alzheimers Dis. 2010;20(4):1107-18. • Laumet G, Chouraki V, Grenier-Boley B, Legry V, Heath S, Zelenika D, Fievet N, Hannequin D, Delepine M, Pasquier F, Hanon O, Brice A, Epelbaum J, Berr C, Dartigues JF, Tzourio C, Campion D, Lathrop M, Bertram L, Amouyel P, Lambert JC. Systematic analysis of candidate genes for Alzheimer's disease in a French, genome-wide association study. J Alzheimers Dis. 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. Neurobiol Aging. 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?descriptif=checler.txt&dossier1=equipes&dossier2=checler&site=inter&menu=1&ssmenu=5&lang=uk	• PETIT, A., BIHEL, F., ALVES da COSTA, C., POURQUIÉ, O., KRAUS, J.L. and CHECLER, F. (2001) . Nat. Cell. Biol. 3, 507-511 • ARMOGIDA, M., PETIT, A., VINCENT, B., SCARZELLO, S., ALVES da COSTA, C. and CHECLER, F. (2001) . Nat. Cell. Biol. 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) . Neuron, 46, 541-554 • CHEN, F., HASEGAWA, H., SCHMITT-ULMS, G., KAWARAI, T., BOHM, C., KATAYAMA, T., GU, Y., SANJO, N., GLISTA,M., RODAEVA, 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) Nature 440, 1208-1212 • ALVES DA COSTA, C., SUNYACH, C., GIAIMÉ, 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) Nat. Cell. Biol. 11, 1370-1375 • SUH, Y-H. and CHECLER, F. (2002) Pharm. Rev. 54, 469-525	Alzheimze disease, Parkinson disease		The PhD should have obtained a master and been trained in Molecular and Cellular Biology.		Ideally, the post-doc applicant shoudl have a solid expérimental 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 postal natal 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#	•Hanchate, N.K., Parkash, J., Bellefontaine, N., Mazur, D., Colledge, W.H., d'Anglemont de Tassigny, X., and Prevot, V. Kisspeptin-GPRS4 Signaling in Mouse NO-Synthesizing Neurons Participates in the Hypothalamic Control of Ovulation. J Neurosci 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. Proc Natl Acad Sci U S A 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-glial-endothelial interactions. Front Neuroendocrinol 2010, 31: 241-258. Review •Baroncini, M., Jissendi, P., Catteau-Jonard, S., Dewailly, D., Pruvo, J.P., Francke, J.P., and Prevot, V. (2010). Sex steroid hormones-related structural plasticity in the human hypothalamus. Neuroimage 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 tanycyte plasticity mediated by vascular endothelial cells in the median eminence. Endocrinology 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. J Neurosci 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	6	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	4	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	PROCHIANTZ 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.		• Torero Ibad R, Rheey 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. J Neurosci. 2011 Apr 6;31(14):5495-503. • Wizenmann A, Brunet I, Lam JS, Sonnier L, Beurdeley M, Zarbalis K, Weisenhorn-Vogt D, Weinl C, Dwivedy A, Joliot A, Wurst W, Holt C, Prochiantz A, Extracellular Engrailed participates in the topographic guidance of retinal axons in vivo. Neuron. 2009 Nov 12;64(3):355-66. • Joshi RL, Ibad RT, Rheey J, Castagner F, Prochiantz A, Moya KL. Cell non-autonomous functions of homeoproteins in neuroprotection in the brain. FEBS Lett. 2011 Jun 6;585(11):1573-8. Epub 2011 May 6. • Layalle S, Volovitch M, Mugat B, Bonneaud N, Parmentier ML, Prochiantz A, Joliot A, Maschat F. Engrailed homeoprotein acts as a signaling molecule in the developing fly. Development. 2011 Jun;138(11):2315-23. • Prochiantz A. Evolution of the nervous system: a critical evaluation of how genetic changes translate into morphological changes. Dialogues Clin Neurosci. 2010;12(4):457-62. • Holcman D, Kasatkin V, Prochiantz A. Modeling homeoprotein intercellular transfer unveils a parsimonious mechanism for gradient and boundary formation in early brain development. J Theor Biol. 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 expertsie 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 expertsie 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:fiches&Itemid=15&lang=en	• Mehlen P, Delloye-Bourgeois C, Chédotal A. Novel roles for Slits and netrins: axon guidance cues as anticancer targets? Nat Rev Cancer. 2011 Mar;11(3):188-97. Epub 2011 Feb 17. Review. • Ypsilanti AR, Zagar Y, Chédotal A. Moving away from the midline: new developments for Slit and Robo. Development. 2010 Jun;137(12):1939-52. Review. • Renier N, Schonewille M, Giraudet F, Badura A, Tessier-Lavigne M, Avan P, De Zeeuw CI, Chédotal A. Genetic dissection of the function of hindbrain axonal commissures. PLoS Biol. 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. J Neurosci. 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. J Neurosci. 2008 Apr 16;28(16):4244-9. • Matsuoka RL, Nguyen-Ba-Charvet KT, Parray A, Badea TC, Chédotal A, Kolodkin AL. Transmembrane semaphorin signalling controls laminar stratification in the mammalian retina. Nature. 2011 Feb 10;470(7333):259-63.				No specific profil		
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 Developement	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 serotoninergic 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 retinothalamic and thalamocortical pathways. For this, they use a variety of mouse genetic models that modify serotonin metabolism during critical developmental perods and analyse the consequences on precise neuronal wiring and on behaviour.	http://www.u839.idf.inserm.fr/page.asp?page=5073	• Vera Kiyasova*, Sebastian Fernandez*, Jeanne Laine, Lea Stakovski, Aude Muzerelle, Sephane Doly, Patricia Gaspar. A genetically defined morphologically and functionally unique subset of 5-HT neurons in the mouse raphe nuclei. Journal of Neuroscience 2011, 31:2756-68.. • Judith Homberg, Dirk Schubert, Patricia Gaspar. New perspectives on the neurodevelopmental effects of SSRIs. Trends in Pharmacological Sciences ,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. J Neurosci 29, 14855-14863 (2009). • Nicol,X., Muzerelle,A., Rio,J.P., Metin,C. & Gaspar,P. (2006) Requirement of adenylate cyclase 1 for the ephrin-A5-dependent retraction of exuberant retinal axons J.Neurosci., 26, 862-872. • Rebsam,A., Seif,I. & Gaspar,P. (2005) Dissociating barrel development and lesion-induced plasticity in the mouse somatosensory cortex. J Neurosci, 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 ascending serotoninergic 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 developped in the team.
Neurodevelopment	U676	Paris	Hôpital Robert Debré, Inserm U676, 3° Etage Bat. Ecran, 48, Boulevard Sérurier, 75019 Paris	gressens@rdebre.inserm.fr	Pathophysiology and Therapy of Mitochondrial Diseases	GRESSENS Pierre		http://www.u676.inserm.fr/page.asp?page=3784	• Dammann O, Ferriero D, Gressens P. Neonatal encephalopathy or hypoxic-ischemic encephalopathy? Appropriate terminology matters. Pediatr Res. 2011 Jul;70(1):1-2. • Passemard S, Sokolowska P, Schwendimann L, Gressens P. VIP-induced neuroprotection of the developing brain. Curr Pharm Des. 2011;17(10):1036-9. • Titomanlio L, Bouslama M, Le Verche V, Dalous J, Kaindl AM, Tsenkina Y, Lacaud A, Peineau S, El Ghouzzi V, Lelièvre V, Gressens P. Implanted neurosphere-derived precursors promote recovery after neonatal excitotoxic brain injury. Stem Cells Dev. 2011 May;20(5):865-79. • 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. J Anat. 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. J Neural Transm. 2010 Aug;117(8):1009-17. • Adén U, Favrais G, Plaisant F, Winerdal 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. Brain Behav Immun. 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@inmed.univ-mrs.fr	Cortical development disorders and neuronal migration	REPRESA Alphonso		http://www.inmed.univ-mrs.fr/index.php?page=15&id=7	• Lapray D, Popova IY, Kindler J, Jorquera I, Becq H, Manent JB, Luhmann HJ, Represa A. Spontaneous epileptic manifestations in a DCX knockdown model of human double cortex. Cereb Cortex. 2010 Nov;20(11):2694-701. Epub 2010 Feb 17. • Ackman JB, Aniksztejn 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. J Neurosci. 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. Epilepsy Res. 2008 Feb;78(2-3):131-9. Epub 2007 Dec 31. • Jaglin XH, Poirier K, Saillour Y, Buhler E, Tian G, Bahi-Buisson N, Fallet-Bianco C, Phan-Dinh-Tuy F, Kong XP, Bomont P, Castelnau-Ptakhine L, Odent S, Loget P, Kossorotoff M, Snoeck I, 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. Nat Genet. 2009 Jun;41(6):746-52. Epub 2009 May 24. • Bonifazi P, Goldin 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. Science. 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. Cereb Cortex. 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			• 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. Epilepsy Res. 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. Front Syst Neurosci. 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 temporoperisylvian seizures: a quantified study of temporal lobe seizure networks. Epilepsia. 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, Regis J, Chauvel P, Wendling F, Bartolomei F. Neural networks underlying hyperkinetic seizures of "temporal lobe" origin. Epilepsy Res. 2009 Oct;86(2-3):200-8. Epub 2009 Jul 19. • Bettus G, Ranjeva JP, Wendling F, Bénar 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. PLoS One. 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. • Epilepsia. 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, Bld 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	• 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, Krmac H, Marstrand T, Valen E, Sanges R, Stupka E, Sandelin A, Cherubini E, Gustincich 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, Rivaud-Péchoux 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, Clémenceau S, Eross L, Dezamis E, Entz L, Ulbert I, Baulac M, Freund TF, Maglóczky 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, Bouilleret 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 pahrmacology	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	• Versini A, Ramoz N, Le Strat Y, Scherag S, Ehrlich S, Boni C, Hinney A, Hebebrand J, Romo L, Guelfi 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, Corruble E, Falissard 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, Forcano L, Gallego X, González JR, Gorwood P, Hebebrand J, Hinney A, Nacmias B, Puig A, Ribasés M, Ricca V, Romo L, Sorbi S, Versini A, Gratacòs 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, Karwautz A, Kipman A, Mouren-Siméoni MC, Nacmias B, Ribasès M, Remschmidt H, Ricca V, Rotella CM, Sorbi S, Treasure J, (2002). The 5-HT(2A) -1438G/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 associatedwith 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	Créteil	Groupe Hospitalier Chenevier-Mondor, 40 rue de Mesly- Créteil 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.u-pec.fr/research-pole/pole-2-medical-genomics/team-15-m-leboyer-psychiatry-genetic--280673.kjsp	•PERRON H, MEKAOUI 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 . ETAIN B, DUMAINE A, MATHIEU F, CHEVALIER F, HENRY C, KAHN JP, DESHOMMES J, BELLIVIER F, LEBOYER M, JAMAIN S A 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, HOUENOU J, LEBOYER M, CHANRAUD S, POUPON C, MARTINOT JL, PAILLERE-MARTINOT ML. 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, Duprati E, Sav AM, Chaste P, Nico 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, LGenetic 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	1- Psychiatrist or psychologist (PhD level) with: - 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. 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. 2. MD or PhD with: - Good knowledge of English ; fluent in French a plus; - Research experience in epidemiology and/or environmental factors in psychosis; - Good statistical expertise. 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. 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 The position will be based mostly at the Neurospin imaging facility near Paris (www-dsv.cea.fr/neurospin/) where 3T, 7T MR Scanners, EEG and MEG are available. The candidate will also be encouraged to develop his own related research Requirements: • PhD in a relevant area, e.g.neuroimaging analysis in psychiatry, psychology, cognitive neuroscience or neurology (MRI) - 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/ghfc/index.html	• Konyukh M, Delorme R, Chaste P, Leblond C, Lemière 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. • Ey 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, Poirier K, Dumaine A, Jamain S, Moreno S, de Brouwer A, Van Esch H, Delorme R, Launay JM, Tzschach A, Kalscheuer V, Lacombe D, Briault S, Laumonnier F, Raynaud M, van Bon BW, Willemsen MH, Leboyer M, Chelly J, Bourgeron T. Mutation screening of ASMT, the last enzyme of the melatonin pathway, in a large sample of patients with intellectual disability. BMC Med Genet. 2011 Jan 20;12:17. • Chaste P, Clement N, Mercati O, Guillaume JL, Delorme R, Botros HG, Pagan C, Périvier S, Scheid I, Nygren G, Anckarsäter H, Rastam M, Ståhlberg O, Gillberg C, Serrano E, Lemière N, Launay JM, Mouren-Simeoni MC, Leboyer M, Gillberg C, Jockers R, Bourgeron T. Identification of pathway-biased 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, Schuroff F, Nygren G, Herbrecht E, Dumaine A, Mouren MC, Råstam 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. • Gong 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	• 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. • Amilhon B, Lepicard E, Renoir T, Mongeau R, Popa D, Poirel O, Miot S, Gras C, Gardier AM, Gallego J, Hamon M, Lanfumey L, Gasnier 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. Neuropsychopharmacology. 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. • Moutsimilli L, Farley S, El Khoury MA, Chamot C, Sibarita JB, Racine V, El Mestikawy S, Mathieu F, Dumas S, Giros B, Tzavara 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/cirb/c_giaume.htm	• 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 CF, Amigou E, Kozoriz MG, Naus CC, Sáez JC, Giaume C. Inhibition of cytokine-induced connexin43 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 channels induced by pro-inflammatory treatments. J Neurochem. 2009 Dec;111(6):1383-97. • Giaume C, Koulakoff A, Roux L, Holcman D, Rouach N. Astroglial networks: a step further in neuroglial and gliovascular	Analysis of connexin/pannexin expression and hemichannel function in glial cells of a murine model of Alzheimer's disease, the APP/PS1 mouse.		Profile of the candidate: He/she could be apostdoc with an expertise, or interested in acquiring competences, in biochemistry, immunohistochemistry, confocal microscopy and some knowledge in		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.

									• Giaume C, Koulakoff A, Roux L, Holcman D, Rouach N. Astroglial networks: a step further in neuroglial and gliovascular interactions.Nat Rev Neurosci. 2010 Feb;11(2):87-99. Review. • Pannasch U, Vargová L, Reingruber J, Ezan P, Holcman D, Giaume C, Syková 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 (électrophysiology, 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	• Vélez-Fort M, Maldonado PP, Butt AM, Audinat E, Angulo MC. Postnatal switch from synaptic to extrasynaptic transmission between interneurons and NG2 cells. J Neurosci. 2010 May 19;30(20):6921-9. • Angulo MC, Le Meur K, Kozlov AS, Charpak S, Audinat E. GABA, a forgotten gliotransmitter. Prog Neurobiol. 2008 Nov;86(3):297-303. • Avignone E, Ulmann L, Levavasseur F, Rassendren F, Audinat E. Status epilepticus induces a particular microglial activation state characterized by enhanced purinergic signaling. J Neurosci. 2008 Sep 10;28(37):9133-44. • Menteyne A, Levavasseur F, Audinat E, Avignone E. Predominant functional expression of Kv1.3 by activated microglia of the hippocampus after Status epilepticus. PLoS One. 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. Glia. 2009 Aug 1;57(10):1104-14. • Kozlov AS, Angulo MC, Audinat E, Charpak S. Target cell-specific modulation of neuronal activity by astrocytes. Proc Natl Acad Sci U S A. 2006 Jun 27;103(26):10058-63. Epub 2006 Jun 16. Erratum in: Proc Natl Acad Sci U S A. 2006 Oct 24;103(43):16058.					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 multidisclinary 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			• Stefanescu RA, Jirsa VK. Reduced representations of heterogeneous mixed neural networks with synaptic coupling. Phys Rev E Stat Nonlin Soft Matter Phys. 2011 Feb;83(2 Pt 2):026204. • Perdikis D, Huys R, Jirsa V. Complex processes from dynamical architectures with time-scale hierarchy. PLoS One. 2011 Feb 10;6(2):e16589. • McIntosh AR, Kovacevic N, Lippe S, Garrett D, Grady C, Jirsa V. The development of a noisy brain. Arch Ital Biol. 2010 Sep;148(3):323-37. • Calvin S, Huys R, Jirsa VK. Interference effects in bimanual coordination are independent of movement type. J Exp Psychol Hum Percept Perform. 2010 Dec;36(6):1553-64. • Danion F, Jirsa VK. Motor prediction at the edge of instability: alteration of grip force control during changes in bimanual coordination. J Exp Psychol Hum Percept Perform. 2010 Dec;36(6):1684-92. • Huys R, Fernandez L, Bootsma RJ, Jirsa VK. Fitts' law is not continuous in reciprocal aiming. Proc Biol Sci. 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.jcponcer.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 CLCN2 mutations accelerating chloride channel deactivation are associated with idiopathic generalized epilepsy. Saint-Martin C, Gauvain G, Teodorescu G, Gourfinkel-An I, Fedirko E, Weber YG, Maljevic S, Ernst JP, Garcia-Olivares J, Fahlke C, Nabbout R, LeGuern E, Lerche H, Poncer JC, Depienne 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, Depienne C, Baulac S, 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 R, Danglot L, Raposo G, Binz 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. Partical experience in cellular electrophysiology (patch clamp) and/or imaging
Neural dynamics and leraning: 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://ins.medecine.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, 18:1485-1495. Monfardini E, Brovelli A, Boussaoud D, Takerkart S. and Wicker B (2008). I learned from what you did: Retrieving visuomotor 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-Bouziane F., Meunier M., Boussaoud D. (2010). Hand Modulation of Visual, Preparatory, and Saccadic Activity in the Monkey Frontal Eye Field. CEREB. 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.	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/equipes2.php?id_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 mathematics/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.ibens.ens.fr/spip.php?article67	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 de Solages C., Szapiro G., Brunel N., Hakim V., Isope 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	Inserm CNRS UPMC ICM	Paris	I.C.M. CHU Pitie Salpetriere, 47 bld de l'hopital, 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 wih 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 (RPE65, 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	Marlhens 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; Titah 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.inmed.univ-mrs.fr/index.php?page=15&id=29	1-Polymodal activation of the endocannabinoid system in the extended amygdala. Puente N, Cui Y, Lassalle O, Lafourcade M, Georges F, Venance L, Grandes P, Manzoni OJ. Nature Neurosci. 2011 Nov 6;14(12):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, Groc L, Choquet D, Manzoni OJ. Proc Natl Acad Sci U S A. 2008 Nov 25;105(47):18596-601. 5-A single in-vivo exposure to delta 9THC blocks endocannabinoid-mediated synaptic plasticity. Mato S, Chevaleyre 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 prefereed 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/Equipes/3	1. Godinho F, Faillenot I, 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/j.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. Isnard 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, Creac'h C, Convers P, Peyron R, Laurent B, Mauguière F, Magnin M. Operculo-insular pain (parasylvian 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. Danziger N, Faillenot I, 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	theirry.leveillard@inserm.fr	Rod-Cone Interactions: Therapeutic Perspectives	LEVEILLARD Thierry		www.institut-vision.org	Jaillard C, Mouret A, Niepon ML, Clérin E, Yang Y, Lee-Rivera I, Ait-Ali N, Millet-Puel G, Cronin T, Sedmak T, Raffelsberger W, Kinzel B, Trembleau A, Poch O, Bennett J, Wolfrum U, Uledo PM, Sahel JA, Léveillard T. Nxnl2 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, Metge 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, Jaillard 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. Reichman S, Kalathur RK, Lambard S, Ait-Ali N, Yang Y, Lardenois A, Ripp R, Poch O, Zack DJ, Sahel JA, Léveillard T. The homeobox gene CHX10/VSX2 regulates *Rd*CVF promoter activity in the inner retina. Hum Mol Genet. 2010 Jan 15;19(2):250-61. Epub 2009 Oct 20. Fridlich R, Delalande F, Jaillard 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 thioredoxin-like protein rod-derived cone viability factor (RdCVFL) 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 lost, 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 (*Nxnl1*). Interestingly, RdCVF is part of the thioredoxin 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 functionnal 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.sbri.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., Lallée S., Enel P., Procyk E., & Dominey P.F. Robot cognitive control with a neurophysiologically inspired reinforcement learning model. Front Neurorobot. 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. Dreher 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 reoccurrence: 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 anatomo-functional relationship with feedback-based learning.	1	behavioural neuroscience, neurophysiology or neuroimaging, skills in programming prefered	1	behavioural neuroscience, neurophysiology or neuroimaging, skills in programming prefered
Brain, neuroscience, neurotransmission, psychiatric disease	Pathophysiologie des maladies du SNC,	Paris	INSERM U952, CNRS UMR7224	salah.elmestikawy@snv.jussieu.fr	Normal and Pathologic Glutamatergic Systems	EL MESTIKAWY Salah	Glutamate is the major exitatory transmitter in the brain. Before its release glutamate is uploaded into synaptic vesicles by transporters named VGLUT1-3. Vesicualr glutamate transporters are key anatomical and functional markers of excitatory transmission. We study the involvement of VGLUT1-3 in the normal and pathological brain.	http://pmsnc.snv.jussieu.fr/index.php/en/elmestikawy	- HERZOG E., BELLENCHI G. C., GRAS C., BERNARD V., RAVASSARD P., BEDETC., GASNIER B., GIROS B. AND EL MESTIKAWY S. The existence of a second vesicular glutamate transporter specifies subpopulations of glutamatergic neurons *J . Neurosci.* 21 RC181: 1-6 (2001).	Invovlement of VGLUT3 in pychiatric 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, neuro-degeneration and chronic pain	www.neurocentre-magendie.fr/oliet	Fossat et al (2012) Cerebral Cortex 2(3):595-606 Bonfardin et al (2010) Journal of Neuroscience 30: 985-995. Henneberger et al (2010) Nature 463: 232-236. Panatier et al (2006) Cell 125, 775-784. Piet et al (2004) PNAS 1001, 2151-2155 Oiet et al (2001) Science 292, 923-926	Morphofunctional plasticity of the tripartite synapse in the hippocampus			1	Neurophysiology, elctrophysiology , 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 DJOHER 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 DJOHER 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		Abrous et al., Pysiol Rev., 2005; Döbrossy et al., Mol Psy, 2003; Drapeau et al., JN, 2007; Dupret et al., PlosBiol,2007, Tronel et al., PNAS, 2010; Lemaire et al., JN, 2012	Influence of spatial learning on adult hippocampal neurogenesis	1	anatomy, behaviour, memory	1	electrophysiology (hippocampus)
Neurosciecnces	INSERMUnit 1000	Paris	97Bd Port Royal 75014 Paris	Jean-luc.martinot@cea.fr	Imaging & psychiatry	MARTINOT Jean-Luc	Clinical, psycho-behavioural studies of mental disorders unsing MRI and/ or PET (see: http://www.u1000.idf.inserm.fr/en/	www.u1000.idf.inserm.fr/en/	Whelan, 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/nogo task. Am J Psychiatry 2007 164: 638-46. Houenou J, Wessa M, Douaud G, Leboyer M, Chanraud S, Perrin M, Poupon C, Martinot JL, Paillere-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, Naccache L , Martelli C, Viard A, Schürhoff F, Recasens C, Paillère-Martinot ML Leboyer M, Martinot JL. Conscious And Subliminal Conflics 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, neuropsycho or psychiatry
NEUROBIOLOGY OF REWARD	INSERM UMR S 839 Institut du Fer a 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, Hallbout 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 arrpoaches combined with anatomy and optogenetics to understadn the role of this region in reward and drug-seeking. Thematic#1: Identify the interaction stress system-drugs in the habenula- Role of CRF in modulating synatic trasnmission; 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	Profil: Background in neurobiology or pharmacology, Expertise: Functional physiology or anatomy, reward system; Training: In vitro or in vivo physiology, or biochemistry and Immunohystochemistry	1	Profil: Background in neurobiology or pharmacology, Expertise: Functional physiology or anatomy, reward system; Training: In vitro or in vivo physiology, or biochemistry and Immunohystochemistry

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 mutions 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. PLoS One. 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. J Neurosci 30, 13281–90. 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. J Neurosci 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. J Neurosci 28, 1798-803.	By using mouse models having sensory hair cells specifically lacking clarin-1 or harmonin (condtional 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 Gliotransmitters 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 physiopathology 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/ufr/ibfa/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, Hanouz JL, Vivien D. Stroke. 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, Obiang P, Gauberti M, Roussel B, Baron A, Parcq J, Cassé F, Hommet Y, Orset C, Agin V, Bezin L, Berrocoso TG, Petersen KU, Montaner J, Maubert E, Vivien D, Ali C. Stroke. 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, Obiang P, Hernangómez M, Montagne A, Liot G, Guaza C, Maubert E, Ali C,Vivien D, Docagne F. J Exp Med. 2011 Jun 6;208(6):1229-42. Stroke and the immune system: from pathophysiology to new therapeutic strategies. Macrez R, Ali C, Toutirais O, Le Mauff B, Defer G, Dirnagl U, Vivien D. Lancet Neurol. 2011 May;10(5):471-80. Review. NR2D-containing NMDA receptors mediate tissue plasminogen activator-promoted neuronal excitotoxicity. Baron A, Montagne A, Cassé F, Launay S, Maubert E, Ali C, Vivien D. Cell Death Differ. 2010 May;17(5):860-71. Age and albumin D site-binding protein control tissue plasminogen activator levels: neurotoxic impact. Roussel BD, Macrez R, Jullienne A, Agin V, Maubert E, Dauphinot L, Potier MC, Plawinski L, Castel H, Hommet Y, Munuera J, Montaner J, Yepes M, Ali C, Vivien D. Brain. 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 controling the formation of functional neuronal networks.	http://www.college-de-france.fr/site/cirb/fekrije_selimi__1.htm	Selimi F. et al. (2009), *PloS Biology* 7(4): e83. Zanjani SH et al. (2006) J. Comp. Neurol. 497(4):622-35.F. Selimi & N. Heintz (2005) Nature neuroscience, 8(11):1417-8. Selimi F. et al. (2003) Neuron 37(5):813-9. Yue Z. et al. (2002) Neuron 35: 921-933.	functional studies of new signaling pathways controling 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. Eur J Neurosci Jan;35(2):244-56. 2. Fallet-Bianco 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. Brain. 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, Giros B, Miles R, Depaulis A, Francis F. (2008) Epilepsy in Dcx knockout mice associated with discrete lamination defects and enhanced excitability in the hippocampus. PLoS ONE.;3(6):e2473. 4. Kappeler C, Dhenain M, Phan Dinh Tuy F, Saillour Y, Marty S, Fallet-Bianco 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 callosal and hippocampal abnormalities linked to doublecortin deficiency. J Comp Neur 500(2):239–254. 5. Moores, C.A., Perderiset, M., Kappeler, C., Kain, S., Drummond, D., Perkins, S.J., Chelly, J., Cross, R., Houdusse, A., Francis, F. (2006) Distinct roles of doublecortin modulating the microtubule cytoskeleton. EMBO J. 25 (19), 4448 – 4457. 6. Kappeler, C., Saillour, Y., Baudoin, J-P., Phan Dinh Tuy, F., Alvarez, C., Houbron, C., Gaspar, P., Hamard, G., Chelly, J., Métin, C., Francis, F. (2006) Branching and nucleokinesis defects in migrating interneurons derived from doublecortin knockout mice. Hum. Mol. Gen. 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., Nat. Neurosci. (2006) 2) Marder E. & Goaillard J.M., Nat. Rev. Neurosci. (2006) 3) Schulz et al., PNAS (2007) 4) Taylor et al., J. Neurosci. (2009) 5) Goaillard et al., Nat. Neurosci. (2009) 6) Amendola et al., J. Neurosci (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 an synaptotagmin in the control of neurotransmitter release and dissect the implication of the V-ATPase V0 domain in SNARE dependant neurotransmitter release.	http://cvscience.aviesan.fr/cv/538/oussama-el-far	1) DiGiovanni et al, Neuron (2010) 2) EL FAR & Seagar. J, Neurochem (2011) 3) Hiesinger et al Cell (2005) 4) Peters et al. Nature (2001) 5) Liegeois et al, J Cell Biol (2006) 6) Peri et al, Cell (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 (INM) 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.	inmfrance.com	1. Menardo et al., Antioxid Redox Signal, 2012. 2. Nouvian et al, Nat Neurosci, 2011. 3. Ruel et al., J Neurosci, 2008. 4. Ruel et al., Am J Hum Genet, 2008. 5. Wang et al., Mol Pharmacol, 2007. 6. Wang et al., Cancer Res, 2004.	1. Molecular determinants of hair cell exocytosis 2. Wiring and activity of auditory nerve fibers 3. Presbycusis : mechanisms and therapies 4. Endoplasmic reticulum homeostasis and deafness 5. Auditory disorders screening tools	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 Bld Sérurier, 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 Benit P, Rustin P. 2012 Changing the diet to make more mitochondria and protect the heart. Circul Res (in press) #313 Bouaita A, Augustin S, Lechauve C, Cwerman-Thibault H, Bénit 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. Brain. 2012 135 : 35-52 #297 Bayot, A., Santos, R., Camadro, J.M. and Rustin, P. 2011. Friedreich ataxia: The vicious cycle hypothesis revisited. BMC Medecine 9, 112 #308 Schiff M, Bénit P, El-Khoury R, D Schlemmer, Benoist JF and Rustin P. Mouse studies to shape clinical trials for mitochondrial diseases: High fat diet in Harlequin mice. PLoS One. 2011;6(12):e28823. #295 Sanz A, Soikkeli M, Portero-Otin M, Wilson A, Kemppainen E, McIlroy G, Ellila S, Kemppainen 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 Ndi1 in Drosophila confers increased lifespan independently of dietary restriction. Proc Natl Acad Sci 107:9105-10 #288 Bénit P, El-Khoury R, Schiff M, Sainsard A, Rustin P. 2010 Genetic background influences mitochondrial function: modeling mitochondrial disease for therapeutic development. Trends Mol Med 16, 210-217	Developing therapy using the Harlequin mouse model	0		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 plastocity associated with low-grade glioma, identification of new agent and therapeutic target and to study migration and diffrencaition of tumoral cells	http://www.inmfrance.com/	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. J Med Chem. 2012 Mar 8;55(5):2196-211. Epub 2012 Feb 14. 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, Lolmède K, Laroche-Clary A, Uro-Coste E, Robert J, Mersel M, Bakalara N. Biochem Pharmacol. 2012 Jan 1;83(1):37-46. Epub 2011 Sep 29. 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. J Med Chem. 2012 Mar 8;55(5):2196-211. Epub 2012 Feb 14. 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, Lolmède K, Laroche-Clary A, Uro-Coste E, Robert J, Mersel M, Bakalara N. Biochem Pharmacol. 2012 Jan 1;83(1):37-46. Epub 2011 Sep 29.	New therapeutic apporach against glioblastoma	4	molecular and cell biology, oncology, in vivo models for glioblatoma	1	molecular and cell biology, oncology, in vivo models for glioblatoma
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/	1. Duffau H. Lessons from brain mapping in low-grade glioma surgery: insights into relationships between tumor and brain plasticity. Lancet Neurology 2005;4:476-486 2. Thiebaut de Schotten M, Urbanski M, Duffau H, et al. Direct evidence for a parietal-frontal pathway subserving spatial awareness in humans. Science 2005;309:2226-2228 3. Garbizu Vidorretta J, Garcia R, Moritz-Gasser S, Duffau H. Double dissociation between syntatic gender and picture naming processing: a brain stimulation study. Hum Brain Mapp 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". NeuroImage 56:992-1000, 2011. 5. Maldonado I, Moritz-Gasser S, Duffau H. Does the left superior longitudinal fascicle subserve language semantics? A brain electrostimulation study. Brain Struct Funct 216:263-274, 2011 6. Duffau H: The "frontal syndrome" revisited: lessons from electrostimulation mapping studies. Cortex 48:120-31, 2012	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, differentation and self-renewal	http://www.inmfrance.com/us/1_tearm4_gp2_Hugnot.php	1-PO Guichet, JP Hugnot: Cellular Origin of Low grade diffuse glioma, In press, Springer 2-Brain tumor stem cells: bringing order to the chaos of brain cancer. Dirks PB. J Clin Oncol. 2008 Jun 10;26(17):2916-24. Review 3-Cancer stem cells in gliomas: identifying and understanding the apex cell in cancer's hierarchy. Venere M, Fine HA, Dirks PB, Rich JN. Glia. 2011 Aug;59(8):1148-54 4-Brain tumour stem cells. Vescovi AL, Galli R, Reynolds BA. Nat Rev Cancer. 2006 Jun;6(6):425-36.	Regulation of self-renewal, differentiation and migration of glioma cancer stem cells	0	In vitro and in in vivo models for low and high grade gliomas, Migration tests, Videomicroscopy, Cytometry, Molecular Biology	1	In vitro and in in vivo models for low and high grade gliomas, Migration tests, Videomicroscopy, Cytometry, Molecular Biology
Neurobiology	INSERM U1051	Montpellier	Institut des Neurosciences de Montpellier, Hopital 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 in vivo. 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	Jacob C, Christen CN, Pereira JA, Somandin C, Baggiolini A, Lötscher P, Ozçelik 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. Nat. Neurosci. 14:429-436 (2011). Cotter L, Özçelik M, Jacob C, Pereira J.A, Locher V, Baumann R, Relvas J.B, Suter U and Tricaud N. Dlg1-PTEN Interaction Regulates Myelin Thickness to Prevent Damaging Peripheral Nerve Overmyelination. Science 268:1415-18 (2010). Özçelik M, Cotter L, Jacob C, Pereira J.A, Relvas J.B, Suter U and Tricaud N. Pals1 is a major regulator of the epithelial-like polarization and the extension of the myelin sheath in peripheral nerves. J. Neurosci. 30(11): 4120-31 (2010). E. Arnaud, J. Zenker, AS. de Preux Charles, C. Stendel, A. Roos, JJ. Médard, N. Tricaud, J. Weis, U. Suter, J. Senderek and R. Chrast. SH3TC2/KIAA1985 protein is required for proper myelination and the integrity of the node of Ranvier in the peripheral nervous system. Proc. Natl. Acad. Sci. USA 106(41): 17528-33 (2009). 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. J. Cell Biol. 185(1): 147-61 (2009). Perrin-Tricaud C, Rutishauser U, Tricaud N. P120 catenin is required for thickening of Schwann cell myelin. Mol. Cell. Neurosci. 35: 120-129 (2007). 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. J. Neurosci. 25(3): 3259-3269 (2005).	- Molecular mechanisms of Leprae infection in Schwann cells - Molecular mechanisms of myelination - Molecular mechanisms of demyelination - Viral tools development for gene therapy in peripheral nerves	1	Medical doctor with an expertise in neurology or in leprae 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/	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. Proc Natl Acad Sci U S A 100, 10972-10976. Marot, D., Bieche, I., Aumas, C., Esselin, S., Bouquet, C., Vacher, S., Lazennec, G., Perricaudet, M., Kuttenn, 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. Endocr Relat Cancer 14, 691-702. 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. J Clin Endocrinol Metab 92, 1137-1144. 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. Endocrinology 151, 3764-3772. Nimri, R., Lebenthal, 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. J Clin Endocrinol Metab 96, E536-545. 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. Mol Cell Endocrinol 351, 239-248.	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.
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/	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. Proc Natl Acad Sci U S A 100, 10972-10976. Marot, D., Bieche, I., Aumas, C., Esselin, S., Bouquet, C., Vacher, S., Lazennec, G., Perricaudet, M., Kuttenn, 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. Endocr Relat Cancer 14, 691-702. 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. J Clin Endocrinol Metab 92, 1137-1144. 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. Endocrinology 151, 3764-3772. Nimri, R., Lebenthal, 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. J Clin Endocrinol Metab 96, E536-545. 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. Mol Cell Endocrinol 351, 239-248.	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. Kabashi E±, Bercier 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. PLoS Genetics 2011 Aug;7(8):e1002214. Epub 2011 Aug 4 (Citations 6; IF 9.5) and ± Selected by Faculty of 1000. 2. Kabashi E, Lin L, Tradewell M, Dion P, Bourgouin 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. Hum Mol Genet 2010 Feb 15;19(4):671-83. (Citations 73; IF 8.1)					

Neurodegenerative diseases	CRICM Centre de Recherche de l'Insitut 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/	3. Kabashi E, Valdmanis PN, Dion P, Spiegelman D, McConkey BJ, Vande Velde C, Bouchard JP, Lacomblez 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. Nat Genet. 2008 May;40(5):572-4. (Citations 422; IF 36.4) 4. Kabashi E, Valdmanis PN, Dion P, Rouleau GA. Oxidized/misfolded superoxide dismutase-1: the cause of all amyotrophic lateral sclerosis? Ann Neurol. 2007 Dec;62(6):553-9. (Citations 43; IF 10.8) 5. Kabashi E, Agar JN, Hong Y, Taylor DM, Minotti S, Figlewicz DA, Durham HD. Proteasomes remain intact, but show early focal alteration in their composition in a mouse model of amyotrophic lateral sclerosis. J Neurochem. 2008 Apr;105(6):2353-2366. 6. Kabashi E, Daoud H, Rivière JB, Bourgouin 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. Arch Neurol. 2009 Feb;66(2):281-2. (Citations 7; IF 7.1)	Develop transgenic lines in zebrafish for mutant genes involved in disease. Perform chemical and geneti screens and identify novel partners of mutant proteins	1	Molecular Biology	1	PhD in Biochemistry. Training in Genetics and Molecular Biology preferrable

Psychobiolgy of compulsive disorders	U1084 LNEC / Laboratoire de Neurosciences expérimentales et cliniques	Poitiers	Bât. B36 - Pôle Biologie Santé 1, rue Georges Bonnet - BP 633 86022 Poitiers Cedex - France	david.belin@inserm.fr	AVENIR team Psychobiology of Compulsive Disorders	BELIN David	Our research focus on transnological substrates of individual vulnerability to compulsive behaviours using a full translational strategy with a great emphasis on drug addictions	http://lnec.labo.univ-poitiers.fr/	1. Badiani, A., D. Belin, D. Epstein, D. Calu and Y. Shaham. 2011. Opiate versus psychostimulant addiction: the differences do matter. Nat Rev Neurosci 12: 685-700. 2. Dilleen, R., Y. Pelloux, A.C. Mar, A. Molander, T.W. Robbins, B.J. Everitt, J.W. Dalley and D. Belin. 2012. High anxiety is a predisposing endophenotype for loss of control over cocaine, but not heroin, self-administration in rats. Psychopharmacology (Berl) 3.Molander, A.C., A. Mar, A. Norbury, S. Steventon, M. Moreno, D. Caprioli, D.E. Theobald, D. Belin, B.J. Everitt, T.W. Robbins and J.W. Dalley. 2011. High impulsivity predicting vulnerability to cocaine addiction in rats: some relationship with novelty preference but not novelty reactivity, anxiety or stress. Psychopharmacology (Berl) 215: 721-731. 4. Murray, J.E., B.J. Everitt and D. Belin. 2011. N-Acetylcysteine reduces early- and late-stage cocaine seeking without affecting cocaine taking in rats. Addict Biol 5. Belin, D. and B.J. Everitt. 2008. Cocaine-Seeking Habits Depend upon Dopamine-Dependent Serial Connectivity Linking the Ventral with the Dorsal Striatum. Neuron 57: 432-441. 6. Belin, D., A. Mar, J. Dalley, T. Robbins and B. Everitt. 2008. High Impulsivity Predicts the Switch to Compulsive Cocaine-Taking. Science 320: 1352-1355.	1. Psychobiological substrates of individual vulnerability to develop compulsive heroin self-administration (Post-doctoral project) 2. Etiological and phenomenological contribution of high impulsivity trait to increased vulnerability to Parkinson's Disease with impulse control disorders (PhD project)	1	Masters in neuroscience with training in experimental psychology and neurobiology. The applicant should be highly motivated and willing to perform invasive surgeries in rats. The applicant should be able to program on MED PC and have expertise in dimensional statistical analyses	1	The applicant should have extensive training in experimental psychology, and drug self-administration. The applicant will be in charge of the development of a new preclinical model of habitual compulsive heroin self-administration in the rat.
Neurophysiology	CNRS 7241/INSERM U1050	Paris	Center for Interdisciplinary Research in Biology (CIRB), College de France, 11 Place Marcelin Berthelot,75005 Paris, France	laurent.venance@college-de-France.fr	Dynamics and Physiopathology of Neuronal Networks team	VENANCE Laurent	We study the cellular substarte of the encoding of procedural learning and memory. For this purpose, we study synaptic plasticity (spike-timinf dependent plasticity) at corticostriatal pathway both in vitro (multi-patch-clamp in brain slices) and in vivo (intracellular recordings).	http://www.college-de-france.fr/default/EN/all/cirb/index.htm	-Puente N, Cui Y, Lassalle O, Lafourcade M, Georges F, Venance L, Grandes P, Manzoni OJ. (2011) Polymodal activation of the endocannabinoid system in the extended amygdala. Nat Neurosci. 14(12):1542-7. -Goubard V, Fino E, Venance L (2011) Contribution of astrocytic glutamate and GABAuptake to corticostriatal information processing. J Physiol. 589:2301-19. Faculty of 1000-Must Read -Fino E, Paille V, Cui Y, Morera-Herreras T, Deniau JM, Venance L (2010) Distinct coincidence detectors govern the corticostriatal spike-timing-dependent plasticity. J Physiol. 588:3045-62. -Vandecasteele M, Glowinski J, Deniau JM, Venance L (2008) Chemical transmission between dopaminergic neuron pairs. Proc Natl Acad Sci U S A. 105:4904-9. -Fino E, Deniau JM, Venance L (2008) Cell-specific spike-timing-dependent plasticity in GABAergic and cholinergic interneurons in corticostriatal rat brain slices. J Physiol. 586:265-82. -Fino E, Glowinski J, Venance L (2005) Bidirectional activity-dependent plasticity at corticostriatal synapses. J Neurosci. 25(49):11279-87.	Our research is focused on the cellular basis of learning and memory in the basal ganglia, a set of subcortical nuclei implicated in the adaptive control of behavior. Reciprocally connected with the cerebral cortex and the limbic system, the basal ganglia participate to the detection of environmental cues and to the selection of appropriate actions based on motivation and expectancy of reward. The pathological dysfunction of basal ganglia leads to major motor and cognitive disorders (Parkinson's disease, choreic and dystonic involuntary movements, obsessive and compulsive disorders, Tourette's syndrome, addiction…) for which no fully satisfying treatments are available yet. In a perspective fundamental and therapeutic, our group is focused on the analysis of the functional organization of the basal ganglia network, the mechanisms of synaptic plasticity and the dynamic of the processes regulating information processing in this neuronal network. The four main programs developed in the lab are the followings: 1) Encoding learning and memory. Short- and long-term synaptic plasticity within the basal ganglia network (mainly at the corticostriatal pathway) and its regulation by dopamine. The striatum is the main input nuleus of basal ganglia and the main target of dopamine innervation. Striatum acts as a coincidence detector of cortical and thalamic activities. Two main aspects are examined: the organization and functional properties of synaptic interactions (chemical and electrical synapses) and the dopaminergic regulation of corticostriatal synaptic plasticity. We are focusing on spike-timing dependent plasticity (STDP), a Hebbian learning rule, at output	1	neuroscience	1	electrophysiology
Neuroscience, developmental biology, neurobiology, Cognition	INSERM U862 Neurocentre Magendie	Bordeaux, France	Neurocentre Magendie, Institut Francois Magendie, University of Bordeaux, 146 rue Leo-Saignat 33077, Bordeaux, cedx	mireille.montcouquiol@inserm.fr	Planar Polarity and Plasticity	MONTCOUQUIOL Mireille	Our major interest is the understanding of the molecular mechanisms of the planar polarity (PCP) signaling pathway in mammals, and the identification of the role of the PCP pathway in neuronal physiology. We focus our research on two PCP genes, Vangl2 and Scrib1. We use the inner ear as a model to identify molecular mechanisms controling PCP signaling, and study the impact of this signaling pathway during nervous system development, but also in adult CNS plasticity and the control of higher brain functions	http://www.neurocentre-magendie.fr/NCM_Pages/Equipes/eq_montcouquiol/equipe_montcouquiol.php	-Montcouquiol M., Rivka A. Rachel, et al. 2003 Identification of Vangl2 and Scrb1 as planar polarity genes in mammals. Nature 423:173-177. -Montcouquiol M, Sans N, et al. 2006 Asymmetric localization of Vangl2 and Fz3 indicate novel mechanisms for planar cell polarity in mammals. J. Neurosci. 26:5265-75. -Guirao B, Meunier A, Mortaud S, Aguilar A, Corsi JM, Strehl L, Hirota Y, Desoeuvre A, Boutin C, Han YG, Mirzadeh Z, Cremer H, Montcouquiol M*, Sawamoto K*, Spassky N. 2010 Coupling between hydrodynamic forces and planar cell polarity orients mammalian motile cilia. Nat Cell Biol. 12:341-50. *equal contribution -Moreau MM, Piguel N, Papouin T, Koehl M, Rubio M.E., Loll F, Richard M.E., Mazzocco C, Racca C, Oliet S, Abrous DN, Montcouquiol M and Sans N. 2010 The planar polarity protein, Scribble1, controls hippocampal morphology and functions. J. Neurosci. 30:9738–9752 -Durand CM, Perroy J, Loll F., Perrais D., Fagni L, Bourgeron T*, Montcouquiol M* and Sans N. 2012 SHANK3 mutations identified in autism lead to modification of dendritic spine morphology via an actin-dependant mechanism. Mol Psychiatry. 17:71-84. -Giese A, Wang L, Ezan J, Lasvaux L, Mazzocco C, Richard E, Kelley MW, Sans N*, Brigande J*, and Montcouquiol M. GIPC1 has a dual role in Vangl2 trafficking and hair bundle integrity. In review in Development.	* Study of the molecular basis of PCP signaling pathway in the cochlea * Role of the Vangl2/Scrib1 module in neuronal physiology * Planar Polarity and neuronal migration * Role of Vangl2 in learning and memory	1	Profil 1: Molecular mechanisms of learning and memory Expertise Molecular and cellular biology, behavioral analysis, sterotaxy Training Behavioral Neuroscience	3	Profil 1: Molecular basis of PCP signaling in the cochlea. Expertise Molecular and cellular biology, microdissection, imaging. Training Neurobiology, development, genetic Profil 2: Functional analysis of PCP signaling in hippocampus. Expertise Electrophysiology, virus, cellular biology Training Neurobiology, physiology, anatomy Profil 3: Control of PCP signaling on Learning and memory Expertise Functional and behavioral approaches Training Cognitive Neuroscience, neuroanatomy
Alcohol addiction, preclinical & clinical strudies	Inserm Unit Eri 24	Amiens	UFR de Pharmacie 1 rue des Louvels 80000 Amiens	mickael.naassila@inserm.fr	Research Group on Alcohol & Pharmacodependences	NAASSILA Mickael	Our research team is working on alcohol addiction and more particularly on the impact of early life alcohol exposure on vulnerability to develop addiction. We are interested in identifying genetic factors involved in the vulnerability to develop a severe phenotype of the disease as well as an acute alcoholic hepatitis (AAH) and also its comorbidities (anxiety, depression and schizophrenia). We analyze the response to different treatments depending on genetic variants (pharmacogenetics) and also investigate new medications to treat AAH. We investigate in young people the impact of binge drinking on cognition and brain functioning (european project AlcoBinge) and also the factors (neurocognitive and genetic) involve in the behaviour of binge drinking. Finally we use several animal models of alcohol addiction (mice, rats, honey bees) to study the neurobiological bases of the disease and its somatic damages, in order to find new effective treatments. In these models we also analyze the impact of early life alcohol exposure (in utero and adolescence) on the liability to develop addiction that may be due to changes in neuroplasticity and epigenetic mechanisms.	http://www.u-picardie.fr/decouverte/sante/pageslies/grap/	1 : Fluoxetine, desipramine, and the dual antidepressant milnacipran reduce alcohol self-administration and/or relapse in dependent rats. Simon O'Brien E, Legastelois R, Houchi H, Vilpoux C, Alaux-Cantin S, Pierrefiche O, André E, Naassila M.Neuropsychopharmacology. 2011;36(7):1518-30. 2 : Glucocorticoids plus N-acetylcysteine in severe alcoholic hepatitis. Nguyen-Khac E, et al., N Engl J Med. 2011;365(19):1781-9. 3 : Perinatal alcohol exposure in rat induces long-term depression of respiration after episodic hypoxia.Kervern M, Dubois C, Naassila M, Daoust M, Pierrefiche O.Am J Respir Crit Care Med. 2009;179(7):608-14. 4 : Involvement of A2A receptors in anxiolytic, locomotor and motivational properties of ethanol in mice.Houchi H, Warnault V, Barbier E, Dubois C, Pierrefiche O, Ledent C, Daoust M, Naassila M.Genes Brain Behav. 2008;7(8):887-98. 5 : Long-term alterations in vulnerability to addiction to drugs of abuse and in brain gene expression after early life ethanol exposure. Barbier E, Pierrefiche O, Vaudry D, Vaudry H, Daoust M, Naassila M.Neuropharmacology. 2008;55(7):1199-211 6 : The -308 TNFalpha gene polymorphism in severe acute alcoholic hepatitis: identification of a new susceptibility marker.Nguyen-Khac E, Houchi H, Daoust M, Dupas JL, Naassila M.Alcohol Clin Exp Res. 2008;32(5):822-8	Drug addiction is a chronic relapsing disease that represents a serious health, social and economical burden for which discovery of new effective therapies is a pressing necessity. Among the different theories that have been proposed to explain addiction, the incentive sensitization theory states that repeated exposure to drugs of abuse causes hypersensitivity to drugs and drug-associated stimuli of the neural circuits mediating incentive salience, an important way in which motivational stimuli influence behavior. Drug induced sensitization may play a crucial role both in the initial step in the addiction process and may further explain the increase in drug "wanting," being responsible for the dramatically exaggerated motivation for drugs displayed by addicts and the risk of relapse. Nowadays, there is clear evidence that drug-induced sensitization may be involved in addiction. Recent studies performed in our laboratories have demonstrated that some animals are prone to alcohol-induced behavioural sensitization whereas others are resistant. In this project, we will investigate and characterize the cellular and molecular mechanisms underlying alcohol sensitization and its impact in terms of vulnerability to alcohol addiction in animal models. The main questions that we want to address are 1) what are the cellular and molecular mechanisms underlying alcohol sensitization?; 2) is the anxiety-like behaviour involved in the vulnerability to alcohol sensitization?; and 3) does alcohol sensitization play a role in the transition to alcohol addiction and susceptibility to relapse?	1	Behaviour of addiction, sensitization to drugs of abuse, neuropharmacology	1	Behaviour of addiction, sensitization to drugs of abuse, neuropharmacology; electrophysiology would be a plus
Neurosciences (GGB en secondaire)	U964/UMR7104	Illkirch				PUCCIO Hélène	The laboratory is dedicated to the unraveling of the causes and mechanisms of recessive spinocerebellar ataxias linked to mitochondrial dysfunction. Our strategy combines human genetic, biochemistry, cell biology and animal models.		Puccio, H.M. *et al.* (2001) Nature Genetics *27*, 181-186; Simon *et al*. (2004) Journal of Neurosciences, 24 (8) : 1987-1995; Seznec *et al.* (2004) Human Molecular Genetics 13 (10) : 1017-1024, Seznec *et al.* (2005) Human Molecular Genetics 14(24):3787-99.; Martelli *et al*. (2007) Human Molecular Genetics 16(22):2651-8; Schmucker *et al.* (2008) Human Molecular Genetics 17(22):3521-31; Calmels *et al.* (2009) PlosOne 4(7):e6379; 24; Schmucker *et al.* (2011) PlosOne 6(1):e16199.	Uncover the mechanistic details of mammalian CoQ10 biosynthesis and regulation and dissect the cellular consequence of its dysregulation using animal and cell models with proteomic approaches.	1	Biochemist, genetist or cell biologist	1	Biochemist, cell biologist or bioinformatician.
ITMO Neurosciences en 1 et BCDE en 2	INSERM ERL U950 Institut Jacques Monod Program in Development & Neurobiology UMR7592, CNRS & Univ. Denis Diderot/Paris 7	Paris		thierry.galli@inserm.fr		GALLI Thierry	Membrane Traffic in Neuronal & Epithelial Morphogenesis	http://sites.google.com/site/inserm u950/	1. 12-1. Zylbersztejn K, Petkovic M, Burgo A, Deck M, Garel S, Marcos S, Bloch-Gallego E, Nothias F, Serini G, Bagnard D, Binz T, Galli T. The vesicular SNARE Synaptobrevin is required for Semaphorin 3A axonal repulsion. J Cell Biol 196:37-46. 2. 12-2. Danglot L*, Zylbersztejn K*, Petkovic M*, Meziane H, Combe R, Champy Mf, Birling Mc, Pavlovic G, Bizot Jc, Trovero F, Della Ragione F, Proux-Gillardeaux V, Sorg T, D'esposito M, Galli T. Absence of TI-VAMP/Vamp7 leads to increased anxiety in mice. J Neurosci 32:1962-1968. 3. 10-1. Danglot L, Chaineau M, Dahan M, Gendron M-C, Boggetto N, Perez F, and Galli T. (2010). Role of TI-VAMP and CD82 in EGF receptor cell surface dynamics and signaling. J Cell Sci 123:723-35. 4. 09-1. Tsaneva-Atanasova K*, Burgo A*, Galli T, Holcman D (2009). Quantifying neurite growth mediated by interactions between secretory vesicles, microtubules and actin networks. Biophys J. 96(3):840-57. * equal contributions 5. 09-3. Burgo A*, Sotirakis E*, Simmler MC, Verraes A, Chamot C, Simpson JC, Lanzetti L, Proux-Gillardeaux V§, Galli T§. (2009). Role of Varp, a Rab21 exchange factor and TI-VAMP/VAMP7 partner, in neurite growth. EMBO reports 10:1117-24. *equal contributions, § co-senior authors. 6. 08-6. Chaineau M, Danglot L, Proux-Gillardeaux V, Galli T (2008) Role of Hrb in clathrin dependent endocytosis. J Biol Chem 283(49):34365-73. 7. 07-1. Proux-Gillardeaux V., G. Raposo, T. Irinopoulou, and T. Galli. (2007). Expression of the Longin domain of TI-VAMP impairs lysosomal secretion and epithelial cell migration. Biol Cell. 99:261-71. 8. 06-1. Alberts, P., R. Rudge, T. Eirinopoulou, L. Danglot, C. Gauthier-Rouviere, and T. Galli. (2006). Cdc42 and Actin Control Polarized Expression of TI-VAMP Vesicles to Neuronal Growth Cones and Their Fusion with the Plasma Membrane. Mol Biol Cell 17:1194–1203. 9. 06-3. Scheuber, A.*, R. Rudge*, L. Danglot*, G. Raposo, T. Binz, J.-C. Poncer, and T. Galli. (2006). Loss of AP3 function affects spontaneous and evoked release at hippocampal mossy fiber synapses. Proc. Natl. Acad. Sci. USA 103:16562-7. * equal contributions 10. 05-2. Proux-Gillardeaux V., Gavard J., Irinopoulou I., Mège R.-M., and T. Galli. (2005) Tetanus neurotoxin-mediated cleavage of cellubrevin impairs epithelial cell migration and integrin-dependent cell adhesion. Proc. Natl. Acad. Sci. USA 102:6362-6367.	Secretory mechanisms in tumors - study of mammary tumors in VAMP3 and VAMP7 KO mice. Our goal is to characterize the role of exocytosis involving VAMP3 and VAMP7, and the role of endocytic pathways, in the regulation of signaling receptors such as EGFR but also of cell adhesion molecules such as L1, E-cadherin and beta1 integrin. We will seek to understand how these phenomena contribute to the deregulation that occurs in solid tumors in mice. To generate tumors in our KO mouse models, we will cross VAMP3 and VAMP7 KO lines with MMTV-PyMT model of breast cancer, characterized by a short latency, high penetrance, and a high incidence of lung metastases. In MMTV-PyMT transgenic mice, the metastatic potential depends on macrophages in primary tumors and a paracrine loop of CSF-1 and EGF-like ligands between macrophages and tumor cells (35) thus rely on important secretory mechanisms. We will study the formation and tumor progression in mice double mutant (VAMP knockout / MMTV-PyMT) in the following four stages: hyperplasia, adenoma / mammary intraepithelial neoplasia, and early and late carcinoma. We will count the number of tumors and study their growth and development, and lung metastases. Further characterization of mouse tumors involve assays of chemokines and growth factors in the blood of WT and KO mice and in tumors induced by using the test system Bio-Plex suspension developed by Bio-Rad Platform IPC (Chemistry of peptides and Molecular Interactions and Clinical Proteomics, SYSDIAG, UMR3145 CNRS, Montpellier) for the quantification of multiple analyzes in a biological sample (cell lysates, serum, plasma, tissue samples, biopsies). We also characterize the expression and localization of receptors and downstream molecules that are activated by chemokines and growth factors that we will find over- or under-expressed. Insulin, IGF-1, EGF, VEGF, HGF, CSF-1, Semaphorins and their receptors are among the molecules which we will pay special attention. This work will allow us to ascertain the role of secretory mechanisms in the initiation, progression and tumor dissemination. It will support the emerging hypothesis that cancer can proceed, at least in part, from a deregulated autocrine / paracrine signaling.	1	cell biologist, biochemist	1	cell biologist, mouse biologist
Neurosciences BK:pour recevoir quelqu'un travaillant à l'heure actuelle dans le laboratoire de Dora Ventura, à l'Université de Sao Paulo	Inserm U964 / CNRS UMR7104 université de Strasbourg	ILLKIRCH				KIEFFER Brigitte	Opiod system and brain function (a sub-group working on retinal physiopathology)		1. Sene A, R Tadayoni, T Pannicke, A Wurm, B El Mathari, R Benard, MJ Roux, D Yaffe, D Mornet, A Reichenbach, JA Sahel, A Rendon. Functional implication of Dp71 in osmoregulation and vascular permeability of the retina (2009). PLoS One Oct 7;4(10):e7329. 2. Pavlowsky A., A. Gianfelice, M. Pallotto, A. Zanchi, H. Vara, M. Khelfaoui, P. Valnegri, X. Rezaï, S. Bassani, D. Brambilla, J. Kumpost, J. Blahos; M.J. Roux, Y. Humeau, J. Chelly, M. Passafaro, M. Giustetto, P. Billuart, C. Sala (2010) The IL1RAPL1 protein, involved in cognitive deficit, interacts with PSD-95 and controls its phosphorylation by JNK to regulate synaptic function. Current Biology 20(2):103-115. 3. Cammas L, F Trensz, A Jellali, NB Ghyselinck, M Roux, P Dollé (2010). Retinoic acid receptor alpha (RARalpha) is not critically required for mediating retinoic acid effects in the developing mouse retina. Invest Ophthalmol Vis Sci. 2010 Jun;51(6):3281-90. 4. Griciuc A., L. Aron, M.J. Roux, R. Klein, A. Giangrande and M. Ueffing (2010). Genetic Inactivation of VCP/ter94 Suppresses Retinal Pathology Caused by Misfolded Rhodopsin in Drosophila. PLoS Genet. 2010 Aug 26;6(8). 5. Deniz S, E Wersinger, Y Schwab, C Mura, F Erdelyi, G Szabó, A Rendon, J-A Sahel, S Picaud and MJ Roux (2011). Mammalian retinal horizontal cells are unconventional GABAergic neurons. J Neurochem 2011 Feb 116(3):350-62 6. Wersinger E, A Bordais, Y Schwab, A Sene, R Bénard, V Alunni, JA Sahel, A Rendon and MJ Roux (2011). Re-Evaluation of Dystrophins Localization in the Mouse Retina. Invest Ophthalmol Vis Sci. 2011 Sep 6. [Epub ahead of print]	Retinal physiopathology in mouse models of Duchenne myopathy	1	electroretinography, electron microscopy, immunohistochemistry		

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*, Marsicano G*, Tschöp M, Grübler Y, Flachskamm C, Schubert M, Auer D, Yassouridis A, Thöne-Reineke C, Ortmann S, Tomassoni F, Cervino C, Nisoli E, Linthorst AC, Pasquali R, Lutz B, Stalla GK & Pagotto U. The endogenous cannabinoid system affects energy balance via central orexigenic drive and peripheral lipogenesis. Journal of Clinical Investigation, 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. Science, 2006; 312, 927-30. 3. Cota D, Matter EK, Woods SC & Seeley RJ. The role of hypothalamic mTOR signaling in diet-induced obesity. Journal of Neuroscience 2008; 28, 7202-8. 4. Quarta C*, Bellocchio L*, Mancini G*, Mazza R, Cervino C, Braulke LJ, Fekete C, Latorre R, Nanni C, Bucci M, Clemens LA, Heldmaier G, Watanabe M, Leste-Lassere T, Maitre M, Tedesco L, Fanelli F, Reuss S, Klaus S, Srivastava RK, Monory K, Valerio A, Grandis A, De Giorgio R, Pasquali R, Nisoli E, Cota D, Lutz B, Marsicano G & Pagotto U. CB1 signalling in forebrain and sympathetic neurons is a key determinant of endocannabinoid actions on energy balance. Cell Metabolism 2010;11, 273-85. 5. Gatta-Cherifi B*, Matias I*, Vallée M, Tabarin A, Marsicano G, Piazza PV & Cota D. Simultaneous post-prandial deregulation of the orexigenic endocannabinoids anandamide and the anorexigenic peptide YY in obesity. International Journal of Obesity, 2011 [Epub ahead of print] 6. Bajzer M*, Olivieri M*, Haas MK, Pfluger PT, Magrisso IJ, Foster MT, Tschöp MH, Cota D & Obici S. CB1 antagonism enhances glucose utilization and activates brown adipose tissue in diet-induced obese mice. Diabetologia, 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@psl.aphp.fr	Cortex and Epilepsy	MILES Richard	We study cortical function and dysfunction in focal epilepsies, mostly from the temporal lobe. We have defined*in vitro* neuronal properties and organisation in the presubiculum. We have demonstrated field potentials generated by single interneurons and shown how they contribute to sharp-waves in vitro. In work on human epileptic hippocampus, we have identified a defect in Cl- 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 *in vivo* preceding the occurrence of the seizures.	http://icm-institute.org/menu/actualites http://www.chups.jussieu.fr/ext/u739/Home.html	1. Jacobs J., Staba R., Asano E, Otsubo H., Wu J., Zijlmans M., Mohamed I., Kahane P., Dubeau F., Navarro V., Gotman J .**Progress in Neurobiology**, in press 2.Valderrama M, Crepon B, Botella-Soler V,Martinerie J, Hasboun D, Baulac M, Adam C, Navarro V, Le Van Quyen M. **PLOS One** (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. **Nature Neurosci.** 2011, 14: 627-34. 4. Crépon B, Navarro V, Hasboun D, Clemenceau S, Martinerie J, Baulac M, Adam C & Le Van Quyen M. **Brain** 2010 133: 33-45. 5. Bazelot M, Dinocourt C, Cohen I & Miles R **J Physiol.** 2010, 588: 2077-90. 6. Cohen I, Navarro V, Clemenceau S, Baulac M & Miles R. **Science**. 2002, 298:1418-21.	In vivo micro-electrodes recordings in human epileptic patients, in order to better understand the pathophysiolgy of the seizure building	1	MD, and master with a solid background in epilepsy and EEG analysis		
Neuroscience	Institut Genomique Fonctionnelle (IGF) - UMR5203 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 in vivo 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) J Biol Chem 287(4):2810-8. 2- Barbara et al (2009) J Neurosci. 29:13106-14. 3- Swayne et al (2009) EMBO Rep 10(8): 873-80 4- Mezghrani et al (2008) J Neurosci. 28(17):4501-11. 5- Vitko et al (2007) J Neurosci. 27(2):322-30. 6- DePuy et al (2006) Proc Natl Acad Sci U S A. 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, Biophysisist, Biochemist	Institut Genomique Fonctionnelle (IGF) - UMR5203 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 Monnier, C. et al. EMBO J 2011 2 Huang, S. et al. Proc Natl Acad Sci 2011 3 Comps-Agrar, L. et al. EMBO J 2011 4 Magalhaes, A. et al. Nat Neurosci 2010 5 Rives, M.L. et al. EMBO J 2009 6 Ferre, S. et al. Nat Chem Biol 2009 7 Rondard, P. et al. EMBO J 2008 8 Maurel, D. et al. Nat Meth 2008 10 Hlavackova, V. et al. EMBO J 2005 11 Kniazeff, J. et al. Nat. Str. Mol. Biol. 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, Biophysisist, Biochemist	0	cell biologist, Biophysisist, Biochemist, Chemist,
Molecular pharmacology, cell transduction pathways, G protein-coupled receptors	IGF, CNRS UMR5203, INSERM U661	Montpellier	141, rue de la Cardonille	Bernard.Mouillac@igf.cnrs.fr	Memebrane 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. J. Am. Soc. Nephrol. 2009, 20, 2190-2203. Arcemisbéhère L. et al. Leukotriene BLT2 receptor monomers activate the Gi2 GTP-binding protein more efficiently than dimers. J. Biol. Chem. 2010, 285, 6337-6347. Albizu L et al. Time-resolved FRET between GPCR ligands reveals oligomers in native tissues. Nature Chem. Biol. 2010, 6, 587-594. Banères J-L., Popot J-L. and Mouillac B. New advances in production and functional folding of G protein-coupled receptors. Trends. Biotechnol. 2011, 29, 314-322. Rahmeh R et al. Structural insights into biased GPCR signaling revealed by fluorescence spectroscopy. Proc. Natl. Acad Sci. USA 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 UMR5203, 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. PLoS Biol 6(4): e103. 2008 2-Huang ZJ, et al Nat Rev Neurosci. 2007 3-Ango, F.,et al. Cell. 2004 4- Cristo GD, et al.Nat Neurosci. 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 UMR5203, 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, Molecular Cancer, 2010 2. Hollande F, Drug Resistance Updates 2010 3. Buchert M, Proc Nat Acad Sci 2010 4. Pannequin J, Cancer Res 2009 5. Diouf B, J Biol Chem. 2009 6. Buchert M et al., Gastroenterology 2009 7. arido C et al., Cancer Res 2008 8. Pannequin J et al. Gastroenterology 2007 9. Boireau S et al., Carcinogenesis 2007 10. Collazos A et al, Mol Cell Biol 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 UMR5203, INSERM U661	Montpellier	141, rue de la Cardonille	patrice.mollard@igf.cnrs.fr	Networks and Rhytms in Endocrine Glandes	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. Proc Natl Acad Sci 2011 2. Sanchez-Cardenas, C. et al. Proc Natl Acad Sci 2010 3. Lafont, C. et al. Proc Natl Acad Sci 2010 4. Bur, I. et al. JBC 2009 5. Baccam, N. et al. J. Neurosci. 2008 6. Bonnefont, X. et al. Proc Natl Acad Sci 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 UMR5203, 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. Dev. Cell. Oct 18;21(4):655-68. 2. Nature. 2011 Jun 8;474(7350):230-4. 3. Nature. 2010 Jan 21;463(7279):374-8. 4. Mol Biol Cell. 2005 Apr;16(4):1850-8. 5. J Biol Chem. 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		2	Genetics, biochemistry, molecular biology, animal biology, bioinformatics
				philippe.jay@igf.cnrs.fr				http://www.igf.cnrs.fr/						
stem cells and cancer	IGF, CNRS UMR5203, 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. JCB 2011 2 Escobar M. et al. Nat. Commun. 2011 3 Legraverend C. et al. Cell stem Cell 2010 4 Gerbe F. et al. Gastroenterology 2009 5 Dupasquier S. et al. J. Cell Science 2009 6 Zalzali H. et al. Oncogene 2008 7 Bastide P. et al. JCB 2007 8 van Es J. et al. Nat Cell Biol. 2005 9 Jay P. et al. Cancer Research 2005 10 Blache P. et al. JCB 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 UMR5203, 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/	1 Roubille, F. et al. Circulation 2011 2 Boisguérin, 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 Alig, J. et al. Proc Natl Acad Sci 2009 7 Mangoni & Nargeot Physiol Rev 2008 8 Roubille, 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 UMR5203, 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 approches 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 UMR5203, 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. PlosONE 2010 2 Jean, A. et al. Proc Natl Acad Sci 2007 3 Conductier, G. et al. Eur J Neurosci 2006 4 Conductier, G. et al. Nature PG, NPsy. 2005 5 Lucas, G. et al. Biol Psy 2005 6 Compan, V. et al. J. Neurosci 2004	Identification of new markers inolved in anorexia and binge-type eating disorders, using a large spactrum of techniques in freely moving animals. The project is aimed at identifying new strategy to treat addiction and eating-realted disorders in collaborationn whith international groups	1	Neuroscientist	1	Neuroscientist
Neurobiology of Drosophila	IGF, CNRS UMR5203, INSERM U661	Montpellier	141, rue de la Cardonille	Marie-Laure.Parmentier@igf.cnrs.fr	Normal and Pathological Neurobiology in Drosophila	PARMENTIER Marie-Laure	Study of neurodegenrative disease in the model organism Drosophila melanogaster using molecular biology, cell biology and genetic techniques	http://www.igf.cnrs.fr/	1 Talmat-Amar et al. HMG 2011 2 Layalle et al. Development 2011 3 Mitri 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, Biophysisist, Biochemist	0	cell biologist, Biophysisist, Biochemist, Chemist,
Neurobiology	IGF, CNRS UMR5203, 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, Meffre 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: Barthet G, Carrat G, Cassier E, Barker B, Gaven F, Pillot M, Framery B, Pellissier LP, Augier J, Kang DS, Claeysen 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, Demettre 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: Chanrion 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, Chanrion B, Galéotti N, Jouin P, Bockaert J, Marin P. PACAP type I receptor transactivation is essential for IGF-1 receptor signalling and antiapoptotic activity in neurons. EMBO J. 2007 Mar 21;26(6):1542-51. Epub 2007 Mar 1. PubMed PMID: 17332755; PubMed Central PMCID: PMC1829375.	Functional study of the phosphorylation of serotoninergic 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 diamine (LSD), and last generation of antipsychotics (clozapine, olanzapine...). The first goal of the PhD project will be to compare the phosphorylation patterns of the three receptors in absence or presence of different antipsychotics, hallucinogenic agonists or non hallucinogenic agonists. First, experiments will be performed in neuronal cell lines expressing GFP-tagged versions of the receptors. In a second time, they will be performed in primary cultures of cortical neurons infected with a Sindbis virus expressing the tagged receptors. The receptors will be immunoprecipitated using the GFP-trap technology then their phosphorylation patterns will be analyzed with high-resolution mass spectrometry. Antibodies against a selection of phosphorylation sites will be raised in order to characterize their relevance in vivo. The second goal of the project will be to determine the functional impact of the phosphorylation events. Mutant forms of the receptors carrying mutation of the phosphorylation sites to alanine or aspartate will be generated. The impact of these mutations will be evaluated on: 1) the recruitment and activation of G proteins, 2) the activation of G-dependent and G-independent signaling pathways, 3) the desensitization/internalization of the receptors, 4) the recruitment of beta-arrestins and 5) the transcriptomics response (expression c-fos, egr1 and egr2). This project should give new insights into the molecular substrates of the positive symptoms observed in psychosis such as schizophrenia and of the therapeutic response to antipsychotics. It should also propose potential new targets for the treatment of such psychiatric disorders. This PhD project will be carried out at the Institute of Functional Genomics (IGF, http://www.igf.cnrs.fr/) in the group "Serotonin and physiopathologies" led by Philippe Marin. Both the institute and the group were ranked A+ by the AERES in 2010. For the last years, the group has been developing a neuroproteomics program to study the signaling networks associated with serotoninergic targets of antidepressants and hallucinogens. The team also plays an important role in the scientific management of the Functional Proteomics Platform (http://www.ppfm.cnrs.fr), where the MS analysis will be performed. The PhD student will be taught various original methods and technologies including high-resolution mass spectrometry, cellular and molecular biology, peptide and protein biochemistry.	0	protein biochemistry, cell culture	1	
Neuroscience, ophthalmology, vision, vision restoration	INSERM UMR_S968, 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 therepeutic 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/-Equipes-membres-.html#fon	Djillas M, Olès C, Lorach H, Bendali A, Dégardin J, Dubus E, Lissorgues-Bazin G, Rousseau L, Benosman R, Ieng SH, Joucla S, Yvert B, Bergonzo 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, Busskamp 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 Y, 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. Busskamp V, Duebel J, Balya D, Fradot M, Viney TJ, Siegert 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. Jammoul F*, Wang Q*, Nabbout R, Coriat C, Duboc A, Simonutti M, Dubus E, Craft C M, Ye W, Collins S D, Dulac O, Chiron C, Sahel J A, 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 a engineering profile. Expertise: accordingly the expertise can be either in molecular biology for studies on optogenetnetic therapy, in biophisics 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	1	Profil: Depending on the selected project the candidate can have biological background or coming with a engineering profile. Expertise: accordingly the expertise can be either in molecular biology for studies on optogenetnetic therapy, in biophisics 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 Neuroscience de Paris (ENP)	The Ecole des Neuroscience 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						